

Appendix A:  
Air Quality Assessment

Air Quality Assessment  
Alliance California Gateway South Building 8 Project  
City of San Bernardino, California

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Appendix A: Air Quality Modeling Data

**LIST OF ABBREVIATED TERMS**

AQMP	Air quality management plan
AB	Assembly Bill
ADT	Average daily traffic
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CAAQS	California Ambient Air Quality Standards
CCAA	California Clean Air Act
CalEEMod	California Emissions Estimator Model
CEQA	California Environmental Quality Act
CO	Carbon monoxide
cy	Cubic yards
DPM	Diesel particulate matter
EPA	Environmental Protection Agency
FCAA	Federal Clean Air Act
H <sub>2</sub> S	Hydrogen sulfide
Pb	Lead
LST	Local significance threshold
µg/m <sup>3</sup>	Micrograms per cubic meter
mg/m <sup>3</sup>	Milligrams per cubic meter
NAAQS	National Ambient Air Quality Standards
NO <sub>2</sub>	Nitrogen dioxide
NO <sub>x</sub>	Nitrogen oxide
O <sub>3</sub>	Ozone
PM <sub>10</sub>	Particulate matter less than 10 microns in diameter
PM <sub>2.5</sub>	Particulate matter less than 2.5 microns in diameter
ppm	Parts per million
ROG	Reactive organic gases
RSPA	Renaissance Specific Plan Amendment (RSPA)
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
SB	Senate Bill
SBGP	City of San Bernardino General Plan
SRA	Source receptor area
SCAB	South Coast Air Basin
SCAQMD	South Coast Air Quality Management District
SCAG	Southern California Association of Governments
sf	Square foot
SO <sub>4-2</sub>	Sulfates
SO <sub>2</sub>	Sulfur dioxide
TAC	Toxic air contaminant
C <sub>2</sub> H <sub>3</sub> Cl	Vinyl chloride
VOC	Volatile organic compound

# 1 INTRODUCTION

This report documents the results of an Air Quality Assessment completed for the Alliance California Gateway South Building 8 Project (“Project” or “proposed Project”). The purpose of this Air Quality Assessment is to evaluate the potential construction and operational emissions associated with the Project and determine the level of impact the Project would have on the environment.

## 1.1 Project Location

The proposed Project is located at the northwest corner of East Norman Road and Lena Road in the City of San Bernardino (City). The proposed site consists of 29 parcels (APN 0280-151-27 and -28; 0280-161-03, -05 through -18, and -30; 0280-171-01 through -11) on 15.25 acres. Currently, the eastern-half of the site are predominantly vacant and undeveloped with sparse vegetation and the western-half of the site contains single-family residential structures, an automobile body-shop and sales company, and vacant lands. The Project site is relatively flat and has elevations ranging from approximately 1,024 to 1,029 feet above mean sea level (amsl). The site’s topography slightly slopes down to the west and southwest.

The Project site is bounded by industrial warehouse developments to the north and south, single-family residences and storage areas for trucks and shipping containers to the east, and single-family residence and a vacant lot to the west. In addition, the proposed Project is located approximately one mile southwest of the San Bernardino International Airport (SBIA) and is within the Airport Influence Area (AIA).

Local access to the Project site is provided via Lena Road and E. Norman Road. The nearest major freeways to the site include Interstate 215 (I-215), located approximately 1.1 miles west and Interstate 10 (I-10), located approximately 1.2 miles to the south of the site; refer to [Exhibit 1: Regional Location](#) and [Exhibit 2: Local Vicinity](#).

## 1.2 Project Description

The Project proposes the development of an approximately 304,588-square-foot speculative industrial warehouse building that includes 16,000 square-feet of office space (with 10,000 square feet on the ground floor and 6,000 square feet on the mezzanine-level) and approximately 288,588 square feet of warehouse area on approximately 12.01 acres of the total 15.25 acres. The Project includes two (2) 40-foot-wide ingress and egress driveways from S. Lena Road and S. Foisy Street, along the northern part of the site and one (1) 30-foot-wide driveway from E. Norman Road. In addition, the rest of the site, which sits northeast of the proposed building would be developed into a 3.24-acre detention basin. The required parking, per the City’s Development Code (DC) is 244 spaces. The Project provides a total of 246 parking spaces that includes 47 trailer stalls, 39 dock door parking spaces, and 160 standard auto parking spaces. Refer to [Exhibit 3: Site Plan](#) for further Project details.

The Project would increase onsite impermeable areas as a result of the construction of a 304,588-SF warehouse building and parking areas. However, the Project would also create a new 3.24-acre detention basin on the northeast of the site.

### **General Plan Land Use and Zoning Designations**

As designated by the City's Development Code, the Project site has a General Plan land use designation of Industrial (I) and a Zoning designation of Industrial Light (IL). As such, the Project is anticipated to be consistent with the existing land use and zoning.

### **Site Access**

The Project would include two (2) 40-foot driveways, each along S. Lena Road and S. Foisy Street one (1) 30-foot-wide driveway from E. Norman Road, which would provide local access to the Project site. Truck, passenger, and emergency vehicle access would be provided via the two (2) 40-foot access driveways along S. Lena Road and S. Foisy Street. Passenger vehicle access would also be provided via the 30-foot-wide driveway along E. Norman Road.

### **Walls and Fences**

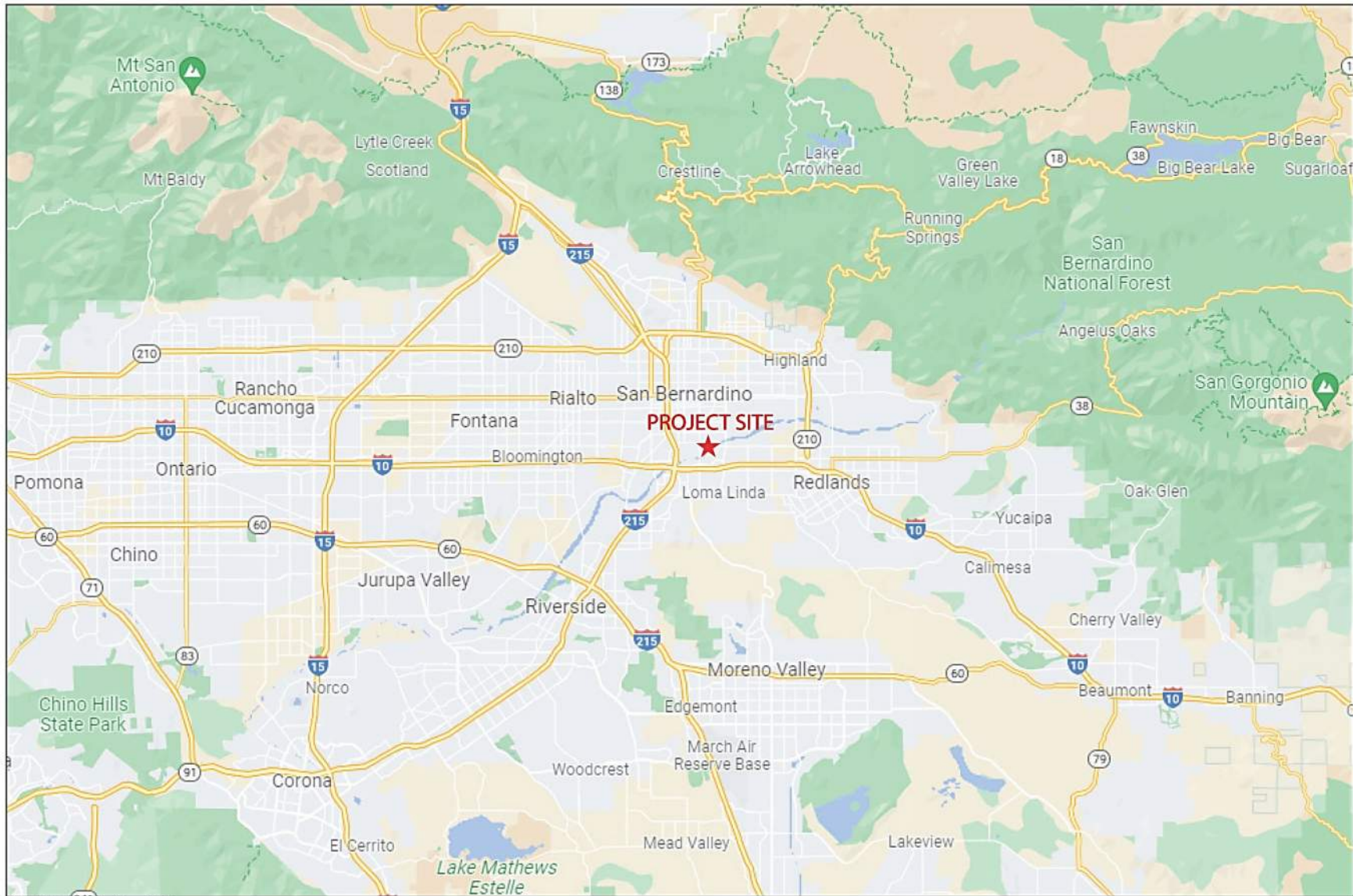
The Project proposes to incorporate two (2) 8-foot high wrought-iron entry gates, located in the northern portion of the site. One gate would be located at the northwestern entrance and another at the northeaster entrance of the property. Each entry gate would have a Knox-pad lock and 14-foot-high screen walls on each side of the gate.

### **Parking**

A total of 244 parking spaces would be required for the Project (1 space per 1,250 SF). The Project proposes to provide a total of 246 parking spaces that include 160 standard parking stalls (9 feet by 19 feet), 39 dock door parking stalls, and 47 trailer parking stalls (10 feet by 55 feet). Trailer stalls would be dispersed throughout the northern portion of the Project site. The proposed 160 standard parking stalls would be provided along the northwest and northeast portions of the site and along the western property line.

### **Hours of Operation**

Tenant(s) of the facility have not been identified, so the precise nature of the facility operations cannot be determined at this time. Any future occupant would be required to adhere to the requirements of the pertinent City regulations. The hours of operation are assumed to be up to 7 days a week, 24 hours per day.



SOURCE: Google Map, 2021



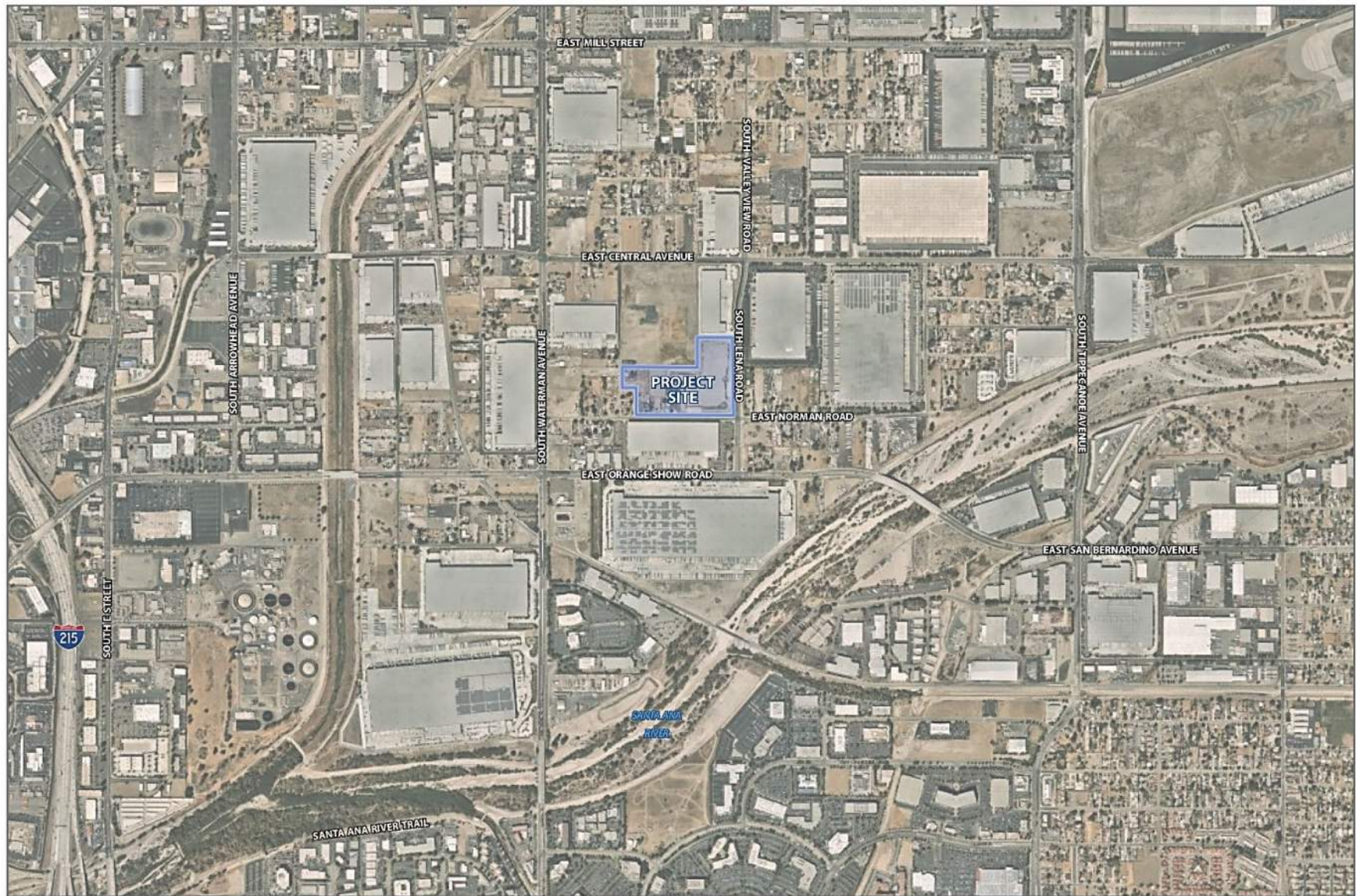
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### EXHIBIT 1: REGIONAL LOCATION

ALLIANCE CALIFORNIA GATEWAY SOUTH BUILDING 8 PROJECT

November 2021





SOURCE: Nearthmap, 2021



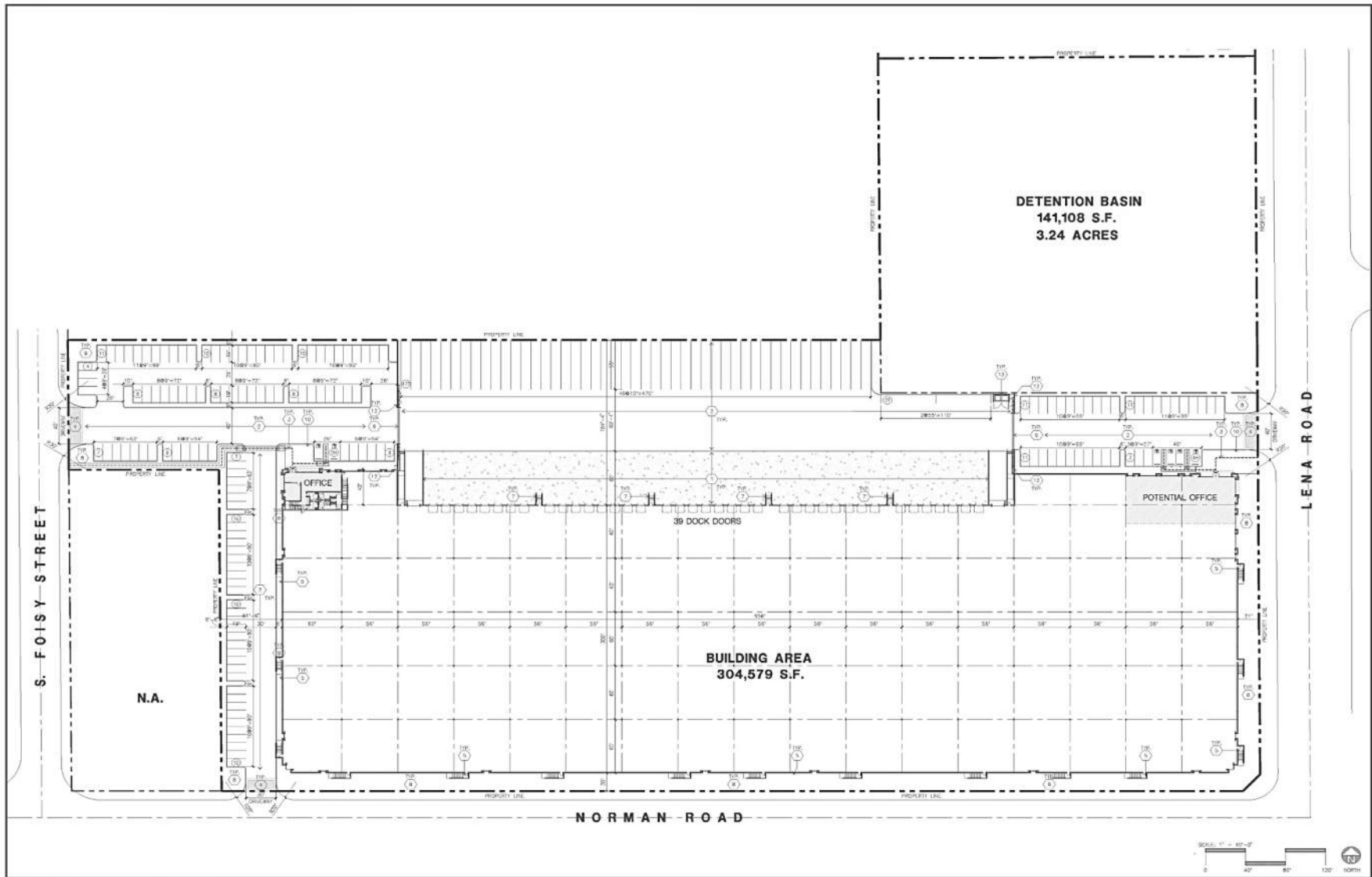
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## EXHIBIT 2: LOCAL VICINITY

ALLIANCE CALIFORNIA GATEWAY SOUTH BUILDING 8 PROJECT

November 2021





SOURCE: HPA Architecture, 2021

**EXHIBIT 3: SITE PLAN**  
ALLIANCE CALIFORNIA GATEWAY SOUTH BUILDING 8 PROJECT

## 2 ENVIRONMENTAL SETTING

### 2.1 Climate and Meteorology

The California Air Resources Board (CARB) divides the State into 15 air basins that share similar meteorological and topographical features. The Project is located within the South Coast Air Basin (SCAB), which includes the non-desert portions of Los Angeles, Riverside, and San Bernardino counties, as well as all of Orange County. The SCAB is on a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean on the southwest and high mountains forming the remainder of the perimeter<sup>1</sup>. Air quality in this area is determined by such natural factors as topography, meteorology, and climate, in addition to the presence of existing air pollution sources and ambient conditions. These factors along with applicable regulations are discussed below.

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

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

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

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

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

In addition to the characteristic wind patterns that affect the rate and orientation of horizontal pollutant transport, two distinct types of temperature inversions control the vertical depth through which air pollutants are mixed. These inversions are the marine inversion and the radiation inversion. The height of

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<sup>1</sup> South Coast Air Quality Management District, *CEQA Air Quality Handbook*, 1993.

the base of the inversion at any given time is called the “mixing height.” The combination of winds and inversions is a critical determinant leading to highly degraded air quality for the SCAB in the summer and generally good air quality in the winter.

## 2.2 Air Pollutants of Concern

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

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

### Toxic Air Contaminants

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

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

<b>Table 1: Air Contaminants and Associated Public Health Concerns</b>		
<b>Pollutant</b>	<b>Major Man-Made Sources</b>	<b>Human Health Effects</b>
Particulate Matter (PM <sub>10</sub> and PM <sub>2.5</sub> )	Power plants, steel mills, chemical plants, unpaved roads and parking lots, wood-burning stoves and fireplaces, automobiles and others.	Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; asthma; chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility.
Ozone (O <sub>3</sub> )	Formed by a chemical reaction between reactive organic gases/volatile organic compounds (ROG or VOC) <sup>1</sup> and nitrogen oxides (NO <sub>x</sub> ) in the presence of sunlight. Motor vehicle exhaust industrial emissions, gasoline storage and transport, solvents, paints and landfills.	Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing, and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield.
Sulfur Dioxide (SO <sub>2</sub> )	A colorless gas formed when fuel containing sulfur is burned and when gasoline is extracted from oil. Examples are petroleum refineries, cement manufacturing, metal processing facilities, locomotives, and ships.	Respiratory irritant. Aggravates lung and heart problems. In the presence of moisture and oxygen, sulfur dioxide converts to sulfuric acid which can damage marble, iron and steel. Damages crops and natural vegetation. Impairs visibility. Precursor to acid rain.
Carbon Monoxide (CO)	An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust.	Reduces the ability of blood to deliver oxygen to vital tissues, affecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.
Nitrogen Dioxide (NO <sub>2</sub> )	A reddish-brown gas formed during fuel combustion for motor vehicles and industrial sources. Sources include motor vehicles, electric utilities, and other sources that burn fuel.	Respiratory irritant; aggravates lung and heart problems. Precursor to O <sub>3</sub> . Contributes to global warming and nutrient overloading which deteriorates water quality. Causes brown discoloration of the atmosphere.
<p>1. Volatile Organic Compounds (VOCs or Reactive Organic Gases [ROG]) are hydrocarbons/organic gases that are formed solely of hydrogen and carbon. There are several subsets of organic gases including ROGs and VOCs. Both ROGs and VOCs are emitted from the incomplete combustion of hydrocarbons or other carbon-based fuels. The major sources of hydrocarbons are combustion engine exhaust, oil refineries, and oil-fueled power plants; other common sources are petroleum fuels, solvents, dry cleaning solutions, and paint (via evaporation).</p>		
<p>Source: California Air Pollution Control Officers Association (CAPCOA), Health Effects, <a href="http://www.capcoa.org/health-effects/">http://www.capcoa.org/health-effects/</a>, accessed October 26, 2021.</p>		



**Ambient Air Quality**

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

Pollutants of concern in the SCAB include O<sub>3</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. The closest air monitoring station to the Project that monitors ambient concentrations of these pollutants is the San Bernardino Monitoring Station (located approximately 1.6 miles to the north). Local air quality data from 2018 to 2020 are provided in [Table 2: Ambient Air Quality Data](#), which lists the monitored maximum concentrations and number of exceedances of state or federal air quality standards for each year.

<b>Table 2: Ambient Air Quality Data</b>			
<b>Criteria Pollutant</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
<b>Ozone (O<sub>3</sub>)<sup>1</sup></b>			
1-hour Maximum Concentration (ppm)	0.138	0.127	0.162
8-hour Maximum Concentration (ppm)	0.116	0.114	0.128
<i>Number of Days Standard Exceeded</i>			
CAAQS 1-hour (>0.09 ppm)	63	63	89
NAAQS 8-hour (>0.070 ppm)	102	96	130
<b>Carbon Monoxide (CO)<sup>1</sup></b>			
1-hour Maximum Concentration (ppm)	2.75	1.29	1.91
<i>Number of Days Standard Exceeded</i>			
NAAQS 1-hour (>35 ppm)	0	0	0
CAAQS 1-hour (>20 ppm)	0	0	0
<b>Nitrogen Dioxide (NO<sub>2</sub>)<sup>1</sup></b>			
1-hour Maximum Concentration (ppm)	0.057	0.059	0.054
<i>Number of Days Standard Exceeded</i>			
NAAQS 1-hour (>0.100 ppm)	0	0	0
CAAQS 1-hour (>0.18 ppm)	0	0	0
<b>Particulate Matter Less Than 10 Microns (PM<sub>10</sub>)<sup>1</sup></b>			
National 24-hour Maximum Concentration (µg/m <sup>3</sup> )	130.2	112.7	174.8
State 24-hour Maximum Concentration (µg/m <sup>3</sup> )	63.9	92.2	100.8
State Annual Average Concentration (CAAQS=20 µg/m <sup>3</sup> )	33.9	30.5	—
<i>Number of Days Standard Exceeded</i>			
NAAQS 24-hour (>150 µg/m <sup>3</sup> )	0	0	1
CAAQS 24-hour (>50 µg/m <sup>3</sup> )	5	4	8
<b>Particulate Matter Less Than 2.5 Microns (PM<sub>2.5</sub>)<sup>1</sup></b>			
National 24-hour Maximum Concentration	30.1	60.5	56.5
State 24-hour Maximum Concentration	30.1	60.5	56.6
<i>Number of Days Standard Exceeded</i>			
NAAQS 24-hour (>35 µg/m <sup>3</sup> )	0	1	2
NAAQS = National Ambient Air Quality Standards; CAAQS = California Ambient Air Quality Standards; ppm = parts per million; µg/m <sup>3</sup> = micrograms per cubic meter; — = not measured			
1. Measurements taken at the San Bernardino-4 <sup>th</sup> Street Monitoring Station located at 24302 4th St., San Bernardino, CA. (CARB# 36203)			
Source: All pollutant measurements are from the CARB Aerometric Data Analysis and Management system database ( <a href="https://www.arb.ca.gov/adam">https://www.arb.ca.gov/adam</a> ) except for CO, which were retrieved from the CARB Air Quality and Meteorological Information System ( <a href="https://www.arb.ca.gov/aqmis2/aqdselect.php">https://www.arb.ca.gov/aqmis2/aqdselect.php</a> ).			

## 2.3 Sensitive Receptors

Sensitive receptors are more susceptible to the effects of air pollution than is the general population and are in proximity to localized sources of toxics are of particular concern. Land uses considered sensitive receptors include residences, schools, playgrounds, childcare centers, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes. The Project site is primarily surrounded by warehousing, logistics, and distribution related uses. The sensitive land uses nearest to the Project site consist of single-family residences located adjacent to the east and west. Sensitive land uses nearest to the Project are shown in [Table 3: Sensitive Receptors](#).

<b>Table 3: Sensitive Receptors</b>	
<b>Receptor Description</b>	<b>Distance and Direction from the Project</b>
Single-family Residences	40 feet to the west
Single-family Residences	80 feet to the east
Single-family Residences	335 feet to the south
Single-family Residences	1,160 feet to the north
Source: Nearmap, 2021	

## 3 REGULATORY SETTING

### 3.1 Federal

#### Federal Clean Air Act

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

The EPA can withhold certain transportation funds from states that fail to comply with the planning requirements of the FCAA. If a state fails to correct these planning deficiencies within two years of Federal notification, the EPA is required to develop a Federal implementation plan for the identified nonattainment area or areas. The provisions of 40 Code of Federal Regulations Parts 51 and 93 apply in all nonattainment and maintenance areas for transportation-related criteria pollutants for which the area is designated nonattainment or has a maintenance plan. The EPA has designated enforcement of air pollution control regulations to the individual states. Applicable federal standards are summarized in [Table 4: State and Federal Ambient Air Quality Standards](#).

### 3.2 State of California

#### California Air Resources Board

CARB administers the air quality policy in California. The California Ambient Air Quality Standards (CAAQS) were established in 1969 pursuant to the Mulford-Carrell Act. These standards, included with the NAAQS in [Table 4](#), are generally more stringent and apply to more pollutants than the NAAQS. In addition to the criteria pollutants, CAAQS have been established for visibility reducing particulates, hydrogen sulfide, and sulfates.

The California Clean Air Act (CCAA), which was approved in 1988, requires that each local air district prepare and maintain an Air Quality Management Plan (AQMP) to achieve compliance with CAAQS. These AQMPs also serve as the basis for the preparation of the State Implementation Plan for meeting federal clean air standards for the State of California. Like the EPA, CARB also designates areas within California as either attainment or nonattainment for each criteria pollutant based on whether the CAAQS have been achieved. Under the CCAA, areas are designated as nonattainment for a pollutant if air quality data shows that a state standard for the pollutant was violated at least once during the previous three calendar years. Exceedances that are affected by highly irregular or infrequent events such as wildfires, volcanoes, etc. are not considered violations of a state standard, and are not used as a basis for designating areas as nonattainment. The applicable State standards are summarized in [Table 4](#).

<b>Table 4: State and Federal Ambient Air Quality Standards</b>			
<b>Pollutant</b>	<b>Averaging Time</b>	<b>State Standards<sup>1</sup></b>	<b>Federal Standards<sup>2</sup></b>
Ozone (O <sub>3</sub> ) <sup>2, 5, 7</sup>	8 Hour	0.070 ppm (137 µg/m <sup>3</sup> )	0.070 ppm
	1 Hour	0.09 ppm (180 µg/m <sup>3</sup> )	NA
Carbon Monoxide (CO)	8 Hour	9.0 ppm (10 mg/m <sup>3</sup> )	9 ppm (10 mg/m <sup>3</sup> )
	1 Hour	20 ppm (23 mg/m <sup>3</sup> )	35 ppm (40 mg/m <sup>3</sup> )
Nitrogen Dioxide (NO <sub>2</sub> )	1 Hour	0.18 ppm (339 µg/m <sup>3</sup> )	0.10 ppm <sup>11</sup>
	Annual Arithmetic Mean	0.030 ppm (57 µg/m <sup>3</sup> )	0.053 ppm (100 µg/m <sup>3</sup> )
Sulfur Dioxide (SO <sub>2</sub> ) <sup>8</sup>	24 Hour	0.04 ppm (105 µg/m <sup>3</sup> )	0.14 ppm (365 µg/m <sup>3</sup> )
	1 Hour	0.25 ppm (655 µg/m <sup>3</sup> )	0.075 ppm (196 µg/m <sup>3</sup> )
	Annual Arithmetic Mean	NA	0.03 ppm (80 µg/m <sup>3</sup> )
Particulate Matter (PM <sub>10</sub> ) <sup>1, 3, 6</sup>	24-Hour	50 µg/m <sup>3</sup>	150 µg/m <sup>3</sup>
	Annual Arithmetic Mean	20 µg/m <sup>3</sup>	NA
Fine Particulate Matter (PM <sub>2.5</sub> ) <sup>3, 4, 6, 9</sup>	24-Hour	NA	35 µg/m <sup>3</sup>
	Annual Arithmetic Mean	12 µg/m <sup>3</sup>	12 µg/m <sup>3</sup>
Sulfates (SO <sub>4-2</sub> )	24 Hour	25 µg/m <sup>3</sup>	NA
Lead (Pb) <sup>10, 11</sup>	30-Day Average	1.5 µg/m <sup>3</sup>	NA
	Calendar Quarter	NA	1.5 µg/m <sup>3</sup>
	Rolling 3-Month Average	NA	0.15 µg/m <sup>3</sup>
Hydrogen Sulfide (H <sub>2</sub> S)	1 Hour	0.03 ppm (42 µg/m <sup>3</sup> )	NA
Vinyl Chloride (C <sub>2</sub> H <sub>3</sub> Cl) <sup>10</sup>	24 Hour	0.01 ppm (26 µg/m <sup>3</sup> )	NA

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

<sup>1</sup> California standards for O<sub>3</sub>, carbon monoxide (except Lake Tahoe), sulfur dioxide (1-hour and 24-hour), nitrogen dioxide, suspended particulate matter - PM<sub>10</sub>, and visibility reducing particles are values that are not to be exceeded. The standards for sulfates, Lake Tahoe carbon monoxide, lead, hydrogen sulfide, and vinyl chloride are not to be equaled or exceeded. If the standard is for a 1-hour, 8-hour or 24-hour average (i.e., all standards except for lead and the PM<sub>10</sub> annual standard), then some measurements may be excluded. Measurements are excluded that CARB determines would occur less than once per year on the average. The Lake Tahoe carbon monoxide standard is 6.0 ppm, a level one-half the national standard and two-thirds the State standard.

<sup>2</sup> National standards shown are the "primary standards" designed to protect public health. National standards other than for O<sub>3</sub>, particulates and those based on annual averages are not to be exceeded more than once a year. The 1-hour O<sub>3</sub> standard is attained if, during the most recent three-year period, the average number of days per year with maximum hourly concentrations above the standard is equal to or less than one. The 8-hour O<sub>3</sub> standard is attained when the 3-year average of the 4<sup>th</sup> highest daily concentrations is 0.070 ppm or less. The 24-hour PM<sub>10</sub> standard is attained when the 3-year average of the 99<sup>th</sup> percentile of monitored concentrations is less than 150 µg/m<sup>3</sup>. The 24-hour PM<sub>2.5</sub> standard is attained when the 3-year average of 98<sup>th</sup> percentiles is less than 35 µg/m<sup>3</sup>.

<sup>3</sup> Except for the national particulate standards, annual standards are met if the annual average falls below the standard at every site. The national annual particulate standard for PM<sub>10</sub> is met if the 3-year average falls below the standard at every site. The annual PM<sub>2.5</sub> standard is met if the 3-year average of annual averages spatially-averaged across officially designed clusters of sites falls below the standard. NAAQS are set by the EPA at levels determined to be protective of public health with an adequate margin of safety.

<sup>4</sup> On October 1, 2015, the national 8-hour O<sub>3</sub> primary and secondary standards were lowered from 0.075 to 0.070 ppm. An area will meet the standard if the fourth-highest maximum daily 8-hour O<sub>3</sub> concentration per year, averaged over three years, is equal to or less than 0.070 ppm. EPA will make recommendations on attainment designations by October 1, 2016, and issue final designations October 1, 2017. Nonattainment areas will have until 2020 to late 2037 to meet the health standard, with attainment dates varying based on the O<sub>3</sub> level in the area.

<sup>5</sup> The national 1-hour O<sub>3</sub> standard was revoked by the EPA on June 15, 2005.

<sup>6</sup> In June 2002, CARB established new annual standards for PM<sub>2.5</sub> and PM<sub>10</sub>.

<sup>7</sup> The 8-hour California O<sub>3</sub> standard was approved by the CARB on April 28, 2005 and became effective on May 17, 2006.

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

<sup>9</sup> In December 2012, EPA strengthened the annual PM<sub>2.5</sub> NAAQS from 15.0 to 12.0 µg/m<sup>3</sup>. In December 2014, the EPA issued final area designations for the 2012 primary annual PM<sub>2.5</sub> NAAQS. Areas designated "unclassifiable/attainment" must continue to take steps to prevent their air quality from deteriorating to unhealthy levels. The effective date of this standard is April 15, 2015.

<sup>10</sup> CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure below which there are no adverse health effects determined.

<sup>11</sup> National lead standards, rolling 3-month average: final rule signed October 15, 2008. Final designations effective December 31, 2011.

Source: South Coast Air Quality Management District, *Air Quality Management Plan*, 2016; California Air Resources Board, *Ambient Air Quality Standards*, May 6, 2016.



### 3.3 Regional

#### South Coast Air Quality Management District

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

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

The 2016 AQMP was adopted by the SCAQMD Governing Board on March 3, 2017. The purpose of the AQMP is to set forth a comprehensive and integrated program that would lead the SCAB into compliance with the federal 24-hour PM<sub>2.5</sub> air quality standard, and to provide an update to the SCAQMD's commitments towards meeting the federal 8-hour O<sub>3</sub> standards. The AQMP incorporates the latest scientific and technological information and planning assumptions, including the *Regional Transportation Plan/Sustainable Communities Strategy* (RTP/SCS) and updated emission inventory methodologies for various source categories.

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

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

The state and federal attainment status designations for the SCAB are summarized in [Table 5: South Coast Air Basin Attainment Status](#). The SCAB is currently designated as a nonattainment area with respect to the State O<sub>3</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> standards, as well as the national 8-hour O<sub>3</sub> and PM<sub>2.5</sub> standards. The SCAB is designated as attainment or unclassified for the remaining state and federal standards.

Table 5: South Coast Air Basin Attainment Status		
Pollutant	State	Federal
Ozone (O <sub>3</sub> ) (1 Hour Standard)	Non-Attainment	Non-Attainment (Extreme)
Ozone (O <sub>3</sub> ) (8 Hour Standard)	Non-Attainment	Non-Attainment (Extreme)
Particulate Matter (PM <sub>2.5</sub> ) (24 Hour Standard)	–	Non-Attainment (Serious)
Particulate Matter (PM <sub>2.5</sub> ) (Annual Standard)	Non-Attainment	Non-Attainment (Moderate)
Particulate Matter (PM <sub>10</sub> ) (24 Hour Standard)	Non-Attainment	Attainment (Maintenance)
Particulate Matter (PM <sub>10</sub> ) (Annual Standard)	Non-Attainment	–
Carbon Monoxide (CO) (1 Hour Standard)	Attainment	Attainment (Maintenance)
Carbon Monoxide (CO) (8 Hour Standard)	Attainment	Attainment (Maintenance)
Nitrogen Dioxide (NO <sub>2</sub> ) (1 Hour Standard)	Attainment	Unclassifiable/Attainment
Nitrogen Dioxide (NO <sub>2</sub> ) (Annual Standard)	Attainment	Attainment (Maintenance)
Sulfur Dioxide (SO <sub>2</sub> ) (1 Hour Standard)	Attainment	Unclassifiable/Attainment
Sulfur Dioxide (SO <sub>2</sub> ) (24 Hour Standard)	Attainment	–
Lead (Pb) (30 Day Standard)	–	Unclassifiable/Attainment
Lead (Pb) (3 Month Standard)	Attainment	–
Sulfates (SO <sub>4-2</sub> ) (24 Hour Standard)	Attainment	–
Hydrogen Sulfide (H <sub>2</sub> S) (1 Hour Standard)	Unclassified	–

Source: South Coast Air Quality Management District, *Air Quality Management Plan*, 2016; United States Environmental Protection Agency, *Nonattainment Areas for Criteria Pollutants (Green Book)*, 2020.

Under federal and state law, SCAQMD is under a legal obligation to enforce air pollution regulations. These regulations are primarily meant to ensure that the surrounding (or ambient) air meets federal and state air quality standards. The following is a list of SCAQMD rules that are required of construction activities associated with the Project:

- **Rule 402 (Nuisance)** – This rule prohibits the discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. This rule does not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.
- **Rule 403 (Fugitive Dust)** – This rule requires fugitive dust sources to implement best available control measures for all sources, and all forms of visible particulate matter are prohibited from crossing any property line. This rule is intended to reduce PM<sub>10</sub> emissions from any transportation,

handling, construction, or storage activity that has the potential to generate fugitive dust. PM<sub>10</sub> suppression techniques are summarized below.

- a) Portions of a construction site to remain inactive longer than a period of three months will be seeded and watered until grass cover is grown or otherwise stabilized.
  - b) All on-site roads are paved as soon as feasible, watered regularly, or chemically stabilized.
  - c) All material transported off-site will be either sufficiently watered or securely covered to prevent excessive amounts of dust.
  - d) The area disturbed by clearing, grading, earthmoving, or excavation operations will be minimized at all times.
  - e) Where vehicles leave a construction site and enter adjacent public streets, the streets will be swept daily or washed down following the workday to remove soil from pavement.
- **Rule 431.2 (Sulfur Content of Liquid Fuels)** – This rule limits the sulfur content in diesel and other liquid fuels for the purpose of both reducing the formation of sulfur oxides and particulates during combustion and to enable the use of add-on control devices for diesel fueled internal combustion engines.
  - **Rule 1113 (Architectural Coatings)** – This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce ROG emissions from the use of these coatings, primarily by placing limits on the ROG content of various coating categories.
  - **Rule 2305 (Warehouse Indirect Source Rule)** - Rule 2305 was adopted by the SCAQMD Governing Board on May 7, 2021 to reduce NO<sub>x</sub> and particulate matter emissions associated with warehouses and mobile sources attracted to warehouses. This rule applies to all existing and proposed warehouses over 100,000 square feet located in the SCAQMD. Rule 2305 requires warehouse operators to track annual vehicle miles traveled associated with truck trips to and from the warehouse. These trip miles are used to calculate the warehouses WAIRE (Warehouse Actions and Investments to Reduce Emissions) Points Compliance Obligation. WAIRE Points are earned based on emission reduction measures and warehouse operators are required to submit an annual WAIRE Report which includes truck trip data and emission reduction measures. Reduction strategies listed in the WAIRE menu include acquire zero emission (ZE) or near zero emission (NZE) trucks; require ZE/NZE truck visits; require ZE yard trucks; install on-site ZE charging/fueling infrastructure; install onsite energy systems; and install filtration systems in residences, schools, and other buildings in the adjacent community. Warehouse operators that do not earn a sufficient number of WAIRE points to satisfy the WAIRE Points Compliance Obligation would be required to pay a mitigation fee. Funds from the mitigation fee will be used to incentivize the purchase of cleaner trucks and charging/fueling infrastructure in communities nearby.

### 3.4 Local

#### City of San Bernardino General Plan

The City of San Bernardino General Plan (SBGP) represents the community's view of its future and can be thought of as the blueprint for the City's growth and development. The SBGP does not mention specific standalone air quality goals and policies for the City. Instead, the SBGP has goals and policies to improve air quality through environmental management and transportation planning. Since there are limited Project-relevant policies specific to air quality, related policies are mentioned in this section. Where inconsistencies exist, if any, they are addressed in the respective impact analysis below. SBGP policies that directly address reducing and avoiding natural resources and air quality impacts include the following:

#### Circulation Element

**Goal 6.6: Promote a network of multi-modal transportation facilities that are safe, efficient, and connected to various points of the City and the region.**

Policy 6.6.9: Work with Omnitrans to create transit corridors, such as the one currently being explored on E Street, linking CSUSB to Hospitality Lane, to increase transit ridership, reduce traffic congestion, and improve air quality.

#### Safety Element

**Goal 10.1: Protect the environment, public health, safety, and welfare from hazardous wastes.**

Policy 10.1.2: Ensure the protection of surface and groundwater quality, land resources, air quality, and environmentally sensitive areas through safe transportation of waste through the City and comprehensive planning of hazardous materials, wastes, and sites.

#### Natural Resources and Conservation Element

This Element is intended to maintain, improve, or preserve the quality and supply of the City's natural resources. The Natural Resources and Conservation Element addresses Biological Resources, Natural Features, Mineral Resources, and Air Quality.

**Goal 12.5: Promote air quality that is compatible with the health, wellbeing, and enjoyment of life.**

Policy 12.5.1: Reduce the emission of pollutants including CO, NO<sub>x</sub>, photochemical smog, and sulfate in accordance with South Coast AQMD standards.

Policy 12.5.2: Prohibit the development of land uses (e.g. heavy manufacturing) that will contribute significantly to air quality degradation, unless sufficient mitigation measures are undertaken according South Coast AQMD standards.

Policy 12.5.3: Require dust abatement measures during grading and construction operations.

Policy 12.5.4: Evaluate the air emissions of industrial land uses to ensure that they will not impact adjacent uses.



**Goal 12.7: Participate in regional initiatives and programs to improve the SCAB's air quality.**

Policy 12.7.1: Cooperate with the South Coast AQMD and incorporate pertinent local implementation provisions of the AQMP.

Policy 12.7.2: Work with the South Coast AQMD to establish controls and monitor uses in the City that could add to the SCAB's degradation (e.g., auto repair, manufacturers).

Policy 12.7.3: Coordinate with South Coast AQMD to ensure that all elements of air quality plans regarding reduction of air pollutants emissions are being enforced.

## 4 SIGNIFICANCE CRITERIA AND METHODOLOGY

### 4.1 Air Quality Thresholds

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

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

### SCAQMD Thresholds

The significance criteria established by SCAQMD may be relied upon to make the above determinations. According to the SCAQMD, an air quality impact is considered significant if the Project would violate any ambient air quality standard, contribute substantially to an existing or projected air quality violation, or expose sensitive receptors to substantial pollutant concentrations. The SCAQMD has established thresholds of significance for air quality during construction and operational activities of land use development projects, as shown in [Table 6: South Coast Air Quality Management District Emissions Thresholds](#).

<b>Table 6: South Coast Air Quality Management District Emissions Thresholds</b>		
<b>Criteria Air Pollutants and Precursors</b>	<b>Maximum Pounds per Day</b>	
	<b>Construction-Related</b>	<b>Operational-Related</b>
Reactive Organic Gases (ROG)	75	55
Carbon Monoxide (CO)	550	550
Nitrogen Oxides (NO <sub>x</sub> )	100	55
Sulfur Oxides (SO <sub>x</sub> )	150	150
Coarse Particulates (PM <sub>10</sub> )	150	150
Fine Particulates (PM <sub>2.5</sub> )	55	55

Source: South Coast Air Quality Management District, *South Coast AQMD Air Quality Significance Thresholds*, April 2019.

### Localized Carbon Monoxide

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

## Localized Significance Thresholds

In addition to the CO hotspot analysis, the SCAQMD developed LSTs for emissions of NO<sub>x</sub>, CO, PM<sub>10</sub>, and PM<sub>2.5</sub> generated at new development sites (off-site mobile source emissions are not included in the LST analysis). LSTs represent the maximum emissions that can be generated at a project without expecting to cause or substantially contribute to an exceedance of the most stringent state or federal ambient air quality standards. LSTs are based on the ambient concentrations of that pollutant within the Project source receptor area (SRA), as demarcated by the SCAQMD, and the distance to the nearest sensitive receptor. LST analysis for construction is applicable for all projects that disturb 5 acres or less on a single day. The Project site is located within SCAQMD SRA 34.

Table 7: Local Significance Thresholds for Construction/Operations, shows the LSTs for 1-acre, 2-acre, and 5-acre projects in SRA 34 at a distance of 25 meters. LSTs associated with all acreage categories are provided in Table 7 for informational purposes. Table 7 shows that the LSTs increase as acreages increase. It should be noted that LSTs are screening thresholds and are therefore conservative. The construction LST acreage is determined based on daily acreage disturbed. The operational LST acreage is based on the total area of the Project site. Although the Project site is greater than five acres, the 5-acre operational LSTs are conservatively used to evaluate the Project.

Project Size	Pounds per Day			
	Nitrogen Oxide (NO <sub>x</sub> )	Carbon Monoxide (CO)	Coarse Particulates (PM <sub>10</sub> )	Fine Particulates (PM <sub>2.5</sub> )
1 Acre	118/118	667/667	4/1	3/1
2 Acres	170/170	972/972	7/2	4/1
5 Acres	270/270	1,746/1,746	14/4	8/2

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

## 4.2 Methodology

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

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

Project operations would result in emissions of area sources (consumer products), energy sources (natural gas usage), and mobile sources (motor vehicles from Project generated vehicle trips). Project-generated increases in operational emissions would be predominantly associated with motor vehicle use. The increase of traffic over existing conditions as a result of the Project was obtained from the Project's *Traffic Impact Analysis* prepared by Translutions, Inc. (September 2021) (*Traffic Impact Analysis*). The modeled

operational fleet mix was incorporated in CalEEMod consistent with the Project's Traffic Impact Analysis. Project trip generation from the Traffic Impact Analysis is based on the Institute of Transportation Engineers (ITE) High-Cube Transload and Short-Term Storage Warehouse land use (ITE code 154) and High-Cube Cold Storage Warehouse land use (ITE code 157). Additionally, truck mix percentages are based on the SCAQMD Truck Trip Generation Study applied to ITE truck percentages. Other operational emissions from area, energy, and stationary sources were quantified in CalEEMod based on land use activity data.

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

The localized effects from the Project's on-site emissions were evaluated in accordance with the SCAQMD's LST methodology, which uses on-site mass emissions rate look-up tables and Project-specific modeling. LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standards and are developed based on the ambient concentrations of that pollutant for each source receptor area and distance to the nearest sensitive receptor.

## 5 POTENTIAL IMPACTS AND MITIGATION

### 5.1 Air Quality Analysis

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

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

The Project is located within the SCAB, which is under the jurisdiction of the SCAQMD. The SCAQMD is required, pursuant to the FCAA, to reduce emissions of criteria pollutants for which the SCAB is in nonattainment. To reduce such emissions, the SCAQMD drafted the 2016 AQMP. The 2016 AQMP establishes a program of rules and regulations directed at reducing air pollutant emissions and achieving state (California) and national air quality standards. The 2016 AQMP is a regional and multi-agency effort including the SCAQMD, the CARB, the SCAG, and the EPA. The plan's pollutant control strategies are based on the latest scientific and technical information and planning assumptions, including SCAG's growth projections and RTP/SCS, updated emission inventory methodologies for various source categories, and SCAG's latest growth forecasts. SCAG's latest growth forecasts were defined in consultation with local governments and with reference to local general plans. The Project is subject to the SCAQMD's AQMP.

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

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

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

The violations to which Consistency Criterion No. 1 refers are CAAQS and NAAQS. As shown in [Table 8](#) through [Table 12](#), below, the Project would not exceed the construction standards and net emissions would not exceed operational standards. Therefore, the Project would not contribute to an existing air quality violation. Thus, the Project would be consistent with the first criterion.

Concerning Consistency Criterion No. 2, the AQMP contains air pollutant reduction strategies based on SCAG's latest growth forecasts, and SCAG's growth forecasts were defined in consultation with local governments and with reference to local general plans. According to the City's General Plan, the proposed

Project site is designated as Industrial (I) under the City's General Plan and is zoned as Industrial Light (IL). The IL designation is intended for a variety of light industrial uses, including warehousing/distribution, assembly, light manufacturing, research and development, mini storage, and repair facilities conducted within enclosed structures, as well as supporting retail and personal uses. As such, the Project would not result in substantial unplanned growth or unaccounted for growth in the General Plan or job growth projections used by the SCAQMD to develop the AQMP. Thus, a less than significant impact would occur no impact would occur, as the Project is also consistent with the second criterion.

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

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

**Threshold 5.2 Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable state or federal ambient air quality standard?**

### Construction Emissions

Construction associated with the Project would generate short-term emissions of criteria air pollutants. The criteria pollutants of primary concern within the Project area include O<sub>3</sub>-precursor pollutants (i.e., ROG and NO<sub>x</sub>) and PM<sub>10</sub> and PM<sub>2.5</sub>. Construction-generated emissions are short term and of temporary duration, lasting only as long as construction activities occur, but would be considered a significant air quality impact if the volume of pollutants generated exceeds the SCAQMD's thresholds of significance.

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

The duration of construction activities associated with the Project is estimated to last approximately 10 months with construction anticipated to begin in the first quarter of 2022 and be completed in the fourth quarter of 2022. Construction-generated emissions associated with the Project were calculated using the CARB-approved CalEEMod computer program, which is designed to model emissions for land use development projects, based on typical construction requirements. See [Appendix A: Air Quality Modeling Data](#) for more information regarding the construction assumptions used in this analysis. Predicted maximum daily construction-generated emissions for the Project are summarized in [Table 8: Construction-Related Emissions](#).

Fugitive dust emissions may have a substantial, temporary impact on local air quality. In addition, fugitive dust may be a nuisance to those living and working in the Project vicinity. Uncontrolled dust from construction can become a nuisance and potential health hazard to those living and working nearby. SCAQMD Rules 402 and 403 (prohibition of nuisances, watering of inactive and perimeter areas, track out requirements, etc.), are applicable to the Project and were applied in CalEEMod to minimize fugitive dust emissions. Standard Condition (SC) AQ-1 requires the implementation of Rule 402 and 403 dust control techniques to minimize PM<sub>10</sub> and PM<sub>2.5</sub> concentrations. While impacts would be considered less than significant, the Project would be subject to SCAQMD Rules for reducing fugitive dust, described in the Regulatory Framework subsection above and identified in Standard Conditions SC AQ-1. Rule 1113



provides specifications on painting practices and regulates the ROG content of paint. As required by law, all architectural coatings for the Project structures would comply with SCAQMD Rule 1113; refer to SC AQ-2.

<b>Table 8: Construction-Related Emissions</b>						
Construction Year	Pounds per Day					
	Reactive Organic Gases (ROG)	Nitrogen Oxide (NO <sub>x</sub> )	Carbon Monoxide (CO)	Sulfur Dioxide (SO <sub>2</sub> )	Coarse Particulate Matter (PM <sub>10</sub> )	Fine Particulate Matter (PM <sub>2.5</sub> )
Construction 2022	45.39	39.05	29.77	0.06	12.21	6.88
<i>SCAQMD Threshold</i>	<i>75</i>	<i>100</i>	<i>550</i>	<i>150</i>	<i>150</i>	<i>55</i>
<b>Exceed SCAQMD Threshold?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
Notes: SCAQMD Rule 403 Fugitive Dust applied. The Rule 403 reduction/credits include the following: properly maintain mobile and other construction equipment; replace ground cover in disturbed areas quickly; water exposed surfaces three times daily; cover stockpiles with tarps; water all haul roads twice daily; and limit speeds on unpaved roads to 15 miles per hour. Reductions percentages from the SCAQMD CEQA Handbook (Tables XI-A through XI-E) were applied. No mitigation was applied to construction equipment. Daily regional construction emissions are estimated by assuming construction occurs at the earliest feasible date (i.e., a conservative estimate of construction activities). Refer to <a href="#">Appendix A</a> for Model Data Outputs.						
Source: CalEEMod version 2020.4.0. Refer to <a href="#">Appendix A</a> for model outputs.						

Table 8 shows that all criteria pollutant emissions associated with construction of the Project would remain below their respective thresholds. While impacts would be considered less than significant, the Project would be subject to SCAQMD Rules 402, 403, and 1113, described in the Regulatory Framework subsection above and required by SC AQ-1 and SC AQ-2.

### Operational Emissions

Project-generated emissions would be primarily associated with motor vehicle use and area sources, such as the use of landscape maintenance equipment and architectural coatings. Operational emissions attributable to the Project are summarized in [Table 9: Operational Emissions](#).

<b>Table 9: Operational Emissions</b>						
Source	Pounds per Day <sup>1</sup>					
	Reactive Organic Gases (ROG)	Nitrogen Oxide (NO <sub>x</sub> )	Carbon Monoxide (CO)	Sulfur Dioxide (SO <sub>2</sub> )	Coarse Particulate Matter (PM <sub>10</sub> )	Fine Particulate Matter (PM <sub>2.5</sub> )
Area Source Emissions	6.85	0.00	0.06	0.00	0.00	0.00
Energy Emissions	0.02	0.17	0.14	0.00	0.00	0.00
Mobile Emissions	1.85	18.02	22.67	0.13	8.38	2.42
Off-Road Emissions	0.09	4.26	55.61	0.01	0.07	0.07
<b>Total Emissions</b>	<b>8.8</b>	<b>22.45</b>	<b>78.48</b>	<b>0.14</b>	<b>8.47</b>	<b>2.68</b>
<i>SCAQMD Threshold</i>	<i>55</i>	<i>55</i>	<i>550</i>	<i>150</i>	<i>150</i>	<i>55</i>
<b>Exceeds Threshold?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
Notes: 1. Total values are from CalEEMod and may not add up 100% due to rounding. Source: CalEEMod version 2020.4.0. Refer to <a href="#">Appendix A</a> for model outputs.						

Operational emissions from the Project would be associated with area sources, energy sources, mobile sources (i.e., motor vehicle use), and off-road emissions. Emissions from these categories are discussed below.

- **Area Source Emissions.** Area source emissions would be generated due to on-site equipment, architectural coating, and landscaping that were previously not present on the site.
- **Energy Source Emissions.** Energy source emissions would be generated due to electricity and natural gas usage associated with the Project. Primary uses of electricity and natural gas by the Project would be for miscellaneous warehouse equipment, space heating and cooling, water heating, ventilation, lighting, appliances, and electronics.
- **Mobile Source.** Mobile sources are emissions from motor vehicles, including tailpipe and evaporative emissions. Depending upon the pollutant being discussed, the potential air quality impact may be of either regional or local concern. For example, ROG, NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> are all pollutants of regional concern. NO<sub>x</sub> and ROG react with sunlight to form O<sub>3</sub>, known as photochemical smog. Additionally, wind currents readily transport PM<sub>10</sub> and PM<sub>2.5</sub>. However, CO tends to be a localized pollutant, dispersing rapidly at the source.

Project-generated vehicle emissions are based on the trip generation within the Project's Traffic Impact Analysis and were incorporated into CalEEMod as recommended by the SCAQMD. Per the Traffic Impact Analysis, the Project would generate 470 daily trips, which includes 371 passenger cars and 99 trucks.

- **Off-Road Equipment.** Operational off-road emissions would be generated by off-road equipment used during operational activities. For this project it was assumed that the warehouse would employ six forklifts for loading and unloading goods.

As shown in [Table 9](#), Project emissions would not exceed SCAQMD thresholds for any criteria air pollutants. Therefore, long-term operations emissions would result in a less than significant impact.

In addition, Rule 2305 requires the Project operator to directly reduce NO<sub>x</sub> and particulate matter emissions or to otherwise facilitate emission and exposure reductions of these pollutants in nearby communities. Alternatively, warehouse operators can choose to pay a mitigation fee. Funds from the mitigation fee will be used to incentivize the purchase of cleaner trucks and charging/fueling infrastructure in communities nearby.

Warehouse owners and operators are required to earn Warehouse Actions and Investments to Reduce Emissions (WAIRE) Points each year. WAIRE points are a menu-based system earned by emission reduction measures. Warehouse operators are required to submit an annual WAIRE Report which includes truck trip data and emission reduction measures. WAIRE points can be earned by completing actions from a menu that can include acquiring and using natural gas, Near-Zero Emissions and/or Zero-Emissions on-road trucks, zero-emission cargo handling equipment, solar panels or zero-emission charging and fueling infrastructure, or other options. Therefore, the Project operator would be required to implement additional emission reduction strategies. Conservatively, this analysis does not take credit for these potential reductions. Compliance with Rule 2305 would reduce emissions below what is currently analyzed.

## Cumulative Construction Emissions

The SCAB is designated nonattainment for O<sub>3</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> for State standards and nonattainment for O<sub>3</sub> and PM<sub>2.5</sub> for Federal standards. Appendix D of the SCAQMD White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution (2003) notes that projects that result in emissions that do not exceed the project-specific SCAQMD regional thresholds of significance should result in a less than significant impact on a cumulative basis unless there is other pertinent information to the contrary. The mass-based regional significance thresholds published by the SCAQMD are designed to ensure compliance with both NAAQS and CAAQS and are based on an inventory of projected emissions in the SCAB. Therefore, if a project is estimated to result in emissions that do not exceed the thresholds, the project's contribution to the cumulative impact on air quality in the SCAB would not be cumulatively considerable. As shown in [Table 8](#) above, Project construction-related emissions by themselves would not exceed the SCAQMD significance thresholds for criteria pollutants. Therefore, the proposed Project would not generate a cumulatively considerable contribution to air pollutant emissions during construction.

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

## Cumulative Operational Impacts

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

As shown in [Table 9](#), Project operational emissions for the Project would not exceed SCAQMD thresholds. As a result, operational emissions associated with the Project would not result in a cumulatively considerable contribution to significant cumulative air quality impacts. Additionally, adherence to SCAQMD rules and regulations would alleviate potential impacts related to cumulative conditions on a project-by-project basis. Therefore, operational emissions associated with the Project would not contribute a cumulatively considerable net increase of any nonattainment criteria pollutant.

Furthermore, compliance with SCAQMD Rule 2305 (Warehouse Indirect Source Rule) is required for all existing and proposed warehouses greater than 100,000 square feet. Warehouse operators are required to implement additional emission reduction strategies or pay mitigation fee to reduce emissions.

Compliance with Rule 2305 would reduce project emissions below what is currently analyzed and also reduce cumulative emissions.

#### **Standard Conditions and Requirements:**

**SC AQ-1** Prior to the issuance of grading permits, the City Engineer shall confirm that the Grading Plan, Building Plans and Specifications require all construction contractors to comply with South Coast Air Quality Management District's (SCAQMD's) Rules 402 and 403 to minimize construction emissions of dust and particulates. The measures include, but are not limited to, the following:

- Portions of a construction site to remain inactive longer than a period of three months will be seeded and watered until grass cover is grown or otherwise stabilized.
- All on-site roads will be paved as soon as feasible or watered periodically or chemically stabilized.
- All material transported off site will be either sufficiently watered or securely covered to prevent excessive amounts of dust.
- The area disturbed by clearing, grading, earthmoving, or excavation operations will be minimized at all times.
- Where vehicles leave a construction site and enter adjacent public streets, the streets will be swept daily or washed down at the end of the workday to remove soil tracked onto the paved surface.

**SC AQ-2** **Low VOC Paint.** The Project Applicant shall require by contract specifications that the interior and exterior architectural coatings (paint and primer including parking lot paint) products used would have a volatile organic compound rating of 50 grams per liter or less. Contract specifications shall be included in the construction documents for the Project, which shall be reviewed and approved by the City of San Bernardino prior to the issuance of building permits.

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

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

To identify impacts to sensitive receptors, the SCAQMD recommends addressing LSTs for construction. LSTs were developed in response to SCAQMD Governing Boards' Environmental Justice Enhancement Initiative (I-4). The SCAQMD provided the *Final Localized Significance Threshold Methodology* (dated June 2003 [revised 2008]) for guidance. The LST methodology assists lead agencies in analyzing localized impacts associated with Project-specific emissions.

The nearest sensitive receptors are the single-family residences located approximately 40 feet (12 meters) west of the Project. LST thresholds are provided for distances to sensitive receptors of 25, 50, 100, 200, and 500 meters. Therefore, LSTs for receptors located at a distance of 25 meters were utilized in this analysis consistent with SCAQMD LST methodology.

The SCAQMD’s methodology states that “off-site mobile emissions from the Project should not be included in the emissions compared to LSTs.” Therefore, only emissions included in the CalEEMod “on-site” emissions outputs were considered.

### Localized Construction Impacts

Since CalEEMod calculates construction emissions based on the number of equipment hours and the maximum daily soil disturbance activity possible for each piece of equipment, Table 10: Equipment-Specific Grading Rates is used to determine the maximum daily disturbed acreage for comparison to LSTs. The appropriate SRA for the localized significance thresholds is the Central San Bernardino Valley (SRA 34) since this area includes the Project. LSTs apply to CO, NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. The SCAQMD produced look-up tables for projects that disturb areas less than or equal to 5 acres in size.

Construction Phase	Equipment Type	Equipment Quantity	Acres Graded per 8-Hour Day	Operating Hours per Day	Acres Graded per Day
Site Preparation	Tractors	2	0.5	8	1
	Graders	1	0.5	8	0.5
	Dozers	1	0.5	8	0.5
	Scrapers	2	1	8	2
<b>Total Acres Graded per Day</b>					<b>4.0</b>

Source: CalEEMod version 2020.4.0. Refer to Appendix A for model outputs.

Construction of the Project is anticipated to disturb a maximum of four acres in a single day during the site preparation phase. As the LST guidance provides thresholds for projects disturbing 1-, 2-, and 5-acres in size and the thresholds increase with size of the site, the LSTs for a 4.0-acre threshold were interpolated and utilized for this analysis.

Table 11: Localized Significance of Construction Emissions, present the results of localized emissions during construction. Table 11 shows that emissions of these pollutants on the peak day of construction, because construction and architectural coating activities are anticipated to overlap, these emissions have been combined. Table 11 shows that emissions of these pollutants would not result in significant concentrations of pollutants at nearby sensitive receptors. Significant impacts would not occur concerning LSTs during construction.

### Localized Operational Impacts

According to the SCAQMD LST methodology, LSTs would apply to the operational phase of a project only if it includes stationary sources or attracts mobile sources that may spend long periods queuing and idling at the site (e.g., warehouse or transfer facilities). Since the Project is a warehouse, the operational phase LST protocol is conservatively applied to both the area source and all the mobile source emissions. Although the nearest receptor is approximately 40 feet away, LSTs for receptors located at 25 meters in SRA 34 were utilized in this analysis. Additionally, although the warehouse area is about 12.01 acres, the 5-acre LST threshold was used because the thresholds increase with the size of the site. Therefore, the 5-acre LSTs are conservative for evaluation of an approximately 12.01-acre Project site.

Construction Activity <sup>1</sup>	Nitrogen Oxide (NO <sub>x</sub> )		Carbon Monoxide (CO)		Coarse Particulate Matter (PM <sub>10</sub> )		Fine Particulate Matter (PM <sub>2.5</sub> )	
Demolition 2022	25.72		20.59		2.19		1.30	
Site Preparation 2022	33.08		19.70		0.19		0.05	
Paving 2022	11.12		14.58		0.57		0.52	
Grading 2022	38.84		29.04		3.34		2.18	
Construction 2022	15.62	17.03 <sup>2</sup>	16.36	18.17 <sup>2</sup>	0.81	0.89 <sup>2</sup>	0.76	0.84 <sup>2</sup>
Architectural Coating 2022	1.41		1.81		0.08		0.08	
<i>Maximum Daily Emissions</i>	38.84		29.04		3.34		2.18	
<i>SCAQMD Localized Screening Threshold (adjusted for 4.0 acres at 25 meters)</i>	237		1,488		12		7	
<b>Exceed SCAQMD Threshold?</b>	<b>No</b>		<b>No</b>		<b>No</b>		<b>No</b>	
1. Daily regional construction emissions are estimated by assuming construction occurs at the earliest feasible date (i.e., a conservative estimate of construction activities). 2. 2022 construction and architectural coating sub-phase emissions are combined because they would potentially occur at the same time. Source: CalEEMod version 2020.4.0. Refer to <a href="#">Appendix A</a> for model outputs.								

The LST analysis only includes on-site sources. However, the CalEEMod model outputs do not separate on- and off-site emissions for mobile sources. Therefore, conservatively 10 percent of mobile sources has been assumed on-site and added up to other on-site emissions. [Table 12: Localized Significance of Operational Emissions](#) shows that the maximum daily emissions of these pollutants during operations would not result in significant concentrations of pollutants at nearby sensitive receptors. Therefore, significant impacts would not occur concerning LSTs during operational activities.

Activity	Pounds per Day			
	Nitrogen Oxide (NO <sub>x</sub> )	Carbon Monoxide (CO)	Coarse Particulate Matter (PM <sub>10</sub> )	Fine Particulate Matter (PM <sub>2.5</sub> )
<b>Total On-Site Emissions<sup>1</sup> (Area + 10 percent mobile emissions)</b>	1.80	2.27	0.84	0.24
<i>SCAQMD Localized Screening Threshold (adjusted for 5 acres at 25 meters)</i>	270	1,746	4	2
<b>Exceed SCAQMD Threshold?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
Notes: 1. SRA Zone 34, 5-acre site, 25 meters to receptors; conservatively assumes 10 percent of mobile emissions are on-site. Source: CalEEMod version 2020.4.0. Refer to <a href="#">Appendix A</a> for model outputs.				

In addition, SCAQMD's Rule 2305 will require the Project to directly reduce NO<sub>x</sub> and particulate matter emissions, or to otherwise facilitate emissions and exposure reductions of these pollutants in nearby communities. The Project operator may be required to implement additional emission reduction strategies. Conservatively, this analysis is not taking credit for these potential reductions. Compliance with Rule 2305 would reduce emissions below what is currently analyzed.



## Criteria Pollutant Health Impacts

On December 24, 2018, the California Supreme Court issued an opinion identifying the need to provide sufficient information connecting a project's air emissions to health impacts or explain why such information could not be ascertained (*Sierra Club v. County of Fresno* (2018) 6 Cal.5<sup>th</sup> 502). The SCAQMD has set its CEQA significance thresholds based on the FCAA, which defines a major stationary source (in extreme O<sub>3</sub> nonattainment areas such as the SCAB) as emitting 10 tons per year. The thresholds correlate with the trigger levels for the federal New Source Review (NSR) Program and SCAQMD Rule 1303 for new or modified sources. The NSR Program<sup>2</sup> was created by the FCAA to ensure that stationary sources of air pollution are constructed or modified in a manner that is consistent with attainment of health-based federal ambient air quality standards. The federal ambient air quality standards establish the levels of air quality necessary, with an adequate margin of safety, to protect the public health. Therefore, projects that do not exceed the SCAQMD's LSTs and mass emissions thresholds would not violate any air quality standards or contribute substantially to an existing or projected air quality violation and no criteria pollutant health impacts.

NO<sub>x</sub> and ROG are precursor emissions that form O<sub>3</sub> in the atmosphere in the presence of sunlight where the pollutants undergo complex chemical reactions. It takes time and the influence of meteorological conditions for these reactions to occur, so O<sub>3</sub> may be formed at a distance downwind from the sources. Breathing ground-level O<sub>3</sub> can result health effects that include reduced lung function, inflammation of airways, throat irritation, pain, burning, or discomfort in the chest when taking a deep breath, chest tightness, wheezing, or shortness of breath. In addition to these effects, evidence from observational studies strongly indicates that higher daily O<sub>3</sub> concentrations are associated with increased asthma attacks, increased hospital admissions, increased daily mortality, and other markers of morbidity. The consistency and coherence of the evidence for effects upon asthmatics suggests that O<sub>3</sub> can make asthma symptoms worse and can increase sensitivity to asthma triggers.

According to the SCAQMD's 2016 AQMP, O<sub>3</sub>, NO<sub>x</sub>, and ROG have been decreasing in the SCAB since 1975 and are projected to continue to decrease in the future. Although vehicle miles traveled in the SCAB continue to increase, NO<sub>x</sub> and ROG levels are decreasing because of the mandated controls on motor vehicles and the replacement of older polluting vehicles with lower-emitting vehicles. NO<sub>x</sub> emissions from electric utilities have also decreased due to the use of cleaner fuels and renewable energy. The 2016 AQMP demonstrates how the SCAQMD's control strategy to meet the 8-hour O<sub>3</sub> standard in 2023 would lead to sufficient NO<sub>x</sub> emission reductions to attain the 1-hour O<sub>3</sub> standard by 2022. In addition, since NO<sub>x</sub> emissions also lead to the formation of PM<sub>2.5</sub>, the NO<sub>x</sub> reductions needed to meet the O<sub>3</sub> standards will likewise lead to improvement of PM<sub>2.5</sub> levels and attainment of PM<sub>2.5</sub> standards.

The SCAQMD's air quality modeling demonstrates that NO<sub>x</sub> reductions prove to be much more effective in reducing O<sub>3</sub> levels and will also lead to significant improvement in PM<sub>2.5</sub> concentrations. NO<sub>x</sub>-emitting stationary sources regulated by the SCAQMD include Regional Clean Air Incentives Market (RECLAIM) facilities (e.g., refineries, power plants, etc.), natural gas combustion equipment (e.g., boilers, heaters, engines, burners, flares) and other combustion sources that burn wood or propane. The 2016 AQMP identifies robust NO<sub>x</sub> reductions from new regulations on RECLAIM facilities, non-refinery flares, commercial cooking, and residential and commercial appliances. Such combustion sources are already heavily regulated with the lowest NO<sub>x</sub> emissions levels achievable but there are opportunities to require and accelerate replacement with cleaner zero-emission alternatives, such as residential and commercial

<sup>2</sup> Code of Federal Regulation (CFR) [i.e., PSD (40 CFR 52.21, 40 CFR 51.166, 40 CFR 51.165 (b)), Non-attainment NSR (40 CFR 52.24, 40 CFR 51.165, 40 CFR part 51, Appendix S)]

furnaces, pool heaters, and backup power equipment. The AQMD plans to achieve such replacements through a combination of regulations and incentives. Technology-forcing regulations can drive development and commercialization of clean technologies, with future year requirements for new or existing equipment. Incentives can then accelerate deployment and enhance public acceptability of new technologies.

The 2016 AQMP also emphasizes that beginning in 2012, continued implementation of previously adopted regulations will lead to NO<sub>x</sub> emission reductions of 68 percent by 2023 and 80 percent by 2031. With the addition of 2016 AQMP proposed regulatory measures, a 30 percent reduction of NO<sub>x</sub> from stationary sources is expected in the 15-year period between 2008 and 2023. This is in addition to significant NO<sub>x</sub> reductions from stationary sources achieved in the decades prior to 2008.

As previously discussed, localized effects of on-site Project emissions on nearby receptors for the Project would be less than significant (refer to [Table 11](#) and [Table 12](#)). The LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable state or federal ambient air quality standard. The LSTs were developed by the SCAQMD based on the ambient concentrations of that pollutant for each SRA and distance to the nearest sensitive receptor. The ambient air quality standards establish the levels of air quality necessary, with an adequate margin of safety, to protect public health, including protecting the health of sensitive populations. However, as discussed above, neither the SCAQMD nor any other air district currently have methodologies that would provide Lead Agencies and CEQA practitioners with a consistent, reliable, and meaningful analysis to correlate specific health impacts that may result from a proposed project's mass emissions. Information on health impacts related to exposure to ozone and particulate matter emissions published by the U.S. EPA and CARB have been summarized above and discussed in the Regulatory Framework section. Health studies are used by these agencies to set the Federal and State AAQS. None of the health-related information can be directly correlated to the pounds/day or tons/year of emissions estimated from a single, proposed project. Therefore, without thresholds and standards there is no way to ascertain if there is a significant environmental impact.

### **Carbon Monoxide Hotspots**

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

The SCAB was re-designated as attainment in 2007 and is no longer addressed in the SCAQMD's AQMP. The 2003 AQMP is the most recent version that addresses CO concentrations. As part of the SCAQMD *CO Hotspot Analysis*, the Wilshire Boulevard and Veteran Avenue intersection, one of the most congested intersections in Southern California with an average daily traffic (ADT) volume of approximately 100,000 vehicles per day, was modeled for CO concentrations. This modeling effort identified a CO concentration high of 4.6 ppm, which is well below the 35-ppm Federal standard. The Project considered herein would not produce the volume of traffic required to generate a CO hot spot in the context of SCAQMD's *CO Hotspot Analysis*. As

the CO hotspots were not experienced at the Wilshire Boulevard and Veteran Avenue intersection even as it accommodates 100,000 vehicles daily, it can be reasonably inferred that CO hotspots would not be experienced at any vicinity intersections resulting from 470 additional vehicle trips attributable to the Project. Therefore, impacts would be less than significant.

### **Construction-Related Diesel Particulate Matter**

Construction of the Project would result in the generation of DPM emissions from the use of required off-road diesel equipment required. The amount to which the receptors are exposed (a function of concentration and duration of exposure) is the primary factor used to determine health risk (i.e., potential exposure to TAC emission levels that exceed applicable standards). Health-related risks associated with diesel-exhaust emissions are primarily linked to long-term exposure and the associated risk of contracting cancer.

The use of diesel-powered construction equipment would be temporary and episodic. The duration of exposure would be short and exhaust from construction equipment dissipates rapidly. Current models and methodologies for conducting health risk assessments are associated with longer-term exposure periods of 9, 30, and 70 years, which do not correlate well with the temporary and highly variable nature of construction activities. The California Office of Environmental Health Hazard Assessment (OEHHA) has not identified short-term health effects from DPM. Construction is temporary and would be transient throughout the site (i.e., move from location to location) and would not generate emissions in a fixed location for extended periods of time which would limit the exposure of any proximate individual sensitive receptor to TACs.

Additionally, construction is subject to and would comply with California regulations (e.g., California Code of Regulations, Title 13, Sections 2485 and 2449), which reduce diesel PM and criteria pollutant emissions from in-use off-road diesel-fueled vehicles and limit the idling of heavy-duty construction equipment to no more than five minutes. These regulations would further reduce nearby sensitive receptors' exposure to temporary and variable DPM emissions. Given the temporary and intermittent nature of construction activities likely to occur within specific locations in the Project site (i.e., construction is not likely to occur in any one location for an extended time), the dose of DPM of any one receptor is exposed to would be limited.

Therefore, considering the relatively short duration of DPM-emitting construction activity at any one location, and the highly dispersive properties of DPM, sensitive receptors would not be exposed to substantial concentrations of construction-related TAC emissions. Impacts would be less than significant.

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

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

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

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

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

During construction, emissions from construction equipment, such as diesel exhaust, and volatile organic compounds from architectural coatings and paving activities may generate odors. However, these odors would be temporary, are not expected to affect a substantial number of people and would disperse rapidly. Therefore, impacts related to odors associated with the Project's construction-related activities would be less than significant.

**Operations**

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

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

**Level of Significance:** No impact.

## 6 REFERENCES

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2. California Air Pollution Control Officers Association (CAPCOA), *Health Risk Assessments for Proposed Land Use Projects*, 2009.
3. California Air Resources Board, *Aerometric Data Analysis and Measurement System (ADAM) Top Four Summaries from 2018 to 2020*, 2021.
4. California Air Resources Board, *Air Quality and Land Use Handbook: A Community Health Perspective*, 2005.
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7. California Air Resources Board, *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*, 2000.
8. City of San Bernardino, *City of San Bernardino General Plan*, November 2005.
9. Federal Highway Administration, *Interim Guidance on Mobile Source Air Toxic Analysis in NEPA Documents*, 2016.
10. HPA Architecture, *Site Plan*, 2021.
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12. Southern California Association of Governments, *2020 - 2045 Regional Transportation Plan/Sustainable Communities Strategy*, 2020.
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15. South Coast Air Quality Management District, *Localized Significance Threshold Methodology*, 2008.
16. South Coast Air Quality Management District, *South Coast AQMD Air Quality Significance Thresholds*, April 2019.
17. Translutions, Inc., *Gateway South 8 Warehouse – Trip Impact Analysis*, September 29, 2021.
18. United States Environmental Protection Agency, *Nonattainment Areas for Criteria Pollutants*, 2020.

# Appendix A

## Air Quality Modeling Data

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Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**Alliance GWSB8 Warehouse  
San Bernardino-South Coast County, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	16.00	1000sqft	0.37	16,000.00	0
Unrefrigerated Warehouse-No Rail	288.59	1000sqft	9.43	288,588.00	0
Parking Lot	246.00	Space	2.21	98,400.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	32
<b>Climate Zone</b>	10			<b>Operational Year</b>	2023
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	390.98	<b>CH4 Intensity (lb/MW hr)</b>	0.033	<b>N2O Intensity (lb/MW hr)</b>	0.004

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics -

Land Use - land uses

Construction Phase - Anticipated construction schedule

Trips and VMT -

Demolition -

Grading -

Vehicle Trips - per traffic study

Vehicle Emission Factors - EMFAC 2021

Vehicle Emission Factors - EMFAC 2021

Vehicle Emission Factors - EMFAC 2021

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Area Coating -

Energy Use -

Construction Off-road Equipment Mitigation - SCAQMD Rule compliance

Water Mitigation -

Waste Mitigation - per AB 939

Operational Off-Road Equipment - Forklift for operational

Fleet Mix - fleet mix

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	67.00
tblConstructionPhase	NumDays	300.00	125.00
tblConstructionPhase	NumDays	30.00	60.00
tblConstructionPhase	NumDays	20.00	7.00
tblConstructionPhase	NumDays	10.00	7.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.62
tblFleetMix	LDA	0.54	0.55
tblFleetMix	LDA	0.54	0.00
tblFleetMix	LDT1	0.06	0.07
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT2	0.17	0.19
tblFleetMix	LDT2	0.17	0.00
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD2	7.1960e-003	0.00
tblFleetMix	LHD2	7.1960e-003	0.17
tblFleetMix	MCY	0.03	0.03
tblFleetMix	MCY	0.03	0.00
tblFleetMix	MDV	0.14	0.16
tblFleetMix	MDV	0.14	0.00
tblFleetMix	MH	5.0710e-003	0.00
tblFleetMix	MH	5.0710e-003	0.00
tblFleetMix	MHD	0.01	0.00

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

tblFleetMix	MHD	0.01	0.21
tblFleetMix	OBUS	5.5900e-004	0.00
tblFleetMix	OBUS	5.5900e-004	0.00
tblFleetMix	SBUS	9.5400e-004	0.00
tblFleetMix	SBUS	9.5400e-004	0.00
tblFleetMix	UBUS	2.5400e-004	0.00
tblFleetMix	UBUS	2.5400e-004	0.00
tblGrading	AcresOfGrading	180.00	90.00
tblGrading	AcresOfGrading	10.50	15.00
tblGrading	MaterialImported	0.00	500.00
tblLandUse	LandUseSquareFeet	288,590.00	288,588.00
tblLandUse	LotAcreage	6.63	9.43
tblOperationalOffRoadEquipment	OperFuelType	Diesel	CNG
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	6.00
tblVehicleTrips	CC_TTP	48.00	0.00
tblVehicleTrips	CNW_TL	6.90	40.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	41.00	100.00
tblVehicleTrips	CW_TTP	33.00	100.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	2.21	23.19
tblVehicleTrips	ST_TR	1.74	0.34
tblVehicleTrips	SU_TR	0.70	23.19

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

tblVehicleTrips	SU_TR	1.74	0.34
tblVehicleTrips	WD_TR	9.74	23.19
tblVehicleTrips	WD_TR	1.74	0.34

**2.0 Emissions Summary**

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	45.4320	39.0402	29.9028	0.0648	20.5400	1.6376	22.1536	10.2294	1.5066	11.7140	0.0000	6,288.5730	6,288.5730	1.9526	0.2482	6,368.3435
Maximum	45.4320	39.0402	29.9028	0.0648	20.5400	1.6376	22.1536	10.2294	1.5066	11.7140	0.0000	6,288.5730	6,288.5730	1.9526	0.2482	6,368.3435

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	45.4320	39.0402	29.9028	0.0648	7.7262	1.6376	9.3398	3.8210	1.5066	5.3056	0.0000	6,288.5730	6,288.5730	1.9526	0.2482	6,368.3435
Maximum	45.4320	39.0402	29.9028	0.0648	7.7262	1.6376	9.3398	3.8210	1.5066	5.3056	0.0000	6,288.5730	6,288.5730	1.9526	0.2482	6,368.3435

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	62.38	0.00	57.84	62.65	0.00	54.71	0.00	0.00	0.00	0.00	0.00	0.00

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.8520	5.1000e-004	0.0562	0.0000		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		0.1205	0.1205	3.2000e-004		0.1284
Energy	0.0188	0.1706	0.1433	1.0200e-003		0.0130	0.0130		0.0130	0.0130		204.6549	204.6549	3.9200e-003	3.7500e-003	205.8711
Mobile	2.0355	17.1400	25.5290	0.1346	8.1896	0.1950	8.3846	2.2293	0.1857	2.4150		14,269.6620	14,269.6620	0.5236	1.5743	14,751.8900
Offroad	0.0873	4.2560	55.6126	9.1700e-003		0.0686	0.0686		0.0686	0.0686	0.0000	1,160.1951	1,160.1951	0.3752		1,169.5758



Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Total	8.9936	21.5671	81.3411	0.1448	8.1896	0.2768	8.4664	2.2293	0.2675	2.4968	0.0000	15,634.6325	15,634.6325	0.9031	1.5780	16,127.4653
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Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.8520	5.1000e-004	0.0562	0.0000		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		0.1205	0.1205	3.2000e-004		0.1284
Energy	0.0188	0.1706	0.1433	1.0200e-003		0.0130	0.0130		0.0130	0.0130		204.6549	204.6549	3.9200e-003	3.7500e-003	205.8711
Mobile	2.0355	17.1400	25.5290	0.1346	8.1896	0.1950	8.3846	2.2293	0.1857	2.4150		14,269.6620	14,269.6620	0.5236	1.5743	14,751.8900
Offroad	0.0873	4.2560	55.6126	9.1700e-003		0.0686	0.0686		0.0686	0.0686	0.0000	1,160.1951	1,160.1951	0.3752		1,169.5758
<b>Total</b>	<b>8.9936</b>	<b>21.5671</b>	<b>81.3411</b>	<b>0.1448</b>	<b>8.1896</b>	<b>0.2768</b>	<b>8.4664</b>	<b>2.2293</b>	<b>0.2675</b>	<b>2.4968</b>	<b>0.0000</b>	<b>15,634.6325</b>	<b>15,634.6325</b>	<b>0.9031</b>	<b>1.5780</b>	<b>16,127.4653</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2022	1/28/2022	5	20	
2	Site Preparation	Site Preparation	1/29/2022	2/8/2022	5	7	
3	Paving	Paving	2/9/2022	2/17/2022	5	7	
4	Grading	Grading	2/18/2022	5/12/2022	5	60	

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

5	Building Construction	Building Construction	5/13/2022	11/3/2022	5	125
6	Architectural Coating	Architectural Coating	8/3/2022	11/3/2022	5	67

**Acres of Grading (Site Preparation Phase): 15**

**Acres of Grading (Grading Phase): 90**

**Acres of Paving: 2.21**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 456,882; Non-Residential Outdoor: 152,294; Striped Parking Area: 5,904 (Architectural**

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class	
Demolition		6	15.00	0.00	236.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation		7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving		6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading		8	20.00	0.00	63.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction		9	168.00	66.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating		1	34.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

**3.2 Demolition - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.5495	0.0000	2.5495	0.3860	0.0000	0.3860			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553		3,746.7812	3,746.7812	1.0524		3,773.0920
<b>Total</b>	<b>2.6392</b>	<b>25.7194</b>	<b>20.5941</b>	<b>0.0388</b>	<b>2.5495</b>	<b>1.2427</b>	<b>3.7921</b>	<b>0.3860</b>	<b>1.1553</b>	<b>1.5413</b>		<b>3,746.7812</b>	<b>3,746.7812</b>	<b>1.0524</b>		<b>3,773.0920</b>

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0446	1.6082	0.4196	6.9400e-003	0.2067	0.0169	0.2235	0.0567	0.0162	0.0728		755.7488	755.7488	0.0324	0.1198	792.2469
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0635	0.0402	0.6179	1.5500e-003	0.1677	8.8000e-004	0.1685	0.0445	8.1000e-004	0.0453		157.4352	157.4352	4.0900e-003	3.9200e-003	158.7050
<b>Total</b>	<b>0.1082</b>	<b>1.6485</b>	<b>1.0376</b>	<b>8.4900e-003</b>	<b>0.3743</b>	<b>0.0178</b>	<b>0.3921</b>	<b>0.1011</b>	<b>0.0170</b>	<b>0.1181</b>		<b>913.1840</b>	<b>913.1840</b>	<b>0.0365</b>	<b>0.1237</b>	<b>950.9519</b>

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.9446	0.0000	0.9446	0.1430	0.0000	0.1430			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553	0.0000	3,746.7812	3,746.7812	1.0524		3,773.0920
<b>Total</b>	<b>2.6392</b>	<b>25.7194</b>	<b>20.5941</b>	<b>0.0388</b>	<b>0.9446</b>	<b>1.2427</b>	<b>2.1872</b>	<b>0.1430</b>	<b>1.1553</b>	<b>1.2983</b>	<b>0.0000</b>	<b>3,746.7812</b>	<b>3,746.7812</b>	<b>1.0524</b>		<b>3,773.0920</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0446	1.6082	0.4196	6.9400e-003	0.1973	0.0169	0.2142	0.0544	0.0162	0.0705		755.7488	755.7488	0.0324	0.1198	792.2469
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0635	0.0402	0.6179	1.5500e-003	0.1589	8.8000e-004	0.1598	0.0423	8.1000e-004	0.0431		157.4352	157.4352	4.0900e-003	3.9200e-003	158.7050
<b>Total</b>	<b>0.1082</b>	<b>1.6485</b>	<b>1.0376</b>	<b>8.4900e-003</b>	<b>0.3562</b>	<b>0.0178</b>	<b>0.3740</b>	<b>0.0967</b>	<b>0.0170</b>	<b>0.1137</b>		<b>913.1840</b>	<b>913.1840</b>	<b>0.0365</b>	<b>0.1237</b>	<b>950.9519</b>

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Site Preparation - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					20.3388	0.0000	20.3388	10.1761	0.0000	10.1761			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
<b>Total</b>	<b>3.1701</b>	<b>33.0835</b>	<b>19.6978</b>	<b>0.0380</b>	<b>20.3388</b>	<b>1.6126</b>	<b>21.9513</b>	<b>10.1761</b>	<b>1.4836</b>	<b>11.6596</b>		<b>3,686.0619</b>	<b>3,686.0619</b>	<b>1.1922</b>		<b>3,715.8655</b>



Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0762	0.0483	0.7415	1.8600e-003	0.2012	1.0600e-003	0.2023	0.0534	9.7000e-004	0.0543		188.9222	188.9222	4.9100e-003	4.7000e-003	190.4461
<b>Total</b>	<b>0.0762</b>	<b>0.0483</b>	<b>0.7415</b>	<b>1.8600e-003</b>	<b>0.2012</b>	<b>1.0600e-003</b>	<b>0.2023</b>	<b>0.0534</b>	<b>9.7000e-004</b>	<b>0.0543</b>		<b>188.9222</b>	<b>188.9222</b>	<b>4.9100e-003</b>	<b>4.7000e-003</b>	<b>190.4461</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.5355	0.0000	7.5355	3.7702	0.0000	3.7702			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
<b>Total</b>	<b>3.1701</b>	<b>33.0835</b>	<b>19.6978</b>	<b>0.0380</b>	<b>7.5355</b>	<b>1.6126</b>	<b>9.1481</b>	<b>3.7702</b>	<b>1.4836</b>	<b>5.2538</b>	<b>0.0000</b>	<b>3,686.0619</b>	<b>3,686.0619</b>	<b>1.1922</b>		<b>3,715.8655</b>

**Mitigated Construction Off-Site**

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0762	0.0483	0.7415	1.8600e-003	0.1907	1.0600e-003	0.1918	0.0508	9.7000e-004	0.0518		188.9222	188.9222	4.9100e-003	4.7000e-003	190.4461
<b>Total</b>	<b>0.0762</b>	<b>0.0483</b>	<b>0.7415</b>	<b>1.8600e-003</b>	<b>0.1907</b>	<b>1.0600e-003</b>	<b>0.1918</b>	<b>0.0508</b>	<b>9.7000e-004</b>	<b>0.0518</b>		<b>188.9222</b>	<b>188.9222</b>	<b>4.9100e-003</b>	<b>4.7000e-003</b>	<b>190.4461</b>

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Paving - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.8272					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.9300</b>	<b>11.1249</b>	<b>14.5805</b>	<b>0.0228</b>		<b>0.5679</b>	<b>0.5679</b>		<b>0.5225</b>	<b>0.5225</b>		<b>2,207.6603</b>	<b>2,207.6603</b>	<b>0.7140</b>		<b>2,225.5104</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0635	0.0402	0.6179	1.5500e-003	0.1677	8.8000e-004	0.1685	0.0445	8.1000e-004	0.0453		157.4352	157.4352	4.0900e-003	3.9200e-003	158.7050
<b>Total</b>	<b>0.0635</b>	<b>0.0402</b>	<b>0.6179</b>	<b>1.5500e-003</b>	<b>0.1677</b>	<b>8.8000e-004</b>	<b>0.1685</b>	<b>0.0445</b>	<b>8.1000e-004</b>	<b>0.0453</b>		<b>157.4352</b>	<b>157.4352</b>	<b>4.0900e-003</b>	<b>3.9200e-003</b>	<b>158.7050</b>

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.8272					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.9300</b>	<b>11.1249</b>	<b>14.5805</b>	<b>0.0228</b>		<b>0.5679</b>	<b>0.5679</b>		<b>0.5225</b>	<b>0.5225</b>	<b>0.0000</b>	<b>2,207.6603</b>	<b>2,207.6603</b>	<b>0.7140</b>		<b>2,225.5104</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0635	0.0402	0.6179	1.5500e-003	0.1589	8.8000e-004	0.1598	0.0423	8.1000e-004	0.0431		157.4352	157.4352	4.0900e-003	3.9200e-003	158.7050
<b>Total</b>	<b>0.0635</b>	<b>0.0402</b>	<b>0.6179</b>	<b>1.5500e-003</b>	<b>0.1589</b>	<b>8.8000e-004</b>	<b>0.1598</b>	<b>0.0423</b>	<b>8.1000e-004</b>	<b>0.0431</b>		<b>157.4352</b>	<b>157.4352</b>	<b>4.0900e-003</b>	<b>3.9200e-003</b>	<b>158.7050</b>

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.6138	0.0000	7.6138	3.4821	0.0000	3.4821			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
<b>Total</b>	<b>3.6248</b>	<b>38.8435</b>	<b>29.0415</b>	<b>0.0621</b>	<b>7.6138</b>	<b>1.6349</b>	<b>9.2487</b>	<b>3.4821</b>	<b>1.5041</b>	<b>4.9862</b>		<b>6,011.4105</b>	<b>6,011.4105</b>	<b>1.9442</b>		<b>6,060.0158</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.9700e-003	0.1431	0.0373	6.2000e-004	0.0184	1.5000e-003	0.0199	5.0400e-003	1.4400e-003	6.4800e-003		67.2488	67.2488	2.8800e-003	0.0107	70.4965
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0847	0.0537	0.8239	2.0600e-003	0.2236	1.1700e-003	0.2247	0.0593	1.0800e-003	0.0604		209.9136	209.9136	5.4600e-003	5.2200e-003	211.6067
<b>Total</b>	<b>0.0887</b>	<b>0.1968</b>	<b>0.8613</b>	<b>2.6800e-003</b>	<b>0.2419</b>	<b>2.6700e-003</b>	<b>0.2446</b>	<b>0.0643</b>	<b>2.5200e-003</b>	<b>0.0669</b>		<b>277.1624</b>	<b>277.1624</b>	<b>8.3400e-003</b>	<b>0.0159</b>	<b>282.1033</b>

**Mitigated Construction On-Site**

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.8209	0.0000	2.8209	1.2901	0.0000	1.2901			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
<b>Total</b>	<b>3.6248</b>	<b>38.8435</b>	<b>29.0415</b>	<b>0.0621</b>	<b>2.8209</b>	<b>1.6349</b>	<b>4.4558</b>	<b>1.2901</b>	<b>1.5041</b>	<b>2.7942</b>	<b>0.0000</b>	<b>6,011.4105</b>	<b>6,011.4105</b>	<b>1.9442</b>		<b>6,060.0158</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.9700e-003	0.1431	0.0373	6.2000e-004	0.0176	1.5000e-003	0.0191	4.8400e-003	1.4400e-003	6.2800e-003		67.2488	67.2488	2.8800e-003	0.0107	70.4965
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0847	0.0537	0.8239	2.0600e-003	0.2119	1.1700e-003	0.2131	0.0564	1.0800e-003	0.0575		209.9136	209.9136	5.4600e-003	5.2200e-003	211.6067
<b>Total</b>	<b>0.0887</b>	<b>0.1968</b>	<b>0.8613</b>	<b>2.6800e-003</b>	<b>0.2295</b>	<b>2.6700e-003</b>	<b>0.2321</b>	<b>0.0613</b>	<b>2.5200e-003</b>	<b>0.0638</b>		<b>277.1624</b>	<b>277.1624</b>	<b>8.3400e-003</b>	<b>0.0159</b>	<b>282.1033</b>

**3.6 Building Construction - 2022**

**Unmitigated Construction On-Site**

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
<b>Total</b>	<b>1.7062</b>	<b>15.6156</b>	<b>16.3634</b>	<b>0.0269</b>		<b>0.8090</b>	<b>0.8090</b>		<b>0.7612</b>	<b>0.7612</b>		<b>2,554.3336</b>	<b>2,554.3336</b>	<b>0.6120</b>		<b>2,569.6322</b>

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1150	2.8901	1.0607	0.0123	0.4229	0.0344	0.4572	0.1218	0.0329	0.1547		1,320.4543	1,320.4543	0.0357	0.1954	1,379.5772
Worker	0.7115	0.4507	6.9209	0.0173	1.8778	9.8600e-003	1.8877	0.4980	9.0800e-003	0.5071		1,763.2741	1,763.2741	0.0459	0.0439	1,777.4965
<b>Total</b>	<b>0.8265</b>	<b>3.3408</b>	<b>7.9816</b>	<b>0.0297</b>	<b>2.3007</b>	<b>0.0443</b>	<b>2.3449</b>	<b>0.6198</b>	<b>0.0420</b>	<b>0.6618</b>		<b>3,083.7284</b>	<b>3,083.7284</b>	<b>0.0815</b>	<b>0.2393</b>	<b>3,157.0737</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
<b>Total</b>	<b>1.7062</b>	<b>15.6156</b>	<b>16.3634</b>	<b>0.0269</b>		<b>0.8090</b>	<b>0.8090</b>		<b>0.7612</b>	<b>0.7612</b>	<b>0.0000</b>	<b>2,554.3336</b>	<b>2,554.3336</b>	<b>0.6120</b>		<b>2,569.6322</b>

**Mitigated Construction Off-Site**



Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1150	2.8901	1.0607	0.0123	0.4048	0.0344	0.4392	0.1173	0.0329	0.1502		1,320.4543	1,320.4543	0.0357	0.1954	1,379.5772
Worker	0.7115	0.4507	6.9209	0.0173	1.7799	9.8600e-003	1.7898	0.4740	9.0800e-003	0.4831		1,763.2741	1,763.2741	0.0459	0.0439	1,777.4965
<b>Total</b>	<b>0.8265</b>	<b>3.3408</b>	<b>7.9816</b>	<b>0.0297</b>	<b>2.1847</b>	<b>0.0443</b>	<b>2.2289</b>	<b>0.5913</b>	<b>0.0420</b>	<b>0.6333</b>		<b>3,083.7284</b>	<b>3,083.7284</b>	<b>0.0815</b>	<b>0.2393</b>	<b>3,157.0737</b>

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.7 Architectural Coating - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	42.5507					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
<b>Total</b>	<b>42.7552</b>	<b>1.4085</b>	<b>1.8136</b>	<b>2.9700e-003</b>		<b>0.0817</b>	<b>0.0817</b>		<b>0.0817</b>	<b>0.0817</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0183</b>		<b>281.9062</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1440	0.0912	1.4007	3.5100e-003	0.3800	2.0000e-003	0.3820	0.1008	1.8400e-003	0.1026		356.8531	356.8531	9.2800e-003	8.8800e-003	359.7314
<b>Total</b>	<b>0.1440</b>	<b>0.0912</b>	<b>1.4007</b>	<b>3.5100e-003</b>	<b>0.3800</b>	<b>2.0000e-003</b>	<b>0.3820</b>	<b>0.1008</b>	<b>1.8400e-003</b>	<b>0.1026</b>		<b>356.8531</b>	<b>356.8531</b>	<b>9.2800e-003</b>	<b>8.8800e-003</b>	<b>359.7314</b>

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	42.5507					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
<b>Total</b>	<b>42.7552</b>	<b>1.4085</b>	<b>1.8136</b>	<b>2.9700e-003</b>		<b>0.0817</b>	<b>0.0817</b>		<b>0.0817</b>	<b>0.0817</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0183</b>		<b>281.9062</b>

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1440	0.0912	1.4007	3.5100e-003	0.3602	2.0000e-003	0.3622	0.0959	1.8400e-003	0.0978		356.8531	356.8531	9.2800e-003	8.8800e-003	359.7314
<b>Total</b>	<b>0.1440</b>	<b>0.0912</b>	<b>1.4007</b>	<b>3.5100e-003</b>	<b>0.3602</b>	<b>2.0000e-003</b>	<b>0.3622</b>	<b>0.0959</b>	<b>1.8400e-003</b>	<b>0.0978</b>		<b>356.8531</b>	<b>356.8531</b>	<b>9.2800e-003</b>	<b>8.8800e-003</b>	<b>359.7314</b>

**4.0 Operational Detail - Mobile**

**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.0355	17.1400	25.5290	0.1346	8.1896	0.1950	8.3846	2.2293	0.1857	2.4150		14,269.6620	14,269.6620	0.5236	1.5743	14,751.8900
Unmitigated	2.0355	17.1400	25.5290	0.1346	8.1896	0.1950	8.3846	2.2293	0.1857	2.4150		14,269.6620	14,269.6620	0.5236	1.5743	14,751.8900

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated Annual VMT	Mitigated Annual VMT
	Weekday	Saturday	Sunday		
General Office Building	371.04	371.04	371.04	2,241,972	2,241,972
Parking Lot	0.00	0.00	0.00		

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Unrefrigerated Warehouse-No Rail	98.12	98.12	98.12	1,428,636	1,428,636
<b>Total</b>	<b>469.16</b>	<b>469.16</b>	<b>469.16</b>	<b>3,670,608</b>	<b>3,670,608</b>

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	16.60	8.40	6.90	100.00	0.00	0.00	100	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No Rail	16.60	8.40	40.00	0.00	0.00	100.00	100	0	0

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.552018	0.073360	0.189757	0.159343	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.025522	0.000000	0.000000
Parking Lot	0.537785	0.055838	0.172353	0.139003	0.027005	0.007196	0.011392	0.017285	0.000559	0.000254	0.025303	0.000954	0.005071
Unrefrigerated Warehouse-No Rail	0.000000	0.000000	0.000000	0.000000	0.000000	0.173077	0.211538	0.615385	0.000000	0.000000	0.000000	0.000000	0.000000

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0188	0.1706	0.1433	1.0200e-003		0.0130	0.0130		0.0130	0.0130		204.6549	204.6549	3.9200e-003	3.7500e-003	205.8711
NaturalGas Unmitigated	0.0188	0.1706	0.1433	1.0200e-003		0.0130	0.0130		0.0130	0.0130		204.6549	204.6549	3.9200e-003	3.7500e-003	205.8711

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	150.356	1.6200e-003	0.0147	0.0124	9.0000e-005		1.1200e-003	1.1200e-003		1.1200e-003	1.1200e-003		17.6890	17.6890	3.4000e-004	3.2000e-004	17.7941

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail:	1589.21	0.0171	0.1558	0.1309	9.3000e-004		0.0118	0.0118		0.0118	0.0118		186.9660	186.9660	3.5800e-003	3.4300e-003	188.0770
<b>Total</b>		<b>0.0188</b>	<b>0.1705</b>	<b>0.1433</b>	<b>1.0200e-003</b>		<b>0.0130</b>	<b>0.0130</b>		<b>0.0130</b>	<b>0.0130</b>		<b>204.6549</b>	<b>204.6549</b>	<b>3.9200e-003</b>	<b>3.7500e-003</b>	<b>205.8711</b>

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	0.150356	1.6200e-003	0.0147	0.0124	9.0000e-005		1.1200e-003	1.1200e-003		1.1200e-003	1.1200e-003		17.6890	17.6890	3.4000e-004	3.2000e-004	17.7941
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	1.58921	0.0171	0.1558	0.1309	9.3000e-004		0.0118	0.0118		0.0118	0.0118		186.9660	186.9660	3.5800e-003	3.4300e-003	188.0770
<b>Total</b>		<b>0.0188</b>	<b>0.1705</b>	<b>0.1433</b>	<b>1.0200e-003</b>		<b>0.0130</b>	<b>0.0130</b>		<b>0.0130</b>	<b>0.0130</b>		<b>204.6549</b>	<b>204.6549</b>	<b>3.9200e-003</b>	<b>3.7500e-003</b>	<b>205.8711</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.8520	5.1000e-004	0.0562	0.0000		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		0.1205	0.1205	3.2000e-004		0.1284
Unmitigated	6.8520	5.1000e-004	0.0562	0.0000		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		0.1205	0.1205	3.2000e-004		0.1284

**6.2 Area by SubCategory**

**Unmitigated**



Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7811					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.0657					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.2100e-003	5.1000e-004	0.0562	0.0000		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		0.1205	0.1205	3.2000e-004		0.1284
<b>Total</b>	<b>6.8520</b>	<b>5.1000e-004</b>	<b>0.0562</b>	<b>0.0000</b>		<b>2.0000e-004</b>	<b>2.0000e-004</b>		<b>2.0000e-004</b>	<b>2.0000e-004</b>		<b>0.1205</b>	<b>0.1205</b>	<b>3.2000e-004</b>		<b>0.1284</b>

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7811					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.0657					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.2100e-003	5.1000e-004	0.0562	0.0000		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		0.1205	0.1205	3.2000e-004		0.1284
<b>Total</b>	<b>6.8520</b>	<b>5.1000e-004</b>	<b>0.0562</b>	<b>0.0000</b>		<b>2.0000e-004</b>	<b>2.0000e-004</b>		<b>2.0000e-004</b>	<b>2.0000e-004</b>		<b>0.1205</b>	<b>0.1205</b>	<b>3.2000e-004</b>		<b>0.1284</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

- Institute Recycling and Composting Services

**9.0 Operational Offroad**

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	6	8.00	260	89	0.20	CNG

**UnMitigated/Mitigated**

Equipment Type	ROG	NOx	CO	SO2	Fugitive PM10 lb/day	Exhaust PM10 lb/day	PM10 Total lb/day	Fugitive PM2.5 lb/day	Exhaust PM2.5 lb/day	PM2.5 Total lb/day	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Forklifts	0.0873	4.2560	55.6126	9.1700e-003		0.0686	0.0686		0.0686	0.0686	0.0000	1,160.1951	1,160.1951	0.3752		1,169.5758
<b>Total</b>	<b>0.0873</b>	<b>4.2560</b>	<b>55.6126</b>	<b>9.1700e-003</b>		<b>0.0686</b>	<b>0.0686</b>		<b>0.0686</b>	<b>0.0686</b>	<b>0.0000</b>	<b>1,160.1951</b>	<b>1,160.1951</b>	<b>0.3752</b>		<b>1,169.5758</b>

**10.0 Stationary Equipment**

**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**Alliance GWSB8 Warehouse  
San Bernardino-South Coast County, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	16.00	1000sqft	0.37	16,000.00	0
Unrefrigerated Warehouse-No Rail	288.59	1000sqft	9.43	288,588.00	0
Parking Lot	246.00	Space	2.21	98,400.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	32
<b>Climate Zone</b>	10			<b>Operational Year</b>	2023
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	390.98	<b>CH4 Intensity (lb/MW hr)</b>	0.033	<b>N2O Intensity (lb/MW hr)</b>	0.004

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics -

Land Use - land uses

Construction Phase - Anticipated construction schedule

Trips and VMT -

Demolition -

Grading -

Vehicle Trips - per traffic study

Vehicle Emission Factors - EMFAC 2021

Vehicle Emission Factors - EMFAC 2021

Vehicle Emission Factors - EMFAC 2021

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Area Coating -

Energy Use -

Construction Off-road Equipment Mitigation - SCAQMD Rule compliance

Water Mitigation -

Waste Mitigation - per AB 939

Operational Off-Road Equipment - Forklift for operational

Fleet Mix - fleet mix

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	7.00
tblConstructionPhase	NumDays	30.00	60.00
tblConstructionPhase	NumDays	300.00	125.00
tblConstructionPhase	NumDays	20.00	7.00
tblConstructionPhase	NumDays	20.00	67.00
tblConstructionPhase	PhaseEndDate	2/11/2022	2/8/2022
tblConstructionPhase	PhaseEndDate	3/25/2022	5/12/2022
tblConstructionPhase	PhaseEndDate	5/19/2023	11/3/2022
tblConstructionPhase	PhaseEndDate	6/16/2023	2/17/2022
tblConstructionPhase	PhaseEndDate	7/14/2023	11/3/2022
tblConstructionPhase	PhaseStartDate	2/12/2022	2/18/2022
tblConstructionPhase	PhaseStartDate	3/26/2022	5/13/2022
tblConstructionPhase	PhaseStartDate	5/20/2023	2/9/2022
tblConstructionPhase	PhaseStartDate	6/17/2023	8/3/2022
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.62
tblFleetMix	LDA	0.54	0.55

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

tblFleetMix	LDA	0.54	0.00
tblFleetMix	LDT1	0.06	0.07
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT2	0.17	0.19
tblFleetMix	LDT2	0.17	0.00
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD2	7.1960e-003	0.00
tblFleetMix	LHD2	7.1960e-003	0.17
tblFleetMix	MCY	0.03	0.03
tblFleetMix	MCY	0.03	0.00
tblFleetMix	MDV	0.14	0.16
tblFleetMix	MDV	0.14	0.00
tblFleetMix	MH	5.0710e-003	0.00
tblFleetMix	MH	5.0710e-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	MHD	0.01	0.21
tblFleetMix	OBUS	5.5900e-004	0.00
tblFleetMix	OBUS	5.5900e-004	0.00
tblFleetMix	SBUS	9.5400e-004	0.00
tblFleetMix	SBUS	9.5400e-004	0.00
tblFleetMix	UBUS	2.5400e-004	0.00
tblFleetMix	UBUS	2.5400e-004	0.00
tblGrading	MaterialImported	0.00	500.00
tblLandUse	LandUseSquareFeet	288,590.00	288,588.00
tblLandUse	LotAcreage	6.63	9.43
tblOperationalOffRoadEquipment	OperFuelType	Diesel	CNG
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	6.00
tblVehicleTrips	CC_TTP	48.00	0.00

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

tblVehicleTrips	CNW_TL	6.90	40.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	41.00	100.00
tblVehicleTrips	CW_TTP	33.00	100.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	2.21	23.19
tblVehicleTrips	ST_TR	1.74	0.34
tblVehicleTrips	SU_TR	0.70	23.19
tblVehicleTrips	SU_TR	1.74	0.34
tblVehicleTrips	WD_TR	9.74	23.19
tblVehicleTrips	WD_TR	1.74	0.34

**2.0 Emissions Summary**

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	45.3938	39.0502	29.7565	0.0646	28.2826	1.6376	29.8963	14.4854	1.5066	15.9700	0.0000	6,268.8274	6,268.8274	1.9525	0.2502	6,322.4259

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Maximum	45.3938	39.0502	29.7565	0.0646	28.2826	1.6376	29.8963	14.4854	1.5066	15.9700	0.0000	6,268.8274	6,268.8274	1.9525	0.2502	6,322.4259
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Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	45.3938	39.0502	29.7565	0.0646	10.5949	1.6376	12.2085	5.3979	1.5066	6.8824	0.0000	6,268.8274	6,268.8274	1.9525	0.2502	6,322.4259
Maximum	45.3938	39.0502	29.7565	0.0646	10.5949	1.6376	12.2085	5.3979	1.5066	6.8824	0.0000	6,268.8274	6,268.8274	1.9525	0.2502	6,322.4259

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	62.54	0.00	59.16	62.74	0.00	56.90	0.00	0.00	0.00	0.00	0.00	0.00

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.8520	5.1000e-004	0.0562	0.0000		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		0.1205	0.1205	3.2000e-004		0.1284
Energy	0.0188	0.1706	0.1433	1.0200e-003		0.0130	0.0130		0.0130	0.0130		204.6549	204.6549	3.9200e-003	3.7500e-003	205.8711
Mobile	1.8466	18.0202	22.6713	0.1308	8.1896	0.1951	8.3847	2.2293	0.1859	2.4151		13,883.9800	13,883.9800	0.5239	1.5808	14,368.1553

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Offroad	0.0873	4.2560	55.6126	9.1700e-003		0.0686	0.0686		0.0686	0.0686	0.0000	1,160.1951	1,160.1951	0.3752		1,169.5758
<b>Total</b>	<b>8.8046</b>	<b>22.4472</b>	<b>78.4834</b>	<b>0.1410</b>	<b>8.1896</b>	<b>0.2769</b>	<b>8.4665</b>	<b>2.2293</b>	<b>0.2677</b>	<b>2.4969</b>	<b>0.0000</b>	<b>15,248.9505</b>	<b>15,248.9505</b>	<b>0.9034</b>	<b>1.5846</b>	<b>15,743.7306</b>

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.8520	5.1000e-004	0.0562	0.0000		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		0.1205	0.1205	3.2000e-004		0.1284
Energy	0.0188	0.1706	0.1433	1.0200e-003		0.0130	0.0130		0.0130	0.0130		204.6549	204.6549	3.9200e-003	3.7500e-003	205.8711
Mobile	1.8466	18.0202	22.6713	0.1308	8.1896	0.1951	8.3847	2.2293	0.1859	2.4151		13,883.9800	13,883.9800	0.5239	1.5808	14,368.1553
Offroad	0.0873	4.2560	55.6126	9.1700e-003		0.0686	0.0686		0.0686	0.0686	0.0000	1,160.1951	1,160.1951	0.3752		1,169.5758
<b>Total</b>	<b>8.8046</b>	<b>22.4472</b>	<b>78.4834</b>	<b>0.1410</b>	<b>8.1896</b>	<b>0.2769</b>	<b>8.4665</b>	<b>2.2293</b>	<b>0.2677</b>	<b>2.4969</b>	<b>0.0000</b>	<b>15,248.9505</b>	<b>15,248.9505</b>	<b>0.9034</b>	<b>1.5846</b>	<b>15,743.7306</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2022	1/28/2022	5	20	
2	Site Preparation	Site Preparation	1/29/2022	2/8/2022	5	7	
3	Paving	Paving	2/9/2022	2/17/2022	5	7	
4	Grading	Grading	2/18/2022	5/12/2022	5	60	

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

5	Building Construction	Building Construction	5/13/2022	11/3/2022	5	125
6	Architectural Coating	Architectural Coating	8/3/2022	11/3/2022	5	67

**Acres of Grading (Site Preparation Phase): 15**

**Acres of Grading (Grading Phase): 90**

**Acres of Paving: 2.21**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 456,882; Non-Residential Outdoor: 152,294; Striped Parking Area: 5,904 (Architectural**

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Scrapers	2	8.00	367	0.48

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	236.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	63.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Building Construction	9	168.00	66.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	34.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.2 Demolition - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.5495	0.0000	2.5495	0.3860	0.0000	0.3860			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553		3,746.7812	3,746.7812	1.0524		3,773.0920
<b>Total</b>	<b>2.6392</b>	<b>25.7194</b>	<b>20.5941</b>	<b>0.0388</b>	<b>2.5495</b>	<b>1.2427</b>	<b>3.7921</b>	<b>0.3860</b>	<b>1.1553</b>	<b>1.5413</b>		<b>3,746.7812</b>	<b>3,746.7812</b>	<b>1.0524</b>		<b>3,773.0920</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0428	1.6886	0.4291	6.9500e-003	0.2067	0.0169	0.2236	0.0567	0.0162	0.0729		756.3131	756.3131	0.0323	0.1199	792.8356
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0610	0.0423	0.5076	1.4000e-003	0.1677	8.8000e-004	0.1685	0.0445	8.1000e-004	0.0453		142.5884	142.5884	4.0800e-003	4.0400e-003	143.8959
<b>Total</b>	<b>0.1038</b>	<b>1.7309</b>	<b>0.9367</b>	<b>8.3500e-003</b>	<b>0.3743</b>	<b>0.0178</b>	<b>0.3921</b>	<b>0.1011</b>	<b>0.0170</b>	<b>0.1181</b>		<b>898.9014</b>	<b>898.9014</b>	<b>0.0364</b>	<b>0.1239</b>	<b>936.7314</b>

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.9446	0.0000	0.9446	0.1430	0.0000	0.1430			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553	0.0000	3,746.7812	3,746.7812	1.0524		3,773.0920
<b>Total</b>	<b>2.6392</b>	<b>25.7194</b>	<b>20.5941</b>	<b>0.0388</b>	<b>0.9446</b>	<b>1.2427</b>	<b>2.1872</b>	<b>0.1430</b>	<b>1.1553</b>	<b>1.2983</b>	<b>0.0000</b>	<b>3,746.7812</b>	<b>3,746.7812</b>	<b>1.0524</b>		<b>3,773.0920</b>



Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0428	1.6886	0.4291	6.9500e-003	0.1973	0.0169	0.2142	0.0544	0.0162	0.0706		756.3131	756.3131	0.0323	0.1199	792.8356
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0610	0.0423	0.5076	1.4000e-003	0.1589	8.8000e-004	0.1598	0.0423	8.1000e-004	0.0431		142.5884	142.5884	4.0800e-003	4.0400e-003	143.8959
<b>Total</b>	<b>0.1038</b>	<b>1.7309</b>	<b>0.9367</b>	<b>8.3500e-003</b>	<b>0.3562</b>	<b>0.0178</b>	<b>0.3740</b>	<b>0.0967</b>	<b>0.0170</b>	<b>0.1137</b>		<b>898.9014</b>	<b>898.9014</b>	<b>0.0364</b>	<b>0.1239</b>	<b>936.7314</b>

**3.3 Site Preparation - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					28.0814	0.0000	28.0814	14.4321	0.0000	14.4321			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
<b>Total</b>	<b>3.1701</b>	<b>33.0835</b>	<b>19.6978</b>	<b>0.0380</b>	<b>28.0814</b>	<b>1.6126</b>	<b>29.6940</b>	<b>14.4321</b>	<b>1.4836</b>	<b>15.9156</b>		<b>3,686.0619</b>	<b>3,686.0619</b>	<b>1.1922</b>		<b>3,715.8655</b>

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0732	0.0508	0.6091	1.6800e-003	0.2012	1.0600e-003	0.2023	0.0534	9.7000e-004	0.0543		171.1060	171.1060	4.9000e-003	4.8500e-003	172.6750
<b>Total</b>	<b>0.0732</b>	<b>0.0508</b>	<b>0.6091</b>	<b>1.6800e-003</b>	<b>0.2012</b>	<b>1.0600e-003</b>	<b>0.2023</b>	<b>0.0534</b>	<b>9.7000e-004</b>	<b>0.0543</b>		<b>171.1060</b>	<b>171.1060</b>	<b>4.9000e-003</b>	<b>4.8500e-003</b>	<b>172.6750</b>

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					10.4042	0.0000	10.4042	5.3471	0.0000	5.3471			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
<b>Total</b>	<b>3.1701</b>	<b>33.0835</b>	<b>19.6978</b>	<b>0.0380</b>	<b>10.4042</b>	<b>1.6126</b>	<b>12.0167</b>	<b>5.3471</b>	<b>1.4836</b>	<b>6.8307</b>	<b>0.0000</b>	<b>3,686.0619</b>	<b>3,686.0619</b>	<b>1.1922</b>		<b>3,715.8655</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0732	0.0508	0.6091	1.6800e-003	0.1907	1.0600e-003	0.1918	0.0508	9.7000e-004	0.0518		171.1060	171.1060	4.9000e-003	4.8500e-003	172.6750
<b>Total</b>	<b>0.0732</b>	<b>0.0508</b>	<b>0.6091</b>	<b>1.6800e-003</b>	<b>0.1907</b>	<b>1.0600e-003</b>	<b>0.1918</b>	<b>0.0508</b>	<b>9.7000e-004</b>	<b>0.0518</b>		<b>171.1060</b>	<b>171.1060</b>	<b>4.9000e-003</b>	<b>4.8500e-003</b>	<b>172.6750</b>

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Paving - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.8272					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.9300</b>	<b>11.1249</b>	<b>14.5805</b>	<b>0.0228</b>		<b>0.5679</b>	<b>0.5679</b>		<b>0.5225</b>	<b>0.5225</b>		<b>2,207.6603</b>	<b>2,207.6603</b>	<b>0.7140</b>		<b>2,225.5104</b>

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0610	0.0423	0.5076	1.4000e-003	0.1677	8.8000e-004	0.1685	0.0445	8.1000e-004	0.0453		142.5884	142.5884	4.0800e-003	4.0400e-003	143.8959
<b>Total</b>	<b>0.0610</b>	<b>0.0423</b>	<b>0.5076</b>	<b>1.4000e-003</b>	<b>0.1677</b>	<b>8.8000e-004</b>	<b>0.1685</b>	<b>0.0445</b>	<b>8.1000e-004</b>	<b>0.0453</b>		<b>142.5884</b>	<b>142.5884</b>	<b>4.0800e-003</b>	<b>4.0400e-003</b>	<b>143.8959</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.8272					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.9300</b>	<b>11.1249</b>	<b>14.5805</b>	<b>0.0228</b>		<b>0.5679</b>	<b>0.5679</b>		<b>0.5225</b>	<b>0.5225</b>	<b>0.0000</b>	<b>2,207.6603</b>	<b>2,207.6603</b>	<b>0.7140</b>		<b>2,225.5104</b>

**Mitigated Construction Off-Site**

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0610	0.0423	0.5076	1.4000e-003	0.1589	8.8000e-004	0.1598	0.0423	8.1000e-004	0.0431		142.5884	142.5884	4.0800e-003	4.0400e-003	143.8959
<b>Total</b>	<b>0.0610</b>	<b>0.0423</b>	<b>0.5076</b>	<b>1.4000e-003</b>	<b>0.1589</b>	<b>8.8000e-004</b>	<b>0.1598</b>	<b>0.0423</b>	<b>8.1000e-004</b>	<b>0.0431</b>		<b>142.5884</b>	<b>142.5884</b>	<b>4.0800e-003</b>	<b>4.0400e-003</b>	<b>143.8959</b>

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Grading - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.6027	0.0000	4.6027	1.8270	0.0000	1.8270			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
<b>Total</b>	<b>3.6248</b>	<b>38.8435</b>	<b>29.0415</b>	<b>0.0621</b>	<b>4.6027</b>	<b>1.6349</b>	<b>6.2376</b>	<b>1.8270</b>	<b>1.5041</b>	<b>3.3311</b>		<b>6,011.4105</b>	<b>6,011.4105</b>	<b>1.9442</b>		<b>6,060.0158</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.8100e-003	0.1503	0.0382	6.2000e-004	0.0184	1.5100e-003	0.0199	5.0400e-003	1.4400e-003	6.4800e-003		67.2990	67.2990	2.8700e-003	0.0107	70.5489
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0814	0.0564	0.6768	1.8700e-003	0.2236	1.1700e-003	0.2247	0.0593	1.0800e-003	0.0604		190.1178	190.1178	5.4400e-003	5.3900e-003	191.8611
<b>Total</b>	<b>0.0852</b>	<b>0.2067</b>	<b>0.7150</b>	<b>2.4900e-003</b>	<b>0.2419</b>	<b>2.6800e-003</b>	<b>0.2446</b>	<b>0.0643</b>	<b>2.5200e-003</b>	<b>0.0669</b>		<b>257.4168</b>	<b>257.4168</b>	<b>8.3100e-003</b>	<b>0.0161</b>	<b>262.4101</b>

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.7053	0.0000	1.7053	0.6769	0.0000	0.6769			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
<b>Total</b>	<b>3.6248</b>	<b>38.8435</b>	<b>29.0415</b>	<b>0.0621</b>	<b>1.7053</b>	<b>1.6349</b>	<b>3.3402</b>	<b>0.6769</b>	<b>1.5041</b>	<b>2.1810</b>	<b>0.0000</b>	<b>6,011.4105</b>	<b>6,011.4105</b>	<b>1.9442</b>		<b>6,060.0158</b>



Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.8100e-003	0.1503	0.0382	6.2000e-004	0.0176	1.5100e-003	0.0191	4.8400e-003	1.4400e-003	6.2800e-003		67.2990	67.2990	2.8700e-003	0.0107	70.5489
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0814	0.0564	0.6768	1.8700e-003	0.2119	1.1700e-003	0.2131	0.0564	1.0800e-003	0.0575		190.1178	190.1178	5.4400e-003	5.3900e-003	191.8611
<b>Total</b>	<b>0.0852</b>	<b>0.2067</b>	<b>0.7150</b>	<b>2.4900e-003</b>	<b>0.2295</b>	<b>2.6800e-003</b>	<b>0.2321</b>	<b>0.0613</b>	<b>2.5200e-003</b>	<b>0.0638</b>		<b>257.4168</b>	<b>257.4168</b>	<b>8.3100e-003</b>	<b>0.0161</b>	<b>262.4101</b>

**3.6 Building Construction - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
<b>Total</b>	<b>1.7062</b>	<b>15.6156</b>	<b>16.3634</b>	<b>0.0269</b>		<b>0.8090</b>	<b>0.8090</b>		<b>0.7612</b>	<b>0.7612</b>		<b>2,554.3336</b>	<b>2,554.3336</b>	<b>0.6120</b>		<b>2,569.6322</b>

**Unmitigated Construction Off-Site**

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1105	3.0340	1.0980	0.0123	0.4229	0.0345	0.4573	0.1218	0.0330	0.1548		1,321.9108	1,321.9108	0.0355	0.1957	1,381.1292
Worker	0.6835	0.4740	5.6851	0.0157	1.8778	9.8600e-003	1.8877	0.4980	9.0800e-003	0.5071		1,596.9896	1,596.9896	0.0457	0.0453	1,611.6335
<b>Total</b>	<b>0.7941</b>	<b>3.5080</b>	<b>6.7831</b>	<b>0.0280</b>	<b>2.3007</b>	<b>0.0444</b>	<b>2.3450</b>	<b>0.6198</b>	<b>0.0421</b>	<b>0.6619</b>		<b>2,918.9003</b>	<b>2,918.9003</b>	<b>0.0812</b>	<b>0.2410</b>	<b>2,992.7627</b>

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
<b>Total</b>	<b>1.7062</b>	<b>15.6156</b>	<b>16.3634</b>	<b>0.0269</b>		<b>0.8090</b>	<b>0.8090</b>		<b>0.7612</b>	<b>0.7612</b>	<b>0.0000</b>	<b>2,554.3336</b>	<b>2,554.3336</b>	<b>0.6120</b>		<b>2,569.6322</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1105	3.0340	1.0980	0.0123	0.4048	0.0345	0.4393	0.1173	0.0330	0.1503		1,321.9108	1,321.9108	0.0355	0.1957	1,381.1292
Worker	0.6835	0.4740	5.6851	0.0157	1.7799	9.8600e-003	1.7898	0.4740	9.0800e-003	0.4831		1,596.9896	1,596.9896	0.0457	0.0453	1,611.6335
<b>Total</b>	<b>0.7941</b>	<b>3.5080</b>	<b>6.7831</b>	<b>0.0280</b>	<b>2.1847</b>	<b>0.0444</b>	<b>2.2290</b>	<b>0.5913</b>	<b>0.0421</b>	<b>0.6334</b>		<b>2,918.9003</b>	<b>2,918.9003</b>	<b>0.0812</b>	<b>0.2410</b>	<b>2,992.7627</b>

**3.7 Architectural Coating - 2022**

**Unmitigated Construction On-Site**

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	42.5507					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
<b>Total</b>	<b>42.7552</b>	<b>1.4085</b>	<b>1.8136</b>	<b>2.9700e-003</b>		<b>0.0817</b>	<b>0.0817</b>		<b>0.0817</b>	<b>0.0817</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0183</b>		<b>281.9062</b>

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1383	0.0959	1.1506	3.1800e-003	0.3800	2.0000e-003	0.3820	0.1008	1.8400e-003	0.1026		323.2003	323.2003	9.2600e-003	9.1700e-003	326.1639
<b>Total</b>	<b>0.1383</b>	<b>0.0959</b>	<b>1.1506</b>	<b>3.1800e-003</b>	<b>0.3800</b>	<b>2.0000e-003</b>	<b>0.3820</b>	<b>0.1008</b>	<b>1.8400e-003</b>	<b>0.1026</b>		<b>323.2003</b>	<b>323.2003</b>	<b>9.2600e-003</b>	<b>9.1700e-003</b>	<b>326.1639</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	42.5507					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
<b>Total</b>	<b>42.7552</b>	<b>1.4085</b>	<b>1.8136</b>	<b>2.9700e-003</b>		<b>0.0817</b>	<b>0.0817</b>		<b>0.0817</b>	<b>0.0817</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0183</b>		<b>281.9062</b>

**Mitigated Construction Off-Site**

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1383	0.0959	1.1506	3.1800e-003	0.3602	2.0000e-003	0.3622	0.0959	1.8400e-003	0.0978		323.2003	323.2003	9.2600e-003	9.1700e-003	326.1639
<b>Total</b>	<b>0.1383</b>	<b>0.0959</b>	<b>1.1506</b>	<b>3.1800e-003</b>	<b>0.3602</b>	<b>2.0000e-003</b>	<b>0.3622</b>	<b>0.0959</b>	<b>1.8400e-003</b>	<b>0.0978</b>		<b>323.2003</b>	<b>323.2003</b>	<b>9.2600e-003</b>	<b>9.1700e-003</b>	<b>326.1639</b>

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
	lb/day										lb/day						
Mitigated	1.8466	18.0202	22.6713	0.1308	8.1896	0.1951	8.3847	2.2293	0.1859	2.4151			13,883.9800	13,883.9800	0.5239	1.5808	14,368.1553
Unmitigated	1.8466	18.0202	22.6713	0.1308	8.1896	0.1951	8.3847	2.2293	0.1859	2.4151			13,883.9800	13,883.9800	0.5239	1.5808	14,368.1553

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	371.04	371.04	371.04	2,241,972	2,241,972
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	98.12	98.12	98.12	1,428,636	1,428,636
Total	469.16	469.16	469.16	3,670,608	3,670,608

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	16.60	8.40	6.90	100.00	0.00	0.00	100	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No Rail	16.60	8.40	40.00	0.00	0.00	100.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.552018	0.073360	0.189757	0.159343	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.025522	0.000000	0.000000
Parking Lot	0.537785	0.055838	0.172353	0.139003	0.027005	0.007196	0.011392	0.017285	0.000559	0.000254	0.025303	0.000954	0.005071
Unrefrigerated Warehouse-No Rail	0.000000	0.000000	0.000000	0.000000	0.000000	0.173077	0.211538	0.615385	0.000000	0.000000	0.000000	0.000000	0.000000

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0188	0.1706	0.1433	1.0200e-003		0.0130	0.0130		0.0130	0.0130		204.6549	204.6549	3.9200e-003	3.7500e-003	205.8711
NaturalGas Unmitigated	0.0188	0.1706	0.1433	1.0200e-003		0.0130	0.0130		0.0130	0.0130		204.6549	204.6549	3.9200e-003	3.7500e-003	205.8711



Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	150.356	1.6200e-003	0.0147	0.0124	9.0000e-005		1.1200e-003	1.1200e-003		1.1200e-003	1.1200e-003		17.6890	17.6890	3.4000e-004	3.2000e-004	17.7941
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	1589.21	0.0171	0.1558	0.1309	9.3000e-004		0.0118	0.0118		0.0118	0.0118		186.9660	186.9660	3.5800e-003	3.4300e-003	188.0770
<b>Total</b>		<b>0.0188</b>	<b>0.1705</b>	<b>0.1433</b>	<b>1.0200e-003</b>		<b>0.0130</b>	<b>0.0130</b>		<b>0.0130</b>	<b>0.0130</b>		<b>204.6549</b>	<b>204.6549</b>	<b>3.9200e-003</b>	<b>3.7500e-003</b>	<b>205.8711</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	0.150356	1.6200e-003	0.0147	0.0124	9.0000e-005		1.1200e-003	1.1200e-003		1.1200e-003	1.1200e-003		17.6890	17.6890	3.4000e-004	3.2000e-004	17.7941
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	1.58921	0.0171	0.1558	0.1309	9.3000e-004		0.0118	0.0118		0.0118	0.0118		186.9660	186.9660	3.5800e-003	3.4300e-003	188.0770
<b>Total</b>		<b>0.0188</b>	<b>0.1705</b>	<b>0.1433</b>	<b>1.0200e-003</b>		<b>0.0130</b>	<b>0.0130</b>		<b>0.0130</b>	<b>0.0130</b>		<b>204.6549</b>	<b>204.6549</b>	<b>3.9200e-003</b>	<b>3.7500e-003</b>	<b>205.8711</b>

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Mitigated	6.8520	5.1000e-004	0.0562	0.0000		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		0.1205	0.1205	3.2000e-004			0.1284
Unmitigated	6.8520	5.1000e-004	0.0562	0.0000		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		0.1205	0.1205	3.2000e-004			0.1284

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**6.2 Area by SubCategory**

**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7811					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.0657					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.2100e-003	5.1000e-004	0.0562	0.0000		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		0.1205	0.1205	3.2000e-004		0.1284
<b>Total</b>	<b>6.8520</b>	<b>5.1000e-004</b>	<b>0.0562</b>	<b>0.0000</b>		<b>2.0000e-004</b>	<b>2.0000e-004</b>		<b>2.0000e-004</b>	<b>2.0000e-004</b>		<b>0.1205</b>	<b>0.1205</b>	<b>3.2000e-004</b>		<b>0.1284</b>

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7811					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.0657					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.2100e-003	5.1000e-004	0.0562	0.0000		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		0.1205	0.1205	3.2000e-004		0.1284
<b>Total</b>	<b>6.8520</b>	<b>5.1000e-004</b>	<b>0.0562</b>	<b>0.0000</b>		<b>2.0000e-004</b>	<b>2.0000e-004</b>		<b>2.0000e-004</b>	<b>2.0000e-004</b>		<b>0.1205</b>	<b>0.1205</b>	<b>3.2000e-004</b>		<b>0.1284</b>

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

- Institute Recycling and Composting Services

Alliance GWSB8 Warehouse - San Bernardino-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	6	8.00	260	89	0.20	CNG

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Forklifts	0.0873	4.2560	55.6126	9.1700e-003		0.0686	0.0686		0.0686	0.0686	0.0000	1,160.1951	1,160.1951	0.3752		1,169.5758
<b>Total</b>	<b>0.0873</b>	<b>4.2560</b>	<b>55.6126</b>	<b>9.1700e-003</b>		<b>0.0686</b>	<b>0.0686</b>		<b>0.0686</b>	<b>0.0686</b>	<b>0.0000</b>	<b>1,160.1951</b>	<b>1,160.1951</b>	<b>0.3752</b>		<b>1,169.5758</b>

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation