Appendix A

Air Quality/Greenhouse Gas Assessment

AIR QUALITY/GREENHOUSE GAS ASSESSMENT

for the

Alder Logistics Center Project

Bloomington, California

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SYMBOLS, ABBREVIATIONS, AND ACRONYMS

AB	Assembly Bill
ACC	Advanced Clean Cars
APS	alternative planning strategy
APN	Assessor's Parcel Number
AQMP	Air Quality Management Plan
ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers
ATCM	Airborne Toxic Control Measures
Basin	South Coast Air Basin
BAU	business as usual
BL/IR	Bloomington Community Plan/Regional Industrial
CAAQS	California Ambient Air Quality Standards
CalARP	California Accidental Release Prevention Law
Cal/EPA	California Environmental Protection Agency
CalGreen	California Green Building Standards
CalEEMod	California Emissions Estimator Model
CARB	California Air Resources Board
CAA	Clean Air Act
CAT	Climate Action Team
CCAA	California Clean Air Act
CEQA	California Environmental Quality Act
CFCs	Chlorofluorocarbons
CH_4	Methane
CO	carbon monoxide
CO_2	carbon dioxide
CO_2eq	carbon dioxide equivalent
COC	Council of Government
CTC	County Transportation Commission
DPM	diesel particulate matter
EAP	Energy Action Plan
EECAP	energy efficiency climate action plans
EPA	U.S. Environmental Protection Agency
EV	electric vehicle
°F	Fahrenheit
FCAA	Federal Clean Air Act
General Plan	Comprehensive General Plan of the City of San Gabriel
GHG	greenhouse gas
GWP	Global Warming Potential
H_2O	water vapor
HAPs	Hazardous Air Pollutants
HCFCs	Hydrochlorofluorocarbons

HFCs	Hydrofluorocarbons
HRA	Health Risk Assessment
HQTAs	High Quality Transit Areas
I-4	Environmental Justice Enhancement Initiative
I-10	San Bernardino Freeway
IPCC	International Panel for Climate Change
IWMA	California Integrated Waste Management Act
lbs	pounds
LCFS	Low Carbon Fuel Standard
LEV	Low-Emission Vehicle
LOS	Level of Service
LSTs	Localized Significance Thresholds
MACTs	Maximum Achievable Control Technologies
MERV	minimum efficiency reporting value
Metro	Los Angeles County Metropolitan Transportation Authority
MPO	Metropolitan Planning Organization
MT	metric tons
$MTCO_2eq$	metric tons of carbon dioxide equivalents
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NESHAPS	National Emissions Standards for Hazardous Air Pollutants
NEV	neighborhood electric vehicle
NHTSA	National Highway Traffic Safety Administration
NO_2	nitrogen dioxide
NO_x	nitrogen oxides
O_3	ozone
OEHHA	Office of Environmental Health Hazard Assessment
PFCs	Perfluorocarbons
PHEV	plug-in hybrid electric vehicle
PM_{10}	particulate matter less than 10 microns in diameter
$PM_{2.5}$	particulate matter less than 2.5 microns in diameter
PMI	point of maximum impact
ppb	parts per billion
ppm	parts per million
PST	Pacific Standard Time
RCP	Regional Comprehensive Plan
REL	reference exposure level
RGGRP	Regional Greenhouse Gas Reduction Plan
RH	relative humidity
ROG	Reactive Organic Gasses
RPS	Renewables Portfolio Standard
RTP	Regional Transportation Plan
SB	Senate Bill

SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SCS	Sustainable Community Strategy
SF_6	Sulfur hexafluoride
SGVCOG	San Gabriel Valley Council of Governments
SGVEWP	San Gabriel Valley Energy Wise Partnership
SIP	State Implementation Plan
SJVAPCD	San Joaquin Valley Air Pollution Control District
SLCP	Short Lived Climate Pollutants
SO_2	sulfur dioxide
SO_x	sulfur oxides
SP	Service Population
SRA	Source Receptor Area
TAC	toxic air contaminant
TDM	Transportation Demand Management
TOD	Transit Oriented Development
TSM	Transportation System Management
$\mu g/m^3$	micrograms per cubic meter
UV-B	ultraviolet B rays
VMT	vehicle miles traveled
VOC	Volatile Organic Compound
ZEVs	Zero-emission vehicles

EXECUTIVE SUMMARY

The purpose of this Air Quality/Greenhouse Gas Assessment is to evaluate potential short- and long-term air quality and greenhouse gas (GHG) impacts resulting from implementation of the proposed Alder Logistics Center Project ("project" or "proposed project"). The project site is generally located south of Interstate 10 (I-10) in the unincorporated community of Bloomington, San Bernardino County, California.

The project proposes to demolish the existing food-related warehouse/storage building and construct an approximate 174,780 square-foot warehouse building on the project site. The gross site area is 9.44 acres and is comprised of four parcels. The proposed building would be located toward the rear half of the lot, situated farthest from adjacent residential properties. A 65-foot landscaped buffer would serve as a retention basin at the property line closest to adjacent residential properties to better transition the two differing uses. A total of 114 parking spaces would be provided on-site. A new trash enclosure is proposed, located in an accessible area on-site for circulation and access by waste services. A total of 2 grade level and 22 high loading docks would be provided on-site. Site access would be provided via Alder Avenue off Slover Avenue, a major arterial road that runs east-west.

Temporary Impacts. Mitigated construction emissions from project implementation would not exceed established regional or localized South Coast Air Quality Management District (SCAQMD) thresholds.

Long-Term Impacts. The analysis has demonstrated that project implementation would result in less than significant long-term operational and localized air quality impacts. Carbon monoxide hot-spots impacts would also be less than significant. Additionally, the Health Risk Assessment (HRA) determined that impacts related to cancer risk and diesel particulate matter (DPM) concentrations from heavy trucks accessing the project site would be less than significant at the nearest sensitive receptors. Therefore, impacts related to health risk from heavy trucks would be less than significant.

Cumulative Impacts. The proposed project would not result in long-term air quality impacts, as emissions would not exceed the SCAQMD adopted operational thresholds. Additionally, adherence to SCAQMD rules and regulations would alleviate potential impacts related to cumulative conditions on a project-by-project basis. The project would not result in significant cumulative operational emissions of criteria pollutants.

Greenhouse Gas Impacts. The proposed project would result in less than significant GHG emissions impacts. Additionally, the project would not conflict with a plan, policy, or regulation adopted for the purposes of reducing GHG emissions.

1.0 INTRODUCTION

The purpose of this Air Quality/Greenhouse Gas Assessment is to evaluate potential short- and long-term air quality and greenhouse gas (GHG) impacts resulting from implementation of the proposed Alder Logistics Center Project ("project" or "proposed project").

1.1 PROJECT LOCATION

The project site is generally located south of Interstate 10 (I-10) along Alder Avenue in the unincorporated community of Bloomington, San Bernardino County, California; refer to Exhibit 1, *Regional Vicinity*. The project site is specifically located at 10326, 10339, 10360, 10380, and 10396 Alder Avenue, Assessor's Parcel Numbers (APNs) 0252-131-03, -04, -36, -41, and-43. The project site is bounded by a railroad easement and infrastructure, and I-10 to the north; a mix of industrial and residential to the east; single family structures to the south; and industrial uses and railroad infrastructure to the west; refer to Exhibit 2, *Site Vicinity*.

1.2 PROJECT DESCRIPTION

The project proposes to demolish the existing food-related warehouse/storage building and construct an approximate 174,780-square foot warehouse building on the project site. The gross site area is 9.44 acres and is comprised of four parcels. The proposed building would be located toward the rear half of the lot, situated farthest from adjacent residential properties; refer to Exhibit 3, *Conceptual Site Plan*. A 65-foot landscaped buffer would serve as a retention basin at the property line closest to adjacent residential properties to provide a buffer between the two uses. A total of 114 parking spaces would be provided on-site. A new trash enclosure is proposed, located in an accessible area on-site for circulation and access by waste services. A total of 2 grade level and 22 high loading docks would be provided on-site. Site access would be provided via Alder Avenue off Slover Avenue, a major arterial road that runs east-west.

Currently, there is no identified tenant for the proposed building. The proposed project is planned for a single tenant with ancillary office component. Since the tenant is unknown, hours of operation and employee count will vary, but is assumed for planning purposes to operate 24 hours per day, seven days per week. Office workers would likely have typical shifts of Monday through Friday, 8:00 a.m. to 5:00 p.m., while warehouse staff would work day, evening, and night shifts. Specific hours of operation would be identified during the tenant improvement process.

NOT TO SCALE

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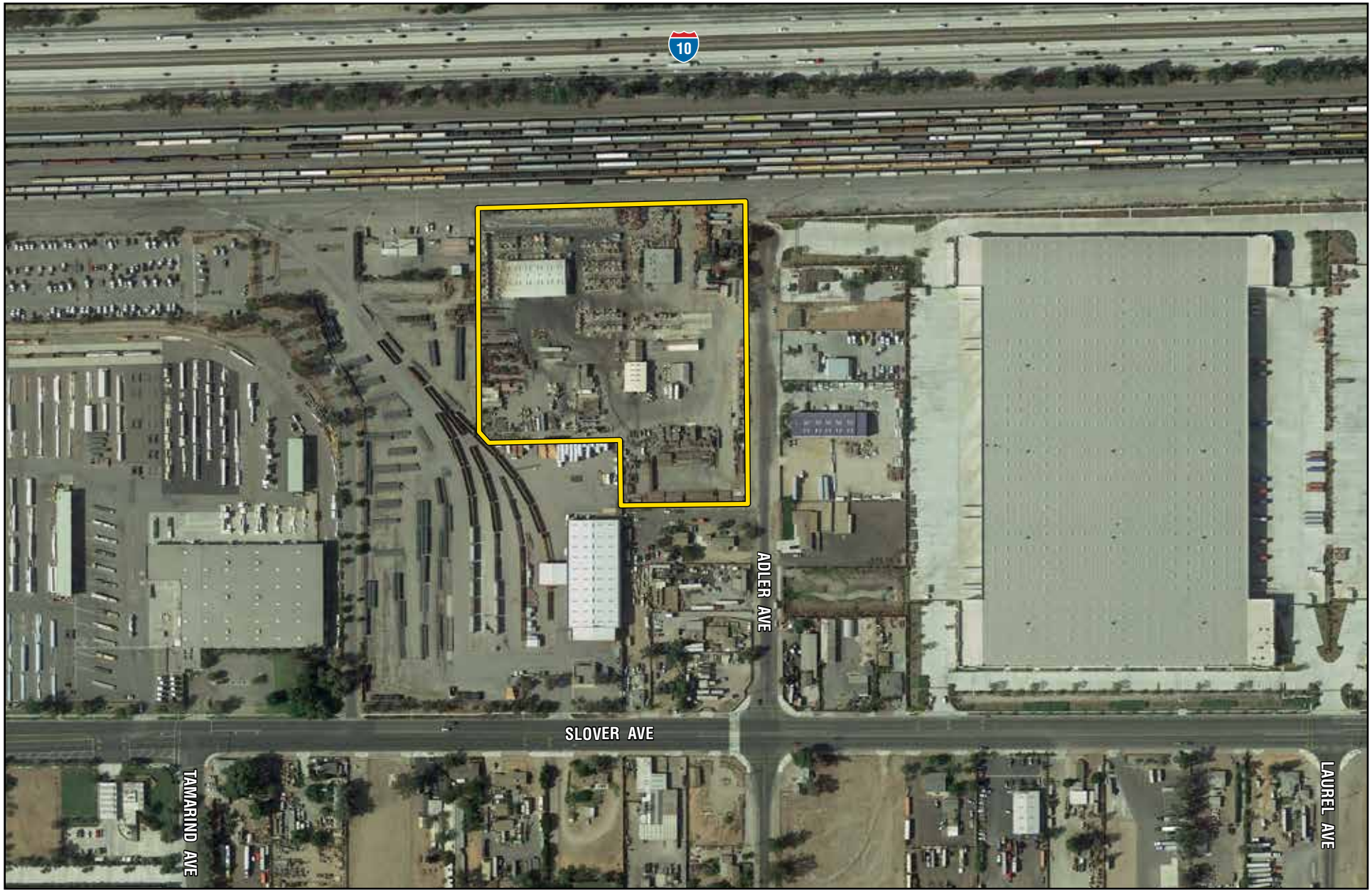
ALDER LOGISTICS CENTER PROJECT
AIR QUALITY/GREENHOUSE GAS ASSESSMENT

Regional Vicinity

Exhibit 1



Source: Google Earth Pro, August 2019

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PROJECT SITE

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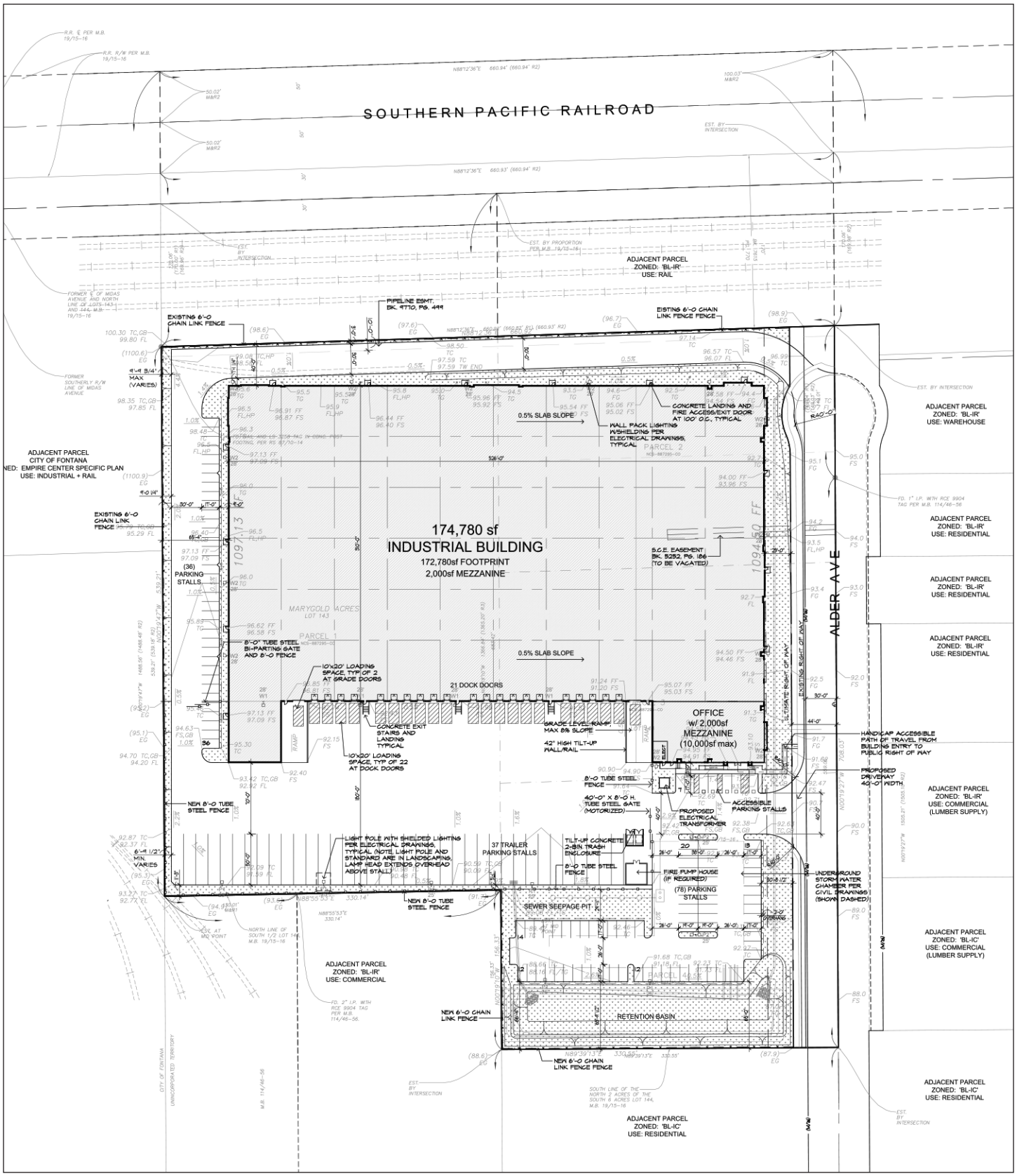
ALDER LOGISTICS CENTER PROJECT
AIR QUALITY/GREENHOUSE GAS ASSESSMENT

Site Vicinity

Exhibit 2



Source: DouglasFranz Architects, Inc., May 2019

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ALDER LOGISTICS CENTER PROJECT
AIR QUALITY/GREENHOUSE GAS ASSESSMENT

Conceptual Site Plan

Exhibit 3

2.0 ENVIRONMENTAL SETTING

The California Air Resources Board (CARB) divides the State into 15 air basins that share similar meteorological and topographical features. The project site lies within the northwestern portion of the South Coast Air Basin (Basin). The Basin is a 6,600-square mile area bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The Basin includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties, in addition to the San Gorgonio Pass area in Riverside County. The Basin's terrain and geographical location (i.e., a coastal plain with connecting broad valleys and low hills) determine its distinctive climate.

The extent and severity of the air pollution problem in the Basin is a function of the area's natural physical characteristics (weather and topography), as well as man-made influences (development patterns and lifestyle). Factors such as wind, sunlight, temperature, humidity, rainfall, and topography all affect the accumulation and/or dispersion of pollutants throughout the Basin.

2.1 CLIMATE

The general region lies in the semi-permanent high-pressure zone of the eastern Pacific. As a result, the climate is mild, tempered by cool sea breezes. The climate consists of a semiarid environment with mild winters, warm summers, moderate temperatures, and comfortable humidity. The usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds. Precipitation is limited to a few winter storms. The usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds.

The average annual temperature varies little throughout the Basin, averaging 75 degrees Fahrenheit (°F). However, with a less-pronounced oceanic influence, the eastern inland portions of the Basin show greater variability in annual minimum and maximum temperatures. All portions of the Basin have had recorded temperatures over 100°F in recent years.

Although the Basin has a semi-arid climate, the air near the surface is moist due to the presence of a shallow marine layer. Except for infrequent periods when dry, continental air is brought into the Basin by offshore winds, the ocean effect is dominant. Periods with heavy fog are frequent, and low stratus clouds, occasionally referred to as "high fog," are a characteristic climate feature. Annual average relative humidity is 70 percent at the coast and 57 percent in the eastern part of the Basin. Precipitation in the Basin is typically nine to 14 inches annually and is rarely in the form of snow or hail due to typically warm weather. The frequency and amount of rainfall is greater in the coastal areas of the Basin.

The height of the inversion is important in determining pollutant concentration. When the inversion is approximately 2,500 feet above sea level, the sea breezes carry the pollutants inland to escape over the mountain slopes or through the passes. At a height of 1,200 feet, the terrain prevents the pollutants from entering the upper atmosphere, resulting in a settlement in the

foothill communities. Below 1,200 feet, the inversion puts a tight lid on pollutants, concentrating them in a shallow layer over the entire coastal basin. Usually, inversions are lower before sunrise than during the day. Mixing heights for inversions are lower in the summer and more persistent, being partly responsible for the high levels of ozone (O_3) observed during summer months in the Basin. Smog in southern California is generally the result of these temperature inversions combining with coastal day winds and local mountains to contain the pollutants for long periods of time, allowing them to form secondary pollutants by reacting with sunlight. The Basin has a limited ability to disperse these pollutants due to typically low wind speeds.

The area in which the project is located offers clear skies and sunshine, yet is still susceptible to air inversions. These inversions trap a layer of stagnant air near the ground, where it is then further loaded with pollutants. These inversions cause haziness, which is caused by moisture, suspended dust, and a variety of chemical aerosols emitted by trucks, automobiles, furnaces, and other sources.

The community of Bloomington experiences average high temperatures of up to 95 °F during the months of July and August, and average low temperatures of 44 °F during the month of December. Bloomington experiences approximately 14.09 inches of precipitation per year, with the most precipitation occurring in the month of February.[1]

[1] The Weather Channel, *Bloomington, CA Monthly Weather*, https://weather.com/weather/monthly/l/98f9d6d0da3591784ae439ca768a8ebe2f66c51a08493963a63032b611233588, accessed on July 11, 2019.

3.0 STATE AND FEDERAL AMBIENT AIR QUALITY STANDARDS

3.1 AMBIENT AIR QUALITY STANDARDS

CARB and the U.S. Environmental Protection Agency (EPA) establish ambient air quality standards for major pollutants at thresholds intended to protect public health. The standards for some pollutants are based on other values such as protection of crops or avoidance of nuisance conditions. Table 1, *State and National Ambient Air Quality Standards and Attainment Status*, summarizes the State California Ambient Air Quality Standards (CAAQS) and the Federal National Ambient Air Quality Standards (NAAQS).

CARB designates all areas within the State as either attainment (having air quality better than the CAAQS) or nonattainment (having a pollution concentration that exceeds the CAAQS more than once in three years). Likewise, the EPA designates all areas of the U.S. as either being in attainment of the NAAQS or nonattainment if pollution concentrations exceed the NAAQS. Because attainment/nonattainment is pollutant-specific, an area may be classified as nonattainment for one pollutant and attainment for another. Similarly, because the State and national standards differ, an area could be classified as attainment for the Federal standard of a pollutant while it may be nonattainment for the State standard of the same pollutant. Some areas are unclassified, which means no monitoring data are available. Unclassified areas are considered to be in attainment. The attainment status of SCAQMD for CAAQS and NAAQS for the Basin is shown in Table 1 and is discussed in more detail under "Ambient Air Monitoring."

3.2 AMBIENT AIR MONITORING

CARB monitors ambient air quality at approximately 250 air monitoring stations across the state. Air quality monitoring stations usually measure pollutant concentrations ten feet aboveground level; therefore, air quality is often referred to in terms of ground-level concentrations. The project site is located within Source Receptor Area (SRA) 34, Central San Bernardino Valley.[2] The closest air monitoring station to the project site is the Fontana-Arrow Highway Monitoring Station located at 14360 Arrow Highway, Fontana, CA 92335. Local air quality data from 2015 to 2017 is provided in Table 2, *Summary of Air Quality Data*. Table 2 lists the monitored maximum concentrations and number of exceedances of Federal/State air quality standards for each year.

[2] South Coast Air Quality Management District, *Map of Monitoring Areas*, http://www.aqmd.gov/docs/default-source/default-document-library/map-of-monitoring-areas.pdf, accessed by July 11, 2019.

Table 1
State and National Ambient Air Quality Standards and Attainment Status

Pollutant	Averaging Time	California[1]		Federal[2]	
		Standard[3]	Attainment Status	Standards[3,4]	Attainment Status
Ozone (O_3)	1 Hour	0.09 ppm (180 µg/m^3)	**Nonattainment**	N/A	N/A[5]
	8 Hours	0.070 ppm (137 µg/m^3)	**Nonattainment**	0.070 ppm (137 µg/m^3)	**Nonattainment**
Particulate Matter (PM_{10})	24 Hours	50 µg/m^3	**Nonattainment**	150 µg/m^3	Attainment/Maintenance
	Annual Arithmetic Mean	20 µg/m^3	**Nonattainment**	N/A	N/A
Fine Particulate Matter ($PM_{2.5}$)	24 Hours	No Separate State Standard		35 µg/m^3	**Nonattainment**
	Annual Arithmetic Mean	12 µg/m^3	**Nonattainment**	12.0 µg/m^3	**Nonattainment**
Carbon Monoxide (CO)	8 Hours	9.0 ppm (10 mg/m^3)	Attainment	9 ppm (10 mg/m^3)	Attainment/Maintenance
	1 Hour	20 ppm (23 mg/m^3)	Attainment	35 ppm (40 mg/m^3)	Attainment/Maintenance
Nitrogen Dioxide (NO_2)[5]	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)	N/A	53 ppb (100 µg/m^3)	Attainment/Maintenance
	1 Hour	0.18 ppm (339 µg/m^3)	Attainment	100 ppb (188 µg/m^3)	Attainment/Maintenance
Lead (Pb)[7,8]	30 days Average	1.5 µg/m^3	Attainment	N/A	N/A
	Calendar Quarter	N/A	N/A	1.5 µg/m^3	**Nonattainment**
	Rolling 3-Month Average	N/A	N/A	0.15 µg/m^3	**Nonattainment**
Sulfur Dioxide (SO_2)[6]	24 Hours	0.04 ppm (105 µg/m^3)	Attainment	0.14 ppm (for certain areas)	Unclassified/Attainment
	3 Hours	N/A	N/A	N/A	N/A
	1 Hour	0.25 ppm (655 µg/m^3)	Attainment	75 ppb (196 µg/m^3)	N/A
	Annual Arithmetic Mean	N/A	N/A	0.30 ppm (for certain areas)	Unclassified/Attainment
Visibility-Reducing Particles[9]	8 Hours (10 a.m. to 6 p.m., PST)	Extinction coefficient = 0.23 km@<70% RH	Unclassified	**No Federal Standards**	
Sulfates	24 Hour	25 µg/m^3	Attainment		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)	Unclassified		
Vinyl Chloride[7]	24 Hour	0.01 ppm (26 µg/m^3)	N/A		

µg/m^3 = micrograms per cubic meter; ppm = parts per million; ppb = parts per billion; km = kilometer(s); RH = relative humidity; PST = Pacific Standard Time; N/A = Not Applicable

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1- and 24-hour), nitrogen dioxide, and particulate matter (PM_{10}, $PM_{2.5}$, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.
5. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
6. On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved. Note that the 1-hour national standard is in units of ppb. California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
7. CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
8. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/m^3 as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
9. In 1989, CARB converted both the general Statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the Statewide and Lake Tahoe Air Basin standards, respectively.

Source: California Air Resources Board and U.S. Environmental Protection Agency, *Ambient Air Quality Standards chart,* http://www.arb.ca.gov/research/aaqs/aaqs2.pdf, May 4, 2016.

Table 2
Summary of Air Quality Data

Pollutant	California Standard	Federal Primary Standard	Year	Maximum Concentration[2]	Days (Samples) State/Federal Std. Exceeded
Ozone (O_3)[1] (1-hour)	0.09 ppm for 1 hour	NA[5]	2015 2016 2017	0.133 ppm 0.139 0.137	36/3 34/3 33/2
Ozone (O_3)[1] (8-hour)	0.070 ppm for 8 hours	0.070 ppm for 8 hours	2015 2016 2017	0.111 ppm 0.105 0.119	59/57 52/49 51/49
Carbon Monoxide (CO)[1] (1-hour)	20 ppm for 1 hour	35 ppm for 1 hour	2015 2016 2017	2.78 ppm 1.66 1.62	0/0 0/0 0/0
Nitrogen Dioxide (NO_2)[1]	0.18 ppm for 1 hour	0.100 ppm for 1 hour	2015 2016 2017	0.089 ppm 0.071 0.069	0/0 0/0 0/0
Fine Particulate Matter ($PM_{2.5}$)[1, 4]	No Separate Standard	35 µg/m^3 for 24 hours	2015 2016 2017	50.5 µg/m^3 58.8 39.2	NA/3 NA/1 NA/1
Particulate Matter (PM_{10})[1, 3, 4]	50 µg/m^3 for 24 hours	150 µg/m^3 for 24 hours	2015 2016 2017	96.0 µg/m^3 94.8 75.3	13/0 14/0 8/0

ppm = parts per million; PM_{10} = particulate matter 10 microns in diameter or less; NM = not measured; µg/m^3 = micrograms per cubic meter; $PM_{2.5}$ = particulate matter 2.5 microns in diameter or less; NA = not applicable.

Notes:
1. Data collected from the Fontana-Arrow Highway Monitoring Station located at 14360 Arrow Highway, Fontana, CA 92335.
2. Maximum concentration is measured over the same period as the California Standards.
3. PM_{10} exceedances are based on State thresholds established prior to amendments adopted on June 20, 2002.
4. PM_{10} and $PM_{2.5}$ exceedances are derived from the number of samples exceeded, not days.
5. The Federal standard was revoked in June 2005.

Sources:
California Air Resources Board, *ADAM Air Quality Data Statistics*, http://www.arb.ca.gov/adam/, accessed July 11, ,2019.
California Air Resources Board, *AQMIS2: Air Quality Data*, https://www.arb.ca.gov/aqmis2/aqdselect.php, accessed July 11, 2019.

Ozone. Ozone (O_3) occurs in two layers of the atmosphere. The layer surrounding the Earth's surface is the troposphere. The troposphere extends approximately 10 miles above ground level, where it meets the second layer, the stratosphere. The stratospheric (the "good" ozone) layer extends upward from about ten to 30 miles and protects life on Earth from the sun's harmful ultraviolet rays (UV-B). "Bad" ozone is a photochemical pollutant, and needs volatile organic compounds (VOCs), nitrogen oxides (NO_X) and sunlight to form; therefore, VOCs and NO_X are ozone precursors. VOCs and NO_X are emitted from various sources throughout the County. Significant ozone formation generally requires an adequate amount of precursors in the atmosphere and several hours in a stable atmosphere with strong sunlight.

Many respiratory ailments, as well as cardiovascular disease, are aggravated by exposure to high ozone levels. Ozone also damages natural ecosystems (such as forests and foothill plant communities) and damages agricultural crops and some man-made materials (such as rubber, paint, and plastics). Societal costs from ozone damage include increased healthcare costs, the loss

of human and animal life, accelerated replacement of industrial equipment and reduced crop yields.

Carbon Monoxide. Carbon monoxide (CO) is an odorless, colorless toxic gas that is emitted by mobile and stationary sources as a result of incomplete combustion of hydrocarbons or other carbon-based fuels. In cities, automobile exhaust can cause as much as 95 percent of all CO emissions. At high concentrations, CO can reduce the oxygen-carrying capacity of the blood and cause headaches, dizziness, and unconsciousness.

Nitrogen Dioxide. Nitrogen oxides (NO_X) are a family of highly reactive gases that are a primary precursor to the formation of ground-level O_3, and react in the atmosphere to form acid rain. NO_2 (often used interchangeably with NO_X) is a reddish-brown gas that can cause breathing difficulties at high levels. Peak readings of NO_2 occur in areas that have a high concentration of combustion sources (e.g., motor vehicle engines, power plants, refineries, and other industrial operations).

NO_2 can irritate and damage the lungs, and lower resistance to respiratory infections such as influenza. The health effects of short-term exposure are still unclear. However, continued or frequent exposure to NO_2 concentrations that are typically much higher than those normally found in the ambient air may increase acute respiratory illnesses in children and increase the incidence of chronic bronchitis and lung irritation. Chronic exposure to NO_2 may aggravate eyes and mucus membranes and cause pulmonary dysfunction.

Coarse Particulate Matter (PM_{10}). PM_{10} refers to suspended particulate matter, which is smaller than ten microns or ten one-millionths of a meter. PM_{10} arises from sources such as road dust, diesel soot, combustion products, construction operations, and dust storms. PM_{10} scatters light and significantly reduces visibility. In addition, these particulates penetrate the lungs and can potentially damage the respiratory tract. On June 19, 2003, CARB adopted amendments to the Statewide 24-hour particulate matter standards based upon requirements set forth in the Children's Environmental Health Protection Act (SB 25).

Fine Particulate Matter ($PM_{2.5}$). Due to recent increased concerns over health impacts related to fine particulate matter (particulate matter 2.5 microns in diameter or less), both State and Federal $PM_{2.5}$ standards have been created. Particulate matter impacts primarily affect infants, children, the elderly, and those with pre-existing cardiopulmonary disease. In 1997, the EPA announced new $PM_{2.5}$ standards. Industry groups challenged the new standard in court and the implementation of the standard was blocked. However, upon appeal by the EPA, the U.S. Supreme Court reversed this decision and upheld the EPA's new standards.

On June 20, 2002, CARB adopted amendments for Statewide annual ambient particulate matter air quality standards. These standards were revised/established due to increasing concerns by CARB that previous standards were inadequate, as almost everyone in California is exposed to levels at or above the current State standards during some parts of the year, and the Statewide

potential for significant health impacts associated with particulate matter exposure was determined to be large and wide-ranging.

Reactive Organic Gases and Volatile Organic Compounds. Hydrocarbons are organic gases that are formed solely of hydrogen and carbon. There are several subsets of organic gases including reactive organic gases (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).

3.3 GLOBAL CLIMATE CHANGE GASES

The natural process through which heat is retained in the troposphere is called the "greenhouse effect."[3] The greenhouse effect traps heat in the troposphere through a three-fold process as follows: short wave radiation emitted by the Sun is absorbed by the Earth; the Earth emits a portion of this energy in the form of long wave radiation; and GHG in the upper atmosphere absorb this long wave radiation and emit this long wave radiation into space and toward the Earth. This "trapping" of the long wave (thermal) radiation emitted back toward the Earth is the underlying process of the greenhouse effect.

The most abundant GHGs are water vapor and carbon dioxide (CO_2). Many other trace gases have greater ability to absorb and re-radiate long wave radiation; however, these gases are not as plentiful. For this reason, and to gauge the potency of GHGs, scientists have established a Global Warming Potential (GWP) for each GHG based on its ability to absorb and re-radiate long wave radiation.

GHGs normally associated with the project include the following:[4]

Water Vapor (H_2O). Although water vapor has not received the scrutiny of other GHGs, it is the primary contributor to the greenhouse effect. Natural processes, such as evaporation from oceans and rivers, and transpiration from plants, contribute 90 percent and 10 percent of the water vapor in our atmosphere, respectively. The primary human related source of water vapor comes from fuel combustion in motor vehicles; however, it does not contribute a significant amount (less than one percent) to atmospheric concentrations of water vapor. The Intergovernmental Panel on Climate Change (IPCC) has not determined a GWP for water vapor.

Carbon Dioxide (CO_2). Carbon dioxide is primarily generated by fossil fuel combustion in stationary and mobile sources. Due to the emergence of industrial facilities and mobile sources in the past 250 years, CO_2 emissions from fossil fuel combustion increased by a total of 1.3 percent

[3] The troposphere is the bottom layer of the atmosphere, which varies in height from the Earth's surface to 10 to 12 kilometers.

[4] All GWPs are given as 100-year GWP. Unless noted otherwise, all GWPs were obtained from the Intergovernmental Panel on Climate Change.

between 1990 and 2017.[5] Carbon dioxide is the most widely emitted GHG and is the reference gas (GWP of 1) for determining GWPs for other GHGs.

Methane (CH_4). Methane is emitted from biogenic sources, incomplete combustion in forest fires, landfills, manure management, and leaks in natural gas pipelines. The United States' top three methane sources are landfills, natural gas systems, and enteric fermentation. Methane is the primary component of natural gas, used for space and water heating, steam production, and power generation. The GWP of methane is 25.

Nitrous Oxide (N_2O). Nitrous oxide is produced by both natural and human related sources. Primary human related sources include agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuels, adipic acid production, and nitric acid production. The GWP of nitrous oxide is 298.

Hydrofluorocarbons (HFCs). HFCs are typically used as refrigerants for both stationary refrigeration and mobile air conditioning. The use of HFCs for cooling and foam blowing is increasing, as the continued phase out of Chlorofluorocarbons (CFCs) and HCFCs gains momentum. The 100-year GWP of HFCs range from 124 for HFC-152 to 14,800 for HFC-23.[6]

Perfluorocarbons (PFCs). PFCs are compounds consisting of carbon and fluorine, and are primarily created as a byproduct of aluminum production and semiconductor manufacturing. Perfluorocarbons are potent GHGs with a GWP several thousand times that of CO_2, depending on the specific PFC. Another area of concern regarding PFCs is their long atmospheric lifetime (up to 50,000 years).[7] The GWP of PFCs range from 7,390 to 12,200.[8]

Sulfur hexafluoride (SF_6). SF_6 is a colorless, odorless, nontoxic, nonflammable gas. SF_6 is the most potent GHG that has been evaluated by the IPCC with a GWP of 22,800.[9] However, its global warming contribution is not as high as the GWP would indicate due to its low mixing ratio compared to CO_2 (4 parts per trillion [ppt] in 1990 versus 365 parts per million [ppm], respectively).[10]

In addition to the six major GHGs discussed above (excluding water vapor), many other compounds have the potential to contribute to the greenhouse effect. Some of these substances were previously identified as stratospheric ozone (O_3) depletors; therefore, their gradual phase out is currently in effect. The following is a listing of these compounds:

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[5] United States Environmental Protection Agency, *Inventory of United States Greenhouse Gas Emissions and Sinks 1990 to 2017*, April 2019, hhttps://www.epa.gov/sites/production/files/2019-04/documents/us-ghg-inventory-2019-main-text.pdf, accessed July 11, 2019.

[6] Ibid.

[7] United States Environmental Protection Agency, *Overview of Greenhouse Gas Emissions*, https://www.epa.gov/ghgemissions/overview-greenhouse-gases, accessed July 11, 2019.

[8] Ibid.

[9] Ibid.

[10] Ibid.

Hydrochlorofluorocarbons (HCFCs). HCFCs are solvents, similar in use and chemical composition to CFCs. The main uses of HCFCs are for refrigerant products and air conditioning systems. As part of the Montreal Protocol, all developed countries that adhere to the Montreal Protocol are subject to a consumption cap and gradual phase out of HCFCs. The United States is scheduled to achieve a 100 percent reduction to the cap by 2030. The 100-year GWPs of HCFCs range from 90 for HCFC-123 to 1,800 for HCFC-142b.[11]

1,1,1 trichloroethane. 1,1,1 trichloroethane or methyl chloroform is a solvent and degreasing agent commonly used by manufacturers. The GWP of methyl chloroform is 146 times that of CO_2.[12]

Chlorofluorocarbons (CFCs). CFCs are used as refrigerants, cleaning solvents, and aerosols spray propellants. CFCs were also part of the U.S. Environmental Protection Agency's (EPA) Final Rule (57 Federal Register [FR] 3374) for the phase out of O_3 depleting substances. Currently, CFCs have been replaced by HFCs in cooling systems and a variety of alternatives for cleaning solvents. Nevertheless, CFCs remain suspended in the atmosphere contributing to the greenhouse effect. CFCs are potent GHGs with 100-year GWPs ranging from 3,800 for CFC 11 to 14,400 for CFC 13.[13]

3.4 SENSITIVE RECEPTORS

Sensitive populations are more susceptible to the effects of air pollution than is the general population. Sensitive populations (sensitive receptors) that are in proximity to localized sources of toxics and CO 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. Table 3, *Sensitive Receptors*, lists the distances and locations of sensitive receptors within the project vicinity. The distances depicted in Table 3 are based on the distance from the project site to the outdoor activity area of the closest receptor.

[11] Intergovernmental Panel on Climate Change, *Climate Change 2015 Synthesis Report*, https://www.ipcc.ch/site/assets/uploads/2018/02/SYR_AR5_FINAL_full.pdf, accessed July 11, 2019.

[12] Ibid.

[13] Ibid.

Table 3
Sensitive Receptors

Type	Name	Distance from Project Site (feet)[1]	Direction from Project Site	Location
Residential	Residential Uses	578	North	Residential uses along Alder Avenue
		80	East	Residential uses along Alder Avenue
		Adjoining	South	10440 Alder Avenue, Bloomington, CA 92316
Schools	Options for Youth	2,840	Southwest	17216 Slover Avenue, Suite L-102 & 12A Fontana, CA 92337
	Sycamore Hills Elementary School	4,363	Southwest	11036 Mahogany Drive, Fontana, CA 92337
	Ruth O. Harris Middle School	4,528	South	11150 Alder Avenue, Bloomington, CA 92316
	Bloomington High School	1,637	Southeast	10750 Laurel Avenue, Bloomington, CA 92316
	Truth Tabernacle Christian Academy	4,090	Northeast	18027 San Bernardino Avenue, Bloomington, CA 92316
	Mary B. Lewis Elementary School	4,784	Northeast	18040 San Bernardino Avenue, Bloomington, CA 92316
	Kingdom Hall of Jehovah's Witnesses	3,112	Southeast	10575 Locust Avenue, Bloomington, CA 92316
	Bloomington Pentecostal Church of God	5,724	Northeast	9999 Linden Avenue, Bloomington, CA 92316
	Calvary Missionary Baptist Church	4,212	Northeast	18194 Marygold Avenue, Bloomington, CA 92316
	St George's Catholic Church	3,985	Northeast	17895 San Bernardino Avenue, Fontana, CA 92335
Hospitals	Kaiser Permanente Hospital	3,142	Northwest	9961 Sierra Avenue, Fontana, CA 92335
Parks	Sycamore Hills Park	4,692	Southwest	11075 Mayberry Street, Fontana, CA 92337
	Ayala Park	3,855	Northeast	18313 Valley Boulevard, Bloomington, CA 92316

Note:
1. Distances are approximate and measured from the exterior project boundary only, not from individual construction areas within the interior of the project site.

Source: Google Earth, 2019.

4.0 REGULATORY SETTING

4.1 AIR QUALITY REGULATORY PROGRAMS

4.1.1 FEDERAL

Clean Air Act. The Clean Air Act (CAA) of 1970 and the CAA Amendments of 1971 required the EPA to establish NAAQS, with states retaining the option to adopt more stringent standards or to include other specific pollutants. In 2007, the Supreme Court found that carbon dioxide is an air pollutant covered by the CAA; however, no NAAQS have been established for carbon dioxide.

These standards are the levels of air quality considered safe, with an adequate margin of safety, to protect the public health and welfare. They are designed to protect those "sensitive receptors" most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

The EPA has classified air basins (or portions thereof) as being in attainment, nonattainment, or unclassified for each criteria air pollutant, based on whether or not the NAAQS have been achieved. If an area is designated unclassified, it is because inadequate air quality data were available as a basis for a nonattainment or attainment designation. Table 1 lists the Federal attainment status of the Basin for the criteria pollutants.

National Emissions Standards for Hazardous Air Pollutants Program. Under Federal law, 188 substances are listed as hazardous air pollutants (HAPs). Major sources of specific HAPs are subject to the requirements of the National Emissions Standards for Hazardous Air Pollutants (NESHAPS) program. The EPA is establishing regulatory schemes for specific source categories and requires implementation of Maximum Achievable Control Technologies (MACTs) for major sources of HAPs in each source category. State law has established the framework for California's toxic air contaminant (TAC) identification and control program, which is generally more stringent than the Federal program and is aimed at HAPs that are a problem in California. The State has formally identified 244 substances as TACs and is adopting appropriate control measures for each. Once adopted at the State level, each air district will be required to adopt a measure that is equally or more stringent.

4.1.2 STATE

California Air Toxics "Hot Spots" Information and Assessment Act (AB 2588). The California Air Toxics "Hot Spots" Information and Assessment Act (AB 2588) is a State-wide program enacted in 1987. AB 2588 requires facilities that exceed recommended Office of Environmental Health Hazard Assessment (OEHHA) levels to reduce risks to acceptable levels.

Typically, land development projects generate diesel emissions from construction vehicles during the construction phase, as well as some diesel emissions from small trucks during the operational phase. Diesel exhaust is mainly composed of particulate matter and gases, which contain potential cancer-causing substances. Emissions from diesel engines currently include over 40 substances that are listed by EPA as hazardous air pollutants and by CARB as toxic air contaminants. In 1998, CARB identified particulate matter in diesel exhaust as a TAC, based on data linking diesel particulate emissions to increased risks of lung cancer and respiratory disease.

In 2000, CARB adopted a comprehensive diesel risk reduction plan to reduce emissions from both new and existing diesel-fueled engines and vehicles. The goal of the plan is to reduce diesel PM emissions and the associated health risk by 75 percent in 2010 and by 85 percent by 2020. As part of this plan, CARB identified Airborne Toxic Control Measures (ATCM) for mobile and stationary emissions sources. Each ATCM is codified in the California Code of Regulations, including the ATCM to limit diesel-fueled commercial motor vehicle idling, which puts limits on idling time for large diesel engines (13 CCR Chapter 10 Section 2485).

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

In addition to standards set for the six criteria pollutants, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety. Further, in addition to primary and secondary ambient air quality standards, the State has established a set of episode criteria for ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, and particulate matter. These criteria refer to episode levels representing periods of short-term exposure to air pollutants that actually threaten public health. Table 1 above lists the state attainment status of the Basin for the criteria pollutants.

California State Implementation Plan. The Federal CAA (and its subsequent amendments) requires each state to prepare an air quality control plan referred to as the State Implementation Plan (SIP). The SIP is a living document that is periodically modified to reflect the latest emissions inventories, plans, and rules and regulations of air basins as reported by the agencies with jurisdiction over them. The CAA Amendments dictate that states containing areas violating the national ambient air quality standards revise their SIPs to include extra control measures to

reduce air pollution. The SIP includes strategies and control measures to attain the NAAQS by deadlines established by the CAA. The EPA has the responsibility to review all State Implementation Plans to determine if they conform to the requirements of the CAA.

State law makes CARB the lead agency for all purposes related to the SIP. Local air districts and other agencies prepare SIP elements and submit them to CARB for review and approval. CARB then forwards SIP revisions to the EPA for approval and publication in the Federal Register.

Senate Bill 1889, Accidental Release Prevention Law/California Accidental Release Prevention Program. Senate Bill (SB) 1889 required California to implement a new Federally mandated program governing the accidental airborne release of chemicals promulgated under Section 112 of the CAA. In 1997, the California Accidental Release Prevention Law (CalARP) replaced the previous California Risk Management and Prevention Program and incorporated the mandatory Federal requirements. CalARP addresses facilities that contain specified hazardous materials, known as regulated substances, which if involved in an accidental release, could result in adverse offsite consequences. CalARP defines regulated substances as chemicals that pose a threat to public health and safety or the environment because they are highly toxic, flammable, or explosive.

4.1.3 REGIONAL

South Coast Air Quality Management District. The SCAQMD is one of 35 air quality management districts that have prepared AQMP's to accomplish a five-percent annual reduction in emissions. The *2016 Air Quality Management Plan* (2016 AQMP) is a regional blueprint for achieving air quality standards and healthful air. The 2016 AQMP represents a new approach, focusing on available, proven, and cost-effective alternatives to traditional strategies, while seeking to achieve multiple goals in partnership with other entities promoting reductions in greenhouse gases and toxic risk, as well as efficiencies in energy use, transportation, and goods movement. The 2016 AQMP incorporates the latest scientific and technical information and planning assumptions, including the latest applicable growth assumptions, Regional Transportation Plan/Sustainable Communities Strategy, and updated emission inventory methodologies for various source categories. The 2016 AQMP relies on a multi-level partnership of governmental agencies at the Federal, State, regional, and local level. These agencies (EPA, CARB, local governments, Southern California Association of Governments [SCAG] and the SCAQMD) are the primary agencies that implement the AQMP programs.

Southern California Association of Governments. The Southern California Association of Governments (SCAG) adopted the *2016–2040 Regional Transportation Plan/Sustainable Communities Strategy* (2016–2040 RTP/SCS) on April 7, 2016. The 2016–2040 RTP/SCS reaffirms the land use policies that were incorporated into the 2012–2035 RTP/SCS. These foundational policies, which guided the development of the 2016–2040 RTP/SCS's strategies for land use, include the following:

- Identify regional strategic areas for infill and investment;

- Structure the plan on a three-tiered system of centers development;[14]
- Develop "Complete Communities";
- Develop nodes on a corridor;
- Plan for additional housing and jobs near transit;
- Plan for changing demand in types of housing;
- Continue to protect stable, existing single-family areas;
- Ensure adequate access to open space and preservation of habitat; and
- Incorporate local input and feedback on future growth.

The 2016–2040 RTP/SCS recognizes that transportation investments and future land use patterns are inextricably linked, and continued recognition of this close relationship will help the region make choices that sustain existing resources and expand efficiency, mobility, and accessibility for people across the region. In particular, the 2016–2040 RTP/SCS draws a closer connection between where people live and work, and it offers a blueprint for how Southern California can grow more sustainably. The 2016–2040 RTP/SCS also includes strategies focused on compact infill development and economic growth by building the infrastructure the region needs to promote the smooth flow of goods and easier access to jobs, services, educational facilities, healthcare and more.

The 2016–2040 RTP/SCS states that the SCAG region is home to about 18.3 million people in 2012 and currently includes approximately 5.9 million homes and 7.4 million jobs.[15] By 2040, the integrated growth forecast projects that these figures will increase by 3.8 million people, with nearly 1.5 million more homes and 2.4 million more jobs. High Quality Transit Areas[16] (HQTAs) will account for 3 percent of regional total land but are projected to accommodate 46 percent and 55 percent of future household and employment growth respectively between 2012 and 2040. The 2016–2040 RTP/SCS overall land use pattern reinforces the trend of focusing new housing and employment in the region's HQTAs. HQTAs are a cornerstone of land use planning best practice in the SCAG region because they concentrate roadway repair investments, leverage transit and active transportation investments, reduce regional life cycle infrastructure costs, improve accessibility, create local jobs, and have the potential to improve public health and housing affordability.

The 2016–2040 RTP/SCS is expected to reduce per capita transportation emissions by 8 percent by 2020 and 18 percent by 2035. This level of reduction would meet the region's GHG targets set by CARB of 8 percent per capita passenger vehicle GHG emissions by 2020 and exceed the region's

[14] Complete language: "Identify strategic centers based on a three-tiered system of existing, planned and potential relative to transportation infrastructure. This strategy more effectively integrates land use planning and transportation investment." A more detailed description of these strategies and policies can be found on pp. 90–92 of the SCAG 2008 Regional Transportation Plan, adopted in May 2008.

[15] 2016-2040 RTP/SCS population growth forecast methodology includes data for years 2012, 2020, 2035 and 2040.

[16] Defined by the 2016–2040 RTP/SCS as generally walkable transit villages or corridors that are within 0.5 mile of a well-serviced transit stop or a transit corridor with 15-minute or less service frequency during peak commute hours.

GHG target set by CARB of 13 percent per capita passenger vehicle GHG emissions by 2035.[17] Furthermore, although there are no per capita GHG emission reduction targets for passenger vehicles set by CARB for 2040, the 2016–2040 RTP/SCS's GHG emission reduction trajectory shows that more aggressive GHG emission reductions are projected for 2040.[18] The 2016–2040 RTP/SCS would result in an estimated 21 percent decrease in per capita GHG emissions by 2040. By meeting and exceeding the SB 375 targets for 2020 and 2035, as well as achieving an approximately 21-percent decrease in per capita GHG emissions by 2040 (an additional 3-percent reduction in the five years between 2035 [18 percent] and 2040 [21 percent]), the 2016–2040 RTP/SCS is expected to fulfill and exceed its portion of SB 375 compliance with respect to meeting the state's GHG emission reduction goals.

In March 2018, CARB updated the SCAG SB 375 targets to require an 8-percent reduction per capita passenger vehicle GHG emissions by 2020 and a 19-percent reduction by 2035 in per capita passenger vehicle GHG emissions.[19] As this reduction target was updated after publication of the 2016-2040 RTP/SCS, it is expected that the next iteration of the RTP/SCS will be updated to include this target.

County of San Bernardino 2007 General Plan. The *County of San Bernardino 2007 General Plan* (General Plan) was adopted on March 13, 2007. The Conservation Element of the General Plan provides direction regarding the conservation, development, and utilization of the County of San Bernardino's natural resources. Its objective is to prevent the wasteful exploitation, destruction, and neglect of resources. The Conservation Element is distinguished by being primarily oriented toward natural resources. Population growth and development continually require the use of both renewable and nonrenewable resources. One role of the Conservation Element is to establish policies that reconcile conflicting demands on those resources. The following air quality-related goals from the Conservation Element would be applicable to the project:

Goal CO 4. The County will ensure good air quality for its residents, businesses, and visitors to reduce impacts on human health and the economy.

Policy CO 4.1 Because developments can add to the wind hazard (due to increased dust, the removal of wind breaks, and other factors), the County will require either as mitigation measures in the appropriate environmental analysis required by the County for the development proposal or as conditions of approval if no environmental document is required, that developments in areas identified as susceptible to wind hazards to address site-specific analysis of:

[17] Southern California Association of Governments, *2016–2040 Regional Transportation Plan/Sustainable Communities Strategy*, Executive Summary, p. 8, April 2016.

[18] Southern California Association of Governments, *Final Program Environmental Impact Report for 2016–2040, RTP/SCS*, Figure 3.8.4-1, April 2016.

[19] California Air Resources Board, SB 375 Regional Greenhouse Gas Emissions Reduction Targets, Final, 2018.

a. Grading restrictions and/or controls on the basis of soil types, topography or season
b. Landscaping methods, plant varieties, and scheduling to maximize successful revegetation
c. Dust-control measures during grading, heavy truck travel, and other dust generating activities.

Policy CO 4.5 Reduce emissions through reduced energy consumption

1. Implement programs to phase in energy conservation improvements through the annual budget process.

San Bernardino County Code. Chapter 83.01, Section 83.01.040, *Air Quality*, of the Codified Ordinances of the County of San Bernardino (San Bernardino County Code) establishes standards and best practices for air quality emissions within the County. The following sections of the San Bernardino County Code are applicable to the proposed project.

§ 83.01.040 – Air Quality

(c) Diesel Exhaust Emissions Control Measures. The following emissions control measures shall apply to all discretionary land use projects approved by the County on or after January 15, 2009:

1. On-Road Diesel Vehicles. On-road diesel vehicles are regulated by the State of California Air Resources Board.

2. Off-Road Diesel Vehicle/Equipment Operations. All business establishments and contractors that use off-road diesel vehicle/equipment as part of their normal business operations shall adhere to the following measures during their operations in order to reduce diesel particulate matter emissions from diesel-fueled engines:

a. Off-road vehicles/equipment shall not be left idling on site for periods in excess of five minutes. The idling limit does not apply to:

i. Idling when queuing;
ii. Idling to verify that the vehicle is in safe operating condition;
iii. Idling for testing, servicing, repairing or diagnostic purposes;
iv. Idling necessary to accomplish work for which the vehicle was designed (such as operating a crane);
v. Idling required to bring the machine system to operating temperature; and
vi. Idling necessary to ensure safe operation of the vehicle.

b. *Use reformulated ultra-low-sulfur diesel fuel in equipment and use equipment certified by the U.S. Environmental Protection Agency (EPA) or that pre-dates EPA regulations.*
c. *Maintain engines in good working order to reduce emissions.*

d. *Signs shall be posted requiring vehicle drivers to turn off engines when parked.*

e. *Any requirements or standards subsequently adopted by the South Coast Air Quality Management District, the Mojave Desert Air Quality Management District or the California Air Resources Board.*

f. *Provide temporary traffic control during all phases of construction.*

g. *On-site electrical power connections shall be provided for electric construction tools to eliminate the need for diesel-powered electric generators, where feasible.*

h. *Maintain construction equipment engines in good working order to reduce emissions. The developer shall have each contractor certify that all construction equipment is properly serviced and maintained in good operating condition.*

i. *Contractors shall use ultra low sulfur diesel fuel for stationary construction equipment as required by Air Quality Management District (AQMD) Rules 431.1 and 431.2 to reduce the release of undesirable emissions.*

j. *Substitute electric and gasoline-powered equipment for diesel-powered equipment, where feasible.*

4.2 GLOBAL CLIMATE CHANGE REGULATORY PROGRAMS

4.2.1 FEDERAL

To date, no national standards have been established for the nationwide GHG reduction targets, nor have any regulations or legislation been enacted specifically to address climate change and GHG emissions reduction at the project level. Various efforts have been promulgated at the Federal level to improve fuel economy and energy efficiency to address climate change and its associated effects.

Energy Independence and Security Act of 2007. The Energy Independence and Security Act of 2007 (December 2007), among other key measures, requires the following, which would aid in the reduction of national GHG emissions:

- Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel in 2022.

- Set a target of 35 miles per gallon for the combined fleet of cars and light trucks by model year 2020, and direct the National Highway Traffic Safety Administration (NHTSA) to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks.

- Prescribe or revise standards affecting regional efficiency for heating and cooling products and procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.

U.S. Environmental Protection Agency Endangerment Finding. The EPA authority to regulate GHG emissions stems from the U.S. Supreme Court decision in *Massachusetts v. EPA* (2007). The Supreme Court ruled that GHGs meet the definition of air pollutants under the existing Clean Air Act (CAA) and must be regulated if these gases could be reasonably anticipated to endanger public health or welfare. Responding to the Court's ruling, the EPA finalized an endangerment finding in December 2009. Based on scientific evidence it found that six GHGs (carbon dioxide [CO_2], methane [CH_4], nitrous oxide [N_2O], hydrofluorocarbons [HFCs], perfluorocarbons [PFCs], and sulfur hexafluoride [SF_6]) constitute a threat to public health and welfare. Thus, it is the Supreme Court's interpretation of the existing CAA and the EPA's assessment of the scientific evidence that form the basis for the EPA's regulatory actions.

4.2.2 STATE

Various Statewide and local initiatives to reduce the State's contribution to GHG emissions have raised awareness that, even though the various contributors to and consequences of global climate change are not yet fully understood, global climate change is under way, and there is a real potential for severe adverse environmental, social, and economic effects in the long term. Every nation emits GHGs and as a result makes an incremental cumulative contribution to global climate change; therefore, global cooperation is necessary to reduce the rate of GHG emissions enough to slow or stop the human-caused increase in average global temperatures and associated changes in climatic conditions.

Executive Order S-3-05. Executive Order S-3-05 set forth a series of target dates by which Statewide emissions of GHGs would be progressively reduced, as follows:

By 2010, reduce GHG emissions to 2000 levels;
By 2020, reduce GHG emissions to 1990 levels; and
By 2050, reduce GHG emissions to 80 percent below 1990 levels.

The Executive Order directed the secretary of the California Environmental Protection Agency (Cal/EPA) to coordinate a multi-agency effort to reduce GHG emissions to the target levels. The

secretary also submits biannual reports to the governor and California Legislature describing the progress made toward the emissions targets, the impacts of global climate change on California's resources, and mitigation and adaptation plans to combat these impacts. To comply with the Executive Order, the secretary of Cal/EPA created the California Climate Action Team, made up of members from various State agencies and commissions. The team released its first report in March 2006. The report proposed to achieve the targets by building on the voluntary actions of California businesses, local governments, and communities and through State incentive and regulatory programs.

Assembly Bill 32 (California Global Warming Solutions Act of 2006). California passed the California Global Warming Solutions Act of 2006 (AB 32; *California Health and Safety Code* Division 25.5, Sections 38500 - 38599). AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and establishes a cap on Statewide GHG emissions. AB 32 requires that Statewide GHG emissions be reduced to 1990 levels by 2020. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then CARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

Senate Bill 375. SB 375, signed in September 2008 (Chapter 728, Statutes of 2008), aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation. SB 375 requires Metropolitan Planning Organizations (MPOs) to adopt a sustainable communities strategy (SCS) or alternative planning strategy (APS) that prescribe land use allocation in that MPOs regional transportation plan. CARB, in consultation with MPOs, provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets are updated every eight years but can be updated every four years if advancements in emissions technologies affect the reduction strategies to achieve the targets. CARB is also charged with reviewing each MPO's SCS or APS for consistency with its assigned targets. If MPOs do not meet the GHG reduction targets, transportation projects may not be eligible for funding programmed after January 1, 2012.

Senate Bill 32 (SB 32). Signed into law on September 2016, SB 32 codifies the 2030 GHG reduction target in Executive Order B-30-15 (40 percent below 1990 levels by 2030). The bill authorizes CARB to adopt an interim GHG emissions level target to be achieved by 2030. CARB also must adopt rules and regulations in an open public process to achieve the maximum, technologically feasible, and cost-effective GHG reductions.

CARB Scoping Plan. On December 11, 2008, CARB adopted its Scoping Plan, which functions as a roadmap to achieve the California GHG reductions required by AB 32 through subsequently enacted regulations. CARB's Scoping Plan contains the main strategies California would implement to reduce the projected 2020 "Business as Usual" (BAU) emissions to 1990 levels, as

required by AB 32. These strategies are intended to reduce CO_2eq[20] emissions by 174 million metric tons (MT). This reduction of 42 million MT CO_2eq, or almost ten percent from 2002 to 2004 average emissions, would be required despite the population and economic growth forecasted through 2020.

CARB's Scoping Plan calculates 2020 BAU emissions as those expected to occur in the absence of any GHG reduction measures. The 2020 BAU emissions estimate was derived by projecting emissions from a past baseline year using growth factors specific to each of the different economic sectors (e.g., transportation, electrical power, commercial and residential, industrial, etc.). CARB used three-year average emissions, by sector, for 2002 to 2004 to forecast emissions to 2020. When CARB's Scoping Plan process was initiated, 2004 was the most recent year for which actual data was available. The measures described in CARB's Scoping Plan are intended to reduce the projected 2020 BAU to 1990 levels, as required by AB 32.

AB 32 requires CARB to update the Scoping Plan at least once every five years. CARB adopted the first major update to the Scoping Plan on May 22, 2014. The updated Scoping Plan summarizes recent science related to climate change, including anticipated impacts to California and the levels of GHG reduction necessary to likely avoid risking irreparable damage. It identifies the actions California has already taken to reduce GHG emissions and focuses on areas where further reductions could be achieved to help meet the 2020 target established by AB 32. The Scoping Plan update also looks beyond 2020 toward the 2050 goal, established in Executive Order S-3-05, and observes that "a mid-term statewide emission limit will ensure that the State stays on course to meet our long-term goal." The Scoping Plan update did not establish or propose any specific post-2020 goals, but identified such goals in water, waste, natural resources, clean energy, transportation, and land use.

On January 20, 2017, CARB released the proposed Second Update to the Scoping Plan, which identifies the State's post-2020 reduction strategy. The Second Update was approved on December 14, 2017 and reflects the 2030 target of a 40 percent reduction below 1990 levels, set by Executive Order B-30-15 and codified by SB 32.[21] The 2017 Scoping Plan establishes a new emissions limit of 260 million metric tons of CO_2 equivalent ($MTCO_2eq$) for the year 2030, which corresponds to a 40 percent decrease in 1990 levels by 2030. The 2017 Scoping Plan Update contains the following goals:

1. SB 350
   - Achieve 50 percent Renewables Portfolio Standard (RPS) by 2030.
   - Doubling of energy efficiency savings by 2030.

2. Low Carbon Fuel Standard (LCFS)

[20] Carbon Dioxide Equivalent (CO_2eq) - A metric measure used to compare the emissions from various greenhouse gases based upon their global warming potential.

[21] California Air Resources Board, *California's 2017 Climate Change Scoping Plan*, November 2017, https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf, accessed July 15, 2019.

- Increased stringency (reducing carbon intensity 18 percent by 2030, up from 10 percent in 2020).

3. Mobile Source Strategy (Cleaner Technology and Fuels Scenario)
   - Maintaining existing GHG standards for light- and heavy-duty vehicles.
   - Put 4.2 million zero-emission vehicles (ZEVs) on the roads.
   - Increase ZEV buses, delivery and other trucks.

4. Sustainable Freight Action Plan
   - Improve freight system efficiency.
   - Maximize use of near-zero emission vehicles and equipment powered by renewable energy.
   - Deploy over 100,000 zero-emission trucks and equipment by 2030.

5. Short-Lived Climate Pollutant (SLCP) Reduction Strategy
   - Reduce emissions of methane and hydrofluorocarbons 40 percent below 2013 levels by 2030.
   - Reduce emissions of black carbon 50 percent below 2013 levels by 2030.

6. SB 375 Sustainable Communities Strategies
   - Increased stringency of 2035 targets.

7. Post-2020 Cap-and-Trade Program
   - Declining caps, continued linkage with Québec, and linkage to Ontario, Canada.
   - CARB will look for opportunities to strengthen the program to support more air quality co-benefits, including specific program design elements.

8. 20 percent reduction in GHG emissions from the refinery sector.

9. By 2018, develop Integrated Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

4.2.3 REGIONAL

South Coast Air Quality Management District. The SCAQMD adopted a "Policy on Global Warming and Stratospheric Ozone Depletion" on April 6, 1990. The policy commits the SCAQMD to consider global impacts in rulemaking and in drafting revisions to the Air Quality Management Plan. In March 1992, the SCAQMD Governing Board reaffirmed this policy and adopted amendments to the policy to include the following directives:

- Phase out the use and corresponding emissions of chlorofluorocarbons, methyl chloroform (1,1,1-trichloroethane or TCA), carbon tetrachloride, and halons by December 1995;

- Phase out the large quantity use and corresponding emissions of hydrochlorofluorocarbons by the year 2000;

- Develop recycling regulations for hydrochlorofluorocarbons (e.g., SCAQMD Rules 1411 and 1415);

- Develop an emissions inventory and control strategy for methyl bromide; and

- Support the adoption of a California GHG emission reduction goal.

In 2008, SCAQMD released draft guidance regarding interim CEQA GHG significance thresholds.[22] Within its October 2008 document, the SCAQMD proposed the use of a percent emission reduction target to determine significance for commercial/residential projects that emit greater than 3,000 $MTCO_2eq$ per year. Under this proposal, commercial/residential projects that emit fewer than 3,000 $MTCO_2eq$ per year would be assumed to have a less than significant impact on climate change. On December 5, 2008, the SCAQMD Governing Board adopted the staff proposal for an interim GHG significance threshold of 10,000 $MTCO_2eq$ per year for stationary source/industrial projects where the SCAQMD is the lead agency. However, the SCAQMD has yet to adopt a GHG significance threshold for application by local lead agencies in their review of land use development projects (e.g., residential/commercial projects).

County of San Bernardino 2007 General Plan. The Conservation Element of the General Plan contains the following GHG-related policies from the Conservation Element would be applicable to the project:

Policy CO 4.6 Reduce Greenhouse Gas (GHG) emissions within the County boundaries.

1. GHG Emissions Reduction Plan. The County will adopt a GHG Emissions Reduction Plan that includes:

   a) Measures to reduce GHG emissions attributable to the County's operational activities, services and facilities, over which the County has direct responsibility and control; and,

   b) Measures to reduce GHG emissions produced by private industry and development that is located within the area subject to the County's discretionary land use authority and ministerial building permit authority; and,

   c) Implementation and monitoring procedures to provide periodic review of the plan's progress and allow for adjustments over time to ensure fulfillment of the plan's objectives.

[22] South Coast Air Quality Management District, *Draft Guidance Document—Interim CEQA Greenhouse Gas (GHG) Significance Threshold*, October 2008.

County of San Bernardino Regional Greenhouse Gas Reduction Plan. The County adopted the *Regional Greenhouse Gas Reduction Plan* (RGGRP) in March 2014. The RGGRP describes the GHG reduction goals for various cities within the County to comply with the State's GHG reduction targets for the year 2020. The RGGRP does not specifically address post-2020 reduction targets for unincorporated San Bernardino County.

5.0 POTENTIAL AIR QUALITY AND GREENHOUSE GAS IMPACTS

CEQA THRESHOLDS

Appendix G of the *CEQA Guidelines* contains the Environmental Checklist form that was used during the preparation of this Technical Study. Accordingly, a project may create a significant environmental impact if it causes one or more of the following to occur:

- Conflict with or obstruct implementation of the applicable air quality plan (refer to Impact Statement AQ-1);
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (refer to Impact Statement AQ-2);
- Expose sensitive receptors to substantial pollutant concentrations (refer to Impact Statement AQ-3);
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people (refer to Impact Statement AQ-4);
- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment (refer to Impact Statement GHG-1); and/or
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases (refer to Impact Statement GHG-2).

Based on these standards and thresholds, the effects of the proposed project have been categorized as either a "less than significant impact" or a "potentially significant impact." Mitigation measures are recommended for potentially significant impacts.

AIR QUALITY THRESHOLDS

Under CEQA, the SCAQMD is an expert commenting agency on air quality within its jurisdiction or impacting its jurisdiction. Under the Federal Clean Air Act, the SCAQMD has adopted Federal attainment plans for O_3 and PM_{10}. The SCAQMD reviews projects to ensure that they would not: (1) cause or contribute to any new violation of any air quality standard; (2) increase the frequency or severity of any existing violation of any air quality standard; or (3) delay timely attainment of any air quality standard or any required interim emission reductions or other milestones of any Federal attainment plan.

The *CEQA Air Quality Handbook* also provides significance thresholds for both construction and operation of projects within the SCAQMD jurisdictional boundaries. If the SCAQMD thresholds are exceeded, a potentially significant impact could result. However, ultimately the lead agency determines the thresholds of significance for impacts. If a project proposes development in excess of the established thresholds, as outlined in Table 4, *South Coast Air Quality Management District Emissions Thresholds*, a significant air quality impact may occur and additional analysis is warranted to fully assess the significance of impacts.

Table 4
South Coast Air Quality Management District Emissions Thresholds

Phase	Pollutant (pounds/day)					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Construction	75	100	550	150	150	55
Operational	55	55	550	150	150	55
Source: South Coast Air Quality Management District, CEQA Air Quality Handbook, November 1993.						

Local Carbon Monoxide Standards

In addition, a project would result in a local air quality impact if the project results in increased traffic volumes and/or decreases in Level of Service (LOS) that would result in an exceedance of the CO ambient air quality standards of 20 ppm for 1-hour CO concentration levels, and 9 ppm for 8-hour CO concentration levels. If the CO concentrations at potentially impacted intersections with the project are lower than the standards, then there is no significant impact. If future CO concentrations with the project are above the standard, then the project would have a significant local air quality impact.

Localized Significance Thresholds

Localized Significance Thresholds (LSTs) were developed in response to SCAQMD Governing Boards' Environmental Justice Enhancement Initiative (I-4). The SCAQMD provided the *Final Localized Significance Threshold Methodology* (July 2008) for guidance. The LST methodology assists lead agencies in analyzing localized impacts associated with project-specific level proposed projects. The SCAQMD provides the LST lookup tables for one-, two-, and five-acre projects emitting CO, NO_X, or PM_{10}. The LST methodology and associated mass rates are not designed to evaluate localized impacts from mobile sources traveling over the roadways. The SCAQMD recommends that any project over five acres should perform air quality dispersion modeling to assess impacts to nearby sensitive receptors.

Cumulative Emissions Thresholds

The SCAQMD's 2016 AQMP was prepared to accommodate growth, meet State and Federal air quality standards, and minimize the fiscal impact that pollution control measures have on the local economy. According to the *CEQA Air Quality Handbook*, project-related emissions that fall

below the established construction and operational thresholds are considered less than significant.

SCAQMD rule development through the 1970s and 1980s resulted in dramatic improvement in Basin air quality. Nearly all control programs developed through the early 1990s relied on (i) the development and application of cleaner technology; (ii) add-on emission controls; and (iii) uniform CEQA review throughout the Basin. Industrial emission sources have been significantly reduced by this approach and vehicular emissions have been reduced by technologies implemented at the state level by CARB.

As discussed above, the SCAQMD is the lead agency charged with regulating air quality emission reductions for the entire Basin. SCAQMD created AQMPs, which represent a regional blueprint for achieving healthful air on behalf of the 16 million residents of the South Coast Basin. The historical improvement in air quality since the 1970s is the direct result of southern California's comprehensive, multiyear strategy of reducing air pollution from all sources as outlined in its AQMPs and by utilizing uniform CEQA review throughout the Basin.

Ozone, NO_x, VOC, and CO have been decreasing in the Basin since 1975 and are projected to continue to decrease through 2020. These decreases result primarily from motor vehicle controls and reductions in evaporative emissions. Although vehicle miles traveled in the Basin continue to increase, NO_x and VOC levels are decreasing because of the mandated controls on motor vehicles and the replacement of older polluting vehicles with lower-emitting vehicles. NO_x emissions from electric utilities have also decreased due to use of cleaner fuels and renewable energy. The overall trends of PM_{10} and $PM_{2.5}$ in the air (not emissions) show an overall improvement since 1975. Direct emissions of PM_{10} have remained somewhat constant in the Basin and direct emissions of $PM_{2.5}$ have decreased slightly since 1975. Area wide sources (fugitive dust from roads, dust from construction and demolition, and other sources) contribute the greatest amount of direct particulate matter emissions.

Part of the control process of the SCAQMD's duty to greatly improve the air quality in the Basin is the uniform CEQA review procedures required by SCAQMD's *CEQA Handbook*. The single threshold of significance used to assess direct and cumulative project impacts has in fact "worked" as evidenced by the track record of the air quality in the Basin dramatically improving over the course of the past decades. As stated by the SCAQMD, the SCAQMD thresholds of significance are based on factual and scientific data and are therefore appropriate thresholds of significance to use for this project.

Greenhouse Gas Emissions Thresholds

The County of San Bernardino has not adopted a numerical significance threshold for assessing impacts related to GHG emissions. Nor have the SCAQMD, CARB, or any other State or regional agency adopted a numerical significance threshold for assessing GHG emissions that is applicable to the project. As discussed above, the SCAQMD has an interim GHG significance threshold of 10,000 $MTCO_2eq$ per year for stationary source/industrial projects where SCAQMD is the lead

agency. Although the project site is zoned Bloomington Community Plan/Regional Industrial (BL/IR), the SCAQMD interim GHG significance threshold is not applicable to the project as the project's use classification pursuant to the Codified Ordinances of the County of San Bernardino (San Bernardino County Code) Chapter 82.06 is Storage-Warehouse/Indoor Storage with ancillary office[23] and the County of San Bernardino is the lead agency.

Since there is no applicable adopted or accepted numerical threshold of significance for GHG emissions, the significance of the project's GHG emissions is evaluated consistent with CEQA Guidelines Section 15064.4(b). CEQA Guidelines Section 15064.4(b) considers whether the project complies with applicable plans, policies, regulations, and requirements adopted to implement a Statewide, regional, or local plan for the reduction or mitigation of GHG emissions. This evaluation of consistency with such plans is the sole basis for determining the significance of the project's GHG-related impacts on the environment.

As the project would be operational post-2020, the RGGRP was not utilized for the GHG plan consistency analysis. Instead, as this project is a land use development project, the most directly applicable adopted regulatory plans to reduce GHG emissions are the 2016-2040 RTP/SCS (which is designed to achieve regional GHG reductions from the land use and transportation sectors as required by SB 375 and the State's long-term climate goals) and the 2017 Scoping Plan.

Notwithstanding, for informational purposes, the analysis also calculates the amount of GHG emissions that would be attributable to the project using recommended air quality models, as described below. The primary purpose of quantifying the project's GHG emissions is to satisfy CEQA Guidelines Section 15064.4(a), which calls for a good-faith effort to describe and calculate emissions. The estimated emissions inventory is also used to determine if there would be a reduction in the project's incremental contribution of GHG emissions as a result of compliance with regulations and requirements adopted to implement plans for the reduction or mitigation of GHG emissions. However, the significance of the project's GHG emissions impacts is not based on the amount of GHG emissions resulting from the project.

AQ-1 CONFLICT WITH OR OBSTRUCT IMPLEMENTATION OF THE APPLICABLE AIR QUALITY PLAN?

On March 3, 2017, the SCAQMD Governing Board adopted the 2016 AQMP, which incorporates the latest scientific and technical information and planning assumptions, including the latest applicable growth assumptions, 2016–2040 RTP/SCS, and updated emission inventory methodologies for various source categories. According to the SCAQMD's CEQA Air Quality Handbook, two main criteria must be addressed.

Criterion 1:

[23] At the time of this analysis, stationary sources have not been identified with the project use classification of Storage-Warehouse/Indoor Storage with ancillary office.

With respect to the first criterion, SCAQMD methodologies require that an air quality analysis for a project include forecasts of project emissions in relation to contributing to air quality violations and delay of attainment.

a) *Would the project result in an increase in the frequency or severity of existing air quality violations?*

Since the consistency criteria identified under the first criterion pertain to pollutant concentrations, rather than to total regional emissions, an analysis of a project's pollutant emissions relative to localized pollutant concentrations associated with the CAAQS and NAAQS is used as the basis for evaluating project consistency. As discussed under Impact Statements AQ-2 and AQ-3, the project's short-term construction emissions, long-term operational emissions, and localized concentrations of CO, NO_X, PM_{10}, and $PM_{2.5}$ would be less than significant during project construction and operations. Therefore, the project would not result in an increase in the frequency or severity of existing air quality violations. Because VOCs are not a criteria pollutant, there is no ambient standard or localized threshold for VOCs. Due to the role VOC plays in O_3 formation, it is classified as a precursor pollutant and only a regional emissions threshold has been established. As such, the project would not cause or contribute to localized air quality violations or delay the attainment of air quality standard or interim emissions reductions specified in the 2016 AQMP.

b) *Would the project cause or contribute to new air quality violations?*

As discussed in Impact Statement AQ-2, the project's construction and operational emissions would not exceed the SCAQMD construction and operational thresholds. Therefore, the proposed project would not have the potential to cause or affect a violation of the ambient air quality standards.

c) *Would the project delay timely attainment of air quality standards or the interim emissions reductions specified in the AQMP?*

As discussed in Impact Statement AQ-3, the proposed project would result in less than significant impacts with regard to localized concentrations during project construction and operations. As such, the proposed project would not delay the timely attainment of air quality standards or 2016 AQMP emissions reductions.

Criterion 2:

With respect to the second criterion for determining consistency with SCAQMD and SCAG air quality policies, it is important to recognize that air quality planning within the Basin focuses on attainment of ambient air quality standards at the earliest feasible date. Projections for achieving air quality goals are based on assumptions regarding population, housing, and growth trends. Thus, the SCAQMD's second criterion for determining project consistency focuses on whether or

not the project exceeds the assumptions utilized in preparing the forecasts presented in the 2016 AQMP. Determining whether or not a project exceeds the assumptions reflected in the 2016 AQMP involves the evaluation of the following criterion.

a) *Would the project be consistent with the population, housing, and employment growth projections utilized in the preparation of the AQMP?*

In the case of the 2016 AQMP, three sources of data form the basis for the projections of air pollutant emissions: The General Plan, SCAG's *Growth Management* Chapter of the *Regional Comprehensive Plan* (RCP), and SCAG's 2016–2040 RTP/SCS. The 2016–2040 RTP/SCS also provides socioeconomic forecast projections of regional population growth.

The project site is located in the community of Bloomington in unincorporated San Bernardino County. The site is designated and zoned "Bloomington Community Plan/Regional Industrial (BL/IR)" in the General Plan and San Bernardino County Code. According to the General Plan, BL/IR uses consist of heavy industrial operations that have the potential to generate severe negative impacts, incidental commercial uses, agricultural support services, salvage operations, and similar and compatible uses. The project proposes to develop a 174,780 square foot warehouse building with a use classification of Storage-Warehouse/Indoor Storage with ancillary office. As such, the proposed project would be consistent with the land use designation, zoning, and development density planned for the project site. Therefore, the project would not exceed the population or job growth projects used by the SCAQMD to develop the 2016 AQMP.

As described above, the proposed project is consistent with the types, intensity, and patterns of land use envisioned for the site vicinity in the General Plan, RCP, and 2016–2040 RTP/SCS. As the SCAQMD has incorporated these same projections into the 2016 AQMP, it can be concluded that the proposed project would be consistent with the 2016 AQMP.

b) *Would the project implement all feasible air quality mitigation measures?*

Compliance with all feasible emission reduction measures identified by the SCAQMD would be required as identified in Impact Statement AQ-2 and AQ-3. Furthermore, the project would comply with San Bernardino County Code Section 83.01.040, which requires standards and best practices for air quality emissions such as restricting off-road vehicle and equipment to no more than five minutes of idling, the use of reformulated ultra-low sulfur diesel fuel, proper signage, and compliance with all CARB and SCAQMD rules and regulations. As such, the proposed project would meet this AQMP consistency criterion.

In conclusion, the determination of 2016 AQMP consistency is primarily concerned with the long-term influence of a project on air quality in the Basin. The proposed project would not result in a long-term impact on the region's ability to meet State and Federal air quality standards. Also,

the proposed project would be consistent with the goals and policies of the AQMP for control of fugitive dust. As discussed above, the proposed project's long-term influence would also be consistent with the SCAQMD and SCAG's goals and policies and is, therefore, considered consistent with the 2016 AQMP.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation. *Less Than Significant Impact.*

AQ-2 RESULT IN A CUMULATIVELY CONSIDERABLE NET INCREASE OF ANY CRITERIA POLLUTANT FOR WHICH THE REGION IS NONATTAINMENT FOR FEDERAL OR STATE STANDARDS?

SHORT-TERM CONSTRUCTION EMISSIONS

Short-term air quality impacts are predicted to occur during grading and construction operations associated with implementation of the proposed project. Temporary air emissions would result from the following activities:

- Particulate (fugitive dust) emissions from grading and building construction; and
- Exhaust emissions from the construction equipment and the motor vehicles of the construction crew.

Construction activities would include demolition, grading, paving, building construction, and architectural coating. Site grading would disturb approximately 65 acres and require approximately 12,000 cubic yards of soil to be imported on-site. Emissions for each construction phase have been quantified based upon the phase durations and equipment types. The analysis of daily construction emissions has been prepared utilizing the California Emissions Estimator Model version 2016.3.2 (CalEEMod). Refer to Appendix A, *Air Quality/Greenhouse Gas Emissions Data*, for the CalEEMod outputs and results. Table 5, *Maximum Daily Construction Emissions*, presents the anticipated daily short-term construction emissions.

Fugitive Dust Emissions

Construction activities are a source of fugitive dust (PM_{10} and $PM_{2.5}$) emissions that 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 area. Fugitive dust emissions are associated with land clearing, ground excavation, cut-and-fill, and truck travel on unpaved roadways (including demolition as well as construction activities). Fugitive dust emissions vary substantially from day to day, depending on the level of activity, specific operations, and weather conditions. Fugitive dust from demolition, grading, and construction is expected to be short-term and would cease upon project completion. Additionally, most of this material is inert silicates, rather than the complex organic particulates released from combustion sources, which are more harmful to health.

Table 5
Maximum Daily Construction Emissions

Emissions Source	Pollutant (pounds/day) [1, 2]					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Year 1						
Construction Emissions	8.44	95.50	58.70	0.17	16.97	7.85
Construction Emissions with SCAQMD Rules Applied[2]	8.44	95.50	58.70	0.17	9.52	5.40
SCAQMD Thresholds	***75***	***100***	***550***	***150***	***150***	***55***
Is Threshold Exceeded After Mitigation?	**No**	**No**	**No**	**No**	**No**	**No**
Year 2						
Construction Emissions	55.82	44.31	48.38	0.10	4.65	2.62
Construction Emissions with SCAQMD Rules Applied[2]	55.82	44.31	48.38	0.10	4.08	2.48
SCAQMD Thresholds	***75***	***100***	***550***	***150***	***150***	***55***
Is Threshold Exceeded After Mitigation?	**No**	**No**	**No**	**No**	**No**	**No**

Notes:
1. Emissions were calculated using CalEEMod version 2016.3.2, as recommended by the SCAQMD.
2. The mitigation reduction/credits for construction emissions are based on mitigation included in CalEEMod and are required by the SCAQMD Rules 402 & 403. The mitigation applied in CalEEMod includes the following: properly maintain mobile and other construction equipment; replace ground cover in disturbed areas quickly; water exposed surfaces three times daily; cover stock piles with tarps; water all haul roads twice daily; and limit speeds on unpaved roads to 15 miles per hour. The emissions results in this table represent the "mitigated" emissions shown in Appendix A.

Refer to Appendix A, *Air Quality/Greenhouse Gas Emissions Data*, for assumptions used in this analysis.

Dust (larger than 10 microns) generated by such activities usually becomes more of a local nuisance than a serious health problem. Of particular health concern is the amount of PM_{10} (particulate matter smaller than 10 microns) generated as a part of fugitive dust emissions. PM_{10} poses a serious health hazard alone or in combination with other pollutants. Fine Particulate Matter ($PM_{2.5}$) is mostly produced by mechanical processes. These include automobile tire wear, industrial processes such as cutting and grinding, and re-suspension of particles from the ground or road surfaces by wind and human activities such as construction or agriculture. $PM_{2.5}$ is mostly derived from combustion sources, such as automobiles, trucks, and other vehicle exhaust, as well as from stationary sources. These particles are either directly emitted or are formed in the atmosphere from the combustion of gases such as NO_X and SO_X combining with ammonia. $PM_{2.5}$ components from material in the Earth's crust, such as dust, are also present, with the amount varying in different locations.

The project would implement all required SCAQMD dust control techniques (i.e., daily watering), limitations on construction hours, and adhere to SCAQMD Rules 402 and 403 (which require watering of inactive and perimeter areas, track out requirements, etc.) and San Bernardino County Code Section 83.01.040 (which requires dust control techniques, such as daily watering and limitations on construction hours) to reduce PM_{10} and $PM_{2.5}$ concentrations. As depicted in Table 5, total PM_{10} and $PM_{2.5}$ emissions would not exceed the SCAQMD thresholds during construction. Thus, construction air quality impacts would be less than significant.

ROG Emissions[24]

In addition to gaseous and particulate emissions, the application of asphalt and surface coatings creates ROG emissions, which are O_3 precursors. In accordance with the methodology prescribed by the SCAQMD, the ROG emissions associated with paving have been quantified with CalEEMod. Architectural coatings were also quantified with CalEEMod based upon the size of the buildings.

The highest concentration of ROG emissions would be generated during the application of architectural coatings on the building. As required by law, all architectural coatings for the proposed project structures would comply with SCAQMD Regulation XI, Rule 1113 – Architectural Coating.[25] Rule 1113 provides specifications on painting practices as well as regulates the ROG content of paint. As shown in Table 5, project construction would not result in an exceedance of ROG emissions during any years of construction. Therefore, impacts would be less than significant in this regard.

Construction Equipment and Worker Vehicle Exhaust

Exhaust emissions from construction activities include emissions associated with the transport of machinery and supplies to and from the project site, emissions produced on-site as the equipment is used, and emissions from trucks transporting materials to and from the site. Standard SCAQMD regulations, such as maintaining all construction equipment in proper tune, shutting down equipment when not in use for extended periods of time, and implementing SCAQMD Rule 403 would be adhered to. As noted in Table 5, construction equipment exhaust would not exceed SCAQMD thresholds. Therefore, impacts are less than significant in this regard.

Naturally Occurring Asbestos

Asbestos is a term used for several types of naturally occurring fibrous minerals that are a human health hazard when airborne. The most common type of asbestos is chrysotile, but other types such as tremolite and actinolite are also found in California. Asbestos is classified as a known human carcinogen by State, Federal, and international agencies and was identified as a toxic air contaminant by the California Air Resources Board in 1986.

Asbestos can be released from serpentinite and ultramafic rocks when the rock is broken or crushed. At the point of release, the asbestos fibers may become airborne, causing air quality and human health hazards. These rocks have been commonly used for unpaved gravel roads, landscaping, fill projects, and other improvement projects in some localities. Asbestos may be released to the atmosphere due to vehicular traffic on unpaved roads, during grading for

[24] ROGs and VOCs are subsets of organic gases that are emitted from the incomplete combustion of hydrocarbons or other carbon-based fuels. Although they represent slightly different subsets of organic gases, they are used interchangeably for the purposes of this analysis.

[25] South Coast Air Quality Management District, *Regulation XI Source Specific Standards,* http://www.aqmd.gov/docs/default-source/rule-book/reg-xi/r1113.pdf?sfvrsn=15, accessed on July 12, 2019.

development projects, and at quarry operations. All of these activities may have the effect of releasing potentially harmful asbestos into the air. Natural weathering and erosion processes can act on asbestos bearing rock and make it easier for asbestos fibers to become airborne if such rock is disturbed. According to the Department of Conservation Division of Mines and Geology, *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos Report* (August 2000), serpentinite and ultramafic rocks are not known to occur within the project area. Thus, there would be no impact in this regard.

Total Daily Construction Emissions

In accordance with the SCAQMD Guidelines, CalEEMod was utilized to model construction emissions for ROG, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$. Construction would occur over approximately seven months with the greatest emissions being generated during the initial stages of construction. Additionally, the greatest amount of ROG emissions would typically occur during the final stages of development due to the application of architectural coatings.

CalEEMod allows the user to input mitigation measures such as watering the construction area to limit fugitive dust. "Mitigation measures" that were input into CalEEMod allow for certain reduction credits and result in a decrease of pollutant emissions.[26] Reduction credits are based upon studies developed by CARB, SCAQMD, and other air quality management districts throughout California, and were programmed within CalEEMod.
As depicted in Table 5, construction emissions would not exceed the SCAQMD thresholds of significance for any criteria pollutants. Thus, construction-related air emissions would not result in a cumulatively considerable net increase of any criteria pollutant and a less than significant impact would occur.

LONG-TERM OPERATIONAL EMISSIONS

Mobile Source Emissions

Mobile sources are emissions from motor vehicles, including tailpipe and evaporative emissions. Depending upon the pollutant being discussed, the potential air quality impact may be of either regional or local concern. For example, ROG, NO_X, SO_X, PM_{10}, and $PM_{2.5}$ are all pollutants of regional concern (NO_X and ROG react with sunlight to form O_3 [photochemical smog], and wind currents readily transport SO_X, PM_{10}, and $PM_{2.5}$). However, CO tends to be a localized pollutant, dispersing rapidly at the source.

The project-generated vehicle emissions have been estimated using CalEEMod. Trip generation rates associated with the project were based on traffic data within *Alder Logistics Center – Trip*

[26] The "mitigation" applied in CalEEMod includes the following: properly maintain mobile and other construction equipment; replace ground cover in disturbed areas quickly; water exposed surfaces three times daily; cover stock piles with tarps; water all haul roads twice daily; and limit speeds on unpaved roads to 15 miles per hour. The emissions results in this table represent the "mitigated" emissions shown in Appendix A and are required per SCAQMD and County rules and regulations.

Generation Memorandum (Trip Memo), prepared by Translutions, Inc. and dated November 6, 2018. The proposed project would generate approximately 306 daily trips, including 32 trips during the a.m. peak hour and 36 trips during the p.m. peak hour. Table 6, *Long-Term Air Emissions*, presents the anticipated mobile source emissions. As shown in Table 6, emissions generated by vehicle traffic associated with the proposed project would not exceed established SCAQMD regional thresholds.

Table 6
Long-Term Air Emissions

Scenario	Emissions (pounds per day)[1,2]					
	ROG	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Project Summer Emissions						
Area Source	3.97	0.00	0.04	0.00	0.00	0.00
Energy Source	0.25	2.25	1.89	0.01	0.17	0.17
Mobile	0.70	7.59	7.21	0.04	1.97	0.55
Total Maximum Daily Emissions[3]	*4.93*	*9.85*	*9.14*	*0.05*	*2.15*	*0.72*
SCAQMD Regional Threshold	***55***	***55***	***550***	***150***	***150***	***55***
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**
Project Winter Emissions						
Area Source	3.97	0.00	0.04	0.00	0.00	0.00
Energy Source	0.25	2.25	1.89	0.01	0.17	0.17
Mobile	0.63	7.56	6.58	0.03	1.97	0.55
Total Maximum Daily Emissions	*4.86*	*9.81*	*8.51*	*0.05*	*2.15*	*0.72*
SCAQMD Regional Threshold	***55***	***55***	***550***	***150***	***150***	***55***
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Notes:
1. Emissions were calculated using CalEEMod version 2016.3.2, as recommended by the SCAQMD.
2. The emissions results in this table represent the "mitigated" emissions shown in Appendix A.
3. The numbers may be slightly off due to rounding.

Refer to Appendix A for assumptions used in this analysis.

Area Source Emissions

Area source emissions would be generated due to an increased demand for consumer products, architectural coating, and landscaping associated with the proposed project. The proposed project would not include wood burning fireplaces or other devices per SCAQMD Rule 445 (Wood Burning Devices). As shown in Table 6, area source emissions from the proposed project would not exceed SCAQMD thresholds for ROG, NO_X, CO, SO_X, PM_{10}, or $PM_{2.5}$.

Energy Source Emissions

Energy source emissions would be generated as a result of electricity and natural gas (non-hearth) usage associated with the proposed project. The primary use of electricity and natural gas by the project would be for space heating and cooling, water heating, ventilation, lighting, appliances,

and electronics. As shown in Table 6, energy source emissions from the proposed project would not exceed SCAQMD thresholds for ROG, NO_X, CO, SO_X, PM_{10}, or $PM_{2.5}$.

Air Quality Health Impacts

Adverse health effects induced by criteria pollutant emissions are highly dependent on a multitude of interconnected variables (e.g., cumulative concentrations, local meteorology and atmospheric conditions, and the number and character of exposed individual [e.g., age, gender]). In particular, ozone precursors, VOCs and NO_X, affect air quality on a regional scale. Health effects related to ozone are therefore the product of emissions generated by numerous sources throughout a region. Existing models have limited sensitivity to small changes in criteria pollutant concentrations, and, as such, translating project-generated criteria pollutants to specific health effects or additional days of nonattainment would produce meaningless results. In other words, the project's less than significant increases in regional air pollution from criteria air pollutants would have nominal or negligible impacts on human health.

As noted in the Brief of Amicus Curiae by the SCAQMD (April 6, 2015) for the *Sierra Club vs. County of Fresno*, the SCAQMD acknowledged it would be extremely difficult, if not impossible to quantify health impacts of criteria pollutants for various reasons including modeling limitations as well as where in the atmosphere air pollutants interact and form. Further, as noted in the Brief of Amicus Curiae by the San Joaquin Valley Air Pollution Control District (SJVAPCD) (April 13, 2015) for the *Sierra Club vs. County of Fresno*, SJVAPCD has acknowledged that currently available modeling tools are not equipped to provide a meaningful analysis of the correlation between an individual development project's air emissions and specific human health impacts.

The SCAQMD acknowledges that health effects quantification from ozone, as an example is correlated with the increases in ambient level of ozone in the air (concentration) that an individual person breathes. SCAQMD's Brief of Amicus Curiae states that it would take a large amount of additional emissions to cause a modeled increase in ambient ozone levels over the entire region. The SCAQMD states that based on their own modeling in the SCAQMD's *2012 Air Quality Management Plan*, a reduction of 432 tons (864,000 pounds) per day of NO_X and a reduction of 187 tons (374,000 pounds) per day of VOCs would reduce ozone levels at highest monitored site by only nine parts per billion. As such, the SCAQMD concludes that it is not currently possible to accurately quantify ozone-related health impacts caused by NO_X or VOC emissions from relatively small projects (defined as projects with regional scope) due to photochemistry and regional model limitations. Thus, as the project would not exceed SCAQMD thresholds for construction and operational air emissions, the project would have a less than significant impact for air quality health impacts.

Conclusion

As indicated in Table 6, operational emissions from the proposed project would not exceed SCAQMD thresholds. If stationary sources, such as backup generators, are installed on-site, they

would be required to obtain applicable permits from SCAQMD for operation of such equipment. The SCAQMD is responsible for issuing permits for the operation of stationary sources in order to reduce air pollution, and to attain and maintain the national and California ambient air quality standards in the Basin. If backup generators are required, they would be used only in emergency situations, and would not contribute a substantial amount of emissions capable of exceeding SCAQMD thresholds. Thus, operational air emissions would not result in a cumulatively considerable net increase of any criteria pollutant and a less than significant impact would occur.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation. *Less Than Significant Impact.*

AQ-3 EXPOSE SENSITIVE RECEPTORS TO SUBSTANTIAL POLLUTANT CONCENTRATIONS?

Sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis.

The nearest sensitive receptors are residential uses adjoining the project site to the south. In order to identify impacts to sensitive receptors, the SCAQMD recommends addressing localized significance thresholds (LSTs) for construction and operations impacts (area sources only). The CO hotspot analysis following the LST analysis addresses localized mobile source impacts.

Construction-Related Localized Air Quality Impacts

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 air quality impacts. The SCAQMD provides the LST screening lookup tables for one, two, and five acre projects emitting CO, NO_X, $PM_{2.5}$, or PM_{10}. The LST methodology and associated mass rates are not designed to evaluate localized impacts from mobile sources traveling over the roadways. The SCAQMD recommends that any project over five acres should perform air quality dispersion modeling to assess impacts to nearby sensitive receptors. The project is located within SRA 34, Central San Bernardino Valley.

The SCAQMD guidance on applying CalEEMod to LSTs specifies the number of acres a particular piece of equipment would likely disturb per day. SCAQMD provides LST thresholds for one-, two-, and five-acre site disturbance areas; SCAQMD does not provide LST thresholds for projects over five acres. Based on information obtained from CalEEMod, the project is anticipated to disturb up to 65 acres during the grading phase. The grading phase would take approximately 26 days in total to complete. As such, the project would actively disturb approximately 2.5 acres

per day (65 acres divided by 26 days). Therefore, the LST thresholds for two acres were conservatively utilized for the construction LST analysis.

The closest sensitive receptors are residential uses adjoining the project site to the south. These sensitive land uses may be potentially affected by air pollutant emissions generated during on-site construction activities. LST thresholds are provided for distances to sensitive receptors of 25, 50, 100, 200, and 500 meters. As the nearest sensitive uses are adjoining the project site to the south, the LST values for 25 meters (82 feet) were used.

Table 7, *Construction Localized Significance Emissions Summary*, shows the localized construction-related emissions for NO_X, CO, PM_{10}, and $PM_{2.5}$ compared to the LSTs for SRA 34. It is noted that the localized emissions presented in Table 7 are less than those in Table 6 because localized emissions include only on-site emissions (i.e., from construction equipment and fugitive dust), and do not include off-site emissions (i.e., from hauling activities). As shown in Table 7, the project's localized construction emissions would not exceed the LSTs for SRA 34. Therefore, localized significance impacts from construction would be less than significant.

Table 7
Localized Significance of Construction Emissions

Phase	Emissions (pounds per day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Construction				
Year 1 (2020) On-Site Emissions[1,2]	50.48	26.15	5.39	3.32
SCAQMD Localized Threshold[3]	***170***	***972***	***7***	***4***
Threshold Exceeded?	**No**	**No**	**No**	**No**
Year 2 (2021) On-Site Emissions[2,4]	21.31	21.66	1.15	1.08
SCAQMD Localized Threshold[3]	***170***	***972***	***7***	***4***
Threshold Exceeded?	**No**	**No**	**No**	**No**

Notes:
1. The grading phase emissions during Year 1 present the worst-case scenario for NOx, CO, PM_{10}, and $PM_{2.5}$.
2. The mitigation reduction/credits for construction emissions applied in CalEEMod are based on the application of dust control techniques as required by SCAQMD Rule 403. The dust control techniques include the following: properly maintain mobile and other construction equipment; replace ground cover in disturbed areas quickly; water exposed surfaces twice daily; cover stock piles with tarps; water all haul roads three times daily; and limit speeds on unpaved roads to 15 miles per hour.
3. The Localized Significance Threshold was determined using Appendix C of the SCAQMD Final Localized Significant Threshold Methodology guidance document for pollutants NO_X, CO, PM_{10}, and $PM_{2.5}$. The Localized Significance Threshold was based on the anticipated daily acreage disturbance for construction (approximately 2.5 acre; therefore, the threshold for 2-acre was used), a distance of 82-feet (25) meters to the closest sensitive receptor, and the source receptor area (SRA 34).
4. The building construction phase emissions during Year 2 present the worst-case scenario for NOx, CO, PM_{10}, and $PM_{2.5}$.

Refer to Appendix A for assumptions used in this analysis.

Operation-Related Localized Air Quality Impacts

According to SCAQMD localized significance threshold methodology, LSTs would apply to the operational phase of a proposed project if the project includes stationary sources or attracts mobile sources that may spend extended periods queuing and idling at the site (e.g., warehouse or transfer facilities). Since the proposed project is a warehouse, the operational phase LST protocol was applied. If emissions exceed the applicable operational LSTs for the project site, then additional dispersion modeling would need to be conducted to determine if there is an actual exceedance of the ambient air quality standards.

Although the project site is approximately 8.72 acres, the five-acre operational LST was utilized to provide a conservative estimate of operational LST impacts. Applicable localized thresholds from the SCAQMD's mass-rate LST lookup tables for a five-acre project site within SRA 34 are as follows:

- NO_X: 270 pounds per day;
- CO: 1,746 pounds per day;
- PM_{10}: 4 pounds per day; and/or
- $PM_{2.5}$: 2 pounds per day.

Table 8, *Localized Significance of Operational Emissions*, shows the calculated emissions for the project's operational activities compared to the applicable LSTs.

Table 8
Localized Significance of Operational Emissions

Source	Pollutant (pounds/day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Operational				
Area Source Emissions	0.00	0.04	0.00	0.00
Localized Significance Threshold[1]	270	1,746	4	2
Thresholds Exceeded?	***No***	***No***	***No***	***No***

Notes:
1. The Localized Significance Threshold was determined using Appendix C of the SCAQMD *Final Localized Significant Threshold Methodology* guidance document for pollutants NO_X, CO, PM_{10}, and $PM_{2.5}$. The Localized Significance Threshold was based on the total acreage for operational (the 5-acre threshold was used), the distance to sensitive receptors, and the source receptor area (SRA 34).

Refer to Appendix A for assumptions used in this analysis.

As shown in Table 8, the project's operational area source emissions would be negligible and would not exceed the LSTs for SRA 34. Therefore, localized significance impacts from operations would be less than significant.

Although the project would not exceed the SCAQMD LST thresholds at the nearest sensitive receptors, the analysis below further discusses potential health risks associated with diesel

particulate matter (DPM) from heavy trucks accessing and idling on-site during project operations.

Health Risk Assessment

Potential health risks resulting from project-generated DPM were analyzed within the *Alder Logistics Center Project Health Risk Assessment* (HRA), prepared by Michael Baker International and dated August 21, 2019. The assessment evaluated the increased potential for cancer risk and noncarcinogenic hazards as a result of the proposed project. According to the HRA, the highest expected annual average diesel PM_{10} emission concentrations at sensitive receptors would be 0.0015 micrograms per cubic meter ($\mu g/m^3$). This level of concentration would be experienced at the residences directly east of the project site. The residential neighborhoods to the south are the closest sensitive receptors to the project site. The calculations conservatively assume no cleaner technology with lower emissions in future years.

Cancer Risk

The cancer risk calculations for residences in the project vicinity are based on 30-year exposure periods. The calculated carcinogenic risk at these locations, which surround the site, as a result of the project is depicted in Table 9, *Maximum Operational Health Risk at Project Vicinity Residences*. As shown, impacts related to cancer risk and PM_{10} concentrations from heavy trucks would not exceed the SCAQMD's maximum individual cancer risk of 10 in one million. Cancer risk impacts would be less than significant in this regard.

Noncarcinogenic Hazards

The significance thresholds for TAC exposure also require an evaluation of noncancer risk stated in terms of a hazard index. Noncancer chronic impacts are calculated by dividing the annual average concentration by the reference exposure level (REL) for that substance. The REL is defined as the concentration at which no adverse noncancer health effects are anticipated. The potential for acute noncancer hazards is evaluated by comparing the maximum short-term exposure level to an acute REL. RELs are designed to protect sensitive individuals within the population. The calculation of acute noncancer impacts is similar to the procedure for chronic noncancer impacts.

An acute or chronic hazard index of 1.0 is considered individually significant. The hazard index is calculated by dividing the acute or chronic exposure by the REL. The highest maximum chronic and acute hazard index associated with the emissions from the project would be 0.0046 and 0.020, respectively. Therefore, noncarcinogenic hazards are calculated to be within acceptable limits and a less than significant impact would occur.

Table 9
Maximum Operational Health Risk at Project Vicinity Residences

Sensitive Receptor[1]	Address	Cancer Risk per Million (30-Year Exposure)	Significance Threshold (Risk Per Million)	Threshold Exceeded?
1	10349 Alder Avenue, Bloomington, CA 92316	1.10	10	No
2	10359 Alder Avenue, Bloomington, CA 92316	1.15	10	No
3	10395 Alder Avenue, Bloomington, CA 92316	1.31	10	No
4	10431 Alder Avenue, Bloomington, CA 92316	0.92	10	No
5	17744 Slover Avenue, Bloomington, CA 92316	0.50	10	No
6	17736 Slover Avenue, Bloomington, CA 92316	0.54	10	No
7	10472 Alder Avenue, Bloomington, CA 92316	0.80	10	No
8	10440 Alder Avenue, Bloomington, CA 92316	0.95	10	No
PMI[2]	NA	1.97	10	No

Notes:
NA = Not Applicable
1. Refer to Table 1, *Sensitive Receptors*, within the *Alder Logistics Center Project Health Risk Assessment*, prepared by Michael Baker International and dated August 21, 2019.
2. The point of maximum impact (PMI) risk is provided for informational purposes as sensitive receptors do not currently exist at this location; refer to the *Alder Logistics Center Project Health Risk Assessment*, prepared by Michael Baker International and dated August 21, 2019.

Source: Michael Baker International, *Alder Logistics Center Project Health Risk Assessment*, dated August 21, 2019.

Conclusion

As described, noncarcinogenic hazards resulting from the proposed project are calculated to be within acceptable limits. Additionally, impacts related to cancer risk and PM_{10} concentrations from heavy trucks would be less than significant at the nearest residential neighborhoods. Therefore, impacts related to health risk from heavy trucks would be less than significant.

Carbon Monoxide Hotspots

CO emissions are a function of vehicle idling time, meteorological conditions, and traffic flow. Under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthful levels (i.e., adversely affecting residents, school children, hospital patients, and the elderly).

The Basin is designated as an attainment/maintenance area for the Federal CO standards and an attainment area for State standards. There has been a decline in CO emissions even though vehicle miles traveled on U.S. urban and rural roads have increased nationwide estimated anthropogenic CO emissions have decreased 68 percent between 1990 and 2014. In 2014, mobile

sources accounted for 82 percent of the nation's total anthropogenic CO emissions.[27] Three major control programs have contributed to the reduced per-vehicle CO emissions: exhaust standards, cleaner burning fuels, and motor vehicle inspection/maintenance programs.

According to the SCAQMD *CEQA Air Quality Handbook*, a potential CO hotspot may occur at any location where the background CO concentration already exceeds 9.0 ppm, which is the 8-hour California ambient air quality standard. As previously discussed, the site is located nearby SRA 34, Central San Bernardino Valley. Communities within SRAs are expected to have similar climatology and ambient air pollutant concentrations. The closest monitoring station representative of SRA 34 is the Fontana-Arrow Highway Monitoring Station, which is located approximately 4.7 miles northwest of the site. The highest one-hour CO concentration at the Fontana-Arrow Highway Monitoring Station was measured at 1.91 ppm in 2018. As such, the background CO concentration near the project does not exceed or approach the 9.0 ppm threshold and a CO hotspot would not occur. Therefore, CO hotspot impacts would be less than significant in this regard.

Localized Air Quality Health Impacts

As evaluated above, the project's air emissions would not exceed the SCAQMD's LST thresholds, would not present a cancer or non-cancer health risk at nearby receptors from DPM emissions, and CO hotpots would not occur as a result of the proposed project. Therefore, the project would not exceed the most stringent applicable Federal or State ambient air quality standards for emissions of CO, NO_x, PM_{10}, or $PM_{2.5}$. It should be noted that the ambient air quality standards are developed and represent levels at which the most susceptible persons (e.g., children and the elderly) are protected. In other words, the ambient air quality standards are purposefully set in a stringent manner to protect children, elderly, and those with existing respiratory problems. Thus, localized air quality health impact would be less than significant in this regard.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation. *Less Than Significant Impact.*

AQ-4 CREATE OBJECTIONABLE ODORS AFFECTING A SUBSTANTIAL NUMBER OF PEOPLE?

According to the SCAQMD *CEQA Air Quality Handbook*, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. At the time of this analysis, a tenant has not been identified for the proposed project. However, as the proposed project would consist of a warehouse, the project would not include any uses identified by the SCAQMD as being associated with odors.

[27] United States Environmental Protection Agency, *Carbon Monoxide Emissions*, https://cfpub.epa.gov/roe/indicator_pdf.cfm?i=10, accessed by July 3, 2019.

Construction activities associated with the project may generate detectable odors from heavy-duty equipment exhaust and architectural coatings. However, construction-related odors would be short-term in nature and cease upon project completion. In addition, the project would be required to comply with the California Code of Regulations, Title 13, sections 2449(d)(3) and 2485, which minimizes the idling time of construction equipment either by shutting it off when not in use or by reducing the time of idling to no more than five minutes. This would further reduce the detectable odors from heavy-duty equipment exhaust. The project would also comply with the SCAQMD Regulation XI, *Rule 1113 – Architectural Coating*, which would minimize odor impacts from ROG emissions during architectural coating. Any impacts to existing adjacent land uses would be short-term and less than significant in this regard.

Mitigation Measures: No mitigation measures are required.

Level of Significance. *Less Than Significant Impact.*

GHG-1 GENERATE GREENHOUSE GAS EMISSIONS, EITHER DIRECTLY OR INDIRECTLY, THAT MAY HAVE A SIGNIFICANT IMPACT ON THE ENVIRONMENT?

GHG-2 CONFLICT WITH AN APPLICABLE PLAN, POLICY, OR REGULATION ADOPTED FOR THE PURPOSE OF REDUCING THE EMISSIONS OF GREENHOUSE GASES?

PROJECT-RELATED SOURCES OF GREENHOUSE GASES

Project-related GHG emissions would include emissions from direct and indirect sources. The proposed project would result in direct and indirect emissions of CO_2, N_2O, and CH_4, and would not result in other GHGs that would facilitate a meaningful analysis. Therefore, this analysis focuses on these three forms of GHG emissions. Direct project-related GHG emissions include emissions from construction activities, area sources, and mobile sources, while indirect sources include emissions from electricity consumption, water demand, and solid waste generation. Operational GHG estimations are based on energy emissions from natural gas usage and automobile emissions. CalEEMod relies upon trip data within the Trip Memo and project specific land use data to calculate emissions. Table 10, *Estimated Business as Usual Greenhouse Gas Emissions*, presents the estimated CO_2, N_2O, and CH_4 emissions of the proposed project. CalEEMod outputs are contained within Appendix A, *Air Quality/Greenhouse Gas Emissions Data*.

Table 10
Projected Annual Greenhouse Gas Emissions

Source	CO_2	CH_4		N_2O		Total Metric Tons of CO_2eq[2,3]
	Metric Tons/yr[1]	Metric Tons/yr[1]	Metric Tons of CO_2eq[1]	Metric Tons/yr[1]	Metric Tons of CO_2eq[1]	
Direct Emissions						
Construction (amortized over 30 years)	24.24	0.00	0.10	0.00	0.00	24.34
Area Source	0.01	0.00	0.00	0.00	0.00	0.01
Mobile Source	567.60	0.03	0.80	0.00	0.00	568.40
Total Direct Emissions[2]	***584.87***	***0.03***	***0.86***	***0.00***	***0.00***	***592.75***
Indirect Emissions						
Energy	1,960.50	0.09	2.35	0.02	7.72	1,970.57
Water Demand	140.78	1.31	32.67	0.03	9.60	183.04
Solid Waste	16.68	0.98	24.64	0.00	0.00	41.32
Total Indirect Emissions[2]	***2117.95***	***2.39***	***59.66***	***0.06***	***17.31***	***2,194.92***
Total Project-Related Emissions[2]	***2,787.67 $MTCO_2eq/yr$***					

Notes:
1. Emissions were calculated using CalEEMod version 2016.3.2, as recommended by the SCAQMD.
2. Totals may be slightly off due to rounding.
3. Carbon dioxide equivalent values calculated using the United States Environmental Protection Agency Website, *Greenhouse Gas Equivalencies Calculator*, http://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator, accessed July 8, 2019.

Refer to Appendix A for assumptions used in this analysis.

Direct Project-Related Sources of Greenhouse Gases

- Construction Emissions. Construction GHG emissions are typically summed and amortized over the lifetime of the project (assumed to be 30 years), then added to the operational emissions.[28] As seen in Table 10, the proposed project would result in 24.34 $MTCO_2eq/yr$ (amortized over 30 years), which represents a total of 730.09 $MTCO_2eq$ from construction activities.

- Area Source. Area source emissions were calculated using CalEEMod and project-specific land use data. As noted in Table 10, the proposed project would result in 0.01 $MTCO_2eq/yr$ of area source GHG emissions.

- Mobile Source. The CalEEMod model relies upon trip data within the Trip Memo (i.e., 306 daily trips) and project-specific land use data to calculate mobile source emissions. The project would directly result in 568.40 $MTCO_2eq/yr$ of mobile source-generated GHG emissions; refer to Table 10.

[28] The project lifetime is based on the standard 30 year assumption of the South Coast Air Quality Management District (http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-13/ghg-meeting-13-minutes.pdf?sfvrsn=2).

Indirect Project-Related Sources of Greenhouse Gases

- Energy Consumption. Energy consumption emissions were calculated using CalEEMod and project-specific land use data. Electricity would be provided to the project site via Southern California Edison (SCE). The project would indirectly result in 1,970.57 $MTCO_2eq/yr$ due to energy consumption; refer to Table 10.

- Solid Waste. Solid waste associated with operations of the proposed project would result in 41.32 $MTCO_2eq/yr$; refer to Table 10.

- Water Demand. The project operations would result in a demand of approximately 42.70 million gallons of water per year. Emissions from indirect energy impacts due to water supply would result in 183.04 $MTCO_2eq/yr$; refer to Table 10.

Total Project-Related Sources of Greenhouse Gases

As shown in Table 10, the total amount of proposed project-related GHG emissions from direct and indirect sources combined would total 2,787.67 $MTCO_2eq/yr$.

GHG PLAN CONSISTENCY

As the project would be operational post-2020, the RGGRP was not utilized for the GHG plan consistency analysis. Thus, the GHG plan consistency for this project is based on the project's consistency with the 2017 Scoping Plan and the 2016 RTP/SCS.

Climate Change Scoping Plan

The goal to reduce GHG emissions to 1990 levels by 2020 (Executive Order S-3-05) was codified by the Legislature as the 2006 Global Warming Solutions Act (AB 32). In 2008, CARB approved a Scoping Plan as required by AB 32.[29] The Scoping Plan has a range of GHG reduction actions which include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms such as a cap-and-trade system, and an AB 32 implementation fee to fund the program. The 2017 Scoping Plan Update identifies additional GHG reduction measures necessary to achieve the 2030 target. These measures build upon those identified in the first update to the Scoping Plan (2013). Although a number of these measures are currently established as policies and measures, some measures have not yet been formally proposed or adopted. It is expected that these measures or similar actions to reduce GHG emissions will be adopted as required to achieve Statewide GHG emissions targets.

As shown in Table 10, the project would result in approximately 2,787.67 MTCO2eq/yr. The breakdown of emissions by source category shows approximately less than 1 percent from area

[29] Climate Change Proposed Scoping Plan was approved by the California Air Resources Board on December 11, 2008.

sources; 71 percent from energy consumption; 20 percent from mobile sources; approximately 1 percent from solid waste generation; 7 percent from water supply, treatment, and distribution; and approximately 1 percent from construction activities. Table 11, *Project Consistency with the 2017 Scoping Plan*, provides an evaluation of applicable reduction actions/strategies by emissions source category to determine how the project would be consistent with or exceed reduction actions/strategies outlined in the 2017 Scoping Plan.

Table 11
Project Consistency with the 2017 Scoping Plan

Sector / Source	Category / Description	Project Consistency Analysis
Area		
SCAQMD Rule 445 (Wood Burning Devices)	Restricts the installation of wood-burning devices in new development.	**Consistent.** Approximately 15 percent of California's major anthropogenic sources of black carbon include fireplaces and woodstoves.[1] The project would not include hearths (woodstove and fireplaces) to be installed in the proposed warehouse building.
Energy		
California Renewables Portfolio Standard, Senate Bill 350 (SB 350) and Senate Bill 100 (SB 100)	Increases the proportion of electricity from renewable sources to 33 percent renewable power by 2020. SB 350 requires 50 percent by 2030. SB 100 requires 44 percent by 2024, 52 percent by 2027, and 60 percent by 2030. It also requires the State Energy Resources Conservation and Development Commission to double the energy efficiency savings in electricity and natural gas final end uses of retail customers through energy efficiency and conservation.	**No Conflict.** The project would utilize energy from Southern California Edison (SCE), which is required to meet the 2020, 2030, 2045, and 2050 performance standards. In 2017, 29 percent of SCE's electricity came from renewable resources.[2] By 2030, SCE plans to achieve 80 percent carbon-free energy.[3] The project would also meet the applicable requirements of the 2019 Title 24 Building Energy Efficiency Standards and the California Green Building Standards Code (CALGreen).
CCR, Title 24, Building Standards Code	Energy Efficiency Standards for Residential and Nonresidential Buildings.	**Mandatory Compliance.** The project must demonstrate that it will meet the applicable requirements of the 2019 Title 24 Building Energy Efficiency Standards and CALGreen Code.
Assembly Bill 1109 (AB 1109)	The Lighting Efficiency and Toxics Reduction Act (AB 1109) prohibits manufacturing specified general purpose lights that contain levels of hazardous substances prohibited by the European Union. AB 1109 also requires a reduction in average Statewide electrical energy consumption by not less than 50 percent from the 2007 levels for indoor residential lighting and not less than 25 percent from the 2007 levels for indoor commercial and outdoor lighting by 2018.	**No Conflict.** According to the California Energy Commission, energy savings from AB 1109 are achieved through codes and standards. Energy savings from AB 1109 are calculated as part of codes and standards savings.[4] As discussed above, the project would meet the applicable requirements of the 2019 Title 24 Building Energy Efficiency Standards and CALGreen Code, which include energy efficient lighting.
California Green Building Standards (CALGreen) Code Requirements	All bathroom exhaust fans shall be ENERGY STAR compliant.	**Mandatory Compliance.** The project construction plans must demonstrate that energy efficiency appliances, including bathroom exhaust fans, and equipment and would meet the applicable energy standards in the 2019 Title 24 Building Energy Efficiency Standards and CALGreen Code.
	HVAC Systems will be designed to meet American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) standards.	**Mandatory Compliance.** The project construction plans must demonstrate that energy efficiency appliances and equipment and would meet the applicable energy standards in ASHRAE 90.1-2013 Appendix G and the 2019 Title 24 Building Energy Efficiency Standards and CALGreen Code.

Table 11
Project Consistency with the 2017 Scoping Plan (continued)

Sector / Source	Category / Description	Project Consistency Analysis
	Energy commissioning shall be performed for buildings larger than 10,000 square feet.	**Mandatory Compliance** The project must meet this requirement as part of its compliance with the CALGreen Code.
	Air filtration systems are required to meet a minimum efficiency reporting value (MERV) 8 or higher.	**Mandatory Compliance.** The project must meet the requirement of MERV 13 or higher as part of its compliance with the 2019 CALGreen Code Nonresidential Mandatory Measure 5.504.5.3, *Filters*.
	Refrigerants used in newly installed HVAC systems shall not contain any CFCs.	**Mandatory Compliance.** The project must meet this requirement as part of its compliance with the CALGreen Code.
	Parking spaces shall be designed for carpool or alternative fueled vehicles. Up to eight percent of total parking spaces will be designed for such vehicles.	**Mandatory Compliance.** The project would meet this requirement as part of its compliance the CALGreen Code. Per the 2019 CALGreen Code Nonresidential Mandatory Measure 5.106.5.2, the project would designate a minimum of 11 parking spaces for carpool and/or alternative-fueled vehicles. In addition, the project would be required to install a minimum of seven electric vehicle (EV) charging spaces per the 2019 CALGreen Code Nonresidential Mandatory Measure 5.106.5.3.3.
	Long-term and short-term bike parking shall be provided for up to five percent of vehicle trips.	**Consistent.** The project would meet this requirement by providing bicycle parking spaces equivalent to five percent of the tenant vehicular parking spaces as part of its compliance with the 2019 CALGreen Code Nonresidential Mandatory Measure 5.106.4.1.2.
	Requires use of low VOC coatings consistent with AQMD Rule 1168.	**Consistent.** The project would be consistent with this regulation and would meet the low VOC coating requirements.
SB 1368, CCR Title 20, Cap-and-Trade Program	The Cap-and-Trade Program places an economy-wide "cap" on major sources of greenhouse gas emissions (i.e. refineries, power plants, industrial facilities and transportation fuels) and minimizes the compliance costs of achieving AB 32 goals. Electricity generators and large industrial facilities emitting 25,000 $MTCO_2e$ or more annually are subject to the Cap-and-Trade Program. Each year the cap is lowered by approximately 3 percent, ensuring that California is reducing greenhouse gases.	**Not Applicable.** As shown in Table 10, the proposed project would generate approximately 2,787.67 $MTCO_2eq/yr$, which is below the 25,000 $MTCO_2e/yr$ Cap-and-Trade screening level. As such, the proposed project would not be subject to the requirements of the Cap-and-Trade Program.
Mobile Sources		
Mobile Source Strategy (Cleaner Technology and Fuels)	Reduce GHGs and other pollutants from the transportation sector through transition to zero-emission and low-emission vehicles, cleaner transit systems and reduction of vehicle miles traveled.	**Consistent.** The project would be consistent with this strategy by supporting the use of zero-emission and low-emission vehicles. The project would designate a minimum of 11 parking spaces for carpool and/or alternative-fueled vehicles. In addition, the project would be required to install a minimum of seven EV charging spaces.
AB 1493 (Pavley Regulations)	Reduces GHG emissions in new passenger vehicles from model year 2012 through 2016 (Phase I) and model years 2017–2025 (Phase II). Also reduces gasoline consumption to a rate of 31 percent of 1990 gasoline consumption (and associated GHG emissions) by 2020.	**Not Applicable.** These regulations apply to automobile manufacturers, not individual land uses. Mobile emissions associated with the project in Table 10 reflect compliance with this regulation. GHG emissions related to vehicular travel by the project would benefit from this regulation because

Table 11
Project Consistency with the 2017 Scoping Plan (continued)

Sector / Source	Category / Description	Project Consistency Analysis
		vehicle trips associated with the project would be affected by AB 1493. Mobile source emissions generated by the project would be reduced with implementation of AB 1493 consistent with reduction of GHG emissions under AB 32.
Low Carbon Fuel Standard (Executive Order S-01-07)	Establishes protocols for measuring life-cycle carbon intensity of transportation fuels and helps to establish use of alternative fuels. This executive order establishes a Statewide goal to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020	**Not Applicable.** The LCFS applies to manufacturers of automotive fuels, not to individual land uses. Mobile emissions associated with the project in Table 10 reflect compliance with this regulation. GHG emissions related to vehicular travel by the project would benefit from this regulation and mobile source emissions generated by the project would be reduced with implementation of the Low Carbon Fuel Standard consistent with reduction of GHG emissions under AB 32.
Advanced Clean Cars Program	In 2012, CARB adopted the Advanced Clean Cars (ACC) program to reduce criteria pollutants and GHG emissions for model year vehicles 2015 through 2025. ACC includes the Low-Emission Vehicle (LEV) regulations that reduce criteria pollutants and GHG emissions from light- and medium-duty vehicles, and the Zero-Emission Vehicle (ZEV) regulation, which requires manufacturers to produce an increasing number of pure ZEVs (meaning battery electric and fuel cell electric vehicles), with provisions to also produce plug-in hybrid electric vehicles (PHEV) in the 2018 through 2025 model years.	**Not Applicable.** The standards would apply to manufacturers of vehicles used by visitors and employees associated with the project. The project would designate a minimum of 11 parking spaces for carpool and/or alternative-fueled vehicles. In addition, the project would be required to install a minimum of seven EV charging spaces.
Senate Bill (SB) 375	SB 375 establishes mechanisms for the development of regional targets for reducing passenger vehicle GHG emissions. Under SB 375, CARB is required, in consultation with the state's Metropolitan Planning Organizations, to set regional GHG reduction targets for the passenger vehicle and light-duty truck sector for 2020 and 2035.	**Consistent.** The project would be consistent with SCAG RTP/SCS goals and objectives under SB 375 to implement "smart growth." The project would provide employment opportunities in close proximity to off-site residential and other job centers in Bloomington where people can live and work and have access to modes of transportation that provide options for reducing reliance on automobiles and minimizing associated air pollutant emissions. As the project would comply with the 2016–2040 RTP/SCS, the project would be consistent with SB 375. Consistency with the 2016–2040 RTP/SCS is discussed below in Table 12, *Project Consistency with the 2016-2040 RTP/SCS*.
Water		
CCR, Title 24, Building Standards Code	Title 24 includes water efficiency requirements for new residential and non- residential uses.	**Mandatory Compliance.** See discussion under 2019 Title 24 Building Standards Code and CALGreen Code above.

Table 11
Project Consistency with the 2017 Scoping Plan (continued)

Sector / Source	Category / Description	Project Consistency Analysis
Senate Bill X7-7:	The Water Conservation Act of 2009 sets an overall goal of reducing per capita urban water use by 20 percent by December 31, 2020. Each urban retail water supplier shall develop water use targets to meet this goal. This is an implementing measure of the Water Sector of the AB 32 Scoping Plan. Reduction in water consumption directly reduces the energy necessary and the associated emissions to convene, treat, and distribute the water; it also reduces emissions from wastewater treatment.	**Consistent.** See discussion under 2019 Title 24 Building Standards Code and CALGreen Code.
Solid Waste		
California Integrated Waste Management Act (IWMA) of 1989 and Assembly Bill (AB) 341	The IWMA mandated that state agencies develop and implement an integrated waste management plan which outlines the steps to be taken to divert at least 50 percent of their solid waste from disposal facilities. AB 341 directs CalRecycle to develop and adopt regulations for mandatory commercial recycling and sets a Statewide goal for 75 percent disposal reduction by the year 2020.	**Not Applicable.** These regulations apply to municipal agencies who are responsible for reducing landfill disposal of solid wastes collected in their jurisdictions. GHG emissions related to solid waste generation from the project would benefit from this regulation as it would decrease the overall amount of solid waste disposed of at landfills. The decrease in solid waste would then in return decrease the amount of methane released from the decomposing solid waste. Project-related GHG emissions from solid waste generation provided in Table 10 include a 50-percent reduction in solid waste generation source emissions.

Notes:
1. California Air Resources Board, *California's 2017 Climate Change Scoping Plan, Figure 4: California 2013 Anthropogenic Black Carbon Emission Sources*, November 2017.
2. California Energy Commission, *2017 Power Content Label Southern California Edison*, file:///H:/pdata/171776/Admin/Reports/Environmental/Technical%20Studies/AQGHG/Resources/SCE_2017_PCL.pdf, accessed July 22, 2019.
3. Southern California Edison, *The Clean Power and Electrification Pathway*, https://newsroom.edison.com/internal_redirect/cms.ipressroom.com.s3.amazonaws.com/166/files/20187/g17-pathway-to-2030-white-paper.pdf, accessed July 22, 2019.
4. California Energy Commission, 2013 California Energy Efficiency Potential and Goals Study, Appendix Volume I, August 15, 2013.

Source: California Air Resources Board, *California's 2017 Climate Change Scoping Plan*, November 2017.

2016-2040 RTP/SCS

SCAG is expected to achieve CARB's GHG reduction targets for the region (8 percent by 2020 and 13 percent by 2035 for per capita passenger vehicle GHG emissions)[30] through implementation of the 2016-2040 RTP/SCS.[31] Furthermore, although there are no per capita GHG emission reduction targets for passenger vehicles set by CARB for 2040, the 2016-2040 RTP/SCS GHG emission reduction trajectory shows that more aggressive GHG emission reductions are projected for 2040.[32] The 2016-2040 RTP/SCS would result in an estimated 8-percent decrease in per capita

[30] These GHG reduction targets were established for SCAG by CARB and were effective through September 30, 2018. CARB has created new GHG reduction targets for SCAG, effective October 1, 2018 that will be addressed in the next iteration of the SCAG RTP/SCS (expected in December 2020).

[31] SCAG, Final 2016–2040, RTP/SCS, April 2016, p. 15.

[32] SCAG, Final 2016–2040, RTP/SCS, April 2016, p. 153.

passenger vehicle GHG emissions by 2020, 18-percent[33] decrease in per capita passenger vehicle GHG emissions by 2035, and 21-percent decrease in per capita passenger vehicle GHG emissions by 2040. By meeting and exceeding the SB 375 targets for 2020 and 2035, as well as achieving an approximate 21-percent decrease in per capita passenger vehicle GHG emissions by 2040 (an additional 3-percent reduction in the five years between 2035 [18 percent] and 2040 [21 percent]), the 2016-2040 RTP/SCS is expected to fulfill and exceed its portion of SB 375 compliance with respect to meeting the State's GHG emission reduction goals.

At the regional level, the 2016-2040 RTP/SCS is an applicable plan adopted for the purpose of reducing GHGs. In order to assess the project's potential to conflict with the 2016-2040 RTP/SCS, this section also analyzes the project's land use assumptions for consistency with those utilized by SCAG in its Sustainable Communities Strategy. Generally, projects are considered consistent with the provisions and general policies of applicable City and regional land use plans and regulations, such as SCAG's RTP/SCS, if they are compatible with the general intent of the plans and would not preclude the attainment of their primary goals. Table 12, *Project Consistency with the 2016-2040 RTP/SCS*, demonstrates the project's consistency with the Actions and Strategies set forth in the 2016-2040 RTP/SCS.[34]

Table 12
Project Consistency with the 2016-2040 RTP/SCS

Actions and Strategies	Responsible Party(ies)	Project Consistency Analysis
Land Use Actions and Strategies		
Encourage the use of range-limited battery electric and other alternative fueled vehicles through policies and programs, such as, but not limited to, neighborhood oriented development, complete streets, and Electric (and other alternative fuel) Vehicle Supply Equipment in public parking lots.	Local Jurisdictions, Council of Government (COGs), SCAG, County Transportation Commission (CTCs)	**Consistent.** The project would not impair the County's or SCAG's ability to encourage the use of alternatively-fueled vehicles through various policies and programs. Specifically, the project would be required to comply with the CALGreen Nonresidential Mandatory Measure 5.106.5.3, *Electric Vehicle (EV) Charging*. This measure requires the project to incorporate seven EV charging spaces.
Collaborate with the region's public health professionals to enhance how SCAG addresses public health issues in its regional planning, programming, and project development activities.	SCAG, State, Local Jurisdictions	**Consistent.** The project would not impair the County's, SCAG's, or the state's ability to collaborate with the region's public health professionals regarding the integration of public health issues in regional planning. Additionally, the project would promote healthy lifestyles through long-term bicycle parking spaces for employees. This would be required through the CALGreen Nonresidential Mandatory Measure 5.106.4, *Bicycle Parking*.
Support projects, programs, and policies that support active and healthy community environments that encourage safe walking, bicycling, and physical activity by children, including, but not limited to development of complete streets, school siting	Local Jurisdictions, SCAG	**Consistent.** See discussion above.

[33] In March 2018, CARB adopted updated targets requiring a 19-percent decrease in VMT for the SCAG region by 2035. As the CARB targets were adopted after the 2016-2040 RTP/SCS, it is expected that the updated targets will be incorporated into the next RTP/SCS.

[34] As discussed in the 2016–2040 RTP/SCS, the actions and strategies included in the 2016–2040 RTP/SCS remain unchanged from those adopted in the 2012–2035 RTP/SCS.

Table 12
Project Consistency with the 2016-2040 RTP/SCS (continued)

Actions and Strategies	Responsible Party(ies)	Project Consistency Analysis
policies, joint use agreements, and bicycle and pedestrian safety education.		
Support projects, programs, policies and regulations that encourage the development of complete communities, which includes a diversity of housing choices and educational opportunities, jobs for a variety of skills and education, recreation and culture, and a full-range of shopping, entertainment and services all within a relatively short distance.	Local Jurisdictions, SCAG	**Consistent.** The complete communities strategy supports the creation of mixed-use districts through a concentration of activities with housing and employment located in close proximity to each other. The proposed project would support this strategy by providing employment within walking distance to residential uses.
Transportation Network Actions and Strategies		
Explore and implement innovative strategies and projects that enhance mobility and air quality, including those that increase the walkability of communities and accessibility to transit via non-auto modes, including walking, bicycling, and neighborhood electric vehicles (NEVs) or other alternative fueled vehicles.	SCAG, CTCs, Local Jurisdictions	**Consistent.** The project would provide bicycle parking spaces and EV charging spaces for employees. Therefore, the project would serve to reduce vehicle trips and thus VMT, thereby contributing to a reduction in air pollutant and GHG emissions.
Collaborate with local jurisdictions to provide a network of local community circulators that serve new Transit Oriented Development (TOD), HQTAs, and neighborhood commercial centers providing an incentive for residents and employees to make trips on transit.	SCAG, CTCs, Local Jurisdictions	**Consistent.** The project would not impair the ability of SCAG, the CTCs, or the County to provide such a network of local community circulators that serve new TOD, HQTAs, and neighborhood commercial centers.
Develop first-mile/last-mile strategies on a local level to provide an incentive for making trips by transit, bicycling, walking, or neighborhood electric vehicle or other ZEV options.	CTCs, Local Jurisdictions	**Consistent.** The project would not impair the CTCs' or the County's ability to develop first-mile/last-mile strategies. In support of this action/ strategy, the project would have EV parking on-site.
Transportation Demand Management (TDM) Actions and Strategies		
Support work-based programs that encourage emission reduction strategies and incentivize active transportation commuting or ride-share modes.	SCAG, Local Jurisdictions	**Consistent.** As previously discussed, the project would reduce GHG emissions by complying with the 2019 Title 24 requirements, which include installation of water efficient irrigation systems and landscapes, as well as incorporate water reducing features and fixtures into the building per CALGreen.
Encourage the development of telecommuting programs by employers through review and revision of policies that may discourage alternative work options.	Local Jurisdictions, CTCs	**Consistent.** The project would not impair the County's or CTCs ability to encourage the development of telecommuting programs by employers.
Emphasize active transportation and alternative fueled vehicle projects as part of complying with the Complete Streets Act (AB 1358).	State, SCAG, Local Jurisdictions	**Consistent.** The project would not impair the County's ability to develop infrastructure plans and education programs to promote active transportation options and other alternative fueled vehicles.
Transportation System Management (TSM) Actions and Strategies		
Work with relevant state and local transportation authorities to increase the efficiency of the existing transportation system.	SCAG, Local Jurisdictions, State	**Consistent.** The project would not impair the ability of SCAG, the County, or the State to work with relevant transportation authorities to increase the efficiency of the existing transportation system.

Source: Southern California Association of Governments, *2016–2040 Regional Transportation Plan/Sustainable Communities Strategy*, April 2016.

As depicted in Table 12, the project is the type of land use development that is encouraged by the RTP/SCS to reduce VMT and expand multi-modal transportation options in order for the region to achieve GHG reductions from the land use and transportation sectors required by SB 375,

which, in turn, advances the State's long-term climate policies.[35] By furthering implementation of SB 375, the project supports regional land use and transportation GHG reductions consistent with State regulatory requirements. Therefore, the project would be consistent with the GHG reduction-related actions and strategies contained in the 2016-2040 RTP/SCS.

Conclusion

In summary, the plan consistency analysis provided above demonstrates that the project complies with the plans, policies, regulations, and GHG reduction actions/strategies outlined in the 2016-2040 RTP/SCS and the 2017 Scoping Plan. Therefore, the project would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing emissions of GHGs. Furthermore, because the project is consistent and does not conflict with these plans, policies, and regulations, the project's incremental increase in GHG emissions as described above would not result in a significant impact on the environment. Therefore, project-specific impacts with regard to climate change would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: *Less Than Significant Impact.*

[35] As discussed above, SB 375 legislation links regional planning for housing and transportation with the GHG reduction goals outlined in AB 32.

6.0 REFERENCES

6.1 LIST OF PREPARERS

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14. Southern California Association of Governments, *Final Program Environmental Impact Report for 2016–2040, RTP/SCS*, Figure 3.8.4-1, April 2016.

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APPENDIX A:
AIR QUALITY/GREENHOUSE GAS EMISSIONS DATA

Alder Logistics Center

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	10.00	1000sqft	0.23	10,000.00	0
Refrigerated Warehouse-No Rail	164.78	1000sqft	3.78	164,780.00	0
Other Asphalt Surfaces	94.62	1000sqft	2.17	94,620.00	0
Parking Lot	124.00	Space	1.12	49,600.00	0
City Park	1.45	Acre	1.45	62,944.20	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	32
Climate Zone	10			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	513	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity Factor Source: Southern California Edison, 2018 Sustainability Report, dated May 2019.

Land Use - Per site plan.
City Park = Landscaping Area
Other Asphalt Surfaces = Paving Area

Construction Phase - Per Construction Questionnaire.

Off-road Equipment -

Off-road Equipment - Per Construction Questionnaire.

Off-road Equipment - Per Construction Questionnaire.

Off-road Equipment - Per Construction Questionnaire.

Off-road Equipment - Per Construction Questionnaire.

Demolition -

Grading -

Vehicle Trips - Per traffic study.

Construction Off-road Equipment Mitigation - Per SCAQMD standards and regulations.

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation - Under 2019 Title 24 standards, nonresidential buildings will use about 30 percent less energy due mainly to lighting upgrades.
Source: The California Energy Comission, 2019 Building Energy Efficiency Standards, dated March 2018.

Waste Mitigation -

Fleet Mix - Adjusted per Traffic Study fleet mix.

Table Name	Column Name	Default Value	New Value
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tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
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tblConstructionPhase	NumDays	20.00	26.00
tblConstructionPhase	NumDays	20.00	22.00

Alder Logistics Center - San Bernardino-South Coast County, Winter

tblConstructionPhase	NumDays	20.00	33.00
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tblFleetMix	HHD	0.06	0.12
tblFleetMix	HHD	0.06	0.12
tblFleetMix	HHD	0.06	0.12
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tblFleetMix	LDA	0.55	0.47
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tblVehicleTrips	ST_TR	1.68	1.86
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tblVehicleTrips	WD_TR	1.89	0.00
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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					
2020	8.4428	95.5028	58.6979	0.1701	14.6255	3.5710	16.9746	4.5369	3.3107	7.8476	0.0000	17,024.0540	17,024.0540	3.0987	0.0000	17,101.5203
2021	55.8222	44.3127	48.3816	0.0996	2.5943	2.0586	4.6529	0.6972	1.9212	2.6184	0.0000	9,778.8411	9,778.8411	1.8808	0.0000	9,825.8607
Maximum	**55.8222**	**95.5028**	**58.6979**	**0.1701**	**14.6255**	**3.5710**	**16.9746**	**4.5369**	**3.3107**	**7.8476**	**0.0000**	**17,024.0540**	**17,024.0540**	**3.0987**	**0.0000**	**17,101.5203**

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					
2020	8.4428	95.5028	58.6979	0.1701	6.7724	3.5710	9.5184	2.0881	3.3107	5.3987	0.0000	17,024.0539	17,024.0539	3.0987	0.0000	17,101.5203
2021	55.8222	44.3127	48.3816	0.0996	2.0244	2.0586	4.0830	0.5573	1.9212	2.4785	0.0000	9,778.8411	9,778.8411	1.8808	0.0000	9,825.8607
Maximum	**55.8222**	**95.5028**	**58.6979**	**0.1701**	**6.7724**	**3.5710**	**9.5184**	**2.0881**	**3.3107**	**5.3987**	**0.0000**	**17,024.0539**	**17,024.0539**	**3.0987**	**0.0000**	**17,101.5203**

	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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**48.91**	**0.00**	**37.11**	**49.46**	**0.00**	**24.73**	**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	3.9736	3.7000e-004	0.0405	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0864	0.0864	2.3000e-004		0.0922
Energy	0.2530	2.3002	1.9322	0.0138		0.1748	0.1748		0.1748	0.1748		2,760.2620	2,760.2620	0.0529	0.0506	2,776.6648
Mobile	0.7473	8.9947	8.7765	0.0452	2.8504	0.0356	2.8860	0.7681	0.0337	0.8018		4,650.2060	4,650.2060	0.2344		4,656.0655
Total	**4.9740**	**11.2953**	**10.7491**	**0.0590**	**2.8504**	**0.2106**	**3.0610**	**0.7681**	**0.2086**	**0.9767**		**7,410.5544**	**7,410.5544**	**0.2875**	**0.0506**	**7,432.8225**

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	3.9736	3.7000e-004	0.0405	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0864	0.0864	2.3000e-004		0.0922
Energy	0.2480	2.2543	1.8936	0.0135		0.1713	0.1713		0.1713	0.1713		2,705.1224	2,705.1224	0.0519	0.0496	2,721.1976
Mobile	0.6342	7.5596	6.5800	0.0327	1.9496	0.0252	1.9748	0.5254	0.0238	0.5492		3,364.9411	3,364.9411	0.2015		3,369.9796
Total	**4.8558**	**9.8143**	**8.5141**	**0.0462**	**1.9496**	**0.1967**	**2.1463**	**0.5254**	**0.1953**	**0.7207**		**6,070.1500**	**6,070.1500**	**0.2536**	**0.0496**	**6,091.2694**

	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	N20	CO2e
Percent Reduction	**2.38**	**13.11**	**20.79**	**21.69**	**31.60**	**6.60**	**29.88**	**31.60**	**6.39**	**26.22**	**0.00**	**18.09**	**18.09**	**11.79**	**2.00**	**18.05**

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	10/1/2020	10/28/2020	5	20	
2	Building Construction	Building Construction	10/1/2020	5/19/2021	5	165	
3	Grading	Grading	10/29/2020	12/3/2020	5	26	
4	Paving	Paving	3/1/2021	3/30/2021	5	22	
5	Architectural Coating	Architectural Coating	3/1/2021	4/14/2021	5	33	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 65

Acres of Paving: 3.29

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 262,170; Non-Residential Outdoor: 87,390; Striped Parking Area: 8,653 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Crawler Tractors	1	8.00	212	0.43
Demolition	Excavators	1	8.00	158	0.38
Demolition	Graders	2	8.00	187	0.41
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	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	Paving Equipment	2	8.00	132	0.36
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Grading	Excavators	0	8.00	158	0.38
Grading	Graders	3	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	1	8.00	367	0.48
Grading	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
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	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	5	13.00	0.00	1,052.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	11	159.00	63.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	9	23.00	0.00	1,500.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	32.00	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

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2020

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					11.3789	0.0000	11.3789	1.7229	0.0000	1.7229			0.0000			0.0000
Off-Road	1.9850	24.6165	11.6764	0.0294		0.9351	0.9351		0.8603	0.8603		2,846.7127	2,846.7127	0.9207		2,869.7298
Total	**1.9850**	**24.6165**	**11.6764**	**0.0294**	**11.3789**	**0.9351**	**12.3140**	**1.7229**	**0.8603**	**2.5831**		**2,846.7127**	**2,846.7127**	**0.9207**		**2,869.7298**

3.2 Demolition - 2020

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	0.3416	13.0262	2.1876	0.0402	0.9205	0.0391	0.9597	0.2524	0.0374	0.2898		4,265.8376	4,265.8376	0.2565		4,272.2502
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
Worker	0.0710	0.0479	0.4805	1.3200e-003	0.1453	9.5000e-004	0.1463	0.0385	8.8000e-004	0.0394		131.7875	131.7875	3.9300e-003		131.8858
Total	**0.4125**	**13.0741**	**2.6681**	**0.0415**	**1.0659**	**0.0401**	**1.1059**	**0.2909**	**0.0383**	**0.3292**		**4,397.6250**	**4,397.6250**	**0.2604**		**4,404.1360**

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					4.2159	0.0000	4.2159	0.6383	0.0000	0.6383			0.0000			0.0000
Off-Road	1.9850	24.6165	11.6764	0.0294		0.9351	0.9351		0.8603	0.8603	0.0000	2,846.7127	2,846.7127	0.9207		2,869.7298
Total	**1.9850**	**24.6165**	**11.6764**	**0.0294**	**4.2159**	**0.9351**	**5.1510**	**0.6383**	**0.8603**	**1.4986**	**0.0000**	**2,846.7127**	**2,846.7127**	**0.9207**		**2,869.7298**

3.2 Demolition - 2020

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	0.3416	13.0262	2.1876	0.0402	0.7397	0.0391	0.7789	0.2080	0.0374	0.2454		4,265.8376	4,265.8376	0.2565		4,272.2502
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
Worker	0.0710	0.0479	0.4805	1.3200e-003	0.1125	9.5000e-004	0.1134	0.0305	8.8000e-004	0.0314		131.7875	131.7875	3.9300e-003		131.8858
Total	**0.4125**	**13.0741**	**2.6681**	**0.0415**	**0.8522**	**0.0401**	**0.8923**	**0.2385**	**0.0383**	**0.2768**		**4,397.6250**	**4,397.6250**	**0.2604**		**4,404.1360**

3.3 Building Construction - 2020

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	2.5348	23.4687	21.9173	0.0351		1.3313	1.3313		1.2474	1.2474		3,342.1194	3,342.1194	0.8781		3,364.0708
Total	**2.5348**	**23.4687**	**21.9173**	**0.0351**		**1.3313**	**1.3313**		**1.2474**	**1.2474**		**3,342.1194**	**3,342.1194**	**0.8781**		**3,364.0708**

3.3 Building Construction - 2020

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
Vendor	0.2017	6.5944	1.5017	0.0164	0.4035	0.0310	0.4345	0.1162	0.0296	0.1458		1,732.5007	1,732.5007	0.1294		1,735.7367
Worker	0.8683	0.5860	5.8770	0.0162	1.7773	0.0117	1.7889	0.4713	0.0107	0.4821		1,611.8622	1,611.8622	0.0481		1,613.0651
Total	**1.0700**	**7.1804**	**7.3787**	**0.0326**	**2.1808**	**0.0426**	**2.2234**	**0.5875**	**0.0404**	**0.6279**		**3,344.3629**	**3,344.3629**	**0.1776**		**3,348.8018**

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	2.5348	23.4687	21.9173	0.0351		1.3313	1.3313		1.2474	1.2474	0.0000	3,342.1194	3,342.1194	0.8781		3,364.0708
Total	**2.5348**	**23.4687**	**21.9173**	**0.0351**		**1.3313**	**1.3313**		**1.2474**	**1.2474**	**0.0000**	**3,342.1194**	**3,342.1194**	**0.8781**		**3,364.0708**

3.3 Building Construction - 2020

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
Vendor	0.2017	6.5944	1.5017	0.0164	0.3288	0.0310	0.3598	0.0978	0.0296	0.1275		1,732.5007	1,732.5007	0.1294		1,735.7367
Worker	0.8683	0.5860	5.8770	0.0162	1.3755	0.0117	1.3872	0.3727	0.0107	0.3835		1,611.8622	1,611.8622	0.0481		1,613.0651
Total	**1.0700**	**7.1804**	**7.3787**	**0.0326**	**1.7043**	**0.0426**	**1.7469**	**0.4706**	**0.0404**	**0.5109**		**3,344.3629**	**3,344.3629**	**0.1776**		**3,348.8018**

3.3 Building Construction - 2021

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	2.2850	21.3126	21.6580	0.0351		1.1503	1.1503		1.0776	1.0776		3,342.2753	3,342.2753	0.8712		3,364.0544
Total	**2.2850**	**21.3126**	**21.6580**	**0.0351**		**1.1503**	**1.1503**		**1.0776**	**1.0776**		**3,342.2753**	**3,342.2753**	**0.8712**		**3,364.0544**

3.3 Building Construction - 2021

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
Vendor	0.1729	6.0109	1.3373	0.0163	0.4035	0.0107	0.4142	0.1162	0.0102	0.1264		1,723.2713	1,723.2713	0.1256		1,726.4110
Worker	0.8097	0.5252	5.3990	0.0157	1.7773	0.0114	1.7886	0.4713	0.0105	0.4818		1,560.5813	1,560.5813	0.0434		1,561.6673
Total	**0.9826**	**6.5361**	**6.7362**	**0.0320**	**2.1808**	**0.0221**	**2.2028**	**0.5875**	**0.0207**	**0.6082**		**3,283.8526**	**3,283.8526**	**0.1690**		**3,288.0782**

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	2.2850	21.3126	21.6580	0.0351		1.1503	1.1503		1.0776	1.0776	0.0000	3,342.2753	3,342.2753	0.8712		3,364.0544
Total	**2.2850**	**21.3126**	**21.6580**	**0.0351**		**1.1503**	**1.1503**		**1.0776**	**1.0776**	**0.0000**	**3,342.2753**	**3,342.2753**	**0.8712**		**3,364.0544**

3.3 Building Construction - 2021

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
Vendor	0.1729	6.0109	1.3373	0.0163	0.3288	0.0107	0.3395	0.0978	0.0102	0.1081		1,723.2713	1,723.2713	0.1256		1,726.4110
Worker	0.8097	0.5252	5.3990	0.0157	1.3755	0.0114	1.3869	0.3727	0.0105	0.3832		1,560.5813	1,560.5813	0.0434		1,561.6673
Total	**0.9826**	**6.5361**	**6.7362**	**0.0320**	**1.7043**	**0.0221**	**1.7264**	**0.4706**	**0.0207**	**0.4913**		**3,283.8526**	**3,283.8526**	**0.1690**		**3,288.0782**

3.4 Grading - 2020

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					8.7255	0.0000	8.7255	3.6044	0.0000	3.6044			0.0000			0.0000
Off-Road	4.3379	50.4816	26.1524	0.0560		2.1525	2.1525		1.9803	1.9803		5,425.5877	5,425.5877	1.7547		5,469.4563
Total	**4.3379**	**50.4816**	**26.1524**	**0.0560**	**8.7255**	**2.1525**	**10.8780**	**3.6044**	**1.9803**	**5.5847**		**5,425.5877**	**5,425.5877**	**1.7547**		**5,469.4563**

3.4 Grading - 2020

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	0.3746	14.2873	2.3994	0.0441	1.0097	0.0429	1.0526	0.2768	0.0411	0.3179		4,678.8216	4,678.8216	0.2813		4,685.8550
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
Worker	0.1256	0.0848	0.8501	2.3400e-003	0.2571	1.6800e-003	0.2588	0.0682	1.5500e-003	0.0697		233.1625	233.1625	6.9600e-003		233.3365
Total	**0.5002**	**14.3721**	**3.2495**	**0.0464**	**1.2668**	**0.0446**	**1.3114**	**0.3450**	**0.0426**	**0.3876**		**4,911.9840**	**4,911.9840**	**0.2883**		**4,919.1914**

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					3.2328	0.0000	3.2328	1.3354	0.0000	1.3354			0.0000			0.0000
Off-Road	4.3379	50.4816	26.1524	0.0560		2.1525	2.1525		1.9803	1.9803	0.0000	5,425.5877	5,425.5877	1.7547		5,469.4563
Total	**4.3379**	**50.4816**	**26.1524**	**0.0560**	**3.2328**	**2.1525**	**5.3853**	**1.3354**	**1.9803**	**3.3157**	**0.0000**	**5,425.5877**	**5,425.5877**	**1.7547**		**5,469.4563**

3.4 Grading - 2020

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	0.3746	14.2873	2.3994	0.0441	0.8113	0.0429	0.8543	0.2281	0.0411	0.2692		4,678.8216	4,678.8216	0.2813		4,685.8550
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
Worker	0.1256	0.0848	0.8501	2.3400e-003	0.1990	1.6800e-003	0.2007	0.0539	1.5500e-003	0.0555		233.1625	233.1625	6.9600e-003		233.3365
Total	**0.5002**	**14.3721**	**3.2495**	**0.0464**	**1.0103**	**0.0446**	**1.0549**	**0.2821**	**0.0426**	**0.3247**		**4,911.9840**	**4,911.9840**	**0.2883**		**4,919.1914**

3.5 Paving - 2021

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	1.4428	14.8149	16.9135	0.0259		0.7895	0.7895		0.7263	0.7263		2,508.1109	2,508.1109	0.8112		2,528.3903
Paving	0.3918					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.8346**	**14.8149**	**16.9135**	**0.0259**		**0.7895**	**0.7895**		**0.7263**	**0.7263**		**2,508.1109**	**2,508.1109**	**0.8112**		**2,528.3903**

3.5 Paving - 2021

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
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
Worker	0.0255	0.0165	0.1698	4.9000e-004	0.0559	3.6000e-004	0.0563	0.0148	3.3000e-004	0.0152		49.0749	49.0749	1.3700e-003		49.1090
Total	**0.0255**	**0.0165**	**0.1698**	**4.9000e-004**	**0.0559**	**3.6000e-004**	**0.0563**	**0.0148**	**3.3000e-004**	**0.0152**		**49.0749**	**49.0749**	**1.3700e-003**		**49.1090**

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	1.4428	14.8149	16.9135	0.0259		0.7895	0.7895		0.7263	0.7263	0.0000	2,508.1109	2,508.1109	0.8112		2,528.3903
Paving	0.3918					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.8346**	**14.8149**	**16.9135**	**0.0259**		**0.7895**	**0.7895**		**0.7263**	**0.7263**	**0.0000**	**2,508.1109**	**2,508.1109**	**0.8112**		**2,528.3903**

3.5 Paving - 2021

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
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
Worker	0.0255	0.0165	0.1698	4.9000e-004	0.0433	3.6000e-004	0.0436	0.0117	3.3000e-004	0.0121		49.0749	49.0749	1.3700e-003		49.1090
Total	**0.0255**	**0.0165**	**0.1698**	**4.9000e-004**	**0.0433**	**3.6000e-004**	**0.0436**	**0.0117**	**3.3000e-004**	**0.0121**		**49.0749**	**49.0749**	**1.3700e-003**		**49.1090**

3.6 Architectural Coating - 2021

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	50.3126					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	**50.5315**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.6 Architectural Coating - 2021

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
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
Worker	0.1630	0.1057	1.0866	3.1500e-003	0.3577	2.2900e-003	0.3600	0.0949	2.1100e-003	0.0970		314.0793	314.0793	8.7400e-003		314.2978
Total	**0.1630**	**0.1057**	**1.0866**	**3.1500e-003**	**0.3577**	**2.2900e-003**	**0.3600**	**0.0949**	**2.1100e-003**	**0.0970**		**314.0793**	**314.0793**	**8.7400e-003**		**314.2978**

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	50.3126					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	**50.5315**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**	**0.0000**	**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.6 Architectural Coating - 2021

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
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
Worker	0.1630	0.1057	1.0866	3.1500e-003	0.2768	2.2900e-003	0.2791	0.0750	2.1100e-003	0.0771		314.0793	314.0793	8.7400e-003		314.2978
Total	**0.1630**	**0.1057**	**1.0866**	**3.1500e-003**	**0.2768**	**2.2900e-003**	**0.2791**	**0.0750**	**2.1100e-003**	**0.0771**		**314.0793**	**314.0793**	**8.7400e-003**		**314.2978**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Destination Accessibility

Increase Transit Accessibility

	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	0.6342	7.5596	6.5800	0.0327	1.9496	0.0252	1.9748	0.5254	0.0238	0.5492		3,364.9411	3,364.9411	0.2015		3,369.9796
Unmitigated	0.7473	8.9947	8.7765	0.0452	2.8504	0.0356	2.8860	0.7681	0.0337	0.8018		4,650.2060	4,650.2060	0.2344		4,656.0655

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	306.49	306.49	306.49	1,313,533	898,431
Total	306.49	306.49	306.49	1,313,533	898,431

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.473801	0.033595	0.155937	0.104269	0.016518	0.036000	0.049000	0.124000	0.000000	0.000000	0.006879	0.000000	0.000000
General Office Building	0.473801	0.033595	0.155937	0.104269	0.016518	0.036000	0.049000	0.124000	0.000000	0.000000	0.006879	0.000000	0.000000
Other Asphalt Surfaces	0.473801	0.033595	0.155937	0.104269	0.016518	0.036000	0.049000	0.124000	0.000000	0.000000	0.006879	0.000000	0.000000
Parking Lot	0.473801	0.033595	0.155937	0.104269	0.016518	0.036000	0.049000	0.124000	0.000000	0.000000	0.006879	0.000000	0.000000
Refrigerated Warehouse-No Rail	0.473801	0.033595	0.155937	0.104269	0.016518	0.036000	0.049000	0.124000	0.000000	0.000000	0.006879	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

	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	0.2480	2.2543	1.8936	0.0135		0.1713	0.1713		0.1713	0.1713		2,705.1224	2,705.1224	0.0519	0.0496	2,721.1976
NaturalGas Unmitigated	0.2530	2.3002	1.9322	0.0138		0.1748	0.1748		0.1748	0.1748		2,760.2620	2,760.2620	0.0529	0.0506	2,776.6648

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					
City Park	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
General Office Building	95.0685	1.0300e-003	9.3200e-003	7.8300e-003	6.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004		11.1845	11.1845	2.1000e-004	2.1000e-004	11.2510
Other Asphalt Surfaces	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
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
Refrigerated Warehouse-No Rail	23367.2	0.2520	2.2909	1.9244	0.0138		0.1741	0.1741		0.1741	0.1741		2,749.0775	2,749.0775	0.0527	0.0504	2,765.4139
Total		**0.2530**	**2.3002**	**1.9322**	**0.0138**		**0.1748**	**0.1748**		**0.1748**	**0.1748**		**2,760.2620**	**2,760.2620**	**0.0529**	**0.0506**	**2,776.6648**

5.2 Energy by Land Use - NaturalGas

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					
City Park	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
General Office Building	0.0665479	7.2000e-004	6.5200e-003	5.4800e-003	4.0000e-005		5.0000e-004	5.0000e-004		5.0000e-004	5.0000e-004		7.8292	7.8292	1.5000e-004	1.4000e-004	7.8757
Other Asphalt Surfaces	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
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
Refrigerated Warehouse-No Rail	22.927	0.2473	2.2477	1.8881	0.0135		0.1708	0.1708		0.1708	0.1708		2,697.2933	2,697.2933	0.0517	0.0495	2,713.3219
Total		**0.2480**	**2.2543**	**1.8936**	**0.0135**		**0.1713**	**0.1713**		**0.1713**	**0.1713**		**2,705.1224**	**2,705.1224**	**0.0519**	**0.0496**	**2,721.1976**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	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	3.9736	3.7000e-004	0.0405	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0864	0.0864	2.3000e-004		0.0922
Unmitigated	3.9736	3.7000e-004	0.0405	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0864	0.0864	2.3000e-004		0.0922

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	0.4549					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.5150					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.7800e-003	3.7000e-004	0.0405	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0864	0.0864	2.3000e-004		0.0922
Total	**3.9736**	**3.7000e-004**	**0.0405**	**0.0000**		**1.4000e-004**	**1.4000e-004**		**1.4000e-004**	**1.4000e-004**		**0.0864**	**0.0864**	**2.3000e-004**		**0.0922**

6.2 Area by SubCategory

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	0.4549					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.5150					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.7800e-003	3.7000e-004	0.0405	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0864	0.0864	2.3000e-004		0.0922
Total	**3.9736**	**3.7000e-004**	**0.0405**	**0.0000**		**1.4000e-004**	**1.4000e-004**		**1.4000e-004**	**1.4000e-004**		**0.0864**	**0.0864**	**2.3000e-004**		**0.0922**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Alder Logistics Center

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	10.00	1000sqft	0.23	10,000.00	0
Refrigerated Warehouse-No Rail	164.78	1000sqft	3.78	164,780.00	0
Other Asphalt Surfaces	94.62	1000sqft	2.17	94,620.00	0
Parking Lot	124.00	Space	1.12	49,600.00	0
City Park	1.45	Acre	1.45	62,944.20	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	32
Climate Zone	10			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	513	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity Factor Source: Southern California Edison, 2018 Sustainability Report, dated May 2019.

Land Use - Per site plan.
City Park = Landscaping Area
Other Asphalt Surfaces = Paving Area

Construction Phase - Per Construction Questionnaire.

Off-road Equipment -

Off-road Equipment - Per Construction Questionnaire.

Off-road Equipment - Per Construction Questionnaire.

Off-road Equipment - Per Construction Questionnaire.

Off-road Equipment - Per Construction Questionnaire.

Demolition -

Grading -

Vehicle Trips - Per traffic study.

Construction Off-road Equipment Mitigation - Per SCAQMD standards and regulations.

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation - Under 2019 Title 24 standards, nonresidential buildings will use about 30 percent less energy due mainly to lighting upgrades.
Source: The California Energy Comission, 2019 Building Energy Efficiency Standards, dated March 2018.

Waste Mitigation -

Fleet Mix - Adjusted per Traffic Study fleet mix.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	26
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	230.00	165.00
tblConstructionPhase	NumDays	20.00	26.00
tblConstructionPhase	NumDays	20.00	22.00

Alder Logistics Center - San Bernardino-South Coast County, Summer

tblConstructionPhase	NumDays	20.00	33.00
tblFleetMix	HHD	0.06	0.12
tblFleetMix	HHD	0.06	0.12
tblFleetMix	HHD	0.06	0.12
tblFleetMix	HHD	0.06	0.12
tblFleetMix	HHD	0.06	0.12
tblFleetMix	LDA	0.55	0.47
tblFleetMix	LDA	0.55	0.47
tblFleetMix	LDA	0.55	0.47
tblFleetMix	LDA	0.55	0.47
tblFleetMix	LDA	0.55	0.47
tblFleetMix	LDT1	0.04	0.03
tblFleetMix	LDT1	0.04	0.03
tblFleetMix	LDT1	0.04	0.03
tblFleetMix	LDT1	0.04	0.03
tblFleetMix	LDT1	0.04	0.03
tblFleetMix	LDT2	0.18	0.16
tblFleetMix	LDT2	0.18	0.16
tblFleetMix	LDT2	0.18	0.16
tblFleetMix	LDT2	0.18	0.16
tblFleetMix	LDT2	0.18	0.16
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD2	5.2670e-003	0.04

tblFleetMix	LHD2	5.2670e-003	0.04
tblFleetMix	LHD2	5.2670e-003	0.04
tblFleetMix	LHD2	5.2670e-003	0.04
tblFleetMix	LHD2	5.2670e-003	0.04
tblFleetMix	MCY	6.0000e-003	6.8790e-003
tblFleetMix	MCY	6.0000e-003	6.8790e-003
tblFleetMix	MCY	6.0000e-003	6.8790e-003
tblFleetMix	MCY	6.0000e-003	6.8790e-003
tblFleetMix	MCY	6.0000e-003	6.8790e-003
tblFleetMix	MDV	0.12	0.10
tblFleetMix	MDV	0.12	0.10
tblFleetMix	MDV	0.12	0.10
tblFleetMix	MDV	0.12	0.10
tblFleetMix	MDV	0.12	0.10
tblFleetMix	MH	1.0100e-003	0.00
tblFleetMix	MH	1.0100e-003	0.00
tblFleetMix	MH	1.0100e-003	0.00
tblFleetMix	MH	1.0100e-003	0.00
tblFleetMix	MH	1.0100e-003	0.00
tblFleetMix	MHD	0.02	0.05
tblFleetMix	MHD	0.02	0.05
tblFleetMix	MHD	0.02	0.05
tblFleetMix	MHD	0.02	0.05
tblFleetMix	MHD	0.02	0.05
tblFleetMix	OBUS	1.3480e-003	0.00
tblFleetMix	OBUS	1.3480e-003	0.00
tblFleetMix	OBUS	1.3480e-003	0.00

tblFleetMix	OBUS	1.3480e-003	0.00
tblFleetMix	OBUS	1.3480e-003	0.00
tblFleetMix	SBUS	8.1200e-004	0.00
tblFleetMix	SBUS	8.1200e-004	0.00
tblFleetMix	SBUS	8.1200e-004	0.00
tblFleetMix	SBUS	8.1200e-004	0.00
tblFleetMix	SBUS	8.1200e-004	0.00
tblFleetMix	UBUS	1.6070e-003	0.00
tblFleetMix	UBUS	1.6070e-003	0.00
tblFleetMix	UBUS	1.6070e-003	0.00
tblFleetMix	UBUS	1.6070e-003	0.00
tblFleetMix	UBUS	1.6070e-003	0.00
tblGrading	MaterialImported	0.00	12,000.00
tblLandUse	LandUseSquareFeet	63,162.00	62,944.20
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblProjectCharacteristics	CO2IntensityFactor	702.44	513
tblTripsAndVMT	WorkerTripNumber	18.00	5.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	1.68	1.86
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	1.05	0.00

tblVehicleTrips	SU_TR	1.68	1.86
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	1.68	1.86

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					
2020	8.4156	95.4479	59.6475	0.1741	14.6255	3.5700	16.9737	4.5369	3.3098	7.8467	0.0000	17,430.9841	17,430.9841	3.0719	0.0000	17,507.7821
2021	55.8101	44.3455	49.6463	0.1025	2.5943	2.0583	4.6526	0.6972	1.9209	2.6181	0.0000	10,069.1448	10,069.1448	1.8760	0.0000	10,116.0445
Maximum	**55.8101**	**95.4479**	**59.6475**	**0.1741**	**14.6255**	**3.5700**	**16.9737**	**4.5369**	**3.3098**	**7.8467**	**0.0000**	**17,430.9841**	**17,430.9841**	**3.0719**	**0.0000**	**17,507.7821**

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					
2020	8.4156	95.4479	59.6475	0.1741	6.7724	3.5700	9.5175	2.0881	3.3098	5.3978	0.0000	17,430.9841	17,430.9841	3.0719	0.0000	17,507.7821
2021	55.8101	44.3455	49.6463	0.1025	2.0244	2.0583	4.0827	0.5573	1.9209	2.4782	0.0000	10,069.1448	10,069.1448	1.8760	0.0000	10,116.0445
Maximum	**55.8101**	**95.4479**	**59.6475**	**0.1741**	**6.7724**	**3.5700**	**9.5175**	**2.0881**	**3.3098**	**5.3978**	**0.0000**	**17,430.9841**	**17,430.9841**	**3.0719**	**0.0000**	**17,507.7821**

	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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**48.91**	**0.00**	**37.11**	**49.46**	**0.00**	**24.74**	**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	3.9736	3.7000e-004	0.0405	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0864	0.0864	2.3000e-004		0.0922
Energy	0.2530	2.3002	1.9322	0.0138		0.1748	0.1748		0.1748	0.1748		2,760.2620	2,760.2620	0.0529	0.0506	2,776.6648
Mobile	0.8220	8.9609	9.8661	0.0482	2.8504	0.0353	2.8857	0.7681	0.0333	0.8014		4,954.1118	4,954.1118	0.2257		4,959.7544
Total	**5.0487**	**11.2615**	**11.8387**	**0.0620**	**2.8504**	**0.2103**	**3.0606**	**0.7681**	**0.2083**	**0.9764**		**7,714.4602**	**7,714.4602**	**0.2788**	**0.0506**	**7,736.5113**

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	3.9736	3.7000e-004	0.0405	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0864	0.0864	2.3000e-004		0.0922
Energy	0.2480	2.2543	1.8936	0.0135		0.1713	0.1713		0.1713	0.1713		2,705.1224	2,705.1224	0.0519	0.0496	2,721.1976
Mobile	0.7038	7.5914	7.2089	0.0350	1.9496	0.0249	1.9745	0.5254	0.0235	0.5489		3,599.0091	3,599.0091	0.1907		3,603.7765
Total	**4.9254**	**9.8460**	**9.1430**	**0.0485**	**1.9496**	**0.1964**	**2.1460**	**0.5254**	**0.1950**	**0.7203**		**6,304.2180**	**6,304.2180**	**0.2428**	**0.0496**	**6,325.0663**

	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	N20	CO2e
Percent Reduction	**2.44**	**12.57**	**22.77**	**21.77**	**31.60**	**6.61**	**29.89**	**31.60**	**6.40**	**26.22**	**0.00**	**18.28**	**18.28**	**12.93**	**2.00**	**18.24**

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	10/1/2020	10/28/2020	5	20	
2	Building Construction	Building Construction	10/1/2020	5/19/2021	5	165	
3	Grading	Grading	10/29/2020	12/3/2020	5	26	
4	Paving	Paving	3/1/2021	3/30/2021	5	22	
5	Architectural Coating	Architectural Coating	3/1/2021	4/14/2021	5	33	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 65

Acres of Paving: 3.29

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 262,170; Non-Residential Outdoor: 87,390; Striped Parking Area: 8,653 (Architectural Coating – sqft)

OffRoad Equipment

Alder Logistics Center - San Bernardino-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Crawler Tractors	1	8.00	212	0.43
Demolition	Excavators	1	8.00	158	0.38
Demolition	Graders	2	8.00	187	0.41
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	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	Paving Equipment	2	8.00	132	0.36
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Grading	Excavators	0	8.00	158	0.38
Grading	Graders	3	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	1	8.00	367	0.48
Grading	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
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	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	5	13.00	0.00	1,052.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	11	159.00	63.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	9	23.00	0.00	1,500.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	32.00	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

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2020

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					11.3789	0.0000	11.3789	1.7229	0.0000	1.7229			0.0000			0.0000
Off-Road	1.9850	24.6165	11.6764	0.0294		0.9351	0.9351		0.8603	0.8603		2,846.7127	2,846.7127	0.9207		2,869.7298
Total	**1.9850**	**24.6165**	**11.6764**	**0.0294**	**11.3789**	**0.9351**	**12.3140**	**1.7229**	**0.8603**	**2.5831**		**2,846.7127**	**2,846.7127**	**0.9207**		**2,869.7298**

3.2 Demolition - 2020

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	0.3268	12.9574	1.9121	0.0413	0.9205	0.0386	0.9592	0.2524	0.0369	0.2893		4,380.0446	4,380.0446	0.2364		4,385.9540
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
Worker	0.0710	0.0455	0.5846	1.4800e-003	0.1453	9.5000e-004	0.1463	0.0385	8.8000e-004	0.0394		146.9109	146.9109	4.4800e-003		147.0231
Total	**0.3977**	**13.0029**	**2.4967**	**0.0427**	**1.0659**	**0.0396**	**1.1054**	**0.2909**	**0.0378**	**0.3287**		**4,526.9555**	**4,526.9555**	**0.2409**		**4,532.9770**

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					4.2159	0.0000	4.2159	0.6383	0.0000	0.6383			0.0000			0.0000
Off-Road	1.9850	24.6165	11.6764	0.0294		0.9351	0.9351		0.8603	0.8603	0.0000	2,846.7127	2,846.7127	0.9207		2,869.7298
Total	**1.9850**	**24.6165**	**11.6764**	**0.0294**	**4.2159**	**0.9351**	**5.1510**	**0.6383**	**0.8603**	**1.4986**	**0.0000**	**2,846.7127**	**2,846.7127**	**0.9207**		**2,869.7298**

3.2 Demolition - 2020

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	0.3268	12.9574	1.9121	0.0413	0.7397	0.0386	0.7783	0.2080	0.0369	0.2449		4,380.0446	4,380.0446	0.2364		4,385.9540
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
Worker	0.0710	0.0455	0.5846	1.4800e-003	0.1125	9.5000e-004	0.1134	0.0305	8.8000e-004	0.0314		146.9109	146.9109	4.4800e-003		147.0231
Total	**0.3977**	**13.0029**	**2.4967**	**0.0427**	**0.8522**	**0.0396**	**0.8918**	**0.2385**	**0.0378**	**0.2763**		**4,526.9555**	**4,526.9555**	**0.2409**		**4,532.9770**

3.3 Building Construction - 2020

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	2.5348	23.4687	21.9173	0.0351		1.3313	1.3313		1.2474	1.2474		3,342.1194	3,342.1194	0.8781		3,364.0708
Total	**2.5348**	**23.4687**	**21.9173**	**0.0351**		**1.3313**	**1.3313**		**1.2474**	**1.2474**		**3,342.1194**	**3,342.1194**	**0.8781**		**3,364.0708**

3.3 Building Construction - 2020

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
Vendor	0.1913	6.6483	1.2957	0.0171	0.4035	0.0306	0.4341	0.1162	0.0293	0.1455		1,802.4387	1,802.4387	0.1171		1,805.3656
Worker	0.8678	0.5570	7.1507	0.0181	1.7773	0.0117	1.7889	0.4713	0.0107	0.4821		1,796.8338	1,796.8338	0.0549		1,798.2051
Total	**1.0590**	**7.2053**	**8.4463**	**0.0351**	**2.1808**	**0.0422**	**2.2230**	**0.5875**	**0.0400**	**0.6275**		**3,599.2725**	**3,599.2725**	**0.1719**		**3,603.5707**

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	2.5348	23.4687	21.9173	0.0351		1.3313	1.3313		1.2474	1.2474	0.0000	3,342.1194	3,342.1194	0.8781		3,364.0708
Total	**2.5348**	**23.4687**	**21.9173**	**0.0351**		**1.3313**	**1.3313**		**1.2474**	**1.2474**	**0.0000**	**3,342.1194**	**3,342.1194**	**0.8781**		**3,364.0708**

3.3 Building Construction - 2020

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
Vendor	0.1913	6.6483	1.2957	0.0171	0.3288	0.0306	0.3594	0.0978	0.0293	0.1271		1,802.4387	1,802.4387	0.1171		1,805.3656
Worker	0.8678	0.5570	7.1507	0.0181	1.3755	0.0117	1.3872	0.3727	0.0107	0.3835		1,796.8338	1,796.8338	0.0549		1,798.2051
Total	**1.0590**	**7.2053**	**8.4463**	**0.0351**	**1.7043**	**0.0422**	**1.7466**	**0.4706**	**0.0400**	**0.5106**		**3,599.2725**	**3,599.2725**	**0.1719**		**3,603.5707**

3.3 Building Construction - 2021

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	2.2850	21.3126	21.6580	0.0351		1.1503	1.1503		1.0776	1.0776		3,342.2753	3,342.2753	0.8712		3,364.0544
Total	**2.2850**	**21.3126**	**21.6580**	**0.0351**		**1.1503**	**1.1503**		**1.0776**	**1.0776**		**3,342.2753**	**3,342.2753**	**0.8712**		**3,364.0544**

3.3 Building Construction - 2021

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
Vendor	0.1630	6.0756	1.1432	0.0170	0.4035	0.0104	0.4139	0.1162	9.9600e-003	0.1261		1,792.9126	1,792.9126	0.1133		1,795.7452
Worker	0.8079	0.4994	6.5823	0.0175	1.7773	0.0114	1.7886	0.4713	0.0105	0.4818		1,739.5880	1,739.5880	0.0495		1,740.8258
Total	**0.9709**	**6.5749**	**7.7256**	**0.0345**	**2.1808**	**0.0218**	**2.2025**	**0.5875**	**0.0204**	**0.6079**		**3,532.5007**	**3,532.5007**	**0.1628**		**3,536.5710**

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	2.2850	21.3126	21.6580	0.0351		1.1503	1.1503		1.0776	1.0776	0.0000	3,342.2753	3,342.2753	0.8712		3,364.0544
Total	**2.2850**	**21.3126**	**21.6580**	**0.0351**		**1.1503**	**1.1503**		**1.0776**	**1.0776**	**0.0000**	**3,342.2753**	**3,342.2753**	**0.8712**		**3,364.0544**

3.3 Building Construction - 2021

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
Vendor	0.1630	6.0756	1.1432	0.0170	0.3288	0.0104	0.3392	0.0978	9.9600e-003	0.1078		1,792.9126	1,792.9126	0.1133		1,795.7452
Worker	0.8079	0.4994	6.5823	0.0175	1.3755	0.0114	1.3869	0.3727	0.0105	0.3832		1,739.5880	1,739.5880	0.0495		1,740.8258
Total	**0.9709**	**6.5749**	**7.7256**	**0.0345**	**1.7043**	**0.0218**	**1.7261**	**0.4706**	**0.0204**	**0.4910**		**3,532.5007**	**3,532.5007**	**0.1628**		**3,536.5710**

3.4 Grading - 2020

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					8.7255	0.0000	8.7255	3.6044	0.0000	3.6044			0.0000			0.0000
Off-Road	4.3379	50.4816	26.1524	0.0560		2.1525	2.1525		1.9803	1.9803		5,425.5877	5,425.5877	1.7547		5,469.4563
Total	**4.3379**	**50.4816**	**26.1524**	**0.0560**	**8.7255**	**2.1525**	**10.8780**	**3.6044**	**1.9803**	**5.5847**		**5,425.5877**	**5,425.5877**	**1.7547**		**5,469.4563**

3.4 Grading - 2020

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	0.3584	14.2118	2.0972	0.0453	1.0097	0.0424	1.0520	0.2768	0.0405	0.3173		4,804.0851	4,804.0851	0.2593		4,810.5666
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
Worker	0.1255	0.0806	1.0344	2.6100e-003	0.2571	1.6800e-003	0.2588	0.0682	1.5500e-003	0.0697		259.9194	259.9194	7.9300e-003		260.1177
Total	**0.4839**	**14.2924**	**3.1315**	**0.0479**	**1.2668**	**0.0440**	**1.3108**	**0.3450**	**0.0421**	**0.3871**		**5,064.0045**	**5,064.0045**	**0.2672**		**5,070.6844**

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					3.2328	0.0000	3.2328	1.3354	0.0000	1.3354			0.0000			0.0000
Off-Road	4.3379	50.4816	26.1524	0.0560		2.1525	2.1525		1.9803	1.9803	0.0000	5,425.5877	5,425.5877	1.7547		5,469.4563
Total	**4.3379**	**50.4816**	**26.1524**	**0.0560**	**3.2328**	**2.1525**	**5.3853**	**1.3354**	**1.9803**	**3.3157**	**0.0000**	**5,425.5877**	**5,425.5877**	**1.7547**		**5,469.4563**

3.4 Grading - 2020

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	0.3584	14.2118	2.0972	0.0453	0.8113	0.0424	0.8537	0.2281	0.0405	0.2687		4,804.0851	4,804.0851	0.2593		4,810.5666
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
Worker	0.1255	0.0806	1.0344	2.6100e-003	0.1990	1.6800e-003	0.2007	0.0539	1.5500e-003	0.0555		259.9194	259.9194	7.9300e-003		260.1177
Total	**0.4839**	**14.2924**	**3.1315**	**0.0479**	**1.0103**	**0.0440**	**1.0544**	**0.2821**	**0.0421**	**0.3241**		**5,064.0045**	**5,064.0045**	**0.2672**		**5,070.6844**

3.5 Paving - 2021

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	1.4428	14.8149	16.9135	0.0259		0.7895	0.7895		0.7263	0.7263		2,508.1109	2,508.1109	0.8112		2,528.3903
Paving	0.3918					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.8346**	**14.8149**	**16.9135**	**0.0259**		**0.7895**	**0.7895**		**0.7263**	**0.7263**		**2,508.1109**	**2,508.1109**	**0.8112**		**2,528.3903**

3.5 Paving - 2021

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
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
Worker	0.0254	0.0157	0.2070	5.5000e-004	0.0559	3.6000e-004	0.0563	0.0148	3.3000e-004	0.0152		54.7040	54.7040	1.5600e-003		54.7430
Total	**0.0254**	**0.0157**	**0.2070**	**5.5000e-004**	**0.0559**	**3.6000e-004**	**0.0563**	**0.0148**	**3.3000e-004**	**0.0152**		**54.7040**	**54.7040**	**1.5600e-003**		**54.7430**

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	1.4428	14.8149	16.9135	0.0259		0.7895	0.7895		0.7263	0.7263	0.0000	2,508.1109	2,508.1109	0.8112		2,528.3903
Paving	0.3918					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.8346**	**14.8149**	**16.9135**	**0.0259**		**0.7895**	**0.7895**		**0.7263**	**0.7263**	**0.0000**	**2,508.1109**	**2,508.1109**	**0.8112**		**2,528.3903**

3.5 Paving - 2021

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
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
Worker	0.0254	0.0157	0.2070	5.5000e-004	0.0433	3.6000e-004	0.0436	0.0117	3.3000e-004	0.0121		54.7040	54.7040	1.5600e-003		54.7430
Total	**0.0254**	**0.0157**	**0.2070**	**5.5000e-004**	**0.0433**	**3.6000e-004**	**0.0436**	**0.0117**	**3.3000e-004**	**0.0121**		**54.7040**	**54.7040**	**1.5600e-003**		**54.7430**

3.6 Architectural Coating - 2021

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	50.3126					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	**50.5315**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.6 Architectural Coating - 2021

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
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
Worker	0.1626	0.1005	1.3248	3.5200e-003	0.3577	2.2900e-003	0.3600	0.0949	2.1100e-003	0.0970		350.1058	350.1058	9.9600e-003		350.3549
Total	**0.1626**	**0.1005**	**1.3248**	**3.5200e-003**	**0.3577**	**2.2900e-003**	**0.3600**	**0.0949**	**2.1100e-003**	**0.0970**		**350.1058**	**350.1058**	**9.9600e-003**		**350.3549**

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	50.3126					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	**50.5315**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**	**0.0000**	**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.6 Architectural Coating - 2021

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
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
Worker	0.1626	0.1005	1.3248	3.5200e-003	0.2768	2.2900e-003	0.2791	0.0750	2.1100e-003	0.0771		350.1058	350.1058	9.9600e-003		350.3549
Total	**0.1626**	**0.1005**	**1.3248**	**3.5200e-003**	**0.2768**	**2.2900e-003**	**0.2791**	**0.0750**	**2.1100e-003**	**0.0771**		**350.1058**	**350.1058**	**9.9600e-003**		**350.3549**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Destination Accessibility

Increase Transit Accessibility

	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	0.7038	7.5914	7.2089	0.0350	1.9496	0.0249	1.9745	0.5254	0.0235	0.5489		3,599.0091	3,599.0091	0.1907		3,603.7765
Unmitigated	0.8220	8.9609	9.8661	0.0482	2.8504	0.0353	2.8857	0.7681	0.0333	0.8014		4,954.1118	4,954.1118	0.2257		4,959.7544

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	306.49	306.49	306.49	1,313,533	898,431
Total	306.49	306.49	306.49	1,313,533	898,431

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.473801	0.033595	0.155937	0.104269	0.016518	0.036000	0.049000	0.124000	0.000000	0.000000	0.006879	0.000000	0.000000
General Office Building	0.473801	0.033595	0.155937	0.104269	0.016518	0.036000	0.049000	0.124000	0.000000	0.000000	0.006879	0.000000	0.000000
Other Asphalt Surfaces	0.473801	0.033595	0.155937	0.104269	0.016518	0.036000	0.049000	0.124000	0.000000	0.000000	0.006879	0.000000	0.000000
Parking Lot	0.473801	0.033595	0.155937	0.104269	0.016518	0.036000	0.049000	0.124000	0.000000	0.000000	0.006879	0.000000	0.000000
Refrigerated Warehouse-No Rail	0.473801	0.033595	0.155937	0.104269	0.016518	0.036000	0.049000	0.124000	0.000000	0.000000	0.006879	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

	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	0.2480	2.2543	1.8936	0.0135		0.1713	0.1713		0.1713	0.1713		2,705.1224	2,705.1224	0.0519	0.0496	2,721.1976
NaturalGas Unmitigated	0.2530	2.3002	1.9322	0.0138		0.1748	0.1748		0.1748	0.1748		2,760.2620	2,760.2620	0.0529	0.0506	2,776.6648

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					
City Park	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
General Office Building	95.0685	1.0300e-003	9.3200e-003	7.8300e-003	6.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004		11.1845	11.1845	2.1000e-004	2.1000e-004	11.2510
Other Asphalt Surfaces	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
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
Refrigerated Warehouse-No Rail	23367.2	0.2520	2.2909	1.9244	0.0138		0.1741	0.1741		0.1741	0.1741		2,749.0775	2,749.0775	0.0527	0.0504	2,765.4139
Total		**0.2530**	**2.3002**	**1.9322**	**0.0138**		**0.1748**	**0.1748**		**0.1748**	**0.1748**		**2,760.2620**	**2,760.2620**	**0.0529**	**0.0506**	**2,776.6648**

5.2 Energy by Land Use - NaturalGas

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					
City Park	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
General Office Building	0.0665479	7.2000e-004	6.5200e-003	5.4800e-003	4.0000e-005		5.0000e-004	5.0000e-004		5.0000e-004	5.0000e-004		7.8292	7.8292	1.5000e-004	1.4000e-004	7.8757
Other Asphalt Surfaces	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
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
Refrigerated Warehouse-No Rail	22.927	0.2473	2.2477	1.8881	0.0135		0.1708	0.1708		0.1708	0.1708		2,697.2933	2,697.2933	0.0517	0.0495	2,713.3219
Total		**0.2480**	**2.2543**	**1.8936**	**0.0135**		**0.1713**	**0.1713**		**0.1713**	**0.1713**		**2,705.1224**	**2,705.1224**	**0.0519**	**0.0496**	**2,721.1976**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	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	3.9736	3.7000e-004	0.0405	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0864	0.0864	2.3000e-004		0.0922
Unmitigated	3.9736	3.7000e-004	0.0405	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0864	0.0864	2.3000e-004		0.0922

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	0.4549					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.5150					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.7800e-003	3.7000e-004	0.0405	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0864	0.0864	2.3000e-004		0.0922
Total	**3.9736**	**3.7000e-004**	**0.0405**	**0.0000**		**1.4000e-004**	**1.4000e-004**		**1.4000e-004**	**1.4000e-004**		**0.0864**	**0.0864**	**2.3000e-004**		**0.0922**

6.2 Area by SubCategory

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	0.4549					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.5150					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.7800e-003	3.7000e-004	0.0405	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0864	0.0864	2.3000e-004		0.0922
Total	**3.9736**	**3.7000e-004**	**0.0405**	**0.0000**		**1.4000e-004**	**1.4000e-004**		**1.4000e-004**	**1.4000e-004**		**0.0864**	**0.0864**	**2.3000e-004**		**0.0922**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Alder Logistics Center

San Bernardino-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	10.00	1000sqft	0.23	10,000.00	0
Refrigerated Warehouse-No Rail	164.78	1000sqft	3.78	164,780.00	0
Other Asphalt Surfaces	94.62	1000sqft	2.17	94,620.00	0
Parking Lot	124.00	Space	1.12	49,600.00	0
City Park	1.45	Acre	1.45	62,944.20	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	32
Climate Zone	10			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	513	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity Factor Source: Southern California Edison, 2018 Sustainability Report, dated May 2019.

Land Use - Per site plan.
City Park = Landscaping Area
Other Asphalt Surfaces = Paving Area

Construction Phase - Per Construction Questionnaire.

Off-road Equipment -

Off-road Equipment - Per Construction Questionnaire.

Off-road Equipment - Per Construction Questionnaire.

Off-road Equipment - Per Construction Questionnaire.

Off-road Equipment - Per Construction Questionnaire.

Demolition -

Grading -

Vehicle Trips - Per traffic study.

Construction Off-road Equipment Mitigation - Per SCAQMD standards and regulations.

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation - Under 2019 Title 24 standards, nonresidential buildings will use about 30 percent less energy due mainly to lighting upgrades.
Source: The California Energy Comission, 2019 Building Energy Efficiency Standards, dated March 2018.

Waste Mitigation -

Fleet Mix - Adjusted per Traffic Study fleet mix.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	26
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	33.00
tblConstructionPhase	NumDays	230.00	165.00
tblConstructionPhase	NumDays	20.00	26.00

tblConstructionPhase	NumDays	20.00	22.00
tblFleetMix	HHD	0.06	0.12
tblFleetMix	HHD	0.06	0.12
tblFleetMix	HHD	0.06	0.12
tblFleetMix	HHD	0.06	0.12
tblFleetMix	HHD	0.06	0.12
tblFleetMix	LDA	0.55	0.47
tblFleetMix	LDA	0.55	0.47
tblFleetMix	LDA	0.55	0.47
tblFleetMix	LDA	0.55	0.47
tblFleetMix	LDA	0.55	0.47
tblFleetMix	LDT1	0.04	0.03
tblFleetMix	LDT1	0.04	0.03
tblFleetMix	LDT1	0.04	0.03
tblFleetMix	LDT1	0.04	0.03
tblFleetMix	LDT1	0.04	0.03
tblFleetMix	LDT2	0.18	0.16
tblFleetMix	LDT2	0.18	0.16
tblFleetMix	LDT2	0.18	0.16
tblFleetMix	LDT2	0.18	0.16
tblFleetMix	LDT2	0.18	0.16
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD2	5.2670e-003	0.04

tblFleetMix	LHD2	5.2670e-003	0.04
tblFleetMix	LHD2	5.2670e-003	0.04
tblFleetMix	LHD2	5.2670e-003	0.04
tblFleetMix	LHD2	5.2670e-003	0.04
tblFleetMix	MCY	6.0000e-003	6.8790e-003
tblFleetMix	MCY	6.0000e-003	6.8790e-003
tblFleetMix	MCY	6.0000e-003	6.8790e-003
tblFleetMix	MCY	6.0000e-003	6.8790e-003
tblFleetMix	MCY	6.0000e-003	6.8790e-003
tblFleetMix	MDV	0.12	0.10
tblFleetMix	MDV	0.12	0.10
tblFleetMix	MDV	0.12	0.10
tblFleetMix	MDV	0.12	0.10
tblFleetMix	MDV	0.12	0.10
tblFleetMix	MH	1.0100e-003	0.00
tblFleetMix	MH	1.0100e-003	0.00
tblFleetMix	MH	1.0100e-003	0.00
tblFleetMix	MH	1.0100e-003	0.00
tblFleetMix	MH	1.0100e-003	0.00
tblFleetMix	MHD	0.02	0.05
tblFleetMix	MHD	0.02	0.05
tblFleetMix	MHD	0.02	0.05
tblFleetMix	MHD	0.02	0.05
tblFleetMix	MHD	0.02	0.05
tblFleetMix	OBUS	1.3480e-003	0.00
tblFleetMix	OBUS	1.3480e-003	0.00
tblFleetMix	OBUS	1.3480e-003	0.00

tblFleetMix	OBUS	1.3480e-003	0.00
tblFleetMix	OBUS	1.3480e-003	0.00
tblFleetMix	SBUS	8.1200e-004	0.00
tblFleetMix	SBUS	8.1200e-004	0.00
tblFleetMix	SBUS	8.1200e-004	0.00
tblFleetMix	SBUS	8.1200e-004	0.00
tblFleetMix	SBUS	8.1200e-004	0.00
tblFleetMix	UBUS	1.6070e-003	0.00
tblFleetMix	UBUS	1.6070e-003	0.00
tblFleetMix	UBUS	1.6070e-003	0.00
tblFleetMix	UBUS	1.6070e-003	0.00
tblFleetMix	UBUS	1.6070e-003	0.00
tblGrading	MaterialImported	0.00	12,000.00
tblLandUse	LandUseSquareFeet	63,162.00	62,944.20
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblProjectCharacteristics	CO2IntensityFactor	702.44	513
tblTripsAndVMT	WorkerTripNumber	18.00	5.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	1.68	1.86
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	1.05	0.00

tblVehicleTrips	SU_TR	1.68	1.86
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	1.68	1.86

2.0 Emissions Summary

2.1 Overall Construction

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	tons/yr										MT/yr					
2020	0.2025	2.2432	1.4959	4.3100e-003	0.3245	0.0836	0.4082	0.0904	0.0778	0.1682	0.0000	391.6250	391.6250	0.0660	0.0000	393.2752
2021	1.0142	1.5759	1.6511	3.7500e-003	0.1124	0.0683	0.1807	0.0303	0.0639	0.0942	0.0000	335.4453	335.4453	0.0550	0.0000	336.8201
Maximum	**1.0142**	**2.2432**	**1.6511**	**4.3100e-003**	**0.3245**	**0.0836**	**0.4082**	**0.0904**	**0.0778**	**0.1682**	**0.0000**	**391.6250**	**391.6250**	**0.0660**	**0.0000**	**393.2752**

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	tons/yr										MT/yr					
2020	0.2025	2.2432	1.4959	4.3100e-003	0.1608	0.0836	0.2444	0.0450	0.0778	0.1228	0.0000	391.6248	391.6248	0.0660	0.0000	393.2750
2021	1.0142	1.5759	1.6510	3.7500e-003	0.0878	0.0683	0.1561	0.0243	0.0639	0.0882	0.0000	335.4451	335.4451	0.0550	0.0000	336.8199
Maximum	**1.0142**	**2.2432**	**1.6510**	**4.3100e-003**	**0.1608**	**0.0836**	**0.2444**	**0.0450**	**0.0778**	**0.1228**	**0.0000**	**391.6248**	**391.6248**	**0.0660**	**0.0000**	**393.2750**

	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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**43.10**	**0.00**	**31.97**	**42.61**	**0.00**	**19.61**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	10-1-2020	12-31-2020	2.4224	2.4224
2	1-1-2021	3-31-2021	1.7583	1.7583
3	4-1-2021	6-30-2021	0.8066	0.8066
		Highest	2.4224	2.4224

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	tons/yr										MT/yr					
Area	0.7250	5.0000e-005	5.0600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.8000e-003	9.8000e-003	3.0000e-005	0.0000	0.0105
Energy	0.0462	0.4198	0.3526	2.5200e-003		0.0319	0.0319		0.0319	0.0319	0.0000	2,014.9924	2,014.9924	0.0968	0.0266	2,025.3402
Mobile	0.1335	1.6714	1.6382	8.3700e-003	0.5093	6.4400e-003	0.5157	0.1375	6.0800e-003	0.1435	0.0000	781.7494	781.7494	0.0376	0.0000	782.6887
Waste						0.0000	0.0000		0.0000	0.0000	33.3535	0.0000	33.3535	1.9711	0.0000	82.6318
Water						0.0000	0.0000		0.0000	0.0000	12.6529	128.1229	140.7759	1.3068	0.0322	183.0373
Total	**0.9046**	**2.0913**	**1.9959**	**0.0109**	**0.5093**	**0.0384**	**0.5476**	**0.1375**	**0.0380**	**0.1755**	**46.0064**	**2,924.8745**	**2,970.8809**	**3.4124**	**0.0588**	**3,073.7085**

2.2 Overall Operational

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	tons/yr										MT/yr					
Area	0.7250	5.0000e-005	5.0600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.8000e-003	9.8000e-003	3.0000e-005	0.0000	0.0105
Energy	0.0453	0.4114	0.3456	2.4700e-003		0.0313	0.0313		0.0313	0.0313	0.0000	1,960.4984	1,960.4984	0.0941	0.0259	1,970.5697
Mobile	0.1126	1.4052	1.2203	6.0700e-003	0.3483	4.5500e-003	0.3529	0.0940	4.3000e-003	0.0983	0.0000	567.5992	567.5992	0.0321	0.0000	568.4012
Waste						0.0000	0.0000		0.0000	0.0000	16.6767	0.0000	16.6767	0.9856	0.0000	41.3159
Water						0.0000	0.0000		0.0000	0.0000	12.6529	128.1229	140.7759	1.3068	0.0322	183.0373
Total	**0.8828**	**1.8166**	**1.5709**	**8.5400e-003**	**0.3483**	**0.0358**	**0.3842**	**0.0940**	**0.0356**	**0.1296**	**29.3297**	**2,656.2303**	**2,685.5600**	**2.4186**	**0.0581**	**2,763.3346**

	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	N20	CO2e
Percent Reduction	**2.41**	**13.13**	**21.29**	**21.58**	**31.60**	**6.57**	**29.85**	**31.60**	**6.34**	**26.13**	**36.25**	**9.18**	**9.60**	**29.12**	**1.19**	**10.10**

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	10/1/2020	10/28/2020	5	20	
2	Building Construction	Building Construction	10/1/2020	5/19/2021	5	165	
3	Grading	Grading	10/29/2020	12/3/2020	5	26	
4	Paving	Paving	3/1/2021	3/30/2021	5	22	
5	Architectural Coating	Architectural Coating	3/1/2021	4/14/2021	5	33	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 65

Acres of Paving: 3.29

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 262,170; Non-Residential Outdoor: 87,390; Striped Parking Area: 8,653 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Crawler Tractors	1	8.00	212	0.43
Demolition	Excavators	1	8.00	158	0.38
Demolition	Graders	2	8.00	187	0.41
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	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	Paving Equipment	2	8.00	132	0.36
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Grading	Excavators	0	8.00	158	0.38
Grading	Graders	3	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	1	8.00	367	0.48
Grading	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
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	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	5	13.00	0.00	1,052.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	11	159.00	63.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	9	23.00	0.00	1,500.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	32.00	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

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2020

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	tons/yr										MT/yr					
Fugitive Dust					0.1138	0.0000	0.1138	0.0172	0.0000	0.0172	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0199	0.2462	0.1168	2.9000e-004		9.3500e-003	9.3500e-003		8.6000e-003	8.6000e-003	0.0000	25.8249	25.8249	8.3500e-003	0.0000	26.0338
Total	**0.0199**	**0.2462**	**0.1168**	**2.9000e-004**	**0.1138**	**9.3500e-003**	**0.1231**	**0.0172**	**8.6000e-003**	**0.0258**	**0.0000**	**25.8249**	**25.8249**	**8.3500e-003**	**0.0000**	**26.0338**

3.2 Demolition - 2020

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	tons/yr										MT/yr					
Hauling	3.3300e-003	0.1329	0.0203	4.1000e-004	9.0500e-003	3.9000e-004	9.4400e-003	2.4900e-003	3.7000e-004	2.8600e-003	0.0000	39.3000	39.3000	2.2300e-003	0.0000	39.3556
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	0.0000
Worker	6.4000e-004	5.0000e-004	5.0400e-003	1.0000e-005	1.4300e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2218	1.2218	4.0000e-005	0.0000	1.2227
Total	**3.9700e-003**	**0.1334**	**0.0254**	**4.2000e-004**	**0.0105**	**4.0000e-004**	**0.0109**	**2.8700e-003**	**3.8000e-004**	**3.2500e-003**	**0.0000**	**40.5217**	**40.5217**	**2.2700e-003**	**0.0000**	**40.5783**

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	tons/yr										MT/yr					
Fugitive Dust					0.0422	0.0000	0.0422	6.3800e-003	0.0000	6.3800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0199	0.2462	0.1168	2.9000e-004		9.3500e-003	9.3500e-003		8.6000e-003	8.6000e-003	0.0000	25.8249	25.8249	8.3500e-003	0.0000	26.0337
Total	**0.0199**	**0.2462**	**0.1168**	**2.9000e-004**	**0.0422**	**9.3500e-003**	**0.0515**	**6.3800e-003**	**8.6000e-003**	**0.0150**	**0.0000**	**25.8249**	**25.8249**	**8.3500e-003**	**0.0000**	**26.0337**

3.2 Demolition - 2020

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	tons/yr										MT/yr					
Hauling	3.3300e-003	0.1329	0.0203	4.1000e-004	7.2800e-003	3.9000e-004	7.6700e-003	2.0500e-003	3.7000e-004	2.4200e-003	0.0000	39.3000	39.3000	2.2300e-003	0.0000	39.3556
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	0.0000
Worker	6.4000e-004	5.0000e-004	5.0400e-003	1.0000e-005	1.1000e-003	1.0000e-005	1.1100e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	1.2218	1.2218	4.0000e-005	0.0000	1.2227
Total	**3.9700e-003**	**0.1334**	**0.0254**	**4.2000e-004**	**8.3800e-003**	**4.0000e-004**	**8.7800e-003**	**2.3500e-003**	**3.8000e-004**	**2.7300e-003**	**0.0000**	**40.5217**	**40.5217**	**2.2700e-003**	**0.0000**	**40.5783**

3.3 Building Construction - 2020

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	tons/yr										MT/yr					
Off-Road	0.0837	0.7745	0.7233	1.1600e-003		0.0439	0.0439		0.0412	0.0412	0.0000	100.0534	100.0534	0.0263	0.0000	100.7105
Total	**0.0837**	**0.7745**	**0.7233**	**1.1600e-003**		**0.0439**	**0.0439**		**0.0412**	**0.0412**	**0.0000**	**100.0534**	**100.0534**	**0.0263**	**0.0000**	**100.7105**

3.3 Building Construction - 2020

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	tons/yr										MT/yr					
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	0.0000
Vendor	6.4500e-003	0.2219	0.0464	5.5000e-004	0.0131	1.0100e-003	0.0141	3.7800e-003	9.7000e-004	4.7500e-003	0.0000	53.0804	53.0804	3.6700e-003	0.0000	53.1722
Worker	0.0259	0.0204	0.2035	5.5000e-004	0.0575	3.8000e-004	0.0579	0.0153	3.5000e-004	0.0156	0.0000	49.3124	49.3124	1.4800e-003	0.0000	49.3494
Total	**0.0324**	**0.2423**	**0.2499**	**1.1000e-003**	**0.0706**	**1.3900e-003**	**0.0720**	**0.0191**	**1.3200e-003**	**0.0204**	**0.0000**	**102.3928**	**102.3928**	**5.1500e-003**	**0.0000**	**102.5216**

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	tons/yr										MT/yr					
Off-Road	0.0837	0.7745	0.7233	1.1600e-003		0.0439	0.0439		0.0412	0.0412	0.0000	100.0532	100.0532	0.0263	0.0000	100.7104
Total	**0.0837**	**0.7745**	**0.7233**	**1.1600e-003**		**0.0439**	**0.0439**		**0.0412**	**0.0412**	**0.0000**	**100.0532**	**100.0532**	**0.0263**	**0.0000**	**100.7104**

3.3 Building Construction - 2020

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	tons/yr										MT/yr					
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	0.0000
Vendor	6.4500e-003	0.2219	0.0464	5.5000e-004	0.0107	1.0100e-003	0.0117	3.1900e-003	9.7000e-004	4.1600e-003	0.0000	53.0804	53.0804	3.6700e-003	0.0000	53.1722
Worker	0.0259	0.0204	0.2035	5.5000e-004	0.0446	3.8000e-004	0.0450	0.0121	3.5000e-004	0.0125	0.0000	49.3124	49.3124	1.4800e-003	0.0000	49.3494
Total	**0.0324**	**0.2423**	**0.2499**	**1.1000e-003**	**0.0553**	**1.3900e-003**	**0.0567**	**0.0153**	**1.3200e-003**	**0.0166**	**0.0000**	**102.3928**	**102.3928**	**5.1500e-003**	**0.0000**	**102.5216**

3.3 Building Construction - 2021

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	tons/yr										MT/yr					
Off-Road	0.1131	1.0550	1.0721	1.7400e-003		0.0569	0.0569		0.0533	0.0533	0.0000	150.0870	150.0870	0.0391	0.0000	151.0650
Total	**0.1131**	**1.0550**	**1.0721**	**1.7400e-003**		**0.0569**	**0.0569**		**0.0533**	**0.0533**	**0.0000**	**150.0870**	**150.0870**	**0.0391**	**0.0000**	**151.0650**

3.3 Building Construction - 2021

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	tons/yr										MT/yr					
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	0.0000
Vendor	8.2700e-003	0.3034	0.0617	8.3000e-004	0.0197	5.2000e-004	0.0202	5.6700e-003	5.0000e-004	6.1700e-003	0.0000	79.1985	79.1985	5.3400e-003	0.0000	79.3319
Worker	0.0362	0.0274	0.2804	7.9000e-004	0.0863	5.6000e-004	0.0869	0.0229	5.2000e-004	0.0234	0.0000	71.6137	71.6137	2.0000e-003	0.0000	71.6638
Total	**0.0445**	**0.3308**	**0.3422**	**1.6200e-003**	**0.1060**	**1.0800e-003**	**0.1070**	**0.0286**	**1.0200e-003**	**0.0296**	**0.0000**	**150.8122**	**150.8122**	**7.3400e-003**	**0.0000**	**150.9957**

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	tons/yr										MT/yr					
Off-Road	0.1131	1.0550	1.0721	1.7400e-003		0.0569	0.0569		0.0533	0.0533	0.0000	150.0869	150.0869	0.0391	0.0000	151.0649
Total	**0.1131**	**1.0550**	**1.0721**	**1.7400e-003**		**0.0569**	**0.0569**		**0.0533**	**0.0533**	**0.0000**	**150.0869**	**150.0869**	**0.0391**	**0.0000**	**151.0649**

3.3 Building Construction - 2021

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	tons/yr										MT/yr					
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	0.0000
Vendor	8.2700e-003	0.3034	0.0617	8.3000e-004	0.0160	5.2000e-004	0.0166	4.7900e-003	5.0000e-004	5.2900e-003	0.0000	79.1985	79.1985	5.3400e-003	0.0000	79.3319
Worker	0.0362	0.0274	0.2804	7.9000e-004	0.0669	5.6000e-004	0.0674	0.0182	5.2000e-004	0.0187	0.0000	71.6137	71.6137	2.0000e-003	0.0000	71.6638
Total	**0.0445**	**0.3308**	**0.3422**	**1.6200e-003**	**0.0829**	**1.0800e-003**	**0.0840**	**0.0229**	**1.0200e-003**	**0.0240**	**0.0000**	**150.8122**	**150.8122**	**7.3400e-003**	**0.0000**	**150.9957**

3.4 Grading - 2020

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	tons/yr										MT/yr					
Fugitive Dust					0.1134	0.0000	0.1134	0.0469	0.0000	0.0469	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0564	0.6563	0.3400	7.3000e-004		0.0280	0.0280		0.0257	0.0257	0.0000	63.9861	63.9861	0.0207	0.0000	64.5035
Total	**0.0564**	**0.6563**	**0.3400**	**7.3000e-004**	**0.1134**	**0.0280**	**0.1414**	**0.0469**	**0.0257**	**0.0726**	**0.0000**	**63.9861**	**63.9861**	**0.0207**	**0.0000**	**64.5035**

3.4 Grading - 2020

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	tons/yr										MT/yr					
Hauling	4.7500e-003	0.1895	0.0290	5.8000e-004	0.0129	5.5000e-004	0.0135	3.5500e-003	5.3000e-004	4.0700e-003	0.0000	56.0361	56.0361	3.1700e-003	0.0000	56.1154
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	0.0000
Worker	1.4800e-003	1.1600e-003	0.0116	3.0000e-005	3.2800e-003	2.0000e-005	3.3000e-003	8.7000e-004	2.0000e-005	8.9000e-004	0.0000	2.8101	2.8101	8.0000e-005	0.0000	2.8122
Total	**6.2300e-003**	**0.1906**	**0.0406**	**6.1000e-004**	**0.0162**	**5.7000e-004**	**0.0168**	**4.4200e-003**	**5.5000e-004**	**4.9600e-003**	**0.0000**	**58.8461**	**58.8461**	**3.2500e-003**	**0.0000**	**58.9275**

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	tons/yr										MT/yr					
Fugitive Dust					0.0420	0.0000	0.0420	0.0174	0.0000	0.0174	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0564	0.6563	0.3400	7.3000e-004		0.0280	0.0280		0.0257	0.0257	0.0000	63.9861	63.9861	0.0207	0.0000	64.5034
Total	**0.0564**	**0.6563**	**0.3400**	**7.3000e-004**	**0.0420**	**0.0280**	**0.0700**	**0.0174**	**0.0257**	**0.0431**	**0.0000**	**63.9861**	**63.9861**	**0.0207**	**0.0000**	**64.5034**

3.4 Grading - 2020

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	tons/yr										MT/yr					
Hauling	4.7500e-003	0.1895	0.0290	5.8000e-004	0.0104	5.5000e-004	0.0109	2.9300e-003	5.3000e-004	3.4600e-003	0.0000	56.0361	56.0361	3.1700e-003	0.0000	56.1154
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	0.0000
Worker	1.4800e-003	1.1600e-003	0.0116	3.0000e-005	2.5400e-003	2.0000e-005	2.5600e-003	6.9000e-004	2.0000e-005	7.1000e-004	0.0000	2.8101	2.8101	8.0000e-005	0.0000	2.8122
Total	**6.2300e-003**	**0.1906**	**0.0406**	**6.1000e-004**	**0.0129**	**5.7000e-004**	**0.0135**	**3.6200e-003**	**5.5000e-004**	**4.1700e-003**	**0.0000**	**58.8461**	**58.8461**	**3.2500e-003**	**0.0000**	**58.9275**

3.5 Paving - 2021

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	tons/yr										MT/yr					
Off-Road	0.0159	0.1630	0.1861	2.8000e-004		8.6800e-003	8.6800e-003		7.9900e-003	7.9900e-003	0.0000	25.0285	25.0285	8.0900e-003	0.0000	25.2309
Paving	4.3100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0202**	**0.1630**	**0.1861**	**2.8000e-004**		**8.6800e-003**	**8.6800e-003**		**7.9900e-003**	**7.9900e-003**	**0.0000**	**25.0285**	**25.0285**	**8.0900e-003**	**0.0000**	**25.2309**

3.5 Paving - 2021

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	tons/yr										MT/yr					
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	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	0.0000
Worker	2.5000e-004	1.9000e-004	1.9600e-003	1.0000e-005	6.0000e-004	0.0000	6.1000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5005	0.5005	1.0000e-005	0.0000	0.5008
Total	**2.5000e-004**	**1.9000e-004**	**1.9600e-003**	**1.0000e-005**	**6.0000e-004**	**0.0000**	**6.1000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.5005**	**0.5005**	**1.0000e-005**	**0.0000**	**0.5008**

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	tons/yr										MT/yr					
Off-Road	0.0159	0.1630	0.1861	2.8000e-004		8.6800e-003	8.6800e-003		7.9900e-003	7.9900e-003	0.0000	25.0285	25.0285	8.0900e-003	0.0000	25.2309
Paving	4.3100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0202**	**0.1630**	**0.1861**	**2.8000e-004**		**8.6800e-003**	**8.6800e-003**		**7.9900e-003**	**7.9900e-003**	**0.0000**	**25.0285**	**25.0285**	**8.0900e-003**	**0.0000**	**25.2309**

3.5 Paving - 2021

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	tons/yr										MT/yr					
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	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	0.0000
Worker	2.5000e-004	1.9000e-004	1.9600e-003	1.0000e-005	4.7000e-004	0.0000	4.7000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.5005	0.5005	1.0000e-005	0.0000	0.5008
Total	**2.5000e-004**	**1.9000e-004**	**1.9600e-003**	**1.0000e-005**	**4.7000e-004**	**0.0000**	**4.7000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.5005**	**0.5005**	**1.0000e-005**	**0.0000**	**0.5008**

3.6 Architectural Coating - 2021

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	tons/yr										MT/yr					
Archit. Coating	0.8302					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6100e-003	0.0252	0.0300	5.0000e-005		1.5500e-003	1.5500e-003		1.5500e-003	1.5500e-003	0.0000	4.2129	4.2129	2.9000e-004	0.0000	4.2201
Total	**0.8338**	**0.0252**	**0.0300**	**5.0000e-005**		**1.5500e-003**	**1.5500e-003**		**1.5500e-003**	**1.5500e-003**	**0.0000**	**4.2129**	**4.2129**	**2.9000e-004**	**0.0000**	**4.2201**

3.6 Architectural Coating - 2021

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	tons/yr										MT/yr					
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	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	0.0000
Worker	2.4300e-003	1.8400e-003	0.0188	5.0000e-005	5.7900e-003	4.0000e-005	5.8300e-003	1.5400e-003	3.0000e-005	1.5700e-003	0.0000	4.8043	4.8043	1.3000e-004	0.0000	4.8076
Total	**2.4300e-003**	**1.8400e-003**	**0.0188**	**5.0000e-005**	**5.7900e-003**	**4.0000e-005**	**5.8300e-003**	**1.5400e-003**	**3.0000e-005**	**1.5700e-003**	**0.0000**	**4.8043**	**4.8043**	**1.3000e-004**	**0.0000**	**4.8076**

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	tons/yr										MT/yr					
Archit. Coating	0.8302					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6100e-003	0.0252	0.0300	5.0000e-005		1.5500e-003	1.5500e-003		1.5500e-003	1.5500e-003	0.0000	4.2129	4.2129	2.9000e-004	0.0000	4.2201
Total	**0.8338**	**0.0252**	**0.0300**	**5.0000e-005**		**1.5500e-003**	**1.5500e-003**		**1.5500e-003**	**1.5500e-003**	**0.0000**	**4.2129**	**4.2129**	**2.9000e-004**	**0.0000**	**4.2201**

3.6 Architectural Coating - 2021

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	tons/yr										MT/yr					
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	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	0.0000
Worker	2.4300e-003	1.8400e-003	0.0188	5.0000e-005	4.4800e-003	4.0000e-005	4.5200e-003	1.2200e-003	3.0000e-005	1.2500e-003	0.0000	4.8043	4.8043	1.3000e-004	0.0000	4.8076
Total	**2.4300e-003**	**1.8400e-003**	**0.0188**	**5.0000e-005**	**4.4800e-003**	**4.0000e-005**	**4.5200e-003**	**1.2200e-003**	**3.0000e-005**	**1.2500e-003**	**0.0000**	**4.8043**	**4.8043**	**1.3000e-004**	**0.0000**	**4.8076**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Destination Accessibility

Increase Transit Accessibility

	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	tons/yr										MT/yr					
Mitigated	0.1126	1.4052	1.2203	6.0700e-003	0.3483	4.5500e-003	0.3529	0.0940	4.3000e-003	0.0983	0.0000	567.5992	567.5992	0.0321	0.0000	568.4012
Unmitigated	0.1335	1.6714	1.6382	8.3700e-003	0.5093	6.4400e-003	0.5157	0.1375	6.0800e-003	0.1435	0.0000	781.7494	781.7494	0.0376	0.0000	782.6887

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	306.49	306.49	306.49	1,313,533	898,431
Total	306.49	306.49	306.49	1,313,533	898,431

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.473801	0.033595	0.155937	0.104269	0.016518	0.036000	0.049000	0.124000	0.000000	0.000000	0.006879	0.000000	0.000000
General Office Building	0.473801	0.033595	0.155937	0.104269	0.016518	0.036000	0.049000	0.124000	0.000000	0.000000	0.006879	0.000000	0.000000
Other Asphalt Surfaces	0.473801	0.033595	0.155937	0.104269	0.016518	0.036000	0.049000	0.124000	0.000000	0.000000	0.006879	0.000000	0.000000
Parking Lot	0.473801	0.033595	0.155937	0.104269	0.016518	0.036000	0.049000	0.124000	0.000000	0.000000	0.006879	0.000000	0.000000
Refrigerated Warehouse-No Rail	0.473801	0.033595	0.155937	0.104269	0.016518	0.036000	0.049000	0.124000	0.000000	0.000000	0.006879	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Alder Logistics Center - San Bernardino-South Coast County, Annual

	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	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,512.6351	1,512.6351	0.0855	0.0177	1,520.0449
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,558.0001	1,558.0001	0.0881	0.0182	1,565.6322
NaturalGas Mitigated	0.0453	0.4114	0.3456	2.4700e-003		0.0313	0.0313		0.0313	0.0313	0.0000	447.8634	447.8634	8.5800e-003	8.2100e-003	450.5248
NaturalGas Unmitigated	0.0462	0.4198	0.3526	2.5200e-003		0.0319	0.0319		0.0319	0.0319	0.0000	456.9923	456.9923	8.7600e-003	8.3800e-003	459.7080

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	tons/yr										MT/yr					
City Park	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	0.0000
General Office Building	34700	1.9000e-004	1.7000e-003	1.4300e-003	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	1.8517	1.8517	4.0000e-005	3.0000e-005	1.8627
Other Asphalt Surfaces	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	0.0000
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	0.0000
Refrigerated Warehouse-No Rail	8.52901e+006	0.0460	0.4181	0.3512	2.5100e-003		0.0318	0.0318		0.0318	0.0318	0.0000	455.1406	455.1406	8.7200e-003	8.3400e-003	457.8453
Total		**0.0462**	**0.4198**	**0.3526**	**2.5200e-003**		**0.0319**	**0.0319**		**0.0319**	**0.0319**	**0.0000**	**456.9923**	**456.9923**	**8.7600e-003**	**8.3700e-003**	**459.7080**

5.2 Energy by Land Use - NaturalGas

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	tons/yr										MT/yr					
City Park	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	0.0000
General Office Building	24290	1.3000e-004	1.1900e-003	1.0000e-003	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	1.2962	1.2962	2.0000e-005	2.0000e-005	1.3039
Other Asphalt Surfaces	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	0.0000
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	0.0000
Refrigerated Warehouse-No Rail	8.36835e+006	0.0451	0.4102	0.3446	2.4600e-003		0.0312	0.0312		0.0312	0.0312	0.0000	446.5672	446.5672	8.5600e-003	8.1900e-003	449.2209
Total		**0.0453**	**0.4114**	**0.3456**	**2.4700e-003**		**0.0313**	**0.0313**		**0.0313**	**0.0313**	**0.0000**	**447.8634**	**447.8634**	**8.5800e-003**	**8.2100e-003**	**450.5248**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
General Office Building	95200	22.1524	1.2500e-003	2.6000e-004	22.2609
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	17360	4.0396	2.3000e-004	5.0000e-005	4.0593
Refrigerated Warehouse-No Rail	6.58296e+006	1,531.8082	0.0866	0.0179	1,539.3120
Total		**1,558.0001**	**0.0881**	**0.0182**	**1,565.6322**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
General Office Building	75010	17.4543	9.9000e-004	2.0000e-004	17.5398
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	12152	2.8277	1.6000e-004	3.0000e-005	2.8415
Refrigerated Warehouse-No Rail	6.4134e+006	1,492.3531	0.0844	0.0175	1,499.6636
Total		**1,512.6351**	**0.0855**	**0.0177**	**1,520.0449**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	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	tons/yr										MT/yr					
Mitigated	0.7250	5.0000e-005	5.0600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.8000e-003	9.8000e-003	3.0000e-005	0.0000	0.0105
Unmitigated	0.7250	5.0000e-005	5.0600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.8000e-003	9.8000e-003	3.0000e-005	0.0000	0.0105

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	tons/yr										MT/yr					
Architectural Coating	0.0830					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.6415					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.7000e-004	5.0000e-005	5.0600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.8000e-003	9.8000e-003	3.0000e-005	0.0000	0.0105
Total	**0.7250**	**5.0000e-005**	**5.0600e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**9.8000e-003**	**9.8000e-003**	**3.0000e-005**	**0.0000**	**0.0105**

6.2 Area by SubCategory

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	tons/yr										MT/yr					
Architectural Coating	0.0830					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.6415					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.7000e-004	5.0000e-005	5.0600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.8000e-003	9.8000e-003	3.0000e-005	0.0000	0.0105
Total	**0.7250**	**5.0000e-005**	**5.0600e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**9.8000e-003**	**9.8000e-003**	**3.0000e-005**	**0.0000**	**0.0105**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	140.7759	1.3068	0.0322	183.0373
Unmitigated	140.7759	1.3068	0.0322	183.0373

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 1.72765	4.4664	2.5000e-004	5.0000e-005	4.4882
General Office Building	1.77734 / 1.08934	8.7652	0.0584	1.4600e-003	10.6607
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	38.1054 / 0	127.5443	1.2482	0.0307	167.8884
Total		**140.7759**	**1.3068**	**0.0322**	**183.0373**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 1.72765	4.4664	2.5000e-004	5.0000e-005	4.4882
General Office Building	1.77734 / 1.08934	8.7652	0.0584	1.4600e-003	10.6607
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	38.1054 / 0	127.5443	1.2482	0.0307	167.8884
Total		**140.7759**	**1.3068**	**0.0322**	**183.0373**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	16.6767	0.9856	0.0000	41.3159
Unmitigated	33.3535	1.9711	0.0000	82.6318

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.12	0.0244	1.4400e-003	0.0000	0.0604
General Office Building	9.3	1.8878	0.1116	0.0000	4.6770
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	154.89	31.4413	1.8581	0.0000	77.8944
Total		**33.3535**	**1.9711**	**0.0000**	**82.6318**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.06	0.0122	7.2000e-004	0.0000	0.0302
General Office Building	4.65	0.9439	0.0558	0.0000	2.3385
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	77.445	15.7206	0.9291	0.0000	38.9472
Total		**16.6767**	**0.9856**	**0.0000**	**41.3159**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation