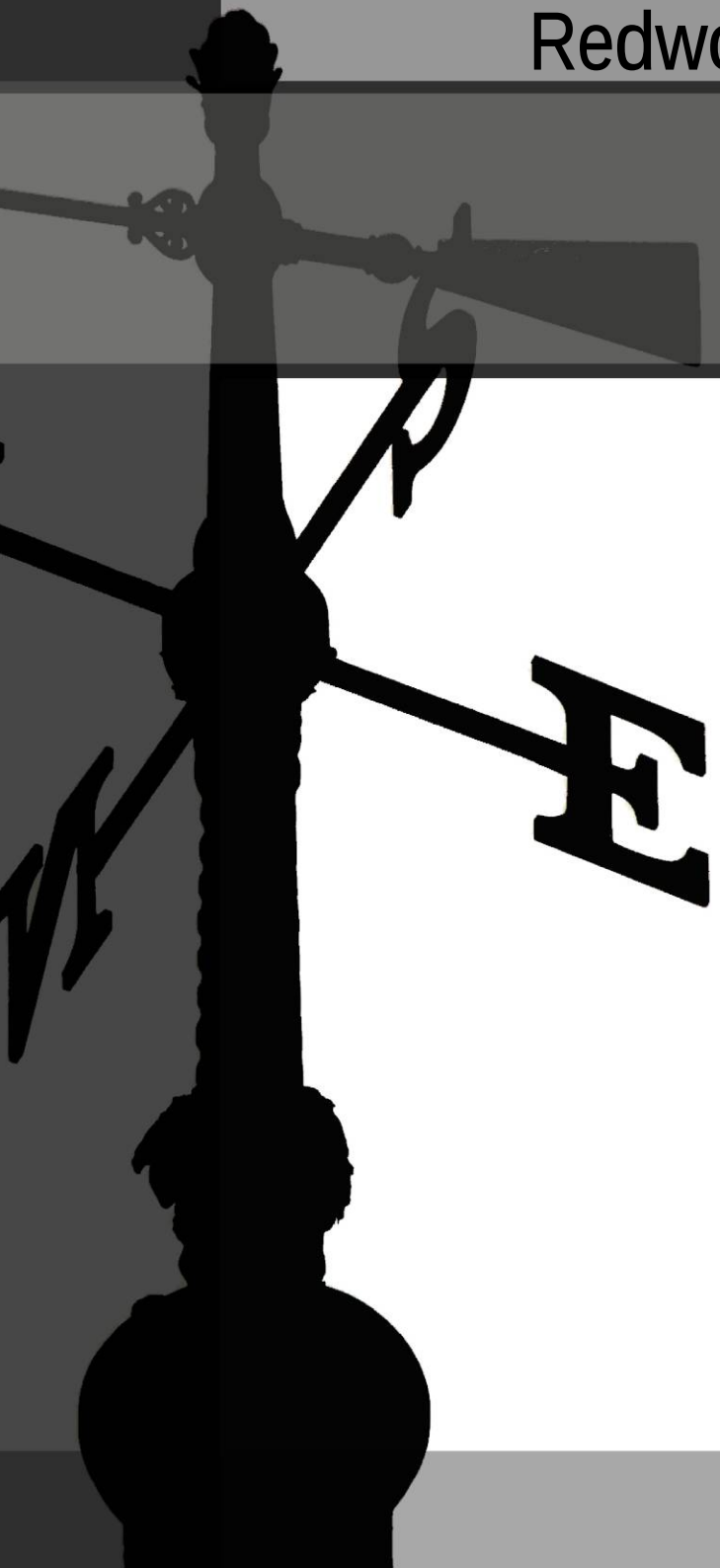

Redwood Avenue Warehouse

Air Quality & Climate Change Assessment

February 2015 (13419)

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Redwood Avenue Warehouse

Air Quality & Climate Change Assessment

February 2015

San Bernardino County

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1 Executive Summary

Construction-related and operational emissions of criteria pollutants and toxic air contaminants were modeled and analyzed for the proposed warehouse building located at 9988 Redwood Avenue, San Bernardino County, California. This report also analyzes the project's consistency with the South Coast Air Quality Management District (SCAQMD) 2012 Air Quality Management Plan (AQMP) for the South Coast Air Basin. Cumulative impacts were analyzed using the methodology provided by the 1993 SCAQMD California Environmental Quality Act (CEQA) Air Quality Handbook. The results of this report find that the thresholds established by SCAQMD for volume and receptor-specific criteria pollutant emissions and toxic air contaminants will not be exceeded.

Additionally, this report models and analyzes construction- and operation-related emissions of greenhouse gases from the proposed project. This analysis utilizes guidance provided in the California Air Pollution Control Officers Association (CAPCOA) *CEQA and Climate Change* white paper and the *Quantifying Greenhouse Gas Mitigation Measures* handbook. Modeling of emissions utilizes the California Emissions Estimator Model (CalEEMod) v 2013.2.2. The results of this report find that the criteria established by the San Bernardino County for greenhouse gas emissions will be met, therefore, substantial climate change impacts will not occur.

1.1 Project Description

The proposed project includes the demolition of the existing on-site structures and the development of a 215,000-square-foot warehouse building located at 9988 Redwood Avenue, San Bernardino, California. The project site will be bounded by an eight-foot concrete screening wall along the northern, western, and southern boundaries. The project includes 160 parking stalls, 27 trailer docks, 31 trailer spaces, and 70,450 square feet of landscaping.

1.2 Air Quality

The project will not result in substantial emissions of oxides of nitrogen, volatile organic compounds (with mitigation incorporated), or particulate matter and would not exceed the regional growth assumptions used in the Air Quality Management Plan (AQMP). The project will not individually cause or cumulatively contribute to an air quality standard violation. Emissions of diesel particulate matter and carbon monoxide will not substantially impact sensitive receptors in vicinity of the project. The project will not expose a substantial number of people to odors.

1.3 Climate Change

The project is consistent with the Tier 2 requirement of earning 100 Project Points to reduce greenhouse gas emissions as required through the County's implementation of the Greenhouse Gas Emissions Reduction Plan and thus will not contribute substantially to global climate change impacts. Furthermore, because the project will incorporate the features necessary to meet the 100 Project Point minimum requirement, the project will not conflict with the Greenhouse Gas Emissions Reduction Plan.

1.4 Mitigation Measures

The following mitigation measures are required to ensure that project-related emissions do not exceed established thresholds.

AQ1 *Coating Restrictions.* Prior to issuance of building permits, the project proponent shall submit, to the satisfaction of County Planning, a Coating Restriction Plan (CRP), consistent with South Coast Air Quality Management District (SCAQMD) guidelines and a letter agreeing to include in any construction contracts and/or subcontracts a requirement that the contractors adhere to the requirements of the CRP. The CRP measures shall be implemented to the satisfaction of County Building and Safety. These shall include the following:

- The volatile organic compounds (VOC) of proposed architectural coatings shall not exceed zero for interior applications.

- The volatile organic compounds (VOC) of proposed architectural coatings shall not exceed 125 g/l for exterior applications.

2 Introduction

This report models and analyzes construction- and operation-related emissions of criteria air pollutants, toxic air contaminants, and greenhouse gas emissions from the proposed Redwood Avenue warehouse facility. The project includes construction of one 215,000-square foot warehouse on 9.89 gross acres located in unincorporated San Bernardino, California (near the City of Fontana)).

The air quality analysis provided herein utilizes guidance provided in the South Coast Air Quality Management District (SCAQMD) the 1993 California Environmental Quality Act (CEQA) Air Quality handbook as amended and supplemented (http://www.aqmd.gov/ceqa/hdbk.html). Modeling of emissions utilizes the following software/methodologies:

- California Emissions Estimator Model (CalEEMod) v 2013.2.2
- California Emissions Factors (EMFAC2011)
- United States Environmental Protection Agency SCREEN3 v 96043
- California Department of Transportation (Caltrans) *Carbon Monoxide Protocol*

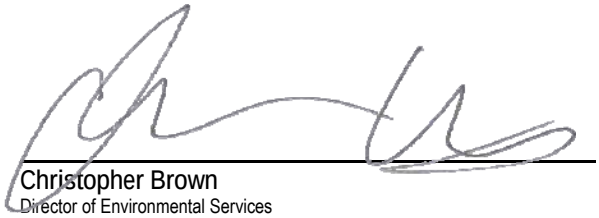
The climate change analysis provided herein follows the procedures outlined in the San Bernardino County *Greenhouse Gas Emissions Reduction Plan,* as interpreted and implemented by the County Land Uses Services Department. This report has been designed to demonstrate project consistency with the San Bernardino County *Greenhouse Gas Emissions Reduction Plan.*

This report has been prepared utilizing project-specific characteristics where available. In those instances where project-specific data is not available, the analysis has been supplemented by model defaults or other standardized sources of comparable data. In any case where non-project defaults or other data have been used, a "worst-case" scenario was developed to ensure a conservative estimate of emissions.

This report has been prepared for use by the Lead Agency to assess potential project-related air quality impacts in compliance with the State CEQA Statues and Guidelines, particularly in respect to the air quality issues identified in Appendix G of the State CEQA Guidelines. This report does not make determinations of significance pursuant to CEQA because such determinations are required to be made solely in the purview of the Lead Agency.

This document has been reviewed in accordance with the *Table 7-2, Checklist for an Air Quality Analysis Section* of the SCAQMD Air Quality Handbook for quality control purposes.

This report was prepared by Christopher Brown (Director of Environmental Services) and Olivia Chan (Project Associate) of MIG, Inc. under contract by CRP Oakmont Redwood Avenue, LLC.



Christopher Brown
Director of Environmental Services

Olivia Chan
Project Associate

3 Environmental Setting

3.1 Climate

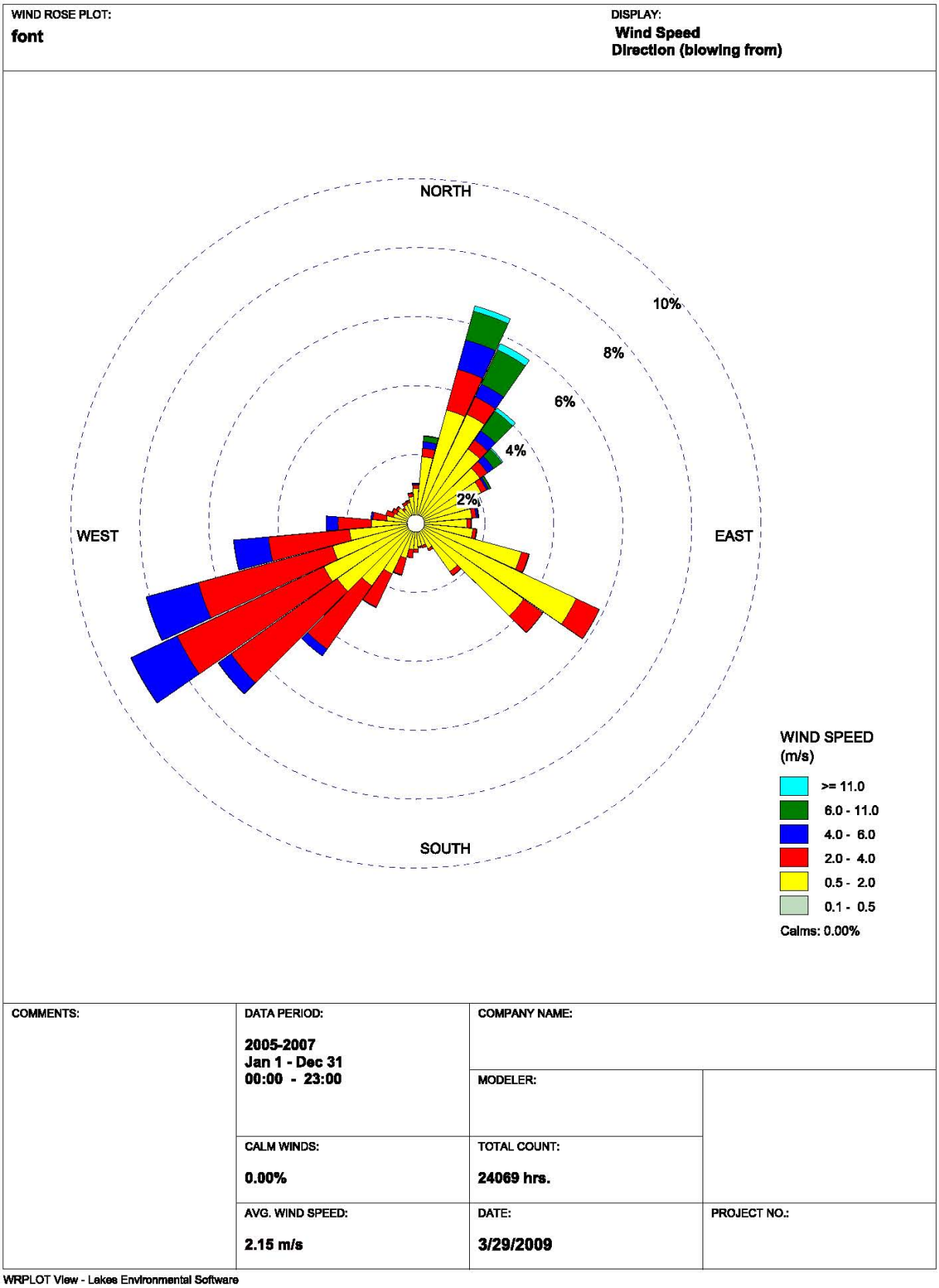
The project is located in unincorporated San Bernardino County, north of the City of Fontana. The City of Fontana and the broader South Coast Air Basin are defined by a Mediterranean climate with dry summers and rainy winters. Annual rainfall averages 1.55 inches with the rainy season occurring during the winter.[1] The coolest month of the year is January with an average monthly low of 41.5° Fahrenheit (F). The warmest month is August with an average monthly high of 96.2° F. The annual average maximum temperature is 78.5° F and the annual average minimum temperature is 50.3° F. The project site is located at an approximate elevation of 1,060 AMSL. Figure 1 (Fontana Wind Rose) summarizes wind direction and speed patterns for the Fontana area.[2] Wind generally blows from the southwest and northeast.

3.2 Regional Air Quality

The proposed warehouse is located within the South Coast Air Basin (Basin).[3] The Basin includes Orange County and the non-desert portions of Los Angeles, San Bernardino, and Riverside Counties. The Basin is bounded by the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east that trap ambient air and pollutants within the Los Angeles and Inland Empire valleys below. The Basin is managed by the South Coast Air Quality Management District (SCAQMD). Pursuant to the California Clean Air Act (CCAA), SCAQMD is responsible for bringing air quality within the Basin into conformity with federal and state air quality standards by reducing existing emission levels and ensuring that future emission levels meet applicable air quality standards. SCAQMD works with federal, state, and local agencies to reduce pollutant emissions from stationary, mobile, and indirect pollutant sources through the development of rules and regulations.

Both California and the federal government have established health-based ambient air quality standards (AAQS) for seven air pollutants (known as *criteria pollutants*). These pollutants include ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), inhalable particulate matter with a diameter of 10 microns or less (PM_{10}), fine particulate matter with a diameter of 2.5 microns or less ($PM_{2.5}$), and lead (Pb). The State has also established AAQS for the additional pollutants of visibility reducing particles, sulfates, hydrogen sulfide, and vinyl chloride. The AAQS are designed to protect the health and welfare of the populace within a reasonable margin of safety. Where the State and Federal standards differ, State AAQS are more stringent than Federal AAQS. Federal and State standards are shown in Table 1 (Ambient Air Quality Standards). A brief description of each criteria pollutant is provided herein.

Figure 1
Fontana Wind Rose



Ozone. Ozone is a pungent, colorless, and highly reactive gas that forms from the atmospheric reaction of organic gases with nitrogen oxides in the presence of sunlight. Ozone is most commonly associated with smog. Ozone precursors such as reactive organic gases (ROG) and oxides of nitrogen (NO_X) are released from mobile and stationary sources. Ozone is a respiratory irritant and can cause cardiovascular diseases, eye irritation, and impaired cardiopulmonary function. Ozone cause also damage building materials and plant leafs.

Carbon Monoxide. Carbon monoxide is primarily emitted from vehicles due to the incomplete combustion of fuels. Carbon monoxide has wide ranging impacts on human health because is combines with hemoglobin in the body and reduces the amount of oxygen transported in the bloodstream. Carbon monoxide can result in reduced tolerance for exercise, impairment of mental function, impairment of fetal development, headaches, nausea, and death at high levels of exposure.

Nitrogen Dioxide. Nitrogen dioxide and other oxides of nitrogen (NO_X) contribute to the formation of smog and results in the brownish haze associated with it. They are primarily emitted from motor vehicle exhaust but can be omitted from other high-temperature stationary sources. Nitrogen oxides can aggravate respiratory illnesses, reduce visibility, impair plant growth, and form acid rain.

Particulate Matter. Particulate matter is a complex mixture of small-suspended particles and liquid droplets in the air. Particulate matter between ten microns and 2.5 microns is known as PM_{10}, also known as coarse or inhalable particulate matter. PM_{10} is emitted from diverse sources including road dust, diesel soot, combustion products, abrasion of tires and brakes, construction operations, and windstorms. PM_{10} can also be formed secondarily in the atmosphere when NO_2 and SO_2 react with ammonia. Particulate matter less than 2.5 microns in size are called $PM_{2.5}$ or fine particulate matter. $PM_{2.5}$ is primarily emitted from point sources such as power plants, industrial facilities, automobiles, wood-burning fireplaces, and construction sites. Particulate matter is deposited in the lungs and cause permanent lung damage, potentially resulting in lung disease and respiratory symptoms like asthma and bronchitis. Particulate matter has also been linked to cardiovascular problems such as arrhythmia and heart attacks. Particulate matter can also interfere with the body's ability to clear the respiratory tract and can act as a carrier of absorbed toxic substances. Particulate matter causes welfare issues because it scatters light and reduces visibility, causes environmental damage such as increasing the acidity of lakes and streams, and can stain and damage stone, such as that applied in statues and monuments.

Sulfur Dioxide. Sulfur dioxide and other oxides of sulfur (SO_X) are reactive gasses emitted from the burning of fossil fuels, primarily from power plants and other industrial facilities.[4] Other less impacting sources include metal extraction activities, locomotives, large ships, and off-road equipment. Human health impacts associated with SO_X emissions include bronchoconstriction and increased asthma symptoms.

Lead. Lead is primarily emitted from metal processing facilities (i.e. secondary lead smelters) and other sources such as manufacturers of batteries, paints, ink, ceramics, and ammunition. Historically, automobiles were the primary sources before lead was phased out of gasoline. The health effects of exposure to lead include gastrointestinal disturbances, anemia, kidney diseases, and potential neuromuscular and neurologic dysfunction. Lead is also classified as a probable human carcinogen.

Table 1
Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[1]		National Standards[2]		
		Concentration[3]	Method[4]	Primary[3,5]	Secontary[3,6]	Method[7]
Ozone (O_3)	1 Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	-	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.07 ppm (137 µg/m^3)		0.075 ppm (147 µg/m^3)		
Respirable Particulate Matter (PM_{10}) [8]	24 Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		-		
Fine Particulate Matter($PM_{2.5}$) [8]	24 Hour	-	-	35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	12 µg/m^3	15 µg/m^3	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/ m^3)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m^3)	-	Non-Dispersive Infrared Photometry (NDIR) -
	8 Hour	9.0 ppm (10mg/m^3)		9 ppm (10 mg/m^3)	-	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/ m^3)		-	-	
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	0.03 ppm (57 µg/m^3)	Gas Phase Chemiluminescence	0.053 ppm (100 µg/m^3)	Same as Primary Standard	Gas Phase Chemiluminescence
	1 Hour	0.18 ppm (339 µg/m^3)		100 ppb (188 µg/m^3)	-	
Sulfur Dioxide (SO_2)	1 Hour	0.25 ppm (655 µg/m^3)	Ultraviolet Fluorescence	75 ppb (196 µg/m^3)	-	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method) -
	3 Hour	-		-	0.5 ppm (1,300 µg/m^3)	
	24 Hour	0.04 ppm (105 µg/m^3)		0.14 ppm (for certain areas)[10]	-	
	Annual Arithmetic Mean	-		0.030 ppm (for certain areas)[10]	-	
Lead[11,12]	30 Day Average	1.5 µg/m^3	Atomic Absorption	-	-	High Volume Sampler and Atomic Absorption
	Calendar Quarter	-		1.5 µg/m^3 (for certain areas)[12]	Same as Primary Standard	
	Rolling 3-Month Average[10]	-		0.15 µg/m^3		
Visibility Reducing Particles[13]	8 Hour	See footnote 13	Beta Attenuation and Transmittance through Filter Tape	No Federal Standards		
Sulfates	24 Hour	25 µg/m^3	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride[11]	24 Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography			

Source: ARB, June 2013

PPM, parts per million
µg/m3, micrograms per cubic meter

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), 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. Contact U.S. EPA for further clarification and current national policies.
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. Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.
5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
7. Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the EPA.
8. On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 µg/m^3 to 12.0 µg/m^3. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 µg/m^3, as was the annual secondary standard of 15 µg/m^3. The existing 24-hour PM_{10} standards (primary and secondary) of 150 µg/m^3 also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
9. To attain the 1-hour national standard, the 3-year average of the 98th percentile of the daily maximum 1-hour daily maximum concentrations at each site must not exceed 100ppb. 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 standards to the California standards the units can be converted from ppb to ppm. In this case, the national standards of 100ppb is identical to 0.100ppm.
10. 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 parts per billion (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.
11. The ARB 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.
11. 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.
12. In 1989, the ARB 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.

3.3 Non-Attainment Status

Air pollution levels are measured at monitoring stations located throughout the Basin. Areas that are in nonattainment with respect to criteria pollutants are required to prepare plans and implement measures that will bring the region into attainment. Table 2 (South Coast Air Basin Attainment Status) summarizes the attainment status in the Basin for the criteria pollutants. The Basin is currently in nonattainment status for ozone and inhalable and fine particulate matter.

Pollution problems in the Basin are caused by emissions within the area and the specific meteorology that promotes pollutant concentrations. Emissions sources vary widely from smaller sources such as individual residential water heaters and short-term grading activities to extensive operational sources including long-term operation of electrical power plants and other intense industrial use. Pollutants in the Basin are blown inward from coastal areas by sea breezes from the Pacific Ocean and are prevented from horizontally dispersing due to the surrounding mountains. This is further complicated by atmospheric temperature inversions that create inversion layers. The inversion layer in Southern California refers to the warm layer of air that lies over the cooler air from the Pacific Ocean. This is strongest in the summer and prevents ozone and other pollutants from dispersing upward. A ground-level surface inversion commonly occurs during winter nights and traps carbon monoxide emitted during the morning rush hour.

Table 2
South Coast Air Basin Attainment Status

Pollutant	Federal	State
O_3 (1-hr)	--	Nonattainment
O_3 (8-hr)	Nonattainment	Nonattainment
PM_{10}	Attainment	Nonattainment
$PM_{2.5}$	Nonattainment	Nonattainment
CO	Attainment	Attainment
NO_2	Attainment	Nonattainment
SO_2	Attainment	Attainment
Pb	Nonattainment	Attainment
VRP	--	Attainment
SO_4	--	Attainment
H_2S	--	Attainment
Sources: ARB 2011		

3.4 Local Air Quality

The project site is located near the City of Fontana. The City of Fontana is located in the Central San Bernardino Valley 2 air monitoring area (Source Receptor Area (SRA) 34). Air quality in SRA 34 is monitored at Station 5203. Air monitoring results for Station 5203 over the last three years of available data is summarized in Table 3 (2013-2011 Local Air Quality).[5] [6] [7] Table 4 (2011-2013 Air Quality Standards Exceedance) summarizes the number of days for each monitoring year that air quality standards were exceeded. Based on the 2011-2013 air quality monitoring data, the Central San Bernardino Valley area experiences ozone pollution and has exceeded the State 8-hr maximum concentration a minimum of 53 days. This is not necessarily due to local production of ozone, but due to how ozone forms and travels over the Basin. Ozone precursors are emitted primarily in the urban centers of the Basin such as Los Angeles. Ozone does not form immediately but rather forms over the day. This combined with prevailing winds blowing ozone precursors inland cause the highest concentrations of ozone in the Basin to occur in the San Bernardino valley and mountain regions. The Central San Bernardino Valley area also experiences particulate matter pollution, with five percent PM_{10} samples in year 2013 exceeding the State standard.

Table 3
2011-2013 Local Air Quality

Monitoring Station	CO		O_3 (PPM)		NO_2 (PPB)		PM_{10} (µg/m³)		$PM_{2.5}$ (µg/m³)		TSP (µg/m³)		Pb (µg/m³)		SO_4 (µg/m³)
	Max 1-hr	Max 8-hr	Max 1-hr	Max 8-hr	Max 1-hr	AAM	Max 24-hr	AAM	Max 24-hr	AAM	Max 24-hr	AAM	Max Month	Max Qtr	Max 24-hr
2013	--	1.3	0.151	0.122	81.7	20.6	102	31.3	55.3	11.4			0.010	0.010	4.6
2012	--	1.7	0.124	0.109	67.0	18.8	53	29.2	34.8	11.8	128	55.6	0.008	0.007	4.4
2011	--	1.7	0.135	0.121	61.9	16.9	56	31.5	65.0	12.2	97	51.4	0.007	0.007	5.5

Source: SCAQMD 2011-2013

-- pollutant not monitored
PPM, parts per million
PPB, parts per billion
µg/m3, micrograms per cubic meter
AAM, annual arithmetic mean

Table 4
2011-2013 Air Quality Standards Exceedance

Monitoring Station	O_3 (PPM)			PM_{10} (µg/m³)		$PM_{2.5}$ (µg/m³)
	Fed* 8-hr	State 1-hr	State 8-hr	Fed 24-hr	State 24-hr	Fed^ 24-hr
2013	36	22	53	0	5%	0.9%
2012	54	41	74	0	1%	0%
2011	39	40	66	0	5%	2%

Source: SCAQMD 2013-2011

-- pollutant not monitored
* 0.075 ppm
^35 µg/m3

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3.5 Sensitive Receptors

Some populations are more susceptible to the effects of air pollution than the population at large; these populations are defined as sensitive receptors. Sensitive receptors include children, the elderly, the sick, and the athletic. Land uses associated with sensitive receptors include residences, schools, playgrounds, childcare centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes. Sensitive land uses located within one-quarter mile of the proposed warehouse includes residential use to the north, south, east, and west of the project site. Pollutants of particular concern when relating to sensitive receptors include carbon monoxide, toxic air contaminants, and odors. Exhibit 2 (Radius Map) identifies existing development in the project vicinity based on assessor's parcel data.

3.6 Toxic Emission Sources

According to the EPA, there are no existing sources of industrial- or utility-related toxic emissions uses within one-quarter mile of the project site.[8] There are existing warehouses and distribution centers in the project vicinity that emit diesel-particulate matter associated with heavy-duty truck traffic, an identified toxic air contaminant.

3.7 Local Transportation

The proposed warehouse will be located at 9988 Redwood Avenue, north of Valley Boulevard and south of San Bernardino Avenue. Regional access to the project site is provided by the Interstate 10. Redwood Avenue, Rosemary Drive, Iris Drive, and Hunter Street are two-lane, undivided roadways. Valley Boulevard is a four-lane, divided roadway. The project traffic report indicates that existing level of service (LOS) at the intersection of Redwood Avenue at Rosemary Drive is LOS A during the morning and afternoon peak hours. Performance at the intersection of Redwood Avenue at Iris Drive is LOS B during the morning peak hour and LOS A during the afternoon peak hour. Performance at the intersection of Redwood Avenue at Hunter Street is LOS B during the morning and afternoon peak hours. Performance at the intersection of Redwood Avenue at Valley Boulevard is LOS B during the morning and afternoon peak hours.

3.8 Odors

According to the CEQA Air Quality Handbook, land uses associated with odor complaints include agricultural operations, wastewater treatment plants, landfills, and certain industrial operations (such as manufacturing uses that produce chemicals, paper, etc.). The proposed warehouse is not considered sensitive receptor and will not be substantially affected by potential odors from citrus operations. The proposed warehouse, in turn, does not produce odors that could affect a substantial number of people.

3.9 Climate Change

3.9.1 Defining Climate Change

Climate change is the distinct change in measures of climate for a long period of time. Climate change can result from natural processes and from human activities. Natural changes in the climate can be caused by indirect processes such as changes in the Earth's orbit around the Sun or direct changes within the climate system itself (i.e. changes in ocean circulation). Human activities can affect the atmosphere through emissions of gases and changes to the planet's surface. Emissions affect the atmosphere directly by changing its chemical composition, while changes to the land surface indirectly affects the atmosphere by changing the way the Earth absorbs gases from the atmosphere. The term *climate change* is preferred over the term *global warming* because *climate change* conveys the fact that other changes can occur beyond just average increase in temperatures near the Earth's surface. Elements that indicate that climate change is occurring on Earth include:

- Rising of global surface temperatures by 1.3° Fahrenheit (F) over the last 100 years
- Changes in precipitation patterns
- Melting ice in the Arctic

- Melting glaciers throughout the world
- Rising ocean temperatures
- Acidification of oceans
- Range shifts in plant and animal species

Climate change is intimately tied to the Earth's greenhouse effect. The greenhouse effect is a natural occurrence that helps regulate the temperature of the planet. The majority of radiation from the Sun hits the Earth's surface and warms it. The surface in turn radiates heat back towards the atmosphere, known as infrared radiation. Gases and clouds in the atmosphere trap and prevent some of this heat from escaping back into space and re-radiate it in all directions. This process is essential to supporting life on Earth because it keeps the planet approximately 60° F warmer than without it. Emissions from human activities since the beginning of the industrial revolution (approximately 150 years) are adding to the natural greenhouse effect by increasing the gases in the atmosphere that trap heat, thereby contributing to an average increase in the Earth's temperature. Human activities that enhance the greenhouse effect are detailed below.

Greenhouse Gases

The greenhouse effect is caused by a variety of *greenhouse gases*. Greenhouse gases (GHGs) occur naturally and from human activities. Greenhouse gases produced by human activities include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). Since the year 1750, it is estimated that the concentrations of carbon dioxide, methane, and nitrous oxide in the atmosphere have increased over 36 percent, 148 percent, and 18 percent, respectively, primarily due to human activity. The primary GHGs are discussed below.[9]

Carbon Dioxide. CO_2 is emitted and removed from the atmosphere naturally. Animal and plant respiration involves the release of carbon dioxide from animals and its absorption by plants in a continuous cycle. The ocean-atmosphere exchange results in the absorption and release of CO_2 at the sea surface. Carbon dioxide is also released from plants during wildfires. Volcanic eruptions release a small amount of CO_2 from the Earth's crust.

Human activities that affect carbon dioxide in the atmosphere include burning of fossil fuels, industrial processes, and product uses. Combustion of fossil fuels is the largest source of carbon dioxide emissions in the United States, accounting for approximately 85 percent of all equivalent emissions. Because of the fossil fuels used, the largest of these sources is electricity generation and transportation. When fossil fuels are burned, the carbon stored in them is released into the atmosphere entirely as CO_2. Emissions from onsite industrial activities also emit carbon dioxide such as cement, metal, and chemical production and use of petroleum produced in plastics, solvents, and lubricants.

Methane. Methane (CH_4) is emitted from human activities and natural sources. Natural sources of methane include wetlands, gas hydrates, permafrost, termites, oceans, freshwater bodies, soils, and wildfires. Human activities that cause methane releases include fossil fuel production, animal digestive processes from farms, manure management, and waste management. It is estimated that 50 percent of global methane emissions are generated from human activities. Wetlands are the primary producers of methane in the world because the habitat is conducive to bacteria that produce methane during decomposition of organic material. Methane is produced from landfills as solid waste decomposes. Methane is a primary component of natural gas and is emitted during its production, processing, storage, transmission, distribution, and use. Decomposition of organic material in manure stocks or in liquid manure management systems also releases methane. Releases from animal digestive processes at agricultural operations are the primary source of human-related methane emissions.

Nitrous Oxide. Anthropogenic (human) sources of nitrous oxide include agricultural soil management, animal manure management, sewage treatment, combustion of fossil fuels, and production of certain acids. N_2O is produced naturally in soil and water, especially in wet, tropical forests. The primary human-related source of N_2O is agricultural soil management due to use of synthetic nitrogen fertilizers and other techniques to boost nitrogen in soils. Combustion of fossil fuels (mobile and stationary) is the second leading source of nitrous oxide, although parts of the world where catalytic converters are used (such as California) have significantly lower levels than those areas that do not.

High Global Warming Potential Gases. High global warming potential (GWP) gases (or fluorinated gases) are entirely manmade and are mainly used in industrial processes. HFCs, PFCs, and SF_6 are high GWP gases. These types of gases are used in aluminum production, semiconductor manufacturing, electric power transmission, magnesium production and processing, and in the production of hydrochlorofuorocarbon-22 (HCFC-22). High GWP gases are also used as substitutes for ozone-depleting gases like chlorofluorocarbons (CFCs) and halons. Use of high GWP gases as substitutes for ozone-depleting substances is the primary use of these gases in the United States.

Water Vapor. It should be noted that water vapor is also a significant GHG in the atmosphere; however, concentration of water vapor in the air is primarily dependent on air temperature and cannot be influenced by humans.

GHGs behave differently in the atmosphere and contribute to climate change in different ways. Some gases have more potential to reflect infrared heat back towards the earth while some persist in the atmosphere longer than others. To equalize the contribution of GHGs to climate change, the Intergovernmental Panel on Climate Change (IPCC) devised a weighted metric to compare all greenhouse gases to carbon dioxide.[10] The weighting depends on the lifetime of the gas in the atmosphere and its radiative efficiency. As an example, over a time horizon of 100-years, emissions of nitrous oxide will contribute to climate change 298 times more than the same amount of emissions of carbon dioxide while emissions of HFC-23 would contribute 14,800 times more than the same amount of carbon dioxide. These differences define a gas's GWP. Table 5 (Global Warming Potential of Greenhouse Gases) identifies the lifetime and GWP of select GHGs. The lifetime of the GHG represents how many years the GHG will persist in the atmosphere. The GWP of the GHG represents the GHG's relative potential to induce climate change as compared to carbon dioxide.

Carbon Sequestration

Carbon sequestration is the process by which plants absorb CO_2 from the atmosphere and store it in biomass like leaves and grasses. Agricultural lands, forests, and grasslands can all sequester carbon dioxide, or emit it. The key is to determine if the land use is emitting carbon dioxide faster than it is absorbing it. Young, fast-growing trees are particularly good at absorbing more than they release and are known as a "sink". Agricultural resources often end up being sources of carbon release because of soil management practices. Deforestation contributes to carbon dioxide emissions by removing trees, or carbon sinks, that would otherwise absorb CO_2. Forests are a crucial part of sequestration in some parts of the world, but not much in the United States. Another form of sequestration is geologic sequestration. This is a manmade process that results in the collection and transport of CO_2 from industrial emitters (i.e. power plants) and injecting it into underground reservoirs.

Table 5
Global Warming Potential (GWP) of Greenhouse Gases (GHG)

GHG	Lifetime (yrs)	GWP
Carbon Dioxide	50-200	1
Methane	12	25
Nitrous Oxide	114	298
HFC-23	270	14,800
HFC-134a	14	1,430
HFC-152a	1.4	124
PFC-14	50,000	7,390
PFC-116	10,000	12,200
Sulfur Hexafluoride	3,200	22,800
Source: IPCC 2007		

3.9.2 Climate Change and California

Specific, anticipated impacts to California have been identified in the 2009 California Climate Adaptation Strategy prepared by the California Natural Resources Agency (CNRA) through extensive modeling efforts.[11] General climate changes in California indicate that:

- California is likely to get hotter and drier as climate change occurs with a reduction in winter snow, particularly in the Sierra Nevadas
- Some reduction in precipitation is likely by the middle of the century
- Sea-levels will rise up to an estimated 55 inches
- Extreme events such as heat waves, wildfires, droughts, and floods will increase
- Ecological shifts of habitat and animals are already occurring and will continue to occur

It should be noted that changes are based on the results of several models prepared under different climatic scenarios; therefore, discrepancies occur between the projections. The potential impacts of global climate change in California are detailed below.

Public Health and Welfare

Concerns related to public health and climate change includes higher rates of mortality and morbidity, change in prevalence and spread of disease vectors, decreases in food quality and security, reduced water availability, and increased exposure to pesticides. These concerns are all generally related to increase in ambient outdoor air temperature, particularly in summer.

Higher rates of mortality and morbidity could arise from more frequent heat waves at greater intensities. Health impacts associated with extreme heat events include heat stroke, heat exhaustion, and exacerbation of medical conditions such as cardiovascular and respiratory diseases, diabetes, nervous system disorders, emphysema, and epilepsy. Climate change would result in degradation of air quality promoting the formation of ground-level pollutants, particularly ozone. Degradation of air quality would increase the severity of health impacts from criteria and other air pollutants discussed in Section 4.3 (Air Quality). Temperature increases and increases in carbon dioxide are also expected to increase plant production of pollens, spores, and fungus. Pollens and spores could induce or aggravate allergic rhinitis, asthma, and obstructive pulmonary diseases.

Precipitation projections suggest that California will become drier over the next century due to reduced precipitation and increased evaporation from higher temperatures. These conditions could result in increased occurrences of drought. Surface water reductions will increase the need to pump groundwater, reducing supplies and increasing the potential for land subsidence.

Precipitation changes are also suspected to impact the Sierra snowpack (see *Water Management* herein). Earlier snow melts could coincide with the rainy season and could result in failure of the flood control devices in that region. Flooding can cause property damage and loss of life for those affected. Increased wildfires are also of concern as the State *dries* over time. Wildfires can also cause property damage, loss of life, and injuries to citizens and emergency response services.

Sea-level rises would also threaten human health and welfare. Flood risks will be increased in coastal areas due to strengthened storm surges and greater tidal damage that could result in injury and loss of property and life. Gradual rising of the sea will permanently inundate many coastal areas in the state.

Other concerns related to public health are changes in the range, incidence, and spread of infectious, water-borne, and food-borne diseases. Changes in humidity levels, distribution of surface water, and precipitation changes are all likely to shift or increase the preferred range of disease vectors (i.e. mosquitoes). This could expose more people and animals to potential for vector-borne disease.

Biodiversity and Habitat

Changes in temperature will change the livable ranges of plants and animals throughout the state and cause considerable stress on these species. Species will shift their range if appropriate habitat is available and accessible if they cannot adapt to their new climate. If they do not adapt or shift, they face local extirpation or extinction. As the climate changes, community compositions and interactions will be interrupted and changed. These have substantial implications on the ecosystems in the state. Extreme events will lead to tremendous stress and displacement on affected species. This could make it easier for invasive species to enter new areas, due to their ability to more easily adapt. Precipitation changes would alter stream flow patterns and affect fish populations during their life cycle. Sea level rises could impact fragile wetland and other coastal habitat.

Water Management

Although disagreement among scientists on long-term precipitation patterns in the State has occurred, it is generally accepted by scientists that rising temperatures will impact California's water supply due to changes in the Sierra Nevada snowpack. Currently, the State's water infrastructure is designed to both gather and convey water from melting snow and to serve as a flood control device. Snowpack melts gradually through spring warming into early summer, releasing an average of approximately 15 million acre-feet of water. The State's concern related to climate change is that due to rising temperatures, snowpack melt will begin earlier in the spring and will coincide with the rainy season. The combination of precipitation and snowmelt would overwhelm the current system, requiring tradeoffs between water storage and flood protection to be made. Reduction in reserves from the Sierra Nevada snowpack is troublesome for California and particularly for Southern California. Approximately 75-percent of California's available water supply originates in the northern third of the state while 80 percent of demand occurs in the southern two-thirds. There is also concern is that rising temperatures will result in decreasing volumes from the Colorado River basin. Colorado River water is important to Southern California because it supplies water directly to Metropolitan Water District of Southern California. Water from the Colorado River is also used to recharge groundwater basins in the Coachella Valley.

Agriculture

California is the most agriculturally productive state in the US resulting in more than 37 billion dollars in revenue in 2008. California is the nation's leading producer of nearly 80 crops and livestock commodities, supplying more than half of the nation's fruit and vegetables and over 90 percent of the nation's production of almonds, apricots, raisin grapes, olives, pistachios, and walnuts. Production of crops is not limited to the Central Valley but also occurs in Southern California. Strawberries and grapes are grown in San Bernardino and Riverside Counties. Orange County and San Diego County also contribute to strawberry production. Cherries are also grown in Los Angeles and Riverside County. Anticipated impacts to agricultural resources are mixed when compared to the potentially increased temperatures, reduced chill hours, and changes in precipitation associated with climate change. For example, wheat, cotton, maize, sunflower, and rice are anticipated to show declining yields as temperatures rise. Conversely, grapes and almonds would benefit from warming temperatures. Anticipated increases in the number and severity in heat waves would have a negative impact on livestock where heat stress

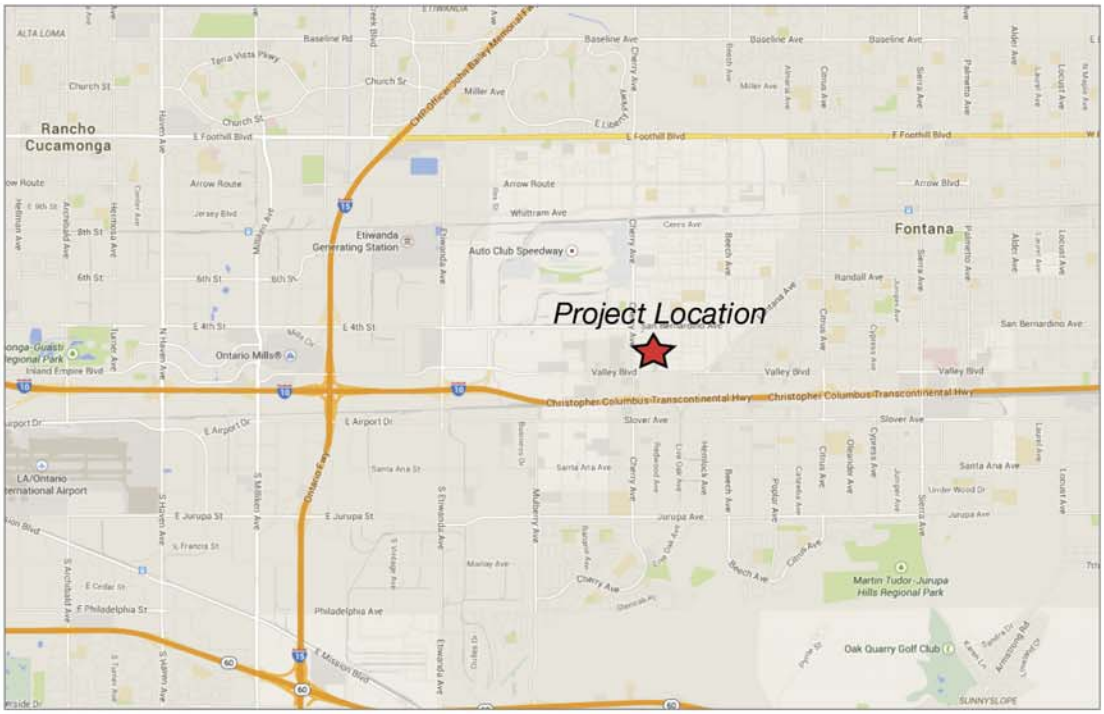
would make livestock more vulnerable to disease, infection and mortality. The projected drying trend and changes in precipitation are a threat to agricultural production in California. Reduced water reliability and changes in weather patterns would impact irrigated farmlands and reduce food security. Furthermore, a drying trend would increase wildfire risk. Overall, agriculture in California is anticipated to suffer due to climate change impacts.

Forestry

Increases in wildfires will substantially impact California's forest resources that are prime targets for wildfires. This can increase public safety risks, property damage, emergency response costs, watershed quality, and habitat fragmentation. Climate change is also predicted to affect the behavior or plant species including seed production, seedling establishment, growth, and vigor due to rising temperatures. Precipitation changes will affect forests due to longer dry periods and moisture deficits and drought conditions that limit seedling and sapling growth. Prolonged drought also weakens trees, making them more susceptible to disease and pest invasion. Furthermore, as trees die due to disease and pest invasion (i.e. the Bark Beetle invasion of the San Bernardino Forest), wildfires can spread more rapidly.

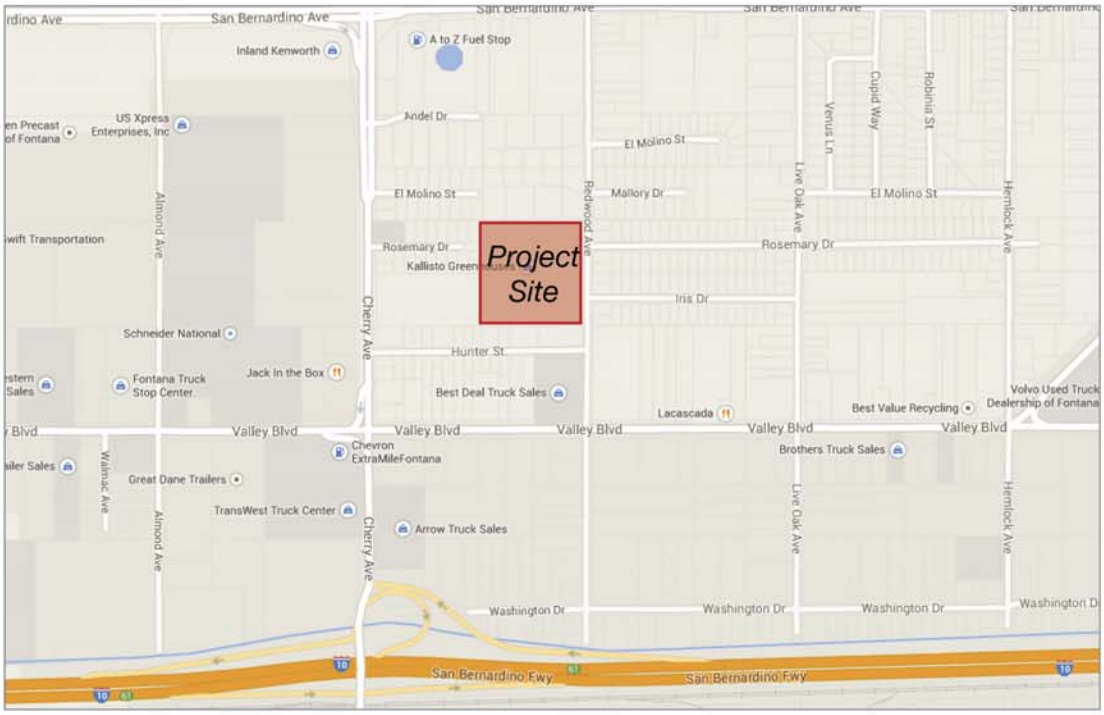
Transportation and Energy Infrastructure

Higher temperatures will require increased cooling, raising energy production demand. Higher temperatures also decrease the efficiency of distributing electricity and could lead to more power outages during peak demand. Climate changes would impact the effectiveness of California's transportation infrastructure as extreme weather events damage, destroy, and impair roadways and railways throughout the state causing governmental costs to increase as well as impacts to human life as accidents increase. Other infrastructure costs and potential impacts to life would increase due to the need to upgrade levees and other flood control devices throughout the state. Infrastructure improvement costs related to climate change adaptation are estimated in the tens of billions of dollars.



Source: Google Maps 2014

Regional



Source: Google Maps 2014

Vicinity

Not to Scale

Exhibit 1 Regional and Vicinity Map

Redwood Avenue Warehouse
Fontana, California

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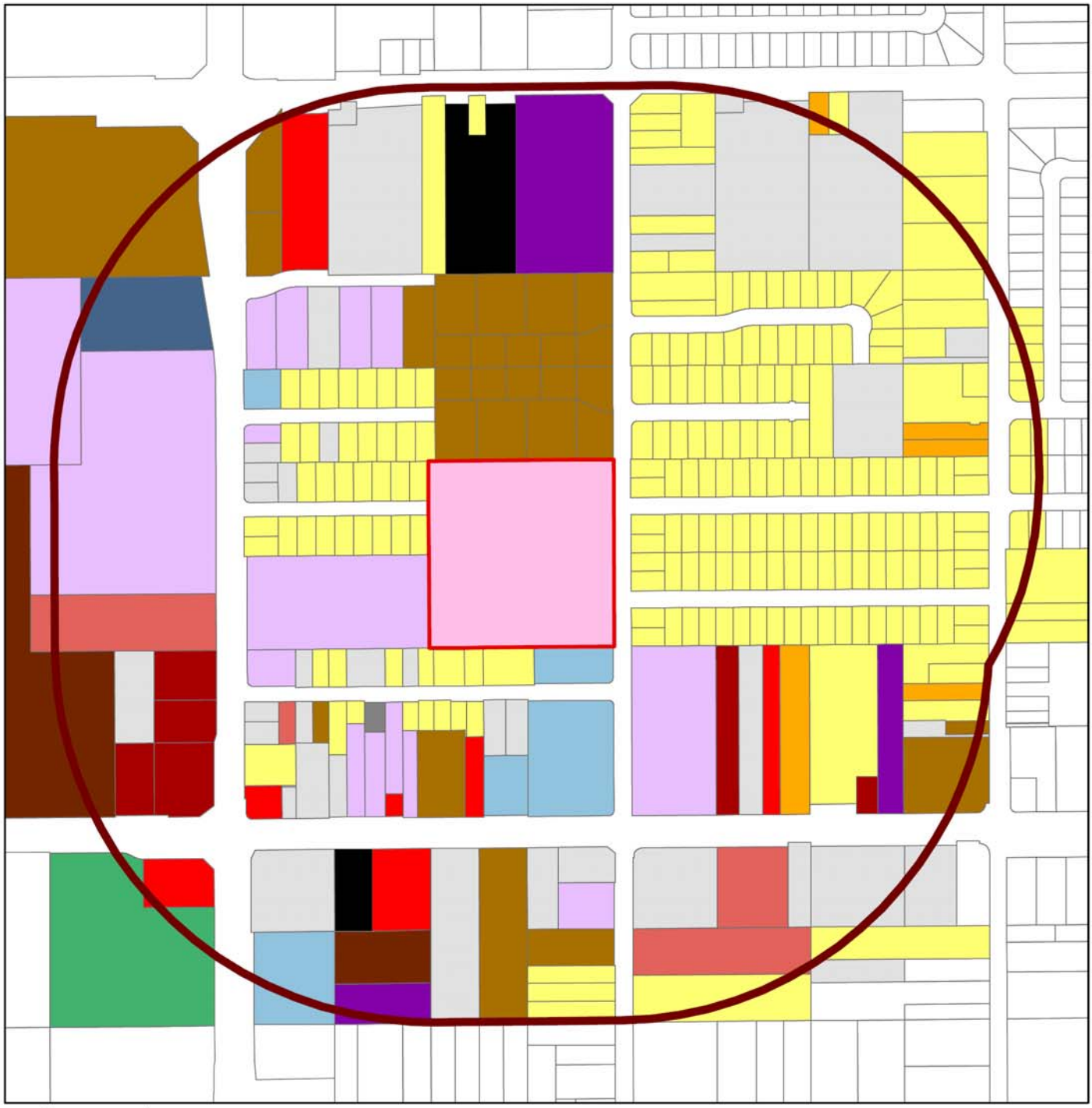

Legend

- Project Site
- 0.25 Mile Radius

Land Use

- Single Family Residential
- Multi Family Residential
- General Office
- Retail
- Restaurant
- Storage Facility
- Warehose
- Industrial
- Car Lot
- Auto Dealorship
- Service Station
- Service Garage
- Miscellaneous Agriculture Building
- Parking Lot
- Unknown
- Vacant

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4 Regulatory Framework

The following summarizes Federal, State, and local regulations related to air quality, pollution control, and greenhouse gas emissions.

4.1 Clean Air Act

The Federal Clean Air Act (CAA) defines the Environmental Protection Agency's (EPA) responsibilities for protecting and improving the United States air quality and ozone layer.[12] Key components of the CAA include reducing ambient concentrations of air pollutants that cause health and aesthetic problems, reducing emission of toxic air pollutants, and stopping production and use of chemicals that destroy the ozone.

Federal clean air laws require areas with unhealthy levels of ozone, inhalable particulate matter, carbon monoxide, nitrogen dioxide, and sulfur dioxide to develop State Implementation Plans (SIPs); comprehensive documents that identify how an area will attain NAAQS. Deadlines for attainment were established in the 1990 amendments to the CAA based on the severity of an area's air pollution problem. Failure to meet air quality deadlines can result in sanctions against the state or the EPA taking over enforcement of the CAA in the affected area. SIPs are a compilation of new and previously submitted plans, programs, district rules, and state and federal regulations. The SCAQMD implements the required provisions of an applicable SIP through its AQMPs and updates. Currently, SCAQMD implements the 8-hr Ozone SIP in the 2007 AQMP and the PM_{10} SIP in the 2003 AQMP. The $PM_{2.5}$ SIP is currently being revised by SCAQMD in response to partial disapproval by the EPA. The 2012 Lead SIP for the Los Angeles County portion of the SCAB was adopted by the SCAQMD Board on May 4, 2012 and approved by ARB on May 24, 2012 and forwarded to the EPA for approval as a revision to the California SIP.

4.2 California Clean Air Act

The California Clean Air Act (CCAA) of 1988 was enacted to develop plans and strategies for attaining California Ambient Air Quality Standards (CAAQS). The California Air Resources Board (ARB), which is part of the California Environmental Protection Agency (Cal-EPA), develops statewide air quality regulations, including industry-specific limits on criteria, toxic, and nuisance pollutants. The CCAA is more stringent than Federal law in a number of ways including revised standards for PM_{10} and ozone and State for visibility reducing particles, sulfates, hydrogen sulfide, and vinyl chloride.

4.3 Toxic Hotspots

State requirements specifically address air toxics issues through Assembly Bill (AB) 1807 (known as the Tanner Bill) that established the State air toxics program and the Air Toxics Hot Spots Information and Assessment Act (AB 2588). The air quality regulations developed from these bills have been modified recently to incorporate the Federal regulations associated with the Federal Clean Air Act Amendments of 1990. The Air Toxics Hot Spots Information and Assessment Act (Hot Spots Act) was enacted in September 1987. Under this bill, stationary sources of emissions are required to report the types and quantities of certain substances that their facilities routinely release into the air.

The SCAQMD is required to prepare an annual report on the status and forecast of air toxic *hotspots* pursuant to Section 44363 of the California Health and Safety Code. SCAQMD monitors facilities that are not exempt from the fee and reporting requirements of AB2588.

Some facilities are covered under *umbrella* permits that address industry-wide categories. SCAQMD has issued general permits for the following seven activities:

- Retail gasoline dispensing
- Perchloroethylene dry cleaning
- Auto body shops
- Fiberglass molding
- Printing

- Metal plating
- Wood striping and finishing

Emissions inventories and risk assessment guidelines have been prepared for the seven industry-wide categories. Approximately 1,400 auto body shops, 3,200 gasoline stations, and 1,400 perchloroethylene dry cleaners within the District are covered under these umbrella permits.

Depending on the severity of the facilities' TAC releases, SCAQMD requires either public notification of toxic hot spots or preparation of a risk reduction plan, as follows:

	Cancer Risk (per million)	Acute Risk	Chronic Risk
Action Risk Level	>= 25	>= 3.0	>= 3.0
Public Notification Level	>= 10	>= 1.0	>= 1.0
Exempt	<1	<0.1	<0.1

4.4 California Code of Regulations

In December 2008, the California Air Resources Board (ARB) approved the *Truck and Bus Regulations* as part of their rulemaking authority and adopted in Title 13 (Motor Vehicles) of the California Code of Regulations (CCR).[13] These regulations are applicable to all diesel-fueled trucks and buses with a gross vehicle weight rating (GVWR) of 14,000 pounds or more (Class 4 or greater) that are privately or federally owned and for privately and publically owned school buses.[14] These regulations are designed to reduce emissions of particulate matter and oxides of nitrogen from existing diesel vehicles operating in California. Compliance scheduling is phased for light and heavy vehicle depending on the age of the vehicle engine. Full compliance across vehicle ratings is set in 2023. Regulations affect the following areas:

- Auxiliary Power Units
- Port and Rail Yard Trucks
- Emissions Control Label Inspection
- Greenhouse Gas Emissions Reductions
- Heavy-Duty Diesel Vehicle Inspection
- Idling Reduction
- Periodic Smoke Inspection
- Public and Utility Agencies
- Public Transit Agencies
- School Bus Fleets
- Solid Waste Collection Vehicles
- Transport Refrigeration Units

Regarding the proposed warehouse, vehicle turnover, idling restrictions, and requirements for installation of diesel particulate filters will reduce particulate matter and oxides of nitrogen from future operations. Starting in 2015, lighter trucks (between 14,000 and 26,000 GVWR) will be required to replace the vehicle and/or engine if the engine manufacture date is from 1995 or earlier. Newer engines will be required to be replaced on a graduated scale until 2023 when all engines will be required to meet model year 2010 emissions or equivalent. Heavier trucks (greater than 26,000 GVWR) have options for meeting the regulation requirements through 2023. Vehicles with engine years earlier than 1994 and 1995 will be required to be replaced in 2015 and 2016, respectively. Engines between 1996 and 2006 have the option to install a particulate filter before being required to replace the engine towards the compliance deadline. Later engines are considered compliant 2023 when they demonstrate 2010 emissions levels or equivalent.

Idling restrictions were established in 2008 and apply to vehicles greater than 10,000 GVWR (Class 3 or greater). These restrictions limit idling to five minutes or less before manual or automatic shutdown must be initiated. Engine models

manufactured in 2008 and beyond are required to be equipped with a non-programmable engine shutdown mechanism that automatically shuts off the engine after five minutes of idling.

4.5 2012 Air Quality Management Plan

The purpose of an Air Quality Management Plan (AQMP) is to bring an air basin into compliance with federal and state air quality standards and is a multi-tiered document that builds on previously adopted AQMPs.[15] The 2003 AQMP was adopted in August 2003 and demonstrated O_3 and PM_{10} for the Basin. It also provides the maintenance plans for CO and NO_2, which the Basin has been in attainment for since 1997 and 1992, respectively. The 2007 AQMP for the Basin was approved by the SCAQMD Board of Directors in June 2007. The 2007 AQMP builds on the 2003 AQMP and is designed to address the federal 8-hour ozone and $PM_{2.5}$ air quality standards. The AQMP identifies short- and long-term control measures designed to reduce stationary, area, and mobile source emissions, organized into four primary components:

1. District Stationary and Mobile Source Control Measures
2. Air Resources Board (ARB) State Strategy
3. Supplement to ARB Control Strategy
4. SCAG Regional Transportation Strategy and Control Measures

The 2012 AQMP was adopted by the SCAQMD board on December 7, 2012. The 2012 AQMP incorporated the latest scientific and technological information and planning assumptions, including the 2012 Regional Transportation Plan/Sustainable Communities Strategy and updated emission inventory methodologies for various source categories. The 2012 AQMP includes the new and changing federal requirements, implementation of new technology measures, and the continued development of economically sound, flexible compliance approaches. The SCAQMD is currently in the process of preparing the 2016 AQMP update.

4.6 SCAQMD Rule Book

In order to control air pollution in the Basin, SCAQMD adopts rules that establish permissible air pollutant emissions and governs a variety of businesses, processes, operations, and products to implement the AQMP and the various federal and state air quality requirements. SCAQMD does not adopt rules for mobile sources; those are established by ARB or the United States Environmental Protection Agency (EPA). Rules that will be applicable during construction of the proposed warehouse include Rule 403 (Fugitive Dust) and Rule 1113 (Architectural Coatings). Rule 403 prohibits emissions of fugitive dust from any grading activity, storage pile, or other disturbed surface area if it crosses the project property line or if emissions caused by vehicle movement cause substantial impairment of visibility (defined as exceeding 20 percent opacity in the air). Rule 403 requires the implementation of Best Available Control Measures (BACM) and includes additional provisions for projects disturbing more than five acres and those disturbing more than fifty acres. Rule 1113 establishes maximum concentrations of VOCs in paints and other applications and establishes the thresholds for low-VOC coatings.

4.7 Executive Order S-3-05

Executive Order S-3-05 was issued by California Governor Arnold Schwarzenegger and established targets for the reduction of greenhouse gas emission at the milestone years of 2010, 2020, and 2050. Statewide GHG emissions must be reduced to 1990 levels by year 2020 and by 80 percent beyond that by year 2050. The Order requires the Secretary of the California Environmental Protection Agency (CalEPA) to coordinate with other State departments to identify strategies and reduction programs to meet the identified targets. A Climate Action Team (CAT) was created and is headed by the Secretary of CalEPA who reports on the progress of the reduction strategies. The latest CAT *Biennial Report to the Governor and Legislature* was completed in April 2010.[16] CAT also works in 11 subgroups to support development and implementation of the Scoping Plan (see *California Global Warming Solutions Act* herein).

4.8 California Global Warming Solutions Act

The California State Legislature adopted the California Global Warming Solutions Act in 2006 (AB32). AB32 establishes the caps on statewide greenhouse gas emissions proclaimed in Executive Order S-3-05 and establishes a regulatory timeline to meet the reduction targets. The timeline is as follows:

January 1, 2009	Adopt Scoping Plan
January 1, 2010	Early action measures take effect
January 1, 2011	Adopt GHG reduction measures
January 1, 2012	Reduction measures take effect
December 31, 2020	Deadline for 2020 reduction target

As part of AB32, CARB had to determine what 1990 GHG emissions levels were and projected a business-as-usual (BAU) estimate for 2020 to determine the amount of GHG emissions that will need to be reduced. BAU is a term used to define emissions levels without considering reductions from future or existing programs or technologies. 1990 emissions are estimated at 427 million metric tons of carbon dioxide equivalent (MMTCO2E) while 2020 emissions (after accounting for the economic downturn in 2008 and implementation of Pavley 1 vehicle emissions reductions and the State Renewable Portfolio Standard identified in Air Resources Board Scoping Plan below) are estimated at 507 MMTCO2E; therefore, California GHG emissions must be reduced 80 MMTCO2E (507 – 427 = 80) by 2020, a reduction of approximately 16 percent below BAU. Emissions are required to be reduced an additional 80 percent below 1990 levels by 2050.

The California Air Resources Board (ARB) is responsible for implementation of AB32. Nine discrete early action measures and 35 additional measures were adopted in October 2007 and are now enforceable. The discrete early actions include a low carbon fuel standard, landfill methane capture regulations, reductions in HFCs from mobile air conditioning systems, fluorinated gas emissions from semiconductor manufacturing, sulfur hexafluoride from some industrial processes, high GWP gases in consumer products, and emissions from diesel auxiliary engines on ships at California Ports, improved fuel efficiency in heavy-duty diesel vehicles, and new tire pressure regulations. The early action programs form part of California's comprehensive strategy for achieving the GHG reduction targets.

4.9 Sustainable Communities and Climate Protection Act

In January 2009, California Senate Bill (SB) 375 went into effect known as the Sustainable Communities and Climate Protection Act.[17] The objective of SB375 is to better integrate regional planning of transportation, land use, and housing to reduce sprawl and ultimately reduce greenhouse gas emissions and other air pollutants. SB375 tasks ARB to set greenhouse gas reduction targets for each of California's 18 regional Metropolitan Planning Organizations (MPOs). Each MPO is required to prepare a Sustainable Communities Strategy (SCS) as part of their Regional Transportation Plan (RTP). The SCS is a growth strategy in combination with transportation policies that will show how the MPO will meet its GHG reduction target. If the SCS cannot meet the reduction goal, an Alternative Planning Strategy (APS) may be adopted that meets the goal through alternative development, infrastructure, and transportation measures or policies.

In the Southern California Association of Governments (SCAG) region (in which the project is located), sub-regions can also elect to prepare their own SCS or APS. In August 2010, ARB released the proposed GHG reduction targets for the MPOs to be adopted in September 2010. The proposed reduction targets for the SCAG region were 8-percent by year 2020 and 13-percent by year 2035. The 8-percent year 2020 target was adopted in September 2010 and tentatively adopted the year 2035 until February 2011 to provide additional time for SCAG, ARB, and other stakeholders to account for additional resources (such as state transportation funds) needed to achieve the proposed targets. In February 2011, the SCAG President affirmed

the year 2035 reduction target and SCAG Staff updated ARB on additional funding opportunities. The status of funding was requested to be revisited again in year 2014.

4.10 Air Resources Board Scoping Plan

The ARB Scoping Plan is the comprehensive plan to reach the GHG reduction targets stipulated in AB32. The key elements of the plan are to expand and strengthen energy efficiency programs, achieve a statewide renewable energy mix of 33 percent, develop a cap-and-trade program with other partners in the Western Climate Initiative (includes seven states in the United States and four territories in Canada), establish transportation-related targets, and establish fees.[18] The Scoping Plan measures are identified in Table 6 (Scoping Plan Measures). Note that the current early discrete actions are incorporated into these measures. ARB estimates that implementation of these measures will reduce GHG emissions in the state by 174 MMTCO2E by 2020; therefore, implementation of the Scoping Plan will meet the 2020 reduction target. In a report prepared on September 23, 2010, ARB indicates that 40 percent of the reduction measures identified in the Scoping Plan have been secured.[19] The cap-and-trade program began on January 1, 2012 after ARB completes a series of activities that deal with the registration process, compliance cycle, and tracking system; however, covered entities will not have an emissions obligation until 2013.[20] ARB is currently working on the low carbon fuel standard where public hearings and workshops are currently being conducted. In August 2011, the Scoping Plan was reapproved by the ARB Board with the program's environmental documentation.

The ARB has prepared the First Update to the Scoping Plan (Update) with a draft made available for public review on February 10, 2014. The Update to the Scoping Plan builds upon the 2008 Scoping Plan with new strategies and recommendations. The Update identifies opportunities to leverage existing and new funds to further drive GHG emission reductions through strategic planning and targeted low carbon investments. The Update defines ARB's climate change priorities for the next five years and sets the groundwork to reach post-2020 goals set forth in Executive Orders S-3-05 and B-16-2012. The Update highlights California's progress toward meeting the 2020 GHG emission reduction goals defined in the 2008 Scoping Plan. It also evaluates how to align the State's long-term GHG reduction strategies with other State policy priorities for water, waste, natural resources, clean energy, transportation, and land use. A draft Environmental Analysis (EA) was released for a 45-day public review period on March 14, 2014. After considering public comments and Board direction, the final First Update, summary of comments received on the draft EA, and ARB's responses to those comments were released on May 15, 2014. The First Update to the Scoping Plan was approved by the Board on May 22, 2014.

4.11 California Green Building Standards

New California Green Building Standards Code (CALGREEN) went into effect on January 1, 2011.[21] The purpose of the new addition to the California Building Code (CBC) is to improve public health, safety, and general welfare by enhancing the design and construction of buildings using concepts to reduce negative impacts or produce positive impacts on the environment. The CALGREEN regulations cover planning and design, energy efficiency, water efficiency and conservation, material conservation and resources efficiency, and environmental quality. Many of the new regulations have the effect of reducing greenhouse gas emissions from the operation of new buildings. Table 7 (CALGREEN Requirements) summarizes the previous requirements of the CBC and the new requirements of CALGREEN that went into effect in January 2011. Minor technical revisions and additional requirements went into effect in July 2012. The Code was further updated in 2013, effective January 1, 2014 through 2016.

Table 6
Scoping Plan Measures

Measure	Description
T-1	Pavely I and II Greenhouse Gas Standards
T-2	Low Carbon Fuel Standard
T-3	Regional Transportation-Related Greenhouse Gas Targets
T-4	Vehicle Efficiency Measures
T-5	Ship Electrification at Ports
T-6	Good Movement Efficiency Measures
T-7	Heavy-Duty Vehicle Aerodynamic Efficiency
T-8	Medium and Heavy-Duty Vehicle Hybridization
T-9	High Speed Rail
E-1	Energy Efficiency (Electricity Demand Reduction)
E-2	Increase Combined Heat and Power Use
E-3	Renewable Portfolio Standard
E-4	Million Solar Roofs
CR-1	Energy Efficiency (Natural Gas Demand Reduction)
CR-2	Solar Water Heating
GB-1	Green Buildings
W-1	Water Use Efficiency
W-2	Water Recycling
W-3	Water System Energy Efficiency
W-4	Reuse Urban Runoff
W-5	Increase Renewable Energy Production
W-6	Public Good Charge (Water)
I-1	Energy Efficiency for Large Industrial Sources
I-2	Oil and Gas Extraction GHG Reductions
I-3	Oil and Gas Transmission Leak Reductions
I-4	Refinery Flare Recovery Process Improvements
I-5	Removal of Methane Exemption from Existing Refinery Regulations
RW-1	Landfill Methane Control
RW-2	Increase Landfill Methane Capture Efficiency
RW-3	Recycling and Zero Waste
F-1	Sustainable Forest Target
H-1	Motor Vehicle Air Conditioning
H-2	Non-Utilities and Non-Semiconductor SF_6 Limits
H-3	Semiconductor Manufacturing PFC Reductions
H-4	Consumer Products High GWP Limits
H-5	High GWP Mobile Source Reductions
H-6	High GWP Stationary Source Reductions
H-7	High GWP Mitigation Fees
A-1	Large Dairy Methane Capture

Table 7
CALGREEN Requirements

Item		Requirements	
		Previous	CALGREEN
4.1	Stormwater Management	Stormwater management required on projects > than one acre	All projects subject to stormwater management.
	Surface Drainage	Surface water must flow away from building	Drainage patterns must be analyzed
4.2	Energy Efficiency	California Energy Code	Minimum energy efficiency to be established by California Energy Commissions
4.3	Indoor Water Use	HCD maximum flush rates; CEC water use standards for appliances and fixtures	Indoor water use must decrease by at least 20 percent (prescriptive or performance based)
	Multiple Showerheads	Not covered	Multiple showerheads can not exceed combined flow of the code
	Irrigation Controllers	Not covered	Irrigation controllers must be weather or soil moisture based controllers
4.4	Joint Protection	Plumbing and Mechanical Codes	All openings must be sealed with materials that rodents cannot penetrate
	Construction Waste	Local Ordinances	Establishes minimum 50 percent recycling and waste management plan
	Operation	Plumbing Code for gray water systems	Educational materials and manuals must be provided to building occupants and owners to ensure proper equipment operation
4.5	Fireplaces	Local Ordinances	Gas fireplaces must be direct-vent sealed-combustion type; Wood stoves and pellet stoves must meet USEPA Phase II emissions limits
	Mechanical Equipment	Not covered	All ventilation equipment must be sealed from contamination during construction
	VOCs	Local Ordinances	Establishes statewide limits on VOC emissions from adhesives, paints, sealants, and other coatings
	Capillary Break	No prescriptive method of compliance	Establishes minimum requirements for vapor barriers in slab on grade foundations
	Moisture Content	Current mill moisture levels for wall and floor beams is 15-20 percent	Moisture content must be verified prior to enclosure of wall or floor beams
	Whole House Fans	Not covered	Requires insulated louvers and closing mechanism when fan is off
	Bath Exhaust Fans	Not covered	Requires Energy Star compliance and humidistat control
	HVAC Design	Minimal requirements for heat loss, heat gain, and duct systems	Entire system must be designed in respects to the local climate
7	Installer Qualifications	HVAC installers need not be trained	HVAC installers must be trained or certified
	Inspectors	Training only required for structural materials	All inspectors must be trained

Source: HCD 2010

4.12 San Bernardino County GHG Reduction Plan

In December 2011, San Bernardino County adopted its *Greenhouse Gas Emissions Reduction Plan*.[22] The plan is based on the premise the County is capable of reducing GHG emissions and should coordinate reduction efforts with state strategies in an efficient and cost-effective manner. The plan is designed to reduce direct and indirect GHG emissions from the County by 15 percent below current levels by 2020. For development review, the plan establishes a preliminary screening threshold of 3,000 metric tons of carbon dioxide equivalent per year (MTCO2E) to determine if a project is subject to further climate change review.

4.13 Water Conservation in Landscaping Act

Section 65591 of the Government Code requires all local jurisdictions to adopt a water efficient landscape ordinance. The ordinance is to address water conservation through appropriate use and grouping of plants based on environmental conditions, water budgeting to maximize irrigation efficiency, storm water retention, and automatic irrigation systems. Failure to adopt a water efficiency ordinance requires a local jurisdiction to enforce the provisions of the State's model water efficiency ordinance. In 2009, the Department of Water Resources (DWR) updated the Model Water Efficient Landscape Ordinance

pursuant to amendments to the 1991 Act. These amendments and the new model ordinance went into effect on January 1, 2010. The amended Act is applicable to any new commercial, multi-family, industrial or tract home project containing 2,500 square feet (SF) or more of landscaping. Individual landscape projects of 5,000 SF or more on single-family properties will also be subject to the Act. All landscape plans are required to include calculations verifying conformance with the maximum applied water allowance and must be prepared and stamped by a licensed landscape architect.

5 Project Description

The proposed project includes the demolition of the existing on-site structures and the development of a 215,000-square foot warehouse building located at 9988 Redwood Avenue, San Bernardino County, California. The project site has a gross site area of 9.89 acres. The project site will be bounded by an eight-foot concrete screening wall along the northern, western, and southern boundaries. The project includes 160 parking stalls, 27 trailer docks, 31 trailer parking spaces, and 70,450 square feet of landscaping.

The project is located on Redwood Avenue, north of Hunter Street and south of San Bernardino Avenue in unincorporated San Bernardino County (near Fontana). As defined by San Bernardino County, warehouse facilities are used primarily for the storage and/or consolidation of manufactured goods prior to their distribution to retail locations or other warehouses. These facilities are commonly constructed utilizing a concrete tilt-up technique, with a typical ceiling height of at least 24 feet. High-cube warehouse/distribution centers are generally greater than 100,000 SF in size with a land coverage ratio of approximately 50 percent and a dock-high loading ratio of approximately 1:5,000-10,000 SF.

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The impact analysis contained herein was prepared utilizing guidance provided in the 1993 SCAQMD California Environmental Quality Act (CEQA) Air Quality Handbook. The thresholds identified in Appendix G of the State CEQA Guidelines, as implemented by the County of San Bernardino, have been utilized to determine the significance of potential impacts.

6.1 Thresholds of Significance

In accordance with Appendix G of the State CEQA Guidelines and the local implementation procedures of San Bernardino County, the project could result in potentially significant impacts related to air quality if it:

A. Conflicts with or obstructs implementation of the applicable air quality plan.
B. Violates any air quality standard or contributes substantially to an existing or projected air quality violation.
C. Results in a cumulatively considerable net increase of any criteria pollutant that the region is non-attainment under an applicable Federal or State ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors).
D. Exposes sensitive receptors to substantial pollutant concentrations.
E. Create objectionable odors affecting a substantial number of people.

To determine if maximum daily criteria pollutant emissions from construction and operation of the proposed warehouse are significant, the SCAQMD significance thresholds are used. These thresholds are identified in Table 8 (SCAQMD Maximum Daily Emissions Thresholds (lbs/day)).

Table 8
SCAQMD Maximum Daily Emissions Thresholds (lbs/days)

Pollutant	Construction	Operation
NO_X	100	55
VOC/ROG	75	55
PM^{10}	150	150
$PM^{2.5}$	55	55
SO_X	150	150
CO	550	550
Lead	3	3
Source: SCAQMD 2013		

6.2 AQMP Consistency

A significant impact could occur if the proposed project conflicts with or obstructs the implementation of South Coast Air Basin 2012 Air Quality Management Plan. Conflicts and obstructions that hinder implementation of the AQMP can delay efforts to meet attainment deadlines for criteria pollutants and maintaining existing compliance with applicable air quality standards. Pursuant to the methodology provided in Chapter 12 of the 1993 SCAQMD CEQA Air Quality Handbook, consistency with the South Coast Air Basin 2012 Air Quality Management Plan (AQMP) is affirmed when a project (1) does not increase the frequency or severity of an air quality standards violation or cause a new violation and (2) is consistent with the growth assumptions in the AQMP.[23] Consistency review is presented below:

1. The project would result in short-term construction and long-term pollutant emissions that are less than the CEQA significance emissions thresholds established by the SCAQMD, with mitigation incorporated, as demonstrated in Section 6.3 et seq of this report; therefore, the project could not result in an increase in the frequency or severity of any air quality standards violation and will not cause a new air quality standard violation.

2. The CEQA Air Quality Handbook indicates that consistency with AQMP growth assumptions must be analyzed for new or amended General Plan elements, Specific Plans, and *significant projects*. *Significant projects* include airports, electrical generating facilities, petroleum and gas refineries, designation of oil drilling districts, water ports, solid waste disposal sites, and off-shore drilling facilities; therefore, the proposed project is not defined as *significant*. This project does not include a General Plan Amendment and therefore does not require consistency analysis with the AQMP.

Based on the consistency analysis presented above, the proposed project will not conflict with the AQMP.

6.3 Pollutant Emissions

6.3.1 Building Construction

Short-term criteria pollutant emissions will occur during site grading, building construction, paving, and architectural coating activities. Emissions will occur from use of equipment, worker, vendor, and hauling trips, and disturbance of onsite soils (fugitive dust). To determine if construction of the proposed warehouse could result in a significant air quality impact, the California Emissions Estimator Model (CalEEMod) has been utilized. The methodology for calculating emissions is included in the CalEEMod *User Guide,* freely available at http://www.caleemod.com/. The construction schedule and equipment list was based on CalEEMod defaults. It is estimated that the building will take approximately 15 months to complete. All existing on-site structures, approximately 278,784 square feet, will be demolished along with approximately 972 tons of parking asphalt. The project site is relatively flat and will not require the import or export of soils. Based on the results of the model, maximum daily emissions from the construction of the warehouse will result in excessive emissions of volatile organic chemicals (identified as reactive organic gases) associated with interior and exterior coating activities. Using the default assumption of 250 grams per liter (g/l) VOC content for interior and exterior coatings, daily VOC emissions would reach 356.01 lbs/day during summer and winter.

To compensate for excessive VOC emissions from coating activities, the model includes use of a minimum zero g/l VOC content for interior coatings and 125 g/l VOC content for exterior surfaces. Use of low-VOC coatings during construction activities will reduce VOC emissions to 44.91 lbs/day in summer and winter, less than the threshold established by SCAQMD. The requirement for use of low-VOC coatings has been included as Mitigation Measure AQ1 in Section 8 of this report. The results of the CalEEMod outputs with mitigation incorporated are summarized in Table 9 (Maximum Daily Construction Emissions).

Table 9
Maximum Daily Construction Emissions (lbs/day)

Source	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Summer						
2016	6.54	80.83	60.68	0.14	32.66	7.44
2017	44.91	32.88	35.47	0.07	4.37	2.43
Winter						
2016	6.66	82.11	64.20	0.14	32.66	7.44
2017	44.91	33.10	36.01	0.07	4.37	2.44
Threshold	75	100	550	150	150	55
Substantial?	No	No	No	No	No	No

6.3.2 Operational Sources

Long-term criteria air pollutant emissions will result from the operation of the proposed warehouse. Long-term emissions are categorized as area source emissions, energy demand emissions, and operational emissions. Operational emissions will result from automobile, truck, and other vehicle sources associated with daily trips to and from the warehouse. The California Emissions Estimator Model (CalEEMod) was utilized to estimate mobile source emissions. Trip generation (1.68 daily trips per 1,000 SF) is based on the project traffic study prepared by Kunzman Associates.[24] The fleet mix was adjusted to reflect

the traffic study fleet mix.[25] The heavy duty fleet mix is comprised of 12.33 percent heavy-heavy-duty (HHD), 4.64 percent medium-heavy-duty (MHD), and 3.46 percent light-heavy-duty (LHD1). The remaining 79.57 percent of the fleet mix is allocated to passenger vehicles (LDA). Assuming an opening year of 2018 with the building occupied and operational, the total results of the CalEEMod model for summer and winter conditions are summarized in Table 10 (Operational Daily Emissions).

Area source emissions are the combination of many small emissions sources that include use of outdoor landscape maintenance equipment, use of consumer products such as cleaning products, and periodic repainting of the proposed warehouse. Energy demand emissions result from use of electricity and natural gas. Emissions from area and energy sources were estimated using CalEEMod defaults (note that the emissions factor for consumer products was adjusted to account for an error that includes parking lot square footage in the emissions calculations). Area and energy source emissions are included in Table 10. Based on the results of the model, maximum daily operational emissions associated with the proposed warehouse will not exceed any threshold established by SCAQMD. No mitigation is required.

Table 10
Operational Daily Emissions (lbs/day)

Source	ROG	NO_X	CO	SO_2	PM^{10}	$PM^{2.5}$
Summer	12.52	20.36	25.51	0.09	4.92	1.56
Winter	12.60	21.10	27.46	0.09	4.93	1.57
Threshold	55	55	550	150	150	55
Substantial?	No	No	No	No	No	No

6.4 Localized Emissions

6.4.1 Toxic Air Contaminants

Distribution warehouses result in the generation of heavy diesel truck traffic and have been linked with high emissions of diesel particulate patter (DPM), established as an air toxic contaminant by ARB in 1998. DPM was identified as a toxic because of its potential to cause cancer, premature deaths, and other health problems. Health hazards associated with DPM are especially hazardous for children because their lungs are still developing, and the elderly who may have other serious health problems. As identified in Exhibit 2, there are sensitive land uses within one-quarter mile of the project site.

Cancer risk and non-cancer health risks from construction activities were analyzed using the using the EPA SCREEN3 model and guidance provided by SCAQMD.[26] SCREEN3 is a single source Gaussian plume model that provides maximum ground-level concentrations for point, area, flare, and volume sources. SCREEN3 outputs are attached as Appendix B. The emissions factors for idling trucks and on-site truck movement were modeled using EMFAC2014. EMFAC2014 was developed by ARB to calculate emissions inventories for mobile vehicles operating in California based on raw vehicle data. EMFAC2014 outputs are included in Appendix C.

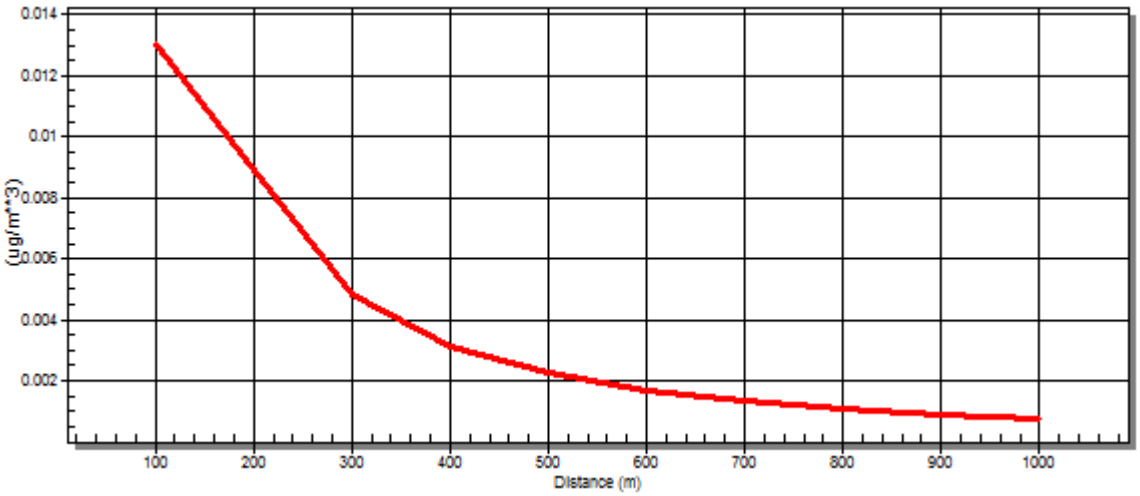
Idling and running emissions (10 miles per hour) were modeled for average hourly truck traffic consisting of one light-heavy duty trucks (LHD1), one medium-heavy duty trucks (T6), and one heavy-heavy duty trucks (T7). With a project site size of 40,000 square meters (m^2), the maximum idling and running emissions factor from the proposed building is 3.139E-09 grams per second per square meter ($g/sec/m^2$). Truck movement was estimated at 0.12 miles per truck reflecting the length of the longest side of the project site. These emissions factors were input into SCREEN3 to estimate DPM concentrations in a 1,000-meter grid around the project site at 100-meter transects. The analysis also included a discrete measurement at 20 meters at 90 degrees wind direction to determine exposure to single-family residential units to the east of the project site. Meteorological data was input for neutral stability class and a wind speed of 3 meters per second. The model was set for simple and flat terrain. Wind direction was set relative to the larger side of the building. SCREEN3 indicates that the *worst-case* maximum concentration will occur 148 meters from the northeast (45 degrees wind direction) of the project site at 1.395E-02 $\mu g/m^3$. The maximum DPM concentration at the residences located east of the project site is estimated at 9.353E-03 $\mu g/m^3$. The discrete and maximum grid receptor concentrations around the proposed warehouse are summarized in Table

11 (Maximum Diesel Particulate Concentrations). Figure 2 (Automated Distance vs. DPM Concentration) graphically summarizes the DPM concentrations along the dispersion path. Plume height was set at 4.3 meters to reflect truck exhaust height and receptor height was set at 2 meters to reflect the average breathing area of a person.

Table 11
Maximum Diesel Particulate Concentrations (µg/m³)

Distance (m)	Concentration	Direction (deg)
20	9.353E-03	90
148	1.395E-02	45

Figure 2
Automated Distance vs. DPM Concentration



Hand calculations for determining cancer and non-cancer risk are attached in Appendix C. Cancer risk assessment assumes a lifetime exposure of 70 years (LEA 1.0) because the nearby residences are sensitive receptors. The incremental increase of cancer risk at nearby residences is two persons in one million. The incremental increase of cancer risk at the maximum concentration 148 meters from the southeast corner of the project site is four persons in one million. These incremental increases are less than the threshold of 10 in one million (10.000E-06) established by SCAQMD. The non-cancer hazard index is 0.002 at the nearby residences and 0.003 at 148 meters from the southeast corner of the project site. These hazard index values are less than the threshold of 1.0 established by SCAQMD. The results of the cancer and non-cancer risk assessments are summarized in Table 12 (Cancer and Non-Cancer Risk).

Table 12
Cancer and Non-Cancer Risk

Distance (m)	Cancer Risk	Non-Cancer Risk
20	2.806E-06	0.002
148	4.185E-06	0.003
Threshold	*10.000E-06*	*1.000*
Substantial?	No	No

6.4.2 Carbon Monoxide Hotspots

A carbon monoxide (CO) hotspot is an area of localized CO pollution that is caused by severe vehicle congestion on major roadways, typically near intersections. CO hotspots have the potential to violate state and federal CO standards at intersections, even if the broader Basin is in attainment for federal and state levels. In general, SCAQMD and the California

Department of Transportation *Project-Level Carbon Monoxide Protocol* (CO Protocol) recommend analysis of CO hotspots when a project increases traffic volumes at an intersection by more than two percent that is operating at LOS D or worse.[27] [28] According to Section 3.1.3 of the Protocol, the project is not regionally significant and therefore is only required to examine local impacts. Regionally significant projects are defined in 40 CFR Section 93.101 and through extension in 40 CFR Section 93.105(c)(1)(ii), as follows:

> *Regionally significant project means a transportation project (other than an exempt project) that is on a facility which serves regional transportation needs (such as access to and from the area outside of the region, major activity centers in the region, major planned developments such as new retail malls, sports complexes, etc., or transportation terminals as well as most terminals themselves) and would normally be included in the modeling of a metropolitan area's transportation network, including at a minimum all principal arterial highways and all fixed guideway transit facilities that offer an alternative to regional highway travel.*

Localized impacts are analyzed in Protocol Section 4. The local analysis procedures in Section 4.7.1 indicate that the project has the potential to worsen air quality (as defined for Protocol purposes only) because it will result in an increase in the number of vehicles operating in *cold start* mode by more than two percent. *Cold Start* mode refers to a vehicle started after an hour or more being turned off. The project will also result in an average daily trip (ADT) increase of 287 ADT and will likely result in some decrease in average speeds due to the increased traffic at the project site ingress and egress. The local analysis procedures then direct to Protocol Sections 4.7.3 and 4.7.4. These sections indicate that if the project involves signalized intersections performing at Level of Service (LOS) E or worse, then the project will be subject to a screening analysis to determine if a detailed analysis will be required. Section 4.4 references Appendix A of the Protocol for screening purposes; however, because of the age of the assumptions used in the screening procedures, they are no longer accepted. The Sacramento Metropolitan Air Quality Management District (SAQMD) developed a screening threshold that states that any project involving an intersection experiencing 31,600 vehicles per hour or more will require detailed analysis.[29] The project will not involve an intersection experiencing this level of traffic; therefore, the project passes the screening analysis and impacts are deemed acceptable. Based on the local analysis procedures, the project is satisfactory pursuant to the Protocol and will not result in a CO hotspot.

6.5 Odors

According to the CEQA Air Quality Handbook, land uses associated with odor complaints include agricultural operations, wastewater treatment plants, landfills, and certain industrial operations (such as manufacturing uses that produce chemicals, paper, etc.). The current use on the project site includes agricultural use, a nursery. The proposed warehouse is sited within an area that consists of residential, industrial, and warehouse use. The proposed warehouse is not considered a sensitive receptor and therefore would not be substantially affected by potential odors from existing industrial uses operations. The proposed warehouse, in turn, does not produce odors that would affect a substantial number of people considering that the proposed warehouse will not result in heavy manufacturing activities.

6.6 Localized Significance Thresholds

As part of SCAQMD's environmental justice program, attention has recently been focusing more on the localized effects of air quality. Although the region may be in attainment for a particular criteria pollutant, localized emissions from construction activities coupled with ambient pollutant levels can cause localized increases in criteria pollutant that exceed national and/or State air quality standards.

Construction-related criteria pollutant emissions and potentially significant localized impacts were evaluated pursuant to the SCAQMD Final Localized Significance Thresholds Methodology. This methodology provides screening tables for one through five acre project scenarios, depending on the amount of site disturbance during a day. As the project site consists of more than five acres, the SCREEN3 modeling software was utilized to calculate localized pollutant concentrations for construction activity. SCREEN3 uses dispersion screening techniques to estimate impacts of point, area, and volume stationary sources. For purposes of this analysis, receptors were located at residential uses to the north and east of the proposed project.

Localized NO_X and CO emissions are combined with background concentrations to determine if the construction of the proposed project would cause NO_X or CO to exceed established thresholds. Per SCAQMD methodology, incremental PM_{10} and $PM_{2.5}$ impacts from construction are derived based on the change in concentration threshold of 10.4 µ/m^3 as nearly the entire district exceeds PM_{10} and $PM_{2.5}$ standards.

Applicable localized thresholds are as follows:

- State 8-hour CO standard of 20.0 ppm
- State 1-hour NO_2 standard of 0.18 ppm
- SCAQMD 24-hour construction PM_{10} LST of 10.4 µ/m^3
- SCAQMD 24-hour construction $PM_{2.5}$ LST of 10.4 µ/m^3

For construction, an area source encompassing approximately 40,000 square meters was modeled. The urban option of the model was selected, and receptor height was set at 2.0 meters, consistent with SCAQMD methodology. For PM_{10} and $PM_{2.5}$ a source release height of one meter was utilized consistent with SCAQMD methodology. Additionally, for emissions of NO_X and CO released during construction activity, a source release height of five meters was utilized to approximate the height of equipment exhausts. Table 13 (Localized Significance) summarizes on-site emissions during construction activities. Emissions for NO_X, CO, PM_{10}, and $PM_{2.5}$ would not exceed localized thresholds. See Appendix B (SCREEN3 Output) for SCREEN3 output data.

Table 13
Localized Significance

	NO_2	CO	PM_{10}	$PM_{2.5}$
Building Demolition				
Peak Day Localized Emissions	0.00	0.00	6.32	1.34
Background Concentration	0.07	1.70	NA	NA
Total Concentration	*0.07*	*1.70*	*6.32*	*1.34*
SCAQMD Localized Significance Threshold	0.18	9	10.4	10.4
Threshold Exceeded?	No	No	No	No
Pavement Demolition				
Peak Day Localized Emissions	0.00	0.00	0.93	0.52
Background Concentration	0.07	1.70	NA	NA
Total Concentration	*0.07*	*1.70*	*0.93*	*0.52*
SCAQMD Localized Significance Threshold	0.18	9	10.4	10.4
Threshold Exceeded?	No	No	No	No
Grading				
Peak Day Localized Emissions	0.00	0.00	1.86	1.15
Background Concentration	0.07	1.70	NA	NA
Total Concentration	*0.07*	*1.70*	*1.86*	*1.15*
SCAQMD Localized Significance Threshold	0.18	9	10.4	10.4
Threshold Exceeded?	No	No	No	No
Building Construction				
Peak Day Localized Emissions	0.00	0.00	0.42	0.39
Background Concentration	0.07	1.70	NA	NA
Total Concentration	*0.07*	*1.70*	*0.42*	*0.39*
SCAQMD Localized Significance Threshold	0.18	9	10.4	10.4
Threshold Exceeded?	No	No	No	No
Paving				
Peak Day Localized Emissions	0.00	0.00	0.24	0.22
Background Concentration	0.07	1.70	NA	NA
Total Concentration	*0.07*	*1.70*	*0.24*	*0.22*
SCAQMD Localized Significance Threshold	0.18	9	10.4	10.4
Threshold Exceeded?	No	No	No	No
Architectural Coating				
Peak Day Localized Emissions	0.00	0.00	0.04	0.04
Background Concentration	0.07	1.70	NA	NA
Total Concentration	*0.07*	*1.70*	*0.04*	*0.04*
SCAQMD Localized Significance Threshold	0.18	9	10.4	10.4
Threshold Exceeded?	No	No	No	No
Note: PM10 and PM2.5 concentrations are expressed in µ/m³. NO_2 and CO emissions are expressed in ppm.				

6.7 Cumulative Impacts

6.7.1 Cumulative Construction Impacts

Cumulative short-term, construction-related emissions from the project will not contribute considerably to any potential cumulative air quality impact because short-term project emissions will be less than significant and other concurrent construction projects in the region will be required to implement standard air quality regulations and mitigation pursuant to state CEQA requirements, just as this project has.

6.7.2 Cumulative Operational Impacts

The SCAQMD CEQA Air Quality Handbook identifies methodologies for analyzing long-term cumulative air quality impacts for criteria pollutants for which the Basin is nonattainment. These methodologies identify three performance standards that can be used to determine if long-term emissions will result in cumulative impacts. Essentially, these methodologies assess growth associated with a land use project and are evaluated for consistency with regional projections. These methodologies are outdated, and are no longer recommended by SCAQMD.

As discussed in Section 6.2 (AQMD Consistency) of this report, the proposed project is consistent with current land use designations and is consistent with the growth assumptions in the AQMP. Therefore, the proposed project will not contribute to any potential cumulative air quality impacts.

7 Climate Change Impact Analysis

7.1 Thresholds of Significance

The proposed project could result in potentially significant impacts related to greenhouse gas emissions and global climate change if it would:

A. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

B. Conflict with an applicable plan, policy, or regulation adopted for the purposes of reducing the emissions of greenhouse gases.

The County of San Bernardino adopted its *Greenhouse Gas Emissions Plan* in December 2011.[30] The purpose of the GHG Plan is to reduce the County's internal and external GHG emissions by 15 percent below current (2011) levels by year 2020. The GHG Plan includes a two-tiered development review procedure to determine if a project could result in a significant impact related greenhouse gas emissions or otherwise comply with the Plan pursuant to Section 15183.5 of the state CEQA Guidelines. The initial screening procedure is to determine if a project will emit 3,000 metric tons of carbon dioxide equivalent (MTCO2E) per year or more. Projects that do not exceed this threshold require no further climate change analysis. Projects exceeding this threshold must meet a minimum 31 percent emissions reduction in order to garner a less than significant determination. This can be met by either (1) achieving 100 points from a menu of mitigation options provided in the GHG Plan or (2) quantifying proposed reduction measures. Projects failing to meet the 31 percent reduction threshold would have a potentially significant impact related to climate change and greenhouse gas emissions.

7.2 Greenhouse Gas Emissions Screening

Currently, the County uses a table to determine if projects pass the initial screening procedure in-lieu of accepting modeled greenhouse gas emissions inventories. Table 14 (County Greenhouse Gas Emissions Screening Table) summarizes the screening thresholds used to implement Tier 1 screening procedures. Because the proposed warehouse is over 53,000 square feet in size, the project fails the initial screening procedures. Furthermore, the County currently does not accept modeled reductions in greenhouse gas emissions to meet the 31 percent Tier 2 threshold; therefore, the *Screening Table for Implementation of GHG Reduction Measures for Commercial Development* included in the Greenhouse Gas Emissions Reduction Plan has been completed and is included as Table 15 below. 106 Project Points will be earned by the project; therefore, the project meets the Tier 2 100 point requirements and will not substantially contribute to global climate change impacts.

Table 14
County Greenhouse Gas Emissions Screening Table

Project Type	Project Size
Single Family Residential	60-80 units
Apartments Condominiums	85-120 units
Retirement Community	100-150 units
General Commercial Office Space	162,000 square feet
Retail Space (No Refrigeration)	160,000 square feet
Supermarket Grocery Space	36,000 square feet
Restaurants (Sit Down)	8,200 square feet
Fast Food Restaurants	5,300 square feet
Gas Station Convenience Store Fast-Foot Restaurant	7,200 square feet
LD Manufacturing and Warehousing	53,000 square feet
Wireless Communications Towers	2,400 kilowatt (3-Phase)
Passive Park (No Athletic Fields)	200 acres
Active Park with Athletic Fields	60 acres
Source: San Bernardino County 2012	

Table 15
Screening Table for Implementation of GHG Reduction Measures

Feature	*Descriptions*	*Assigned Point Values*	*Project Points*
Reduction Measure R2E7: Energy Efficiency for Commercial Development			
Building Envelope			
Insulation	Title 24 standard (required) Modestly Enhanced Insulation (5%>Title 24) Enhanced Insulation (15%>Title 24) Greatly Enhanced Insulation (20%>Title 24)	0 points 4 points 8 points 12 points	8
Windows	Title 24 standard (required) Modestly Enhanced Window Insulation (5%>Title 24) Enhanced Window Insulation (15%>Title 24) Greatly Enhanced Window Insulation (20%>Title 24)	0 points 4 points 8 points 12 points	8
Doors	Title 24 standard (required) Modestly enhanced Insulation (5%>Title 24) Enhanced Insulation (15%>Title 24) Greatly Enhanced Insulation (20%>Title 24)	0 points 4 points 8 points 12 points	4
Air Infiltration	Minimizing leaks in the building envelope is as important as the insulation properties of the building. Insulation does not work effectively if there is excess air leakage. Title 24 standard (required) Modest Building Envelope Leakage (5%>Title 24) Reduced Building Envelope Leakage (15%>Title 24) Minimum Building Envelope Leakage (20%>Title 24)	 0 points 4 points 8 points 12 points	8
Thermal Storage of Building	Thermal storage is a design characteristic that helps keep a constant temperature in the building. Common thermal storage devices include strategically placed water filled columns, water storage tanks, and thick masonry walls. Thermal storage designed to reduce heating/cooling by 5ºF within the building Thermal storage to reduce heating/cooling by 10 ºF within the building Note: Engineering details must be provided to substantiate the efficiency of the thermal storage device.	 6 points 12 points	--
Indoor Space Efficiencies			
Heating/Cooling Distribution System	Title 24 (required) Modest Distribution Losses (5%>Title 24) Reduced Distribution Losses (15%>Title 24) Greatly Reduced Distribution Losses (15%>Title 24)	0 points 4 points 8 points 12 points	4
Space Heating/Cooling Equipment	Title 24 standard (required) Efficiency HVAC (5%>Title 24) High Efficiency HBAC (15%>Title 24) Very High Efficiency HBAC (20%>Title 24)	0 points 4 points 8 points 12 points	4
Building Envelope			
Commercial Heat Recovery Systems	Heat recovery strategies employed with commercial laundry, cooking equipment, and other commercial heat sources for reuse in HVAC air intake or other appropriate heat recovery technology. Point values for these types of systems will be determined based upon design and engineering data documenting energy savings.	TBD	--
Water Heaters	Title 24 standard (required) Efficiency Water heater (Energy Star Conventional that is 5%>Title 24) High Efficiency Water Heater (Conventional water heater that is 15%>Title 24) High Efficiency Water Heater (Conventional water heater that is 20%>Title 24) Solar Water Heating System (commercial only-this reduction feature also implements R2E10)	0 points 4 points 8 points 12 points 14 points	8
Daylighting	Daylighting is the ability of each room within the building to provide outside light during the day reducing the need for artificial lighting during daylight hours.		7

Feature	*Descriptions*	*Assigned Point Values*	*Project Points*
	All peripheral rooms within building have at least one window or skylight	1 point	
	All rooms within building have daylight (through use of windows, solar tubes, skylights, etc.) such that each room has at least 800 lumens of light during a sunny day	5 points	
	All rooms daylighted to a least 1,000 lumens.	7 points	
Artificial Lighting	Title 24 standard (required) Efficient Lights (5%>Title 24) High Efficiency Lights (LED, etc. 15%>Title 24) Very High Efficiency Lights (LED, etc. 20%>Title 24)	0 points 4 points 6 points 8 points	8
Appliances	Title 24 standard (required) Efficient Appliances (5%>Title 24) High Efficiency Energy Star Appliances (15%>Title 24) Very High Efficiency Appliances (20%>Title 24)	0 points 4 points 8 points 12 points	8
Miscellaneous Commercial Building Efficiencies			
Building Placement	North/South alignment of building or other placement such that the orientation of the buildings optimizes conditions for natural heating, cooling, and lighting	4 points	--
Other	This allows innovation by the applicant to provide design features that increases the energy efficiency of the project not provided in the table. Note that engineering data will be required documenting the energy efficiency of innovative designs and point values given based upon the proven efficiency beyond Title 24 Energy Efficiency Standards.	TBD	--
Existing Commercial Building Retrofits	The applicant may wish to provide energy efficiency retrofit projects to existing residential dwelling units to further the point value of their project. Retrofitting existing commercial buildings within the unincorporated County is a key reduction measure that is needed to reach the reduction goal. The potential for an applicant to take advantage of this program will be decided on a case by case basis and must have the approval of the San Bernardino County Land Use Services Department. The decision to allow applicants the ability to participate in this program will be evaluated based upon, but not limited to the following: Will the energy efficiency retrofit project benefit low income or disadvantaged communities? Does the energy efficiency retrofit project fit within the overall assumptions in Reduction Measure R2E4? Does the energy efficiency retrofit project provide co-benefits important to the County? Point value will be determined based upon engineering and design criteria of the energy efficiency retrofit project.	TBD	--
Photovoltaic	Solar Photovoltaic panels installed on commercial buildings or in collective arrangements within a commercial development such that the total power provided augments: Solar Read Roofs (study roof and electric hookups) 10 percent of the power needs of the project 20 percent of the power needs of the project 30 percent of the power needs of the project 40 percent of the power needs of the project 50 percent of the power needs of the project 60 percent of the power needs of the project 70 percent of the power needs of the project 80 percent of the power needs of the project 90 percent of the power needs of the project 100 percent of the power needs of the project	 2 points 7 points 13 points 19 points 25 points 31 points 37 points 43 points 49 points 55 points 60 points	--
Wind turbines	Some areas of the County lend themselves to wind turbine applications. Analysis of the areas capability to support wind turbines should be evaluated prior to choosing		--

Feature	*Descriptions*	*Assigned Point Values*	*Project Points*
	this feature. Wind turbines as part of the commercial development such that the total power provided augments: 10 percent of the power needs of the project 20 percent of the power needs of the project 30 percent of the power needs of the project 40 percent of the power needs of the project 50 percent of the power needs of the project 60 percent of the power needs of the project 70 percent of the power needs of the project 80 percent of the power needs of the project 90 percent of the power needs of the project 100 percent of the power needs of the project	 7 points 13 points 19 points 25 points 31 points 37 points 43 points 49 points 55 points 60 points	
Off-site renewable energy project	The applicant may submit a proposal to supply an off-site renewable energy project such as renewable energy retrofits of existing residential that will help Implement R2E1, existing commercial/industrial that will help Implement R2E2, or the Warehouse Renewable Energy incentive Program (R2E4). These off-site renewable energy retrofit project proposals will be determined on a case by case basis accompanied by a detailed plan documenting the quantity of renewable energy the proposal will generate. Point values will be based upon the energy generated by the proposal.	TBD	--
Other Renewable Energy Generation	The applicant may have innovative designs or unique site circumstances (such as geothermal) that allow the project to generate electricity from renewable energy not provided in the table. The ability to supply other renewable energy and the point values allowed will be decided based upon engineering data documenting the ability to generate electricity.	TBD	--
Reduction Measures R2E7: Warehouse Renewable Energy Incentive Program			
Warehouse Photovoltaic	This measure is for warehouse projects and involves partnership with Southern California Edison and California Public Utilities Commissions to develop an incentive program for solar installation on new and retrofit existing warehouses. A mandatory minimum solar requirement for new warehouse space. Solar Photovoltaic panels installed on warehouses or in collective arrangements within a logistics/warehouse complex such that the total power provided augments: Solar Ready Roof (sturdy roof and electric hookups) 10 percent of the power needs of the project 20 percent of the power needs of the project 30 percent of the power needs of the project 40 percent of the power needs of the project 50 percent of the power needs of the project 60 percent of the power needs of the project 70 percent of the power needs of the project 80 percent of the power needs of the project 90 percent of the power needs of the project 100 percent of the power needs of the project	 2 points 4 points 5 points 7 points 9 points 11 points 13 points 15 points 17 points 19 points 21 points	--
Reduction Measure R2WC-1: Per Capita Water Use Reduction Goal			
Irrigation and Landscaping			
Water Efficient Landscaping	Limit conventional turf to <20% of each lot (required) Eliminate conventional turf from landscaping Eliminate turf and only provide drought tolerant plants Xeroscaping that requires no irrigation	0 points 3 points 4 points 6 points	3
Water Efficient Irrigation Systems	Drip irrigation Smart irrigation control systems combined with drip irrigation (demonstrate 20 reduced water use)	1 point 5 points	5
Recycled Water	Graywater (purple pipe) irrigation system on site	5 points	5
Storm water Reuse systems	Innovative on-site stormwater collection, filtration and reuse systems are being developed that provide supplemental irrigation water and provide vector control. These systems can greatly reduce the irrigation needs of a project. Point values for these types of systems will be determined based upon the design and engineering data documenting the water savings	TBD	--

Feature	*Descriptions*	*Assigned Point Values*	*Project Points*
Potable Water			
Showers	Title 24 standard (required) EPA High Efficiency Showerheads (15%>Title 24)	0 points 3 points	3
Toilets	Title 24 standard (required) EPA High Efficiency Toilets/Urinals (15%>Title 24) Waterless Urinals (note that commercial buildings having both waterless urinals and high efficiency toilets will have a combined point value of 6 points)	0 points 3 points 3 points	3
Faucets	Title 24 standard (required) EPA High Efficiency faucets (15%>Title 24)	0 points 3 points	3
Commercial Dishwashers	Title 24 standard (required) EPA High Efficiency dishwasher (20% water savings)	0 points 4 points	--
Commercial Laundry Washers	Title 24 standard (required) EPA High Efficiency Laundry (15% water savings) EPA High Efficiency laundry equipment that captures and reuses rinse water (30% water savings)	0 points 3 points 6 points	--
Commercial Water Operations Program	Establish an operational program to reduce water loss from pools, water features, etc., by covering pools, adjusting fountain operational hours, and using water treatment to reduce draw down and replacement of water. Point values for these types of plans will be determined based upon design and engineering data documenting the water savings	TBD	--
Reduction Measure R2T1: Anti-Idling Enforcement			
Commercial Vehicle Idling Restrictions	All commercial vehicles are restricted to 5-minutes or less per trip on site and at loading docks (required of all commercial projects)	1 point	1
Reduction Measure R2T2: Employment Based Trip and VMT Reduction Policy			
Compressed Work Week	Reduce the number of days per week that employees need to be on site will reduce the number of vehicle trips associated with commercial/industrial development. Compressed work week such that full time employees are on site: 5 days per week 4 days per week on site 3 days per week on site	 0 points 4 points 8 points	--
Car/Vanpools	Car/vanpool program Car/vanpool program with preferred parking Car/vanpool with guaranteed ride home program Subsidized employee incentive car/vanpool program Combination of all the above	1 point 2 points 3 points 5 points 6 points	2
Employee Bicycle/Pedestrian Programs	Complete sidewalk to residential within ½ mile Complete bike path to residential within 3 miles Bike lockers and secure racks Showers and changing facilities Subsidized employee walk/bike program Note combine all applicable points for total value	1 point 1 point 1 point 2 points 3 points	2
Shuttle/Transit Programs	Local transit within ¼ mile Light rail transit within ½ mile Shuttle service to light rail transit station Guaranteed ride home program Subsidized Transit passes Note combine all applicable points for total value	1 point 3 points 5 points 1 point 2 points	1
CRT	Employer based commute trip reduction (CRT). CRTs apply to commercial, offices, or industrial projects that include a reduction of vehicle trip or VMT goal using a variety of employee commutes trip reduction methods. The point value will be determined based upon a TIA that demonstrates the trip/VMT reduction. Suggested point ranges: Incentive based CRT programs (1-8 points) Mandatory CRT programs (5-20 points)	TBD	--
Other Trip Reductions	Other trip or VMT reduction measures not listed above with TIA and/or other traffic data supporting the trip and/or VMT for the project	TBD	--

Feature	Descriptions	Assigned Point Values	Project Points
Reduction Measure R2T4: Signal Synchronization and Intelligent Traffic Systems			
Signal Improvements	Signal Synchronization-1 point per signal Traffic signals connected to ITS	1 point/signal 3 points/signal	--
Reduction Measure R2T5: Renewable Fuel/Low Emissions Vehicle			
Electric Vehicle Recharging	Provide circuit and capacity in garages/parking areas for installation of electric vehicle charging stations. Install electric vehicle charging stations in garages /parking areas	2 points/area 8 points/station	--
Reduction Measure R2T6: Vehicle Trip Reduction Measures			
Mixed Use	Mixes of land uses that complement one another in a way that reduces the need for vehicle trips can greatly reduce GG emissions. The point value of mixed use projects will be determined based upon traffic studies that demonstrate trip reductions and/or reductions in vehicle miles traveled	TBD	--
Local Retail Near Residential (commercial only projects)	Having residential developments within walking and biking distance of local retail helps to reduce vehicle trips and/or vehicle miles traveled. The point value of residential projects in close proximity to local retail will be determined based upon traffic studies that demonstrate trip reductions and/or reduction in vehicle miles traveled	TBD	--
Reduction Measure R2W5: construction and demolition debris diversion program			
Recycling of Construction/ Demolition Debris	Recycle 2% of debris (required) Recycle 5% of debris Recycle 8% of debris Recycle 10% of debris Recycle 12% of debris Recycle 15% of debris Recycle 20% of debris	0 point 1 point 2 points 3 points 4 points 5 points 6 points	6
Reduction Measure R2W6: 75 Percent Solid Waste Diversion Program			
Recycling	County initiated recycling program diverting 75% of waste requires coordination with commercial development to realize this goal. The following recycling features will help the County fulfill this goal: Provide separated recycling bins within each commercial building/floor and provide large external recycling collection bins at central location for collection truck pick-up Provide commercial/industrial recycling programs that fulfills an on-site goal of 75% diversion of solid waste	 2 points 5 points	5
Total Points Earned by Commercial/Industrial Project:			106

7.3 Greenhouse Gas Emissions Reduction Planning

7.3.1 San Bernardino County Greenhouse Gas Emissions Reduction Plan

In December 2011, the County of San Bernardino adopted the "Greenhouse Gas Emissions Reduction Plan". The purpose of the GHG Plan is to reduce the County's internal and external GHG emissions by 15 percent below current (2011) levels by year 2020 in consistency with State climate change goals pursuant to AB32. The specific objectives of the GHG Plan are as follows:

- Reduce emissions from activities over which the County has jurisdictional and operational control consistent with the target reductions of Assembly Bill (AB) 32 Scoping Plan;
- Provide estimated GHG reductions associated with the County's existing sustainability efforts and integrate the County's sustainability efforts into the discrete actions of this Plan;
- Provide a list of discrete actions that will reduce GHG emissions; and approve a GHG Plan that satisfies the requirements of Section 15183.5 of the California Environmental Quality Act (CEQA) Guidelines, so that compliance with the GHG Plan can be used in appropriate situations to determine the significance of a project's effects relating to

GHG emissions, thus providing streamlined CEQA analysis of future projects that are consistent with the approved GHG Plan.

The GHG Plan identifies goals and strategies to obtain the 2020 reduction target. Reduction measures are classified into broad classes based on the source of the reduction measure. Class 1 (R1) reduction measures are those adopted at the state or regional level and require no additional action on behalf of the County other than required implementation. Class 2 (R2) reflect quantified measures that have or will be implemented by the County as a result of the GHG Plan. Class 3 (R3) measures are qualified measures that have or will be implemented by the County as a result of the GHG Plan.

Section 5.6 of the GHG Plan identifies the procedures for reviewing development projects for consistency with the GHG Plan. The GHG Plan has been designed in accordance with Section 15183.5 of the State CEQA Guidelines which provides for streamline review of climate change issues related to development projects when found consistent with an applicable greenhouse gas emissions reduction plan. The GHG Plan includes a two-tiered development review procedure to determine if a project could result in a significant impact related greenhouse gas emissions or otherwise comply with the Plan pursuant to Section 15183.5 of the state CEQA Guidelines. The initial screening procedure is to determine if a project will emit 3,000 metric tons of carbon dioxide equivalent (MTCO2E) per year or more. Projects that do not exceed this threshold require no further climate change analysis. Projects exceeding this threshold must meet a minimum 31 percent emissions reduction in order to garner a less than significant determination. This can be met by either (1) achieving 100 points from a menu of mitigation options provided in the GHG Plan or (2) quantifying proposed reduction measures. Projects failing to meet the 31 percent reduction threshold would have a potentially significant impact related to climate change and greenhouse gas emissions.

As analyzed and discussed in Section 7.2, the project will earn 106 Project Points pursuant to the mitigation measures identified in the GHG Plan; therefore, the project is consistent with the GHG Plan pursuant to Section 15183.5 of the State CEQA Guidelines.

7.3.2 Green County San Bernardino

In August 2007, the San Bernardino County Board of Supervisors launched four environmental initiatives known as Green County San Bernardino.[31] These initiatives included:

1. Adoption of a County policy that would require that new county buildings and major renovations of existing county facilities comply with U.S. Green Building Council Leadership in Energy and Environmental Design (LEED) Silver standards. LEED promotes a whole-building approach to sustainability by recognizing performance in five key areas of human and environmental health – sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality.
2. Establishment of the San Bernardino County Green Builder Program (SBCGB) as a voluntary green building incentive program for residential construction. Under the SBCGB program, builders who agree to satisfy the requirements of the California Green Builder program would receive priority processing for plan review from the County Land Use Services Department, including guaranteed timelines and priority field inspection service. The California Green Builder program has set goals for significant improvements in energy efficiency, indoor air quality and comfort, onsite waste recycling, and water and wood conservation.
3. Waiver of County building permit fees for the installation of solar energy systems, wind-generated electrical systems, tankless water heaters, and highly energy-efficient heating, ventilation and air-conditioning systems for existing buildings. The waiver of fees would promote energy conservation, facilitate a reduction in greenhouse gas emission, and reduce the public's reliance on commercial energy sources.
4. Establishment of a County website, www.greencountysb.com, to serve as a resource for the public to obtain information on creating and maintaining environmentally friendly buildings, landscapes, and lifestyles. Through this website, the public would have access to the various "green" programs such as the Green Builder Program, the Municipal LEED program, and the New Commercial Construction and Renovation LEED Program. The website

would also contain information pertaining to energy efficient building permits, useful "green" tips, and information on affordable ways to protect the environment.

These initiatives are critically tied with the County's current efforts to reduce greenhouse gas emissions through a GHG reduction plan and General Plan amendment. The County's Green County website provides information related to transportation, construction, recycling, and landscaping for the community to learn how to reduce individual and development-related carbon footprints. The proposed warehouse will not result in substantial emissions of greenhouse gases and therefore will not conflict with the Green County initiatives.

7.4 SCAQMD Interim Greenhouse Gas Emissions Threshold

A numerical threshold for determining the significance of greenhouse gas emissions in the South Coast Air Basin (Basin) has not been established by the South Coast Air Quality Management District (SCAQMD). As an interim threshold based on guidance provided in the CAPCOA *CEQA and Climate Change* handbook, a non-zero threshold approach based on Approach 2 of the handbook has been used. Threshold 2.5 (Unit-Based Thresholds Based on Market Capture) establishes a numerical threshold based on capture of approximately 90 percent of emissions from future development. The latest threshold developed by SCAQMD using this method is 10,000 metric tons carbon dioxide equivalent (MTCO2E) per year for industrial projects.[32] This threshold is based on the review of 711 CEQA projects.

The proposed project will include activities that emit greenhouse gas emissions over the short- and long-term. While one project could not be said to cause global climate change, individual projects contribute cumulatively to greenhouse gas emissions that result in climate change. Table 16 (Greenhouse Gas Emissions Inventory) summarizes the yearly estimated greenhouse gas emissions from the construction of the project and operational sources. Estimated annual greenhouse gas emissions resulting from the construction and operation of the proposed warehouse is 2,000.76 MTCO2E, less than the interim SCAQMD threshold of 10,000 MTCO2E.

Table 16
Greenhouse Gas Emissions Inventory

Source	GHG Emissions (MT/YR)			
	CO_2	CH_4	N_2O	TOTAL*
Construction^	26.56	0.00	0.00	26.63
Operational	1,875.09	4.09	0.04	1,974.13
Total	1,901.65	4.09	0.04	2,000.76

* MTCO2E/YR
Note: Slight variations may occur due to rounding
^ Construction impacts amortized over 30-years

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8.1 Required Mitigation

The following mitigation measures are required to ensure that project-related emissions do not exceed established thresholds and that the project is consistent with the County Greenhouse Gas Emissions Development Review Process.

AQ1 *Coating Restrictions.* Prior to issuance of building permits, the project proponent shall submit, to the satisfaction of County Planning, a Coating Restriction Plan (CRP), consistent with South Coast Air Quality Management District (SCAQMD) guidelines and a letter agreeing to include in any construction contracts and/or subcontracts a requirement that the contractors adhere to the requirements of the CRP. The CRP measures shall be implemented to the satisfaction of County Building and Safety. These shall include the following:

- The volatile organic compounds (VOC) of proposed architectural coatings shall not exceed zero for interior applications.
- The volatile organic compounds (VOC) of proposed architectural coatings shall not exceed 125 g/l for exterior applications.

This measure shall conform to the performance standard that emissions of volatile organic compounds from application of interior or exterior coatings shall not exceed the daily emissions thresholds established by the South Coast Air Quality Management District. The CRP shall specify use of High-Volume, Low Pressure (HVLP) spray guns for application of coatings.

8.2 Regulatory Requirements and Standards

The following lists existing regulatory requirements and standards that are required to be implemented as part of the project. While the following measures are not considered mitigation pursuant to the CEQA, the Lead Agency may choose to include the following as conditions of approval to ensure that they appropriately implemented.

S1 *Dust Control Plan.* The developer shall submit to the satisfaction of County Planning a Dust Control Plan (DCP) consistent with SCAQMD guidelines and a letter agreeing to include in any construction contracts and/or subcontracts a requirement that the contractors adhere to the requirements of the approved DCP. The DCP shall include activities to reduce on-site and off-site fugitive dust production, including:

- Exposed soil shall be kept moist through a minimum of twice daily watering to reduce fugitive dust, throughout grading and construction activities. During high wind conditions (i.e., wind speeds exceeding 25 mph), areas with disturbed soil will be watered hourly and activities on unpaved surfaces shall be terminated until wind speeds no longer exceed 25 mph. Use reclaimed water if available.
- Vehicle tires will be washed before leaving the project site to enter a paved road.
- Paved site access driveways and adjacent streets will be washed and swept by street sweepers daily, if there are visible signs of any dirt track-out.
- All trucks hauling soil or other loose materials off-site shall be covered.
- On-site hauling shall either be covered or maintain at least 2 feet of “freeboard”.
- Storage piles that are to be left in place for more than 3 working days shall either be: 1) re-vegetated, or 2) covered with plastic or 3) sprayed with a non-toxic soil binder until placed in use.

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Appendix A CalEEMod Outputs

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9988 Redwood Warehouse

South Coast Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	215.00	1000sqft	4.94	215,000.00	0
Other Non-Asphalt Surfaces	87.89	1000sqft	2.02	87,890.00	0
Parking Lot	131.40	1000sqft	3.02	131,403.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Input Project Schedule

Demolition -

Vehicle Trips - Trip Rate Per ITE & Traffic Study
Trip % Per SCAQMD Recommendation
Trip Length NCHRP Analysis
Vechicle Emission Factors - Fleet Mix Per SCAQMD Recommendation

Vechicle Emission Factors - Fleet Mix Per SCAQMD Recommendation
Vechicle Emission Factors - Fleet Mix Per SCAQMD Recommendation

Water And Wastewater - Outdoor Water Demand Calculated as MAWA

Architectural Coating - Interior 0 g/L; Exterior 125 g/L

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	125.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	0.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	20.00	10.00
tblLandUse	LandUseSquareFeet	131,400.00	131,403.00
tblProjectCharacteristics	OperationalYear	2014	2018
tblVehicleEF	HHD	0.03	0.23
tblVehicleEF	HHD	0.03	0.23
tblVehicleEF	HHD	0.03	0.23
tblVehicleEF	LDA	0.51	0.62
tblVehicleEF	LDA	0.51	0.62
tblVehicleEF	LDA	0.51	0.62
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00

tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.04	0.06
tblVehicleEF	LHD1	0.04	0.06
tblVehicleEF	LHD1	0.04	0.06
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MHD	0.02	0.09
tblVehicleEF	MHD	0.02	0.09
tblVehicleEF	MHD	0.02	0.09
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CNW_TL	6.90	17.41
tblVehicleTrips	CNW_TTP	41.00	38.00
tblVehicleTrips	CW_TTP	59.00	62.00
tblVehicleTrips	ST_TR	2.59	1.68
tblVehicleTrips	SU_TR	2.59	1.68
tblVehicleTrips	WD_TR	2.59	1.68
tblWater	OutdoorWaterUseRate	0.00	1,724,546.00

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					
2016	6.5355	80.8281	60.6759	0.1356	29.8188	2.8364	32.6552	4.8043	2.6372	7.4415	0.0000	13,702.2291	13,702.2291	1.1888	0.0000	13,727.1947
2017	44.9097	32.8758	35.4736	0.0680	2.4782	1.8869	4.3651	0.6659	1.7702	2.4362	0.0000	6,246.1269	6,246.1269	0.7629	0.0000	6,262.1473
Total	**51.4452**	**113.7039**	**96.1495**	**0.2036**	**32.2969**	**4.7233**	**37.0203**	**5.4702**	**4.4074**	**9.8777**	**0.0000**	**19,948.3560**	**19,948.3560**	**1.9517**	**0.0000**	**19,989.3420**

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					
2016	6.5355	80.8281	60.6759	0.1356	29.8188	2.8364	32.6552	4.8043	2.6372	7.4415	0.0000	13,702.2291	13,702.2291	1.1888	0.0000	13,727.1947
2017	44.9097	32.8758	35.4736	0.0680	2.4782	1.8869	4.3651	0.6659	1.7702	2.4362	0.0000	6,246.1269	6,246.1269	0.7629	0.0000	6,262.1473
Total	**51.4452**	**113.7039**	**96.1495**	**0.2036**	**32.2969**	**4.7233**	**37.0203**	**5.4702**	**4.4074**	**9.8777**	**0.0000**	**19,948.3559**	**19,948.3559**	**1.9517**	**0.0000**	**19,989.3420**

	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**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**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	10.5515	4.2000e-004	0.0450	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0951	0.0951	2.6000e-004		0.1005
Energy	0.0136	0.1236	0.1038	7.4000e-004		9.3900e-003	9.3900e-003		9.3900e-003	9.3900e-003		148.2998	148.2998	2.8400e-003	2.7200e-003	149.2023
Mobile	1.9549	20.2383	25.3567	0.0942	4.5675	0.3474	4.9148	1.2354	0.3196	1.5551		8,510.2566	8,510.2566	0.1422		8,513.2429
Total	**12.5200**	**20.3623**	**25.5055**	**0.0949**	**4.5675**	**0.3569**	**4.9244**	**1.2354**	**0.3292**	**1.5646**		**8,658.6514**	**8,658.6514**	**0.1453**	**2.7200e-003**	**8,662.5457**

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	10.5515	4.2000e-004	0.0450	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0951	0.0951	2.6000e-004		0.1005
Energy	0.0136	0.1236	0.1038	7.4000e-004		9.3900e-003	9.3900e-003		9.3900e-003	9.3900e-003		148.2998	148.2998	2.8400e-003	2.7200e-003	149.2023
Mobile	1.9549	20.2383	25.3567	0.0942	4.5675	0.3474	4.9148	1.2354	0.3196	1.5551		8,510.2566	8,510.2566	0.1422		8,513.2429
Total	**12.5200**	**20.3623**	**25.5055**	**0.0949**	**4.5675**	**0.3569**	**4.9244**	**1.2354**	**0.3292**	**1.5646**		**8,658.6514**	**8,658.6514**	**0.1453**	**2.7200e-003**	**8,662.5457**

	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**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Demolition	Demolition	1/1/2016	1/14/2016	5	10	
2	Paving Demolition	Demolition	1/15/2016	1/28/2016	5	10	
3	Grading	Grading	1/29/2016	2/25/2016	5	20	
4	Building Construction	Building Construction	2/26/2016	1/12/2017	5	230	
5	Paving	Paving	1/13/2017	2/9/2017	5	20	
6	Architectural Coating	Architectural Coating	2/10/2017	3/9/2017	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 460,248; Non-Residential Outdoor: 153,416 (Architectural Coating

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Demolition	Excavators	3	8.00	162	0.38
Building Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Paving Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Paving Demolition	Excavators	3	8.00	162	0.38
Paving Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
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
Building Demolition	6	15.00	0.00	1,268.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving Demolition	6	15.00	0.00	96.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	182.00	71.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	36.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Building Demolition - 2016

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					27.4422	0.0000	27.4422	4.1550	0.0000	4.1550			0.0000			0.0000
Off-Road	4.2876	45.6559	35.0303	0.0399		2.2921	2.2921		2.1365	2.1365		4,089.2841	4,089.2841	1.1121		4,112.6374
Total	**4.2876**	**45.6559**	**35.0303**	**0.0399**	**27.4422**	**2.2921**	**29.7343**	**4.1550**	**2.1365**	**6.2915**		**4,089.2841**	**4,089.2841**	**1.1121**		**4,112.6374**

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	2.1854	35.0941	24.6726	0.0936	2.2089	0.5429	2.7517	0.6048	0.4994	1.1042		9,434.5076	9,434.5076	0.0676		9,435.9278
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	0.0624	0.0781	0.9730	2.1200e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		178.4374	178.4374	9.1500e-003		178.6295
Total	**2.2478**	**35.1722**	**25.6455**	**0.0957**	**2.3765**	**0.5443**	**2.9208**	**0.6493**	**0.5006**	**1.1499**		**9,612.9450**	**9,612.9450**	**0.0768**		**9,614.5573**

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					27.4422	0.0000	27.4422	4.1550	0.0000	4.1550			0.0000			0.0000
Off-Road	4.2876	45.6559	35.0303	0.0399		2.2921	2.2921		2.1365	2.1365	0.0000	4,089.2841	4,089.2841	1.1121		4,112.6374
Total	**4.2876**	**45.6559**	**35.0303**	**0.0399**	**27.4422**	**2.2921**	**29.7343**	**4.1550**	**2.1365**	**6.2915**	**0.0000**	**4,089.2841**	**4,089.2841**	**1.1121**		**4,112.6374**

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	2.1854	35.0941	24.6726	0.0936	2.2089	0.5429	2.7517	0.6048	0.4994	1.1042		9,434.5076	9,434.5076	0.0676		9,435.9278
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	0.0624	0.0781	0.9730	2.1200e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		178.4374	178.4374	9.1500e-003		178.6295
Total	**2.2478**	**35.1722**	**25.6455**	**0.0957**	**2.3765**	**0.5443**	**2.9208**	**0.6493**	**0.5006**	**1.1499**		**9,612.9450**	**9,612.9450**	**0.0768**		**9,614.5573**

3.3 Paving Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.0800	0.0000	2.0800	0.3149	0.0000	0.3149			0.0000			0.0000
Off-Road	4.2876	45.6559	35.0303	0.0399		2.2921	2.2921		2.1365	2.1365		4,089.2841	4,089.2841	1.1121		4,112.6374
Total	**4.2876**	**45.6559**	**35.0303**	**0.0399**	**2.0800**	**2.2921**	**4.3721**	**0.3149**	**2.1365**	**2.4515**		**4,089.2841**	**4,089.2841**	**1.1121**		**4,112.6374**

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	0.1655	2.6570	1.8680	7.0900e-003	0.1672	0.0411	0.2083	0.0458	0.0378	0.0836		714.2845	714.2845	5.1200e-003		714.3920
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	0.0624	0.0781	0.9730	2.1200e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		178.4374	178.4374	9.1500e-003		178.6295
Total	**0.2279**	**2.7351**	**2.8409**	**9.2100e-003**	**0.3349**	**0.0425**	**0.3774**	**0.0903**	**0.0391**	**0.1294**		**892.7219**	**892.7219**	**0.0143**		**893.0215**

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					2.0800	0.0000	2.0800	0.3149	0.0000	0.3149			0.0000			0.0000
Off-Road	4.2876	45.6559	35.0303	0.0399		2.2921	2.2921		2.1365	2.1365	0.0000	4,089.2841	4,089.2841	1.1121		4,112.6374
Total	**4.2876**	**45.6559**	**35.0303**	**0.0399**	**2.0800**	**2.2921**	**4.3721**	**0.3149**	**2.1365**	**2.4515**	**0.0000**	**4,089.2841**	**4,089.2841**	**1.1121**		**4,112.6374**

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	0.1655	2.6570	1.8680	7.0900e-003	0.1672	0.0411	0.2083	0.0458	0.0378	0.0836		714.2845	714.2845	5.1200e-003		714.3920
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	0.0624	0.0781	0.9730	2.1200e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		178.4374	178.4374	9.1500e-003		178.6295
Total	**0.2279**	**2.7351**	**2.8409**	**9.2100e-003**	**0.3349**	**0.0425**	**0.3774**	**0.0903**	**0.0391**	**0.1294**		**892.7219**	**892.7219**	**0.0143**		**893.0215**

3.4 Grading - 2016

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					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	3.6669	38.4466	26.0787	0.0298		2.1984	2.1984		2.0225	2.0225		3,093.7889	3,093.7889	0.9332		3,113.3860
Total	**3.6669**	**38.4466**	**26.0787**	**0.0298**	**6.5523**	**2.1984**	**8.7507**	**3.3675**	**2.0225**	**5.3900**		**3,093.7889**	**3,093.7889**	**0.9332**		**3,113.3860**

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	0.0624	0.0781	0.9730	2.1200e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		178.4374	178.4374	9.1500e-003		178.6295
Total	**0.0624**	**0.0781**	**0.9730**	**2.1200e-003**	**0.1677**	**1.4000e-003**	**0.1691**	**0.0445**	**1.2900e-003**	**0.0458**		**178.4374**	**178.4374**	**9.1500e-003**		**178.6295**

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					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	3.6669	38.4466	26.0787	0.0298		2.1984	2.1984		2.0225	2.0225	0.0000	3,093.7889	3,093.7889	0.9332		3,113.3860
Total	**3.6669**	**38.4466**	**26.0787**	**0.0298**	**6.5523**	**2.1984**	**8.7507**	**3.3675**	**2.0225**	**5.3900**	**0.0000**	**3,093.7889**	**3,093.7889**	**0.9332**		**3,113.3860**

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	0.0624	0.0781	0.9730	2.1200e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		178.4374	178.4374	9.1500e-003		178.6295
Total	**0.0624**	**0.0781**	**0.9730**	**2.1200e-003**	**0.1677**	**1.4000e-003**	**0.1691**	**0.0445**	**1.2900e-003**	**0.0458**		**178.4374**	**178.4374**	**9.1500e-003**		**178.6295**

3.5 Building Construction - 2016

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	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485		2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**3.4062**	**28.5063**	**18.5066**	**0.0268**		**1.9674**	**1.9674**		**1.8485**	**1.8485**		**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

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	0.5931	6.1661	7.0820	0.0155	0.4437	0.1001	0.5438	0.1264	0.0921	0.2184		1,549.2054	1,549.2054	0.0111		1,549.4389
Worker	0.7577	0.9476	11.8051	0.0258	2.0343	0.0170	2.0513	0.5395	0.0156	0.5552		2,165.0403	2,165.0403	0.1110		2,167.3710
Total	**1.3508**	**7.1137**	**18.8871**	**0.0412**	**2.4781**	**0.1171**	**2.5952**	**0.6659**	**0.1077**	**0.7736**		**3,714.2457**	**3,714.2457**	**0.1221**		**3,716.8099**

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	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485	0.0000	2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**3.4062**	**28.5063**	**18.5066**	**0.0268**		**1.9674**	**1.9674**		**1.8485**	**1.8485**	**0.0000**	**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

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	0.5931	6.1661	7.0820	0.0155	0.4437	0.1001	0.5438	0.1264	0.0921	0.2184		1,549.2054	1,549.2054	0.0111		1,549.4389
Worker	0.7577	0.9476	11.8051	0.0258	2.0343	0.0170	2.0513	0.5395	0.0156	0.5552		2,165.0403	2,165.0403	0.1110		2,167.3710
Total	**1.3508**	**7.1137**	**18.8871**	**0.0412**	**2.4781**	**0.1171**	**2.5952**	**0.6659**	**0.1077**	**0.7736**		**3,714.2457**	**3,714.2457**	**0.1221**		**3,716.8099**

3.5 Building Construction - 2017

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	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730		2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**		**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

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	0.5437	5.6144	6.6605	0.0154	0.4439	0.0894	0.5332	0.1264	0.0822	0.2086		1,524.1368	1,524.1368	0.0108		1,524.3626
Worker	0.6811	0.8557	10.6840	0.0258	2.0343	0.0164	2.0507	0.5395	0.0151	0.5546		2,082.1847	2,082.1847	0.1024		2,084.3358
Total	**1.2248**	**6.4701**	**17.3445**	**0.0412**	**2.4782**	**0.1057**	**2.5839**	**0.6659**	**0.0973**	**0.7632**		**3,606.3215**	**3,606.3215**	**0.1132**		**3,608.6983**

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	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730	0.0000	2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**	**0.0000**	**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

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	0.5437	5.6144	6.6605	0.0154	0.4439	0.0894	0.5332	0.1264	0.0822	0.2086		1,524.1368	1,524.1368	0.0108		1,524.3626
Worker	0.6811	0.8557	10.6840	0.0258	2.0343	0.0164	2.0507	0.5395	0.0151	0.5546		2,082.1847	2,082.1847	0.1024		2,084.3358
Total	**1.2248**	**6.4701**	**17.3445**	**0.0412**	**2.4782**	**0.1057**	**2.5839**	**0.6659**	**0.0973**	**0.7632**		**3,606.3215**	**3,606.3215**	**0.1132**		**3,608.6983**

3.6 Paving - 2017

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	1.9074	20.2964	14.7270	0.0223		1.1384	1.1384		1.0473	1.0473		2,281.0588	2,281.0588	0.6989		2,295.7360
Paving	0.3956					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.3030**	**20.2964**	**14.7270**	**0.0223**		**1.1384**	**1.1384**		**1.0473**	**1.0473**		**2,281.0588**	**2,281.0588**	**0.6989**		**2,295.7360**

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	0.0561	0.0705	0.8806	2.1200e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2400e-003	0.0457		171.6086	171.6086	8.4400e-003		171.7859
Total	**0.0561**	**0.0705**	**0.8806**	**2.1200e-003**	**0.1677**	**1.3500e-003**	**0.1690**	**0.0445**	**1.2400e-003**	**0.0457**		**171.6086**	**171.6086**	**8.4400e-003**		**171.7859**

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	1.9074	20.2964	14.7270	0.0223		1.1384	1.1384		1.0473	1.0473	0.0000	2,281.0588	2,281.0588	0.6989		2,295.7360
Paving	0.3956					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.3030**	**20.2964**	**14.7270**	**0.0223**		**1.1384**	**1.1384**		**1.0473**	**1.0473**	**0.0000**	**2,281.0588**	**2,281.0588**	**0.6989**		**2,295.7360**

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	0.0561	0.0705	0.8806	2.1200e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2400e-003	0.0457		171.6086	171.6086	8.4400e-003		171.7859
Total	**0.0561**	**0.0705**	**0.8806**	**2.1200e-003**	**0.1677**	**1.3500e-003**	**0.1690**	**0.0445**	**1.2400e-003**	**0.0457**		**171.6086**	**171.6086**	**8.4400e-003**		**171.7859**

3.7 Architectural Coating - 2017

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	44.4427					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.0721
Total	**44.7750**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**		**281.4481**	**281.4481**	**0.0297**		**282.0721**

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	0.1347	0.1693	2.1133	5.1000e-003	0.4024	3.2400e-003	0.4056	0.1067	2.9900e-003	0.1097		411.8607	411.8607	0.0203		412.2862
Total	**0.1347**	**0.1693**	**2.1133**	**5.1000e-003**	**0.4024**	**3.2400e-003**	**0.4056**	**0.1067**	**2.9900e-003**	**0.1097**		**411.8607**	**411.8607**	**0.0203**		**412.2862**

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	44.4427					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733	0.0000	281.4481	281.4481	0.0297		282.0721
Total	**44.7750**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**	**0.0000**	**281.4481**	**281.4481**	**0.0297**		**282.0721**

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	0.1347	0.1693	2.1133	5.1000e-003	0.4024	3.2400e-003	0.4056	0.1067	2.9900e-003	0.1097		411.8607	411.8607	0.0203		412.2862
Total	**0.1347**	**0.1693**	**2.1133**	**5.1000e-003**	**0.4024**	**3.2400e-003**	**0.4056**	**0.1067**	**2.9900e-003**	**0.1097**		**411.8607**	**411.8607**	**0.0203**		**412.2862**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.9549	20.2383	25.3567	0.0942	4.5675	0.3474	4.9148	1.2354	0.3196	1.5551		8,510.2566	8,510.2566	0.1422		8,513.2429
Unmitigated	1.9549	20.2383	25.3567	0.0942	4.5675	0.3474	4.9148	1.2354	0.3196	1.5551		8,510.2566	8,510.2566	0.1422		8,513.2429

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	361.20	361.20	361.20	2,073,326	2,073,326
Total	361.20	361.20	361.20	2,073,326	2,073,326

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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-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
Unrefrigerated Warehouse-No	16.60	0.00	17.41	62.00	0.00	38.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.618000	0.000000	0.000000	0.000000	0.064600	0.000000	0.087000	0.230400	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0136	0.1236	0.1038	7.4000e-004		9.3900e-003	9.3900e-003		9.3900e-003	9.3900e-003		148.2998	148.2998	2.8400e-003	2.7200e-003	149.2023
NaturalGas Unmitigated	0.0136	0.1236	0.1038	7.4000e-004		9.3900e-003	9.3900e-003		9.3900e-003	9.3900e-003		148.2998	148.2998	2.8400e-003	2.7200e-003	149.2023

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					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	1260.55	0.0136	0.1236	0.1038	7.4000e-004		9.3900e-003	9.3900e-003		9.3900e-003	9.3900e-003		148.2998	148.2998	2.8400e-003	2.7200e-003	149.2023
Other Non-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
Total		**0.0136**	**0.1236**	**0.1038**	**7.4000e-004**		**9.3900e-003**	**9.3900e-003**		**9.3900e-003**	**9.3900e-003**		**148.2998**	**148.2998**	**2.8400e-003**	**2.7200e-003**	**149.2023**

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					
Unrefrigerated Warehouse-No Rail	1.26055	0.0136	0.1236	0.1038	7.4000e-004		9.3900e-003	9.3900e-003		9.3900e-003	9.3900e-003		148.2998	148.2998	2.8400e-003	2.7200e-003	149.2023
Other Non-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
Total		**0.0136**	**0.1236**	**0.1038**	**7.4000e-004**		**9.3900e-003**	**9.3900e-003**		**9.3900e-003**	**9.3900e-003**		**148.2998**	**148.2998**	**2.8400e-003**	**2.7200e-003**	**149.2023**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	10.5515	4.2000e-004	0.0450	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0951	0.0951	2.6000e-004		0.1005
Unmitigated	10.5515	4.2000e-004	0.0450	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0951	0.0951	2.6000e-004		0.1005

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	1.9482					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.5990					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-003	4.2000e-004	0.0450	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0951	0.0951	2.6000e-004		0.1005
Total	**10.5515**	**4.2000e-004**	**0.0450**	**0.0000**		**1.6000e-004**	**1.6000e-004**		**1.6000e-004**	**1.6000e-004**		**0.0951**	**0.0951**	**2.6000e-004**		**0.1005**

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	1.9482					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.5990					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-003	4.2000e-004	0.0450	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0951	0.0951	2.6000e-004		0.1005
Total	**10.5515**	**4.2000e-004**	**0.0450**	**0.0000**		**1.6000e-004**	**1.6000e-004**		**1.6000e-004**	**1.6000e-004**		**0.0951**	**0.0951**	**2.6000e-004**		**0.1005**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Vegetation

9988 Redwood Warehouse

South Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	215.00	1000sqft	4.94	215,000.00	0
Other Non-Asphalt Surfaces	87.89	1000sqft	2.02	87,890.00	0
Parking Lot	131.40	1000sqft	3.02	131,403.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Input Project Schedule

Demolition -

Vehicle Trips - Trip Rate Per ITE & Traffic Study
Trip % Per SCAQMD Recommendation
Trip Length NCHRP Analysis

Vechicle Emission Factors - Fleet Mix Per SCAQMD Recommendation

Vechicle Emission Factors - Fleet Mix Per SCAQMD Recommendation

Vechicle Emission Factors - Fleet Mix Per SCAQMD Recommendation

Water And Wastewater - Outdoor Water Demand Calculated as MAWA

Architectural Coating - Interior 0 g/L; Exterior 125 g/L

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	125.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	0.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	20.00	10.00
tblLandUse	LandUseSquareFeet	131,400.00	131,403.00
tblProjectCharacteristics	OperationalYear	2014	2018
tblVehicleEF	HHD	0.03	0.23
tblVehicleEF	HHD	0.03	0.23
tblVehicleEF	HHD	0.03	0.23
tblVehicleEF	LDA	0.51	0.62
tblVehicleEF	LDA	0.51	0.62
tblVehicleEF	LDA	0.51	0.62
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT2	0.18	0.00

tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.04	0.06
tblVehicleEF	LHD1	0.04	0.06
tblVehicleEF	LHD1	0.04	0.06
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MHD	0.02	0.09
tblVehicleEF	MHD	0.02	0.09
tblVehicleEF	MHD	0.02	0.09
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CNW_TL	6.90	17.41
tblVehicleTrips	CNW_TTP	41.00	38.00
tblVehicleTrips	CW_TTP	59.00	62.00
tblVehicleTrips	ST_TR	2.59	1.68
tblVehicleTrips	SU_TR	2.59	1.68
tblVehicleTrips	WD_TR	2.59	1.68
tblWater	OutdoorWaterUseRate	0.00	1,724,546.00

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					
2016	6.6595	82.1066	64.1959	0.1353	29.8188	2.8377	32.6564	4.8043	2.6384	7.4427	0.0000	13,668.7402	13,668.7402	1.1897	0.0000	13,693.7246
2017	44.9124	33.0983	36.0126	0.0663	2.4782	1.8878	4.3660	0.6659	1.7711	2.4370	0.0000	6,103.7183	6,103.7183	0.7632	0.0000	6,119.7458
Total	**51.5719**	**115.2049**	**100.2085**	**0.2016**	**32.2969**	**4.7255**	**37.0224**	**5.4702**	**4.4094**	**9.8796**	**0.0000**	**19,772.4585**	**19,772.4585**	**1.9529**	**0.0000**	**19,813.4703**

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					
2016	6.6595	82.1066	64.1959	0.1353	29.8188	2.8377	32.6564	4.8043	2.6384	7.4427	0.0000	13,668.7402	13,668.7402	1.1897	0.0000	13,693.7246
2017	44.9124	33.0983	36.0126	0.0663	2.4782	1.8878	4.3660	0.6659	1.7711	2.4370	0.0000	6,103.7183	6,103.7183	0.7632	0.0000	6,119.7458
Total	**51.5719**	**115.2049**	**100.2085**	**0.2016**	**32.2969**	**4.7255**	**37.0224**	**5.4702**	**4.4094**	**9.8796**	**0.0000**	**19,772.4585**	**19,772.4585**	**1.9529**	**0.0000**	**19,813.4703**

	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**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**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	10.5515	4.2000e-004	0.0450	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0951	0.0951	2.6000e-004		0.1005
Energy	0.0136	0.1236	0.1038	7.4000e-004		9.3900e-003	9.3900e-003		9.3900e-003	9.3900e-003		148.2998	148.2998	2.8400e-003	2.7200e-003	149.2023
Mobile	2.0350	20.9798	27.3131	0.0921	4.5675	0.3485	4.9160	1.2354	0.3207	1.5561		8,347.4659	8,347.4659	0.1429		8,350.4666
Total	**12.6001**	**21.1038**	**27.4619**	**0.0929**	**4.5675**	**0.3581**	**4.9255**	**1.2354**	**0.3302**	**1.5657**		**8,495.8607**	**8,495.8607**	**0.1460**	**2.7200e-003**	**8,499.7694**

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	10.5515	4.2000e-004	0.0450	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0951	0.0951	2.6000e-004		0.1005
Energy	0.0136	0.1236	0.1038	7.4000e-004		9.3900e-003	9.3900e-003		9.3900e-003	9.3900e-003		148.2998	148.2998	2.8400e-003	2.7200e-003	149.2023
Mobile	2.0350	20.9798	27.3131	0.0921	4.5675	0.3485	4.9160	1.2354	0.3207	1.5561		8,347.4659	8,347.4659	0.1429		8,350.4666
Total	**12.6001**	**21.1038**	**27.4619**	**0.0929**	**4.5675**	**0.3581**	**4.9255**	**1.2354**	**0.3302**	**1.5657**		**8,495.8607**	**8,495.8607**	**0.1460**	**2.7200e-003**	**8,499.7694**

	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**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Demolition	Demolition	1/1/2016	1/14/2016	5	10	
2	Paving Demolition	Demolition	1/15/2016	1/28/2016	5	10	
3	Grading	Grading	1/29/2016	2/25/2016	5	20	
4	Building Construction	Building Construction	2/26/2016	1/12/2017	5	230	
5	Paving	Paving	1/13/2017	2/9/2017	5	20	
6	Architectural Coating	Architectural Coating	2/10/2017	3/9/2017	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 460,248; Non-Residential Outdoor: 153,416 (Architectural Coating –

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Demolition	Excavators	3	8.00	162	0.38
Building Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Paving Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Paving Demolition	Excavators	3	8.00	162	0.38
Paving Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
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
Building Demolition	6	15.00	0.00	1,268.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving Demolition	6	15.00	0.00	96.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	182.00	71.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	36.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Building Demolition - 2016

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					27.4422	0.0000	27.4422	4.1550	0.0000	4.1550			0.0000			0.0000
Off-Road	4.2876	45.6559	35.0303	0.0399		2.2921	2.2921		2.1365	2.1365		4,089.2841	4,089.2841	1.1121		4,112.6374
Total	**4.2876**	**45.6559**	**35.0303**	**0.0399**	**27.4422**	**2.2921**	**29.7343**	**4.1550**	**2.1365**	**6.2915**		**4,089.2841**	**4,089.2841**	**1.1121**		**4,112.6374**

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	2.3080	36.3650	28.2685	0.0934	2.2089	0.5442	2.7530	0.6048	0.5005	1.1054		9,412.1019	9,412.1019	0.0685		9,413.5408
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	0.0638	0.0858	0.8970	1.9900e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		167.3543	167.3543	9.1500e-003		167.5464
Total	**2.3718**	**36.4507**	**29.1655**	**0.0954**	**2.3765**	**0.5456**	**2.9221**	**0.6493**	**0.5018**	**1.1511**		**9,579.4562**	**9,579.4562**	**0.0777**		**9,581.0872**

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					27.4422	0.0000	27.4422	4.1550	0.0000	4.1550			0.0000			0.0000
Off-Road	4.2876	45.6559	35.0303	0.0399		2.2921	2.2921		2.1365	2.1365	0.0000	4,089.2841	4,089.2841	1.1121		4,112.6374
Total	**4.2876**	**45.6559**	**35.0303**	**0.0399**	**27.4422**	**2.2921**	**29.7343**	**4.1550**	**2.1365**	**6.2915**	**0.0000**	**4,089.2841**	**4,089.2841**	**1.1121**		**4,112.6374**

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	2.3080	36.3650	28.2685	0.0934	2.2089	0.5442	2.7530	0.6048	0.5005	1.1054		9,412.1019	9,412.1019	0.0685		9,413.5408
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	0.0638	0.0858	0.8970	1.9900e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		167.3543	167.3543	9.1500e-003		167.5464
Total	**2.3718**	**36.4507**	**29.1655**	**0.0954**	**2.3765**	**0.5456**	**2.9221**	**0.6493**	**0.5018**	**1.1511**		**9,579.4562**	**9,579.4562**	**0.0777**		**9,581.0872**

3.3 Paving Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.0800	0.0000	2.0800	0.3149	0.0000	0.3149			0.0000			0.0000
Off-Road	4.2876	45.6559	35.0303	0.0399		2.2921	2.2921		2.1365	2.1365		4,089.2841	4,089.2841	1.1121		4,112.6374
Total	**4.2876**	**45.6559**	**35.0303**	**0.0399**	**2.0800**	**2.2921**	**4.3721**	**0.3149**	**2.1365**	**2.4515**		**4,089.2841**	**4,089.2841**	**1.1121**		**4,112.6374**

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	0.1747	2.7532	2.1402	7.0700e-003	0.1672	0.0412	0.2084	0.0458	0.0379	0.0837		712.5882	712.5882	5.1900e-003		712.6971
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	0.0638	0.0858	0.8970	1.9900e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		167.3543	167.3543	9.1500e-003		167.5464
Total	**0.2386**	**2.8390**	**3.0372**	**9.0600e-003**	**0.3349**	**0.0426**	**0.3775**	**0.0903**	**0.0392**	**0.1294**		**879.9424**	**879.9424**	**0.0143**		**880.2435**

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					2.0800	0.0000	2.0800	0.3149	0.0000	0.3149			0.0000			0.0000
Off-Road	4.2876	45.6559	35.0303	0.0399		2.2921	2.2921		2.1365	2.1365	0.0000	4,089.2841	4,089.2841	1.1121		4,112.6374
Total	**4.2876**	**45.6559**	**35.0303**	**0.0399**	**2.0800**	**2.2921**	**4.3721**	**0.3149**	**2.1365**	**2.4515**	**0.0000**	**4,089.2841**	**4,089.2841**	**1.1121**		**4,112.6374**

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	0.1747	2.7532	2.1402	7.0700e-003	0.1672	0.0412	0.2084	0.0458	0.0379	0.0837		712.5882	712.5882	5.1900e-003		712.6971
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	0.0638	0.0858	0.8970	1.9900e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		167.3543	167.3543	9.1500e-003		167.5464
Total	**0.2386**	**2.8390**	**3.0372**	**9.0600e-003**	**0.3349**	**0.0426**	**0.3775**	**0.0903**	**0.0392**	**0.1294**		**879.9424**	**879.9424**	**0.0143**		**880.2435**

3.4 Grading - 2016

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					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	3.6669	38.4466	26.0787	0.0298		2.1984	2.1984		2.0225	2.0225		3,093.7889	3,093.7889	0.9332		3,113.3860
Total	**3.6669**	**38.4466**	**26.0787**	**0.0298**	**6.5523**	**2.1984**	**8.7507**	**3.3675**	**2.0225**	**5.3900**		**3,093.7889**	**3,093.7889**	**0.9332**		**3,113.3860**

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	0.0638	0.0858	0.8970	1.9900e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		167.3543	167.3543	9.1500e-003		167.5464
Total	**0.0638**	**0.0858**	**0.8970**	**1.9900e-003**	**0.1677**	**1.4000e-003**	**0.1691**	**0.0445**	**1.2900e-003**	**0.0458**		**167.3543**	**167.3543**	**9.1500e-003**		**167.5464**

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					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	3.6669	38.4466	26.0787	0.0298		2.1984	2.1984		2.0225	2.0225	0.0000	3,093.7889	3,093.7889	0.9332		3,113.3860
Total	**3.6669**	**38.4466**	**26.0787**	**0.0298**	**6.5523**	**2.1984**	**8.7507**	**3.3675**	**2.0225**	**5.3900**	**0.0000**	**3,093.7889**	**3,093.7889**	**0.9332**		**3,113.3860**

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	0.0638	0.0858	0.8970	1.9900e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		167.3543	167.3543	9.1500e-003		167.5464
Total	**0.0638**	**0.0858**	**0.8970**	**1.9900e-003**	**0.1677**	**1.4000e-003**	**0.1691**	**0.0445**	**1.2900e-003**	**0.0458**		**167.3543**	**167.3543**	**9.1500e-003**		**167.5464**

3.5 Building Construction - 2016

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	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485		2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**3.4062**	**28.5063**	**18.5066**	**0.0268**		**1.9674**	**1.9674**		**1.8485**	**1.8485**		**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

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	0.6501	6.3218	8.5003	0.0153	0.4437	0.1012	0.5449	0.1264	0.0930	0.2194		1,536.2231	1,536.2231	0.0114		1,536.4634
Worker	0.7746	1.0409	10.8836	0.0242	2.0343	0.0170	2.0513	0.5395	0.0156	0.5552		2,030.5652	2,030.5652	0.1110		2,032.8959
Total	**1.4247**	**7.3627**	**19.3840**	**0.0395**	**2.4781**	**0.1182**	**2.5962**	**0.6659**	**0.1087**	**0.7745**		**3,566.7882**	**3,566.7882**	**0.1224**		**3,569.3593**

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	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485	0.0000	2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**3.4062**	**28.5063**	**18.5066**	**0.0268**		**1.9674**	**1.9674**		**1.8485**	**1.8485**	**0.0000**	**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

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	0.6501	6.3218	8.5003	0.0153	0.4437	0.1012	0.5449	0.1264	0.0930	0.2194		1,536.2231	1,536.2231	0.0114		1,536.4634
Worker	0.7746	1.0409	10.8836	0.0242	2.0343	0.0170	2.0513	0.5395	0.0156	0.5552		2,030.5652	2,030.5652	0.1110		2,032.8959
Total	**1.4247**	**7.3627**	**19.3840**	**0.0395**	**2.4781**	**0.1182**	**2.5962**	**0.6659**	**0.1087**	**0.7745**		**3,566.7882**	**3,566.7882**	**0.1224**		**3,569.3593**

3.5 Building Construction - 2017

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	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730		2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**		**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

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	0.5938	5.7529	8.0697	0.0153	0.4439	0.0902	0.5341	0.1264	0.0830	0.2094		1,511.3335	1,511.3335	0.0111		1,511.5662
Worker	0.6948	0.9397	9.8138	0.0241	2.0343	0.0164	2.0507	0.5395	0.0151	0.5546		1,952.5795	1,952.5795	0.1024		1,954.7305
Total	**1.2886**	**6.6927**	**17.8835**	**0.0395**	**2.4782**	**0.1066**	**2.5848**	**0.6659**	**0.0981**	**0.7640**		**3,463.9130**	**3,463.9130**	**0.1135**		**3,466.2968**

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	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730	0.0000	2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**	**0.0000**	**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

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	0.5938	5.7529	8.0697	0.0153	0.4439	0.0902	0.5341	0.1264	0.0830	0.2094		1,511.3335	1,511.3335	0.0111		1,511.5662
Worker	0.6948	0.9397	9.8138	0.0241	2.0343	0.0164	2.0507	0.5395	0.0151	0.5546		1,952.5795	1,952.5795	0.1024		1,954.7305
Total	**1.2886**	**6.6927**	**17.8835**	**0.0395**	**2.4782**	**0.1066**	**2.5848**	**0.6659**	**0.0981**	**0.7640**		**3,463.9130**	**3,463.9130**	**0.1135**		**3,466.2968**

3.6 Paving - 2017

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	1.9074	20.2964	14.7270	0.0223		1.1384	1.1384		1.0473	1.0473		2,281.0588	2,281.0588	0.6989		2,295.7360
Paving	0.3956					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.3030**	**20.2964**	**14.7270**	**0.0223**		**1.1384**	**1.1384**		**1.0473**	**1.0473**		**2,281.0588**	**2,281.0588**	**0.6989**		**2,295.7360**

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	0.0573	0.0775	0.8088	1.9900e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2400e-003	0.0457		160.9269	160.9269	8.4400e-003		161.1042
Total	**0.0573**	**0.0775**	**0.8088**	**1.9900e-003**	**0.1677**	**1.3500e-003**	**0.1690**	**0.0445**	**1.2400e-003**	**0.0457**		**160.9269**	**160.9269**	**8.4400e-003**		**161.1042**

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	1.9074	20.2964	14.7270	0.0223		1.1384	1.1384		1.0473	1.0473	0.0000	2,281.0588	2,281.0588	0.6989		2,295.7360
Paving	0.3956					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.3030**	**20.2964**	**14.7270**	**0.0223**		**1.1384**	**1.1384**		**1.0473**	**1.0473**	**0.0000**	**2,281.0588**	**2,281.0588**	**0.6989**		**2,295.7360**

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	0.0573	0.0775	0.8088	1.9900e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2400e-003	0.0457		160.9269	160.9269	8.4400e-003		161.1042
Total	**0.0573**	**0.0775**	**0.8088**	**1.9900e-003**	**0.1677**	**1.3500e-003**	**0.1690**	**0.0445**	**1.2400e-003**	**0.0457**		**160.9269**	**160.9269**	**8.4400e-003**		**161.1042**

3.7 Architectural Coating - 2017

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	44.4427					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.0721
Total	**44.7750**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**		**281.4481**	**281.4481**	**0.0297**		**282.0721**

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	0.1374	0.1859	1.9412	4.7800e-003	0.4024	3.2400e-003	0.4056	0.1067	2.9900e-003	0.1097		386.2245	386.2245	0.0203		386.6500
Total	**0.1374**	**0.1859**	**1.9412**	**4.7800e-003**	**0.4024**	**3.2400e-003**	**0.4056**	**0.1067**	**2.9900e-003**	**0.1097**		**386.2245**	**386.2245**	**0.0203**		**386.6500**

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	44.4427					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733	0.0000	281.4481	281.4481	0.0297		282.0721
Total	**44.7750**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**	**0.0000**	**281.4481**	**281.4481**	**0.0297**		**282.0721**

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	0.1374	0.1859	1.9412	4.7800e-003	0.4024	3.2400e-003	0.4056	0.1067	2.9900e-003	0.1097		386.2245	386.2245	0.0203		386.6500
Total	**0.1374**	**0.1859**	**1.9412**	**4.7800e-003**	**0.4024**	**3.2400e-003**	**0.4056**	**0.1067**	**2.9900e-003**	**0.1097**		**386.2245**	**386.2245**	**0.0203**		**386.6500**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Unmitigated	2.0350	20.9798	27.3131	0.0921	4.5675	0.3485	4.9160	1.2354	0.3207	1.5561		8,347.4659	8,347.4659	0.1429		8,350.4666
Mitigated	2.0350	20.9798	27.3131	0.0921	4.5675	0.3485	4.9160	1.2354	0.3207	1.5561		8,347.4659	8,347.4659	0.1429		8,350.4666

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	361.20	361.20	361.20	2,073,326	2,073,326
Total	361.20	361.20	361.20	2,073,326	2,073,326

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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-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
Unrefrigerated Warehouse-No	16.60	0.00	17.41	62.00	0.00	38.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.618000	0.000000	0.000000	0.000000	0.064600	0.000000	0.087000	0.230400	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0136	0.1236	0.1038	7.4000e-004		9.3900e-003	9.3900e-003		9.3900e-003	9.3900e-003		148.2998	148.2998	2.8400e-003	2.7200e-003	149.2023
NaturalGas Unmitigated	0.0136	0.1236	0.1038	7.4000e-004		9.3900e-003	9.3900e-003		9.3900e-003	9.3900e-003		148.2998	148.2998	2.8400e-003	2.7200e-003	149.2023

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					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	1260.55	0.0136	0.1236	0.1038	7.4000e-004		9.3900e-003	9.3900e-003		9.3900e-003	9.3900e-003		148.2998	148.2998	2.8400e-003	2.7200e-003	149.2023
Other Non-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
Total		**0.0136**	**0.1236**	**0.1038**	**7.4000e-004**		**9.3900e-003**	**9.3900e-003**		**9.3900e-003**	**9.3900e-003**		**148.2998**	**148.2998**	**2.8400e-003**	**2.7200e-003**	**149.2023**

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					
Unrefrigerated Warehouse-No Rail	1.26055	0.0136	0.1236	0.1038	7.4000e-004		9.3900e-003	9.3900e-003		9.3900e-003	9.3900e-003		148.2998	148.2998	2.8400e-003	2.7200e-003	149.2023
Other Non-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
Total		**0.0136**	**0.1236**	**0.1038**	**7.4000e-004**		**9.3900e-003**	**9.3900e-003**		**9.3900e-003**	**9.3900e-003**		**148.2998**	**148.2998**	**2.8400e-003**	**2.7200e-003**	**149.2023**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Unmitigated	10.5515	4.2000e-004	0.0450	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0951	0.0951	2.6000e-004		0.1005
Mitigated	10.5515	4.2000e-004	0.0450	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0951	0.0951	2.6000e-004		0.1005

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	1.9482					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.5990					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-003	4.2000e-004	0.0450	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0951	0.0951	2.6000e-004		0.1005
Total	**10.5515**	**4.2000e-004**	**0.0450**	**0.0000**		**1.6000e-004**	**1.6000e-004**		**1.6000e-004**	**1.6000e-004**		**0.0951**	**0.0951**	**2.6000e-004**		**0.1005**

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	1.9482					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.5990					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-003	4.2000e-004	0.0450	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0951	0.0951	2.6000e-004		0.1005
Total	**10.5515**	**4.2000e-004**	**0.0450**	**0.0000**		**1.6000e-004**	**1.6000e-004**		**1.6000e-004**	**1.6000e-004**		**0.0951**	**0.0951**	**2.6000e-004**		**0.1005**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Vegetation

9988 Redwood Warehouse

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	215.00	1000sqft	4.94	215,000.00	0
Other Non-Asphalt Surfaces	87.89	1000sqft	2.02	87,890.00	0
Parking Lot	131.40	1000sqft	3.02	131,403.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Input Project Schedule

Demolition -

Vehicle Trips - Trip Rate Per ITE & Traffic Study
Trip % Per SCAQMD Recommendation

Vechicle Emission Factors - Fleet Mix Per SCAQMD Recommendation

Vechicle Emission Factors - Fleet Mix Per SCAQMD Recommendation

Vechicle Emission Factors - Fleet Mix Per SCAQMD Recommendation

Water And Wastewater - Outdoor Water Demand Calculated as MAWA

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	20.00	10.00
tblLandUse	LandUseSquareFeet	131,400.00	131,403.00
tblProjectCharacteristics	OperationalYear	2014	2018
tblVehicleEF	HHD	0.03	0.23
tblVehicleEF	HHD	0.03	0.23
tblVehicleEF	HHD	0.03	0.23
tblVehicleEF	LDA	0.51	0.62
tblVehicleEF	LDA	0.51	0.62
tblVehicleEF	LDA	0.51	0.62
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.04	0.06
tblVehicleEF	LHD1	0.04	0.06

tblVehicleEF	LHD1	0.04	0.06
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MHD	0.02	0.09
tblVehicleEF	MHD	0.02	0.09
tblVehicleEF	MHD	0.02	0.09
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CNW_TL	6.90	17.41
tblVehicleTrips	CNW_TTP	41.00	38.00
tblVehicleTrips	CW_TTP	59.00	62.00
tblVehicleTrips	ST_TR	2.59	1.68
tblVehicleTrips	SU_TR	2.59	1.68
tblVehicleTrips	WD_TR	2.59	1.68
tblWater	OutdoorWaterUseRate	0.00	1,724,546.00

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					
2016	0.6198	5.0224	4.9700	8.6200e-003	0.4970	0.2782	0.7753	0.1325	0.2605	0.3930	0.0000	743.2878	743.2878	0.0977	0.0000	745.3388
2017	3.6031	0.3771	0.3563	6.2000e-004	0.0166	0.0217	0.0382	4.4300e-003	0.0202	0.0247	0.0000	53.3596	53.3596	9.9900e-003	0.0000	53.5693
Total	**4.2229**	**5.3995**	**5.3262**	**9.2400e-003**	**0.5136**	**0.2999**	**0.8135**	**0.1369**	**0.2807**	**0.4176**	**0.0000**	**796.6474**	**796.6474**	**0.1077**	**0.0000**	**798.9082**

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					
2016	0.6198	5.0223	4.9700	8.6200e-003	0.4970	0.2782	0.7753	0.1325	0.2605	0.3930	0.0000	743.2874	743.2874	0.0977	0.0000	745.3384
2017	3.6031	0.3771	0.3563	6.2000e-004	0.0166	0.0217	0.0382	4.4300e-003	0.0202	0.0247	0.0000	53.3596	53.3596	9.9900e-003	0.0000	53.5693
Total	**4.2229**	**5.3994**	**5.3262**	**9.2400e-003**	**0.5136**	**0.2999**	**0.8135**	**0.1369**	**0.2807**	**0.4176**	**0.0000**	**796.6470**	**796.6470**	**0.1077**	**0.0000**	**798.9077**

	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**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**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	tons/yr										MT/yr					
Area	1.9254	5.0000e-005	5.6200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0108	0.0108	3.0000e-005	0.0000	0.0114
Energy	2.4800e-003	0.0226	0.0190	1.4000e-004		1.7100e-003	1.7100e-003		1.7100e-003	1.7100e-003	0.0000	243.4517	243.4517	0.0105	2.5300e-003	244.4577
Mobile	0.3625	3.8833	4.9286	0.0169	0.8167	0.0632	0.8800	0.2213	0.0582	0.2795	0.0000	1,384.0845	1,384.0845	0.0235	0.0000	1,384.5779
Waste						0.0000	0.0000		0.0000	0.0000	41.0245	0.0000	41.0245	2.4245	0.0000	91.9385
Water						0.0000	0.0000		0.0000	0.0000	15.7735	190.7438	206.5173	1.6289	0.0401	253.1443
Total	**2.2904**	**3.9059**	**4.9532**	**0.0170**	**0.8167**	**0.0650**	**0.8817**	**0.2213**	**0.0599**	**0.2812**	**56.7979**	**1,818.2907**	**1,875.0887**	**4.0874**	**0.0426**	**1,974.1298**

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	1.9254	5.0000e-005	5.6200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0108	0.0108	3.0000e-005	0.0000	0.0114
Energy	2.4800e-003	0.0226	0.0190	1.4000e-004		1.7100e-003	1.7100e-003		1.7100e-003	1.7100e-003	0.0000	243.4517	243.4517	0.0105	2.5300e-003	244.4577
Mobile	0.3625	3.8833	4.9286	0.0169	0.8167	0.0632	0.8800	0.2213	0.0582	0.2795	0.0000	1,384.0845	1,384.0845	0.0235	0.0000	1,384.5779
Waste						0.0000	0.0000		0.0000	0.0000	41.0245	0.0000	41.0245	2.4245	0.0000	91.9385
Water						0.0000	0.0000		0.0000	0.0000	15.7735	190.7438	206.5173	1.6286	0.0400	253.1191
Total	**2.2904**	**3.9059**	**4.9532**	**0.0170**	**0.8167**	**0.0650**	**0.8817**	**0.2213**	**0.0599**	**0.2812**	**56.7979**	**1,818.2907**	**1,875.0887**	**4.0871**	**0.0425**	**1,974.1046**

	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**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.01**	**0.14**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Demolition	Demolition	1/1/2016	1/14/2016	5	10	
2	Paving Demolition	Demolition	1/15/2016	1/28/2016	5	10	
3	Grading	Grading	1/29/2016	2/25/2016	5	20	
4	Building Construction	Building Construction	2/26/2016	1/12/2017	5	230	
5	Paving	Paving	1/13/2017	2/9/2017	5	20	
6	Architectural Coating	Architectural Coating	2/10/2017	3/9/2017	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 460,248; Non-Residential Outdoor: 153,416 (Architectural Coating

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Demolition	Excavators	3	8.00	162	0.38
Building Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Paving Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Paving Demolition	Excavators	3	8.00	162	0.38
Paving Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
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
Building Demolition	6	15.00	0.00	1,268.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving Demolition	6	15.00	0.00	96.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	182.00	71.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	36.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Building Demolition - 2016

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					0.1372	0.0000	0.1372	0.0208	0.0000	0.0208	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0214	0.2283	0.1752	2.0000e-004		0.0115	0.0115		0.0107	0.0107	0.0000	18.5487	18.5487	5.0400e-003	0.0000	18.6546
Total	**0.0214**	**0.2283**	**0.1752**	**2.0000e-004**	**0.1372**	**0.0115**	**0.1487**	**0.0208**	**0.0107**	**0.0315**	**0.0000**	**18.5487**	**18.5487**	**5.0400e-003**	**0.0000**	**18.6546**

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	0.0114	0.1849	0.1389	4.7000e-004	0.0109	2.7200e-003	0.0136	2.9800e-003	2.5000e-003	5.4800e-003	0.0000	42.7515	42.7515	3.1000e-004	0.0000	42.7580
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	3.0000e-004	4.4000e-004	4.5900e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.3000e-004	2.2000e-004	1.0000e-005	2.2000e-004	0.0000	0.7709	0.7709	4.0000e-005	0.0000	0.7718
Total	**0.0117**	**0.1854**	**0.1435**	**4.8000e-004**	**0.0117**	**2.7300e-003**	**0.0144**	**3.2000e-003**	**2.5100e-003**	**5.7000e-003**	**0.0000**	**43.5224**	**43.5224**	**3.5000e-004**	**0.0000**	**43.5298**

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					0.1372	0.0000	0.1372	0.0208	0.0000	0.0208	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0214	0.2283	0.1752	2.0000e-004		0.0115	0.0115		0.0107	0.0107	0.0000	18.5487	18.5487	5.0400e-003	0.0000	18.6546
Total	**0.0214**	**0.2283**	**0.1752**	**2.0000e-004**	**0.1372**	**0.0115**	**0.1487**	**0.0208**	**0.0107**	**0.0315**	**0.0000**	**18.5487**	**18.5487**	**5.0400e-003**	**0.0000**	**18.6546**

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	0.0114	0.1849	0.1389	4.7000e-004	0.0109	2.7200e-003	0.0136	2.9800e-003	2.5000e-003	5.4800e-003	0.0000	42.7515	42.7515	3.1000e-004	0.0000	42.7580
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	3.0000e-004	4.4000e-004	4.5900e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.3000e-004	2.2000e-004	1.0000e-005	2.2000e-004	0.0000	0.7709	0.7709	4.0000e-005	0.0000	0.7718
Total	**0.0117**	**0.1854**	**0.1435**	**4.8000e-004**	**0.0117**	**2.7300e-003**	**0.0144**	**3.2000e-003**	**2.5100e-003**	**5.7000e-003**	**0.0000**	**43.5224**	**43.5224**	**3.5000e-004**	**0.0000**	**43.5298**

3.3 Paving Demolition - 2016

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					0.0104	0.0000	0.0104	1.5700e-003	0.0000	1.5700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0214	0.2283	0.1752	2.0000e-004		0.0115	0.0115		0.0107	0.0107	0.0000	18.5487	18.5487	5.0400e-003	0.0000	18.6546
Total	**0.0214**	**0.2283**	**0.1752**	**2.0000e-004**	**0.0104**	**0.0115**	**0.0219**	**1.5700e-003**	**0.0107**	**0.0123**	**0.0000**	**18.5487**	**18.5487**	**5.0400e-003**	**0.0000**	**18.6546**

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	8.6000e-004	0.0140	0.0105	4.0000e-005	8.2000e-004	2.1000e-004	1.0300e-003	2.3000e-004	1.9000e-004	4.1000e-004	0.0000	3.2367	3.2367	2.0000e-005	0.0000	3.2372
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	3.0000e-004	4.4000e-004	4.5900e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.3000e-004	2.2000e-004	1.0000e-005	2.2000e-004	0.0000	0.7709	0.7709	4.0000e-005	0.0000	0.7718
Total	**1.1600e-003**	**0.0144**	**0.0151**	**5.0000e-005**	**1.6400e-003**	**2.2000e-004**	**1.8600e-003**	**4.5000e-004**	**2.0000e-004**	**6.3000e-004**	**0.0000**	**4.0076**	**4.0076**	**6.0000e-005**	**0.0000**	**4.0090**

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					0.0104	0.0000	0.0104	1.5700e-003	0.0000	1.5700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0214	0.2283	0.1752	2.0000e-004		0.0115	0.0115		0.0107	0.0107	0.0000	18.5487	18.5487	5.0400e-003	0.0000	18.6546
Total	**0.0214**	**0.2283**	**0.1752**	**2.0000e-004**	**0.0104**	**0.0115**	**0.0219**	**1.5700e-003**	**0.0107**	**0.0123**	**0.0000**	**18.5487**	**18.5487**	**5.0400e-003**	**0.0000**	**18.6546**

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	8.6000e-004	0.0140	0.0105	4.0000e-005	8.2000e-004	2.1000e-004	1.0300e-003	2.3000e-004	1.9000e-004	4.1000e-004	0.0000	3.2367	3.2367	2.0000e-005	0.0000	3.2372
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	3.0000e-004	4.4000e-004	4.5900e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.3000e-004	2.2000e-004	1.0000e-005	2.2000e-004	0.0000	0.7709	0.7709	4.0000e-005	0.0000	0.7718
Total	**1.1600e-003**	**0.0144**	**0.0151**	**5.0000e-005**	**1.6400e-003**	**2.2000e-004**	**1.8600e-003**	**4.5000e-004**	**2.0000e-004**	**6.3000e-004**	**0.0000**	**4.0076**	**4.0076**	**6.0000e-005**	**0.0000**	**4.0090**

3.4 Grading - 2016

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					0.0655	0.0000	0.0655	0.0337	0.0000	0.0337	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0367	0.3845	0.2608	3.0000e-004		0.0220	0.0220		0.0202	0.0202	0.0000	28.0664	28.0664	8.4700e-003	0.0000	28.2442
Total	**0.0367**	**0.3845**	**0.2608**	**3.0000e-004**	**0.0655**	**0.0220**	**0.0875**	**0.0337**	**0.0202**	**0.0539**	**0.0000**	**28.0664**	**28.0664**	**8.4700e-003**	**0.0000**	**28.2442**

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	6.0000e-004	8.8000e-004	9.1900e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.5419	1.5419	8.0000e-005	0.0000	1.5436
Total	**6.0000e-004**	**8.8000e-004**	**9.1900e-003**	**2.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.5419**	**1.5419**	**8.0000e-005**	**0.0000**	**1.5436**

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					0.0655	0.0000	0.0655	0.0337	0.0000	0.0337	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0367	0.3845	0.2608	3.0000e-004		0.0220	0.0220		0.0202	0.0202	0.0000	28.0664	28.0664	8.4700e-003	0.0000	28.2441
Total	**0.0367**	**0.3845**	**0.2608**	**3.0000e-004**	**0.0655**	**0.0220**	**0.0875**	**0.0337**	**0.0202**	**0.0539**	**0.0000**	**28.0664**	**28.0664**	**8.4700e-003**	**0.0000**	**28.2441**

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	6.0000e-004	8.8000e-004	9.1900e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.5419	1.5419	8.0000e-005	0.0000	1.5436
Total	**6.0000e-004**	**8.8000e-004**	**9.1900e-003**	**2.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.5419**	**1.5419**	**8.0000e-005**	**0.0000**	**1.5436**

3.5 Building Construction - 2016

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	0.3764	3.1500	2.0450	2.9600e-003		0.2174	0.2174		0.2043	0.2043	0.0000	267.5797	267.5797	0.0664	0.0000	268.9734
Total	**0.3764**	**3.1500**	**2.0450**	**2.9600e-003**		**0.2174**	**0.2174**		**0.2043**	**0.2043**	**0.0000**	**267.5797**	**267.5797**	**0.0664**	**0.0000**	**268.9734**

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	0.0698	0.7123	0.9143	1.7000e-003	0.0483	0.0111	0.0594	0.0138	0.0102	0.0240	0.0000	154.7518	154.7518	1.1300e-003	0.0000	154.7755
Worker	0.0806	0.1184	1.2318	2.7100e-003	0.2206	1.8800e-003	0.2225	0.0586	1.7300e-003	0.0603	0.0000	206.7205	206.7205	0.0111	0.0000	206.9542
Total	**0.1505**	**0.8307**	**2.1461**	**4.4100e-003**	**0.2689**	**0.0130**	**0.2819**	**0.0724**	**0.0120**	**0.0843**	**0.0000**	**361.4724**	**361.4724**	**0.0123**	**0.0000**	**361.7297**

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	0.3764	3.1500	2.0450	2.9600e-003		0.2174	0.2174		0.2043	0.2043	0.0000	267.5794	267.5794	0.0664	0.0000	268.9731
Total	**0.3764**	**3.1500**	**2.0450**	**2.9600e-003**		**0.2174**	**0.2174**		**0.2043**	**0.2043**	**0.0000**	**267.5794**	**267.5794**	**0.0664**	**0.0000**	**268.9731**

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	0.0698	0.7123	0.9143	1.7000e-003	0.0483	0.0111	0.0594	0.0138	0.0102	0.0240	0.0000	154.7518	154.7518	1.1300e-003	0.0000	154.7755
Worker	0.0806	0.1184	1.2318	2.7100e-003	0.2206	1.8800e-003	0.2225	0.0586	1.7300e-003	0.0603	0.0000	206.7205	206.7205	0.0111	0.0000	206.9542
Total	**0.1505**	**0.8307**	**2.1461**	**4.4100e-003**	**0.2689**	**0.0130**	**0.2819**	**0.0724**	**0.0120**	**0.0843**	**0.0000**	**361.4724**	**361.4724**	**0.0123**	**0.0000**	**361.7297**

3.5 Building Construction - 2017

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	0.0140	0.1188	0.0816	1.2000e-004		8.0200e-003	8.0200e-003		7.5300e-003	7.5300e-003	0.0000	10.7766	10.7766	2.6500e-003	0.0000	10.8323
Total	**0.0140**	**0.1188**	**0.0816**	**1.2000e-004**		**8.0200e-003**	**8.0200e-003**		**7.5300e-003**	**7.5300e-003**	**0.0000**	**10.7766**	**10.7766**	**2.6500e-003**	**0.0000**	**10.8323**

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	2.6000e-003	0.0264	0.0353	7.0000e-005	1.9700e-003	4.0000e-004	2.3700e-003	5.6000e-004	3.7000e-004	9.3000e-004	0.0000	6.2001	6.2001	4.0000e-005	0.0000	6.2010
Worker	2.9400e-003	4.3500e-003	0.0453	1.1000e-004	8.9900e-003	7.0000e-005	9.0600e-003	2.3900e-003	7.0000e-005	2.4500e-003	0.0000	8.0953	8.0953	4.2000e-004	0.0000	8.1041
Total	**5.5400e-003**	**0.0308**	**0.0806**	**1.8000e-004**	**0.0110**	**4.7000e-004**	**0.0114**	**2.9500e-003**	**4.4000e-004**	**3.3800e-003**	**0.0000**	**14.2954**	**14.2954**	**4.6000e-004**	**0.0000**	**14.3051**

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	0.0140	0.1188	0.0816	1.2000e-004		8.0200e-003	8.0200e-003		7.5300e-003	7.5300e-003	0.0000	10.7766	10.7766	2.6500e-003	0.0000	10.8323
Total	**0.0140**	**0.1188**	**0.0816**	**1.2000e-004**		**8.0200e-003**	**8.0200e-003**		**7.5300e-003**	**7.5300e-003**	**0.0000**	**10.7766**	**10.7766**	**2.6500e-003**	**0.0000**	**10.8323**

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	2.6000e-003	0.0264	0.0353	7.0000e-005	1.9700e-003	4.0000e-004	2.3700e-003	5.6000e-004	3.7000e-004	9.3000e-004	0.0000	6.2001	6.2001	4.0000e-005	0.0000	6.2010
Worker	2.9400e-003	4.3500e-003	0.0453	1.1000e-004	8.9900e-003	7.0000e-005	9.0600e-003	2.3900e-003	7.0000e-005	2.4500e-003	0.0000	8.0953	8.0953	4.2000e-004	0.0000	8.1041
Total	**5.5400e-003**	**0.0308**	**0.0806**	**1.8000e-004**	**0.0110**	**4.7000e-004**	**0.0114**	**2.9500e-003**	**4.4000e-004**	**3.3800e-003**	**0.0000**	**14.2954**	**14.2954**	**4.6000e-004**	**0.0000**	**14.3051**

3.6 Paving - 2017

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	0.0191	0.2030	0.1473	2.2000e-004		0.0114	0.0114		0.0105	0.0105	0.0000	20.6934	20.6934	6.3400e-003	0.0000	20.8266
Paving	3.9600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0230**	**0.2030**	**0.1473**	**2.2000e-004**		**0.0114**	**0.0114**		**0.0105**	**0.0105**	**0.0000**	**20.6934**	**20.6934**	**6.3400e-003**	**0.0000**	**20.8266**

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	5.4000e-004	8.0000e-004	8.2900e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.4827	1.4827	8.0000e-005	0.0000	1.4843
Total	**5.4000e-004**	**8.0000e-004**	**8.2900e-003**	**2.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.4827**	**1.4827**	**8.0000e-005**	**0.0000**	**1.4843**

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	0.0191	0.2030	0.1473	2.2000e-004		0.0114	0.0114		0.0105	0.0105	0.0000	20.6934	20.6934	6.3400e-003	0.0000	20.8265
Paving	3.9600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0230**	**0.2030**	**0.1473**	**2.2000e-004**		**0.0114**	**0.0114**		**0.0105**	**0.0105**	**0.0000**	**20.6934**	**20.6934**	**6.3400e-003**	**0.0000**	**20.8265**

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	5.4000e-004	8.0000e-004	8.2900e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.4827	1.4827	8.0000e-005	0.0000	1.4843
Total	**5.4000e-004**	**8.0000e-004**	**8.2900e-003**	**2.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.4827**	**1.4827**	**8.0000e-005**	**0.0000**	**1.4843**

3.7 Architectural Coating - 2017

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	3.5554					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.3200e-003	0.0219	0.0187	3.0000e-005		1.7300e-003	1.7300e-003		1.7300e-003	1.7300e-003	0.0000	2.5533	2.5533	2.7000e-004	0.0000	2.5589
Total	**3.5587**	**0.0219**	**0.0187**	**3.0000e-005**		**1.7300e-003**	**1.7300e-003**		**1.7300e-003**	**1.7300e-003**	**0.0000**	**2.5533**	**2.5533**	**2.7000e-004**	**0.0000**	**2.5589**

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	1.2900e-003	1.9100e-003	0.0199	5.0000e-005	3.9500e-003	3.0000e-005	3.9800e-003	1.0500e-003	3.0000e-005	1.0800e-003	0.0000	3.5584	3.5584	1.8000e-004	0.0000	3.5622
Total	**1.2900e-003**	**1.9100e-003**	**0.0199**	**5.0000e-005**	**3.9500e-003**	**3.0000e-005**	**3.9800e-003**	**1.0500e-003**	**3.0000e-005**	**1.0800e-003**	**0.0000**	**3.5584**	**3.5584**	**1.8000e-004**	**0.0000**	**3.5622**

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	3.5554					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.3200e-003	0.0219	0.0187	3.0000e-005		1.7300e-003	1.7300e-003		1.7300e-003	1.7300e-003	0.0000	2.5533	2.5533	2.7000e-004	0.0000	2.5589
Total	**3.5587**	**0.0219**	**0.0187**	**3.0000e-005**		**1.7300e-003**	**1.7300e-003**		**1.7300e-003**	**1.7300e-003**	**0.0000**	**2.5533**	**2.5533**	**2.7000e-004**	**0.0000**	**2.5589**

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	1.2900e-003	1.9100e-003	0.0199	5.0000e-005	3.9500e-003	3.0000e-005	3.9800e-003	1.0500e-003	3.0000e-005	1.0800e-003	0.0000	3.5584	3.5584	1.8000e-004	0.0000	3.5622
Total	**1.2900e-003**	**1.9100e-003**	**0.0199**	**5.0000e-005**	**3.9500e-003**	**3.0000e-005**	**3.9800e-003**	**1.0500e-003**	**3.0000e-005**	**1.0800e-003**	**0.0000**	**3.5584**	**3.5584**	**1.8000e-004**	**0.0000**	**3.5622**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3625	3.8833	4.9286	0.0169	0.8167	0.0632	0.8800	0.2213	0.0582	0.2795	0.0000	1,384.0845	1,384.0845	0.0235	0.0000	1,384.5779
Unmitigated	0.3625	3.8833	4.9286	0.0169	0.8167	0.0632	0.8800	0.2213	0.0582	0.2795	0.0000	1,384.0845	1,384.0845	0.0235	0.0000	1,384.5779

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	361.20	361.20	361.20	2,073,326	2,073,326
Total	361.20	361.20	361.20	2,073,326	2,073,326

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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-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
Unrefrigerated Warehouse-No	16.60	0.00	17.41	62.00	0.00	38.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH

0.618000	0.000000	0.000000	0.000000	0.064600	0.000000	0.087000	0.230400	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	218.8990	218.8990	0.0101	2.0800e-003	219.7556
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	218.8990	218.8990	0.0101	2.0800e-003	219.7556
NaturalGas Mitigated	2.4800e-003	0.0226	0.0190	1.4000e-004		1.7100e-003	1.7100e-003		1.7100e-003	1.7100e-003	0.0000	24.5527	24.5527	4.7000e-004	4.5000e-004	24.7021
NaturalGas Unmitigated	2.4800e-003	0.0226	0.0190	1.4000e-004		1.7100e-003	1.7100e-003		1.7100e-003	1.7100e-003	0.0000	24.5527	24.5527	4.7000e-004	4.5000e-004	24.7021

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					
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
Unrefrigerated Warehouse-No Rail	460100	2.4800e-003	0.0226	0.0190	1.4000e-004		1.7100e-003	1.7100e-003		1.7100e-003	1.7100e-003	0.0000	24.5527	24.5527	4.7000e-004	4.5000e-004	24.7021
Other Non-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
Total		**2.4800e-003**	**0.0226**	**0.0190**	**1.4000e-004**		**1.7100e-003**	**1.7100e-003**		**1.7100e-003**	**1.7100e-003**	**0.0000**	**24.5527**	**24.5527**	**4.7000e-004**	**4.5000e-004**	**24.7021**

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					
Unrefrigerated Warehouse-No Rail	460100	2.4800e-003	0.0226	0.0190	1.4000e-004		1.7100e-003	1.7100e-003		1.7100e-003	1.7100e-003	0.0000	24.5527	24.5527	4.7000e-004	4.5000e-004	24.7021
Other Non-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
Total		**2.4800e-003**	**0.0226**	**0.0190**	**1.4000e-004**		**1.7100e-003**	**1.7100e-003**		**1.7100e-003**	**1.7100e-003**	**0.0000**	**24.5527**	**24.5527**	**4.7000e-004**	**4.5000e-004**	**24.7021**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	115635	33.0908	1.5200e-003	3.1000e-004	33.2203
Unrefrigerated Warehouse-No Rail	649300	185.8082	8.5400e-003	1.7700e-003	186.5353
Total		**218.8990**	**0.0101**	**2.0800e-003**	**219.7556**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	115635	33.0908	1.5200e-003	3.1000e-004	33.2203
Unrefrigerated Warehouse-No	649300	185.8082	8.5400e-003	1.7700e-003	186.5353
Total		**218.8990**	**0.0101**	**2.0800e-003**	**219.7556**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.9254	5.0000e-005	5.6200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0108	0.0108	3.0000e-005	0.0000	0.0114
Unmitigated	1.9254	5.0000e-005	5.6200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0108	0.0108	3.0000e-005	0.0000	0.0114

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	0.3555					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.5693					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.4000e-004	5.0000e-005	5.6200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0108	0.0108	3.0000e-005	0.0000	0.0114
Total	**1.9254**	**5.0000e-005**	**5.6200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0108**	**0.0108**	**3.0000e-005**	**0.0000**	**0.0114**

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	0.3555					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.5693					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.4000e-004	5.0000e-005	5.6200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0108	0.0108	3.0000e-005	0.0000	0.0114
Total	**1.9254**	**5.0000e-005**	**5.6200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0108**	**0.0108**	**3.0000e-005**	**0.0000**	**0.0114**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	206.5173	1.6286	0.0400	253.1191
Unmitigated	206.5173	1.6289	0.0401	253.1443

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	49.7188 / 1.72455	206.5173	1.6289	0.0401	253.1443
Total		**206.5173**	**1.6289**	**0.0401**	**253.1443**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	49.7188 / 1.72455	206.5173	1.6286	0.0400	253.1191
Total		**206.5173**	**1.6286**	**0.0400**	**253.1191**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	41.0245	2.4245	0.0000	91.9385
Unmitigated	41.0245	2.4245	0.0000	91.9385

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	202.1	41.0245	2.4245	0.0000	91.9385
Total		**41.0245**	**2.4245**	**0.0000**	**91.9385**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	202.1	41.0245	2.4245	0.0000	91.9385
Total		**41.0245**	**2.4245**	**0.0000**	**91.9385**

9.0 Operational Offroad

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

10.0 Vegetation

Appendix B SCREEN3 Outputs

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Redwood Warehouse
EMFAC and Health Risk Calculations

	LHD		MHD		HHD	
Idling Emissions						
			0.336460733	g/hr	0.066726436	g/hr
			5.608E-03	g/min	1.112E-03	g/min
			9.346E-05	g/sec	1.854E-05	g/sec
			1	Avg Hourly Trucks	1	Avg Hourly Trucks
			9.346E-05	g/sec	1.854E-05	g/sec
Running Emissions						
	0.083688367	g/mile	0.237225206	g/mile	0.086217146	g/mile
	1.00	Trucks	1.00	Trucks	1.00	Trucks
	0.12	Miles	0.12	Miles	0.12	Miles
	1.004E-02	Total g/mile/hr	2.847E-02	Total g/mile/hr	1.035E-02	Total g/mile/hr
	1.674E-04	Total g/mile/min	4.745E-04	Total g/mile/min	1.724E-04	Total g/mile/min
	2.790E-06	Total g/mile/sec	7.908E-06	Total g/mile/sec	2.874E-06	Total g/mile/sec
				Site Area	40000	m2
				Composite EMFAC	3.139E-09	g/s/m2

Receptor	Distance	Conc	URF	LEA	CR	REL	HI
Descrete 1	20	9.353E-03	0.0003	1	2.806E-06	5	0.002
Automated	148	1.395E-02	0.0003	1	4.185E-06	5	0.003
				Threshold	1.000E-05		1.000

02/09/15
11:42:46

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

C:\Users\oliviay\Desktop\Redwood SCREEN3\DPM.scr

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE                =         AREA
   EMISSION RATE (G/(S-M**2))  =     0.313900E-08
   SOURCE HEIGHT (M)          =       4.3000
   LENGTH OF LARGER SIDE (M)   =     202.0000
   LENGTH OF SMALLER SIDE (M)  =     200.0000
   RECEPTOR HEIGHT (M)        =       2.0000
   URBAN/RURAL OPTION         =        URBAN
THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

   MODEL ESTIMATES DIRECTION TO MAX CONCENTRATION


BUOY. FLUX =    0.000 M**4/S**3;  MOM. FLUX =    0.000 M**4/S**2.

*** STABILITY CLASS  4 ONLY ***
*** ANEMOMETER HEIGHT WIND SPEED OF   3.00 M/S ONLY ***

**********************************
*** SCREEN AUTOMATED DISTANCES ***
**********************************

*** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

  DIST     CONC             U10M   USTK  MIX HT   PLUME  MAX DIR
   (M)   (UG/M**3)   STAB  (M/S)  (M/S)    (M)   HT (M)   (DEG)
-------  ----------  ----  -----  -----  ------  ------  -------
   100.  0.1303E-01    4     3.0    3.0   960.0    4.30     45.
   200.  0.8931E-02    4     3.0    3.0   960.0    4.30     44.
   300.  0.4814E-02    4     3.0    3.0   960.0    4.30     44.
   400.  0.3153E-02    4     3.0    3.0   960.0    4.30     44.
   500.  0.2252E-02    4     3.0    3.0   960.0    4.30     44.
   600.  0.1697E-02    4     3.0    3.0   960.0    4.30     43.
   700.  0.1329E-02    4     3.0    3.0   960.0    4.30     44.
   800.  0.1073E-02    4     3.0    3.0   960.0    4.30     42.
   900.  0.8875E-03    4     3.0    3.0   960.0    4.30     43.
  1000.  0.7484E-03    4     3.0    3.0   960.0    4.30     42.

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND   100. M:
   148.  0.1395E-01    4     3.0    3.0   960.0    4.30     45.

     ************************************
     *** SUMMARY OF SCREEN MODEL RESULTS ***
     ************************************

 CALCULATION        MAX CONC    DIST TO   TERRAIN
  PROCEDURE        (UG/M**3)    MAX (M)    HT (M)
--------------    -----------   -------   -------
SIMPLE TERRAIN     0.1395E-01      148.        0.


************************************************
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
************************************************
```

02/09/15
11:45:19

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

C:\Users\oliviay\Desktop\Redwood SCREEN3\DPM.scr

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE                =         AREA
   EMISSION RATE (G/(S-M**2))  =     0.313900E-08
   SOURCE HEIGHT (M)          =       4.3000
   LENGTH OF LARGER SIDE (M)   =     202.0000
   LENGTH OF SMALLER SIDE (M)  =     200.0000
   RECEPTOR HEIGHT (M)        =       2.0000
   URBAN/RURAL OPTION         =        URBAN
THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

   ANGLE RELATIVE TO LONG AXIS =      90.0000


BUOY. FLUX =    0.000 M**4/S**3;  MOM. FLUX =    0.000 M**4/S**2.

*** STABILITY CLASS  4 ONLY ***
*** ANEMOMETER HEIGHT WIND SPEED OF   3.00 M/S ONLY ***

*********************************
*** SCREEN DISCRETE DISTANCES ***
*********************************

*** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

  DIST     CONC             U10M   USTK  MIX HT   PLUME  MAX DIR
   (M)   (UG/M**3)   STAB  (M/S)  (M/S)    (M)   HT (M)   (DEG)
-------  ----------  ----  -----  -----  ------  ------  -------
    20.  0.9353E-02    4     3.0    3.0   960.0    4.30     90.

     ***************************************
     *** SUMMARY OF SCREEN MODEL RESULTS ***
     ***************************************

 CALCULATION        MAX CONC    DIST TO   TERRAIN
  PROCEDURE        (UG/M**3)    MAX (M)    HT (M)
--------------    -----------   -------   -------
SIMPLE TERRAIN     0.9353E-02       20.         0.


**************************************************
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
**************************************************
```

02/06/15
09:13:43

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

C:\Users\oliviay\Desktop\Redwood SCREEN3\1Building Demo CO.scr

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE                =         AREA
   EMISSION RATE (G/(S-M**2))  =     0.151585E-05
   SOURCE HEIGHT (M)          =       5.0000
   LENGTH OF LARGER SIDE (M)   =     200.0000
   LENGTH OF SMALLER SIDE (M)  =     200.0000
   RECEPTOR HEIGHT (M)        =       2.0000
   URBAN/RURAL OPTION         =        URBAN
THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

   ANGLE RELATIVE TO LONG AXIS =     150.0000


BUOY. FLUX =    0.000 M**4/S**3;  MOM. FLUX =    0.000 M**4/S**2.

*** STABILITY CLASS  4 ONLY ***
*** ANEMOMETER HEIGHT WIND SPEED OF   3.00 M/S ONLY ***

*********************************
*** SCREEN DISCRETE DISTANCES ***
*********************************

*** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

  DIST     CONC             U10M   USTK  MIX HT   PLUME  MAX DIR
   (M)   (UG/M**3)   STAB  (M/S)  (M/S)    (M)   HT (M)   (DEG)
-------  ----------  ----  -----  -----  ------  ------  -------
    25.   4.433        4     3.0    3.0   960.0    5.00    150.
    30.   4.530        4     3.0    3.0   960.0    5.00    150.
    35.   4.623        4     3.0    3.0   960.0    5.00    150.

     ************************************
     *** SUMMARY OF SCREEN MODEL RESULTS ***
     ************************************

 CALCULATION        MAX CONC    DIST TO   TERRAIN
  PROCEDURE        (UG/M**3)    MAX (M)    HT (M)
--------------    -----------   -------   -------
SIMPLE TERRAIN      4.623           35.        0.


************************************************
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
************************************************
```

02/06/15
08:53:28

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

C:\Users\oliviay\Desktop\Redwood SCREEN3\1Building DemoNOX.scr

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE                =         AREA
   EMISSION RATE (G/(S-M**2))  =     0.197584E-05
   SOURCE HEIGHT (M)          =       5.0000
   LENGTH OF LARGER SIDE (M)   =     200.0000
   LENGTH OF SMALLER SIDE (M)  =     200.0000
   RECEPTOR HEIGHT (M)        =       2.0000
   URBAN/RURAL OPTION         =        URBAN
THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

   ANGLE RELATIVE TO LONG AXIS =     150.0000


BUOY. FLUX =    0.000 M**4/S**3;  MOM. FLUX =    0.000 M**4/S**2.

*** STABILITY CLASS  4 ONLY ***
*** ANEMOMETER HEIGHT WIND SPEED OF   3.00 M/S ONLY ***

*********************************
*** SCREEN DISCRETE DISTANCES ***
*********************************

*** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

  DIST     CONC             U10M   USTK  MIX HT   PLUME  MAX DIR
   (M)   (UG/M**3)   STAB  (M/S)  (M/S)    (M)   HT (M)   (DEG)
-------  ----------  ----  -----  -----  ------  ------  -------
    25.   5.778        4     3.0    3.0   960.0    5.00    150.
    30.   5.904        4     3.0    3.0   960.0    5.00    150.
    35.   6.026        4     3.0    3.0   960.0    5.00    150.

     ************************************
     *** SUMMARY OF SCREEN MODEL RESULTS ***
     ************************************

 CALCULATION        MAX CONC    DIST TO   TERRAIN
  PROCEDURE        (UG/M**3)    MAX (M)    HT (M)
--------------    -----------   -------   -------
SIMPLE TERRAIN      6.026           35.        0.


************************************************
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
************************************************
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02/05/15
17:29:06

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

C:\Users\oliviay\Desktop\Redwood SCREEN3\1Building DemoPM10.scr

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE                =         AREA
   EMISSION RATE (G/(S-M**2))  =     0.128650E-05
   SOURCE HEIGHT (M)          =       1.0000
   LENGTH OF LARGER SIDE (M)   =     200.0000
   LENGTH OF SMALLER SIDE (M)  =     200.0000
   RECEPTOR HEIGHT (M)        =       2.0000
   URBAN/RURAL OPTION         =        URBAN
THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

   ANGLE RELATIVE TO LONG AXIS =     150.0000


BUOY. FLUX =    0.000 M**4/S**3;  MOM. FLUX =    0.000 M**4/S**2.

*** STABILITY CLASS  4 ONLY ***
*** ANEMOMETER HEIGHT WIND SPEED OF   3.00 M/S ONLY ***

*********************************
*** SCREEN DISCRETE DISTANCES ***
*********************************

*** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

  DIST     CONC             U10M   USTK  MIX HT   PLUME  MAX DIR
   (M)   (UG/M**3)   STAB  (M/S)  (M/S)    (M)   HT (M)   (DEG)
-------  ----------  ----  -----  -----  ------  ------  -------
    25.   6.144        4     3.0    3.0   960.0    1.00    150.
    30.   6.235        4     3.0    3.0   960.0    1.00    150.
    35.   6.323        4     3.0    3.0   960.0    1.00    150.

     ************************************
     *** SUMMARY OF SCREEN MODEL RESULTS ***
     ************************************

 CALCULATION        MAX CONC    DIST TO   TERRAIN
  PROCEDURE        (UG/M**3)    MAX (M)    HT (M)
--------------    -----------   -------   -------
SIMPLE TERRAIN      6.323           35.        0.


************************************************
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
************************************************
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02/06/15
08:53:54

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

C:\Users\oliviay\Desktop\Redwood SCREEN3\1Building DemoPM25.scr

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE                =         AREA
   EMISSION RATE (G/(S-M**2))  =     0.272186E-06
   SOURCE HEIGHT (M)          =       1.0000
   LENGTH OF LARGER SIDE (M)   =     200.0000
   LENGTH OF SMALLER SIDE (M)  =     200.0000
   RECEPTOR HEIGHT (M)        =       2.0000
   URBAN/RURAL OPTION         =        URBAN
THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

   ANGLE RELATIVE TO LONG AXIS =     150.0000


BUOY. FLUX =    0.000 M**4/S**3;  MOM. FLUX =    0.000 M**4/S**2.

*** STABILITY CLASS  4 ONLY ***
*** ANEMOMETER HEIGHT WIND SPEED OF   3.00 M/S ONLY ***

*********************************
*** SCREEN DISCRETE DISTANCES ***
*********************************

*** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

  DIST     CONC             U10M   USTK  MIX HT   PLUME  MAX DIR
   (M)   (UG/M**3)   STAB  (M/S)  (M/S)    (M)   HT (M)   (DEG)
-------  ----------  ----  -----  -----  ------  ------  -------
    25.   1.300        4     3.0    3.0   960.0    1.00    150.
    30.   1.319        4     3.0    3.0   960.0    1.00    150.
    35.   1.338        4     3.0    3.0   960.0    1.00    150.

     ************************************
     *** SUMMARY OF SCREEN MODEL RESULTS ***
     ************************************

 CALCULATION        MAX CONC    DIST TO   TERRAIN
  PROCEDURE        (UG/M**3)    MAX (M)    HT (M)
--------------    -----------   -------   -------
SIMPLE TERRAIN      1.338           35.        0.


************************************************
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
************************************************
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02/05/15
17:32:46

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

C:\Users\oliviay\Desktop\Redwood SCREEN3\2Pavement DemoPM10.scr

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE                =         AREA
   EMISSION RATE (G/(S-M**2))  =     0.189102E-06
   SOURCE HEIGHT (M)          =       1.0000
   LENGTH OF LARGER SIDE (M)   =     200.0000
   LENGTH OF SMALLER SIDE (M)  =     200.0000
   RECEPTOR HEIGHT (M)        =       2.0000
   URBAN/RURAL OPTION         =        URBAN
THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

   ANGLE RELATIVE TO LONG AXIS =     150.0000


BUOY. FLUX =    0.000 M**4/S**3;  MOM. FLUX =    0.000 M**4/S**2.

*** STABILITY CLASS  4 ONLY ***
*** ANEMOMETER HEIGHT WIND SPEED OF   3.00 M/S ONLY ***

*********************************
*** SCREEN DISCRETE DISTANCES ***
*********************************

*** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

  DIST     CONC             U10M   USTK  MIX HT   PLUME  MAX DIR
   (M)   (UG/M**3)   STAB  (M/S)  (M/S)    (M)   HT (M)   (DEG)
-------  ----------  ----  -----  -----  ------  ------  -------
    25.  0.9031        4     3.0    3.0   960.0    1.00    150.
    30.  0.9165        4     3.0    3.0   960.0    1.00    150.
    35.  0.9295        4     3.0    3.0   960.0    1.00    150.

     ************************************
     *** SUMMARY OF SCREEN MODEL RESULTS ***
     ************************************

 CALCULATION        MAX CONC    DIST TO   TERRAIN
  PROCEDURE        (UG/M**3)    MAX (M)    HT (M)
--------------    -----------   -------   -------
SIMPLE TERRAIN     0.9295           35.        0.


************************************************
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
************************************************
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02/05/15
17:30:58

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

C:\Users\oliviay\Desktop\Redwood SCREEN3\2Pavement Demo CO.scr

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE                =         AREA
   EMISSION RATE (G/(S-M**2))  =     0.151585E-05
   SOURCE HEIGHT (M)          =       5.0000
   LENGTH OF LARGER SIDE (M)   =     200.0000
   LENGTH OF SMALLER SIDE (M)  =     200.0000
   RECEPTOR HEIGHT (M)        =       2.0000
   URBAN/RURAL OPTION         =        URBAN
THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

   ANGLE RELATIVE TO LONG AXIS =     150.0000


BUOY. FLUX =    0.000 M**4/S**3;  MOM. FLUX =    0.000 M**4/S**2.

*** STABILITY CLASS  4 ONLY ***
*** ANEMOMETER HEIGHT WIND SPEED OF   3.00 M/S ONLY ***

*********************************
*** SCREEN DISCRETE DISTANCES ***
*********************************

*** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

  DIST     CONC             U10M   USTK  MIX HT   PLUME  MAX DIR
   (M)   (UG/M**3)   STAB  (M/S)  (M/S)    (M)   HT (M)   (DEG)
-------  ----------  ----  -----  -----  ------  ------  -------
    25.   4.433        4     3.0    3.0   960.0    5.00    150.
    30.   4.530        4     3.0    3.0   960.0    5.00    150.
    35.   4.623        4     3.0    3.0   960.0    5.00    150.

     ************************************
     *** SUMMARY OF SCREEN MODEL RESULTS ***
     ************************************

 CALCULATION        MAX CONC    DIST TO   TERRAIN
  PROCEDURE        (UG/M**3)    MAX (M)    HT (M)
--------------    -----------   -------   -------
SIMPLE TERRAIN      4.623           35.        0.


************************************************
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
************************************************
```

02/05/15
17:33:57

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

C:\Users\oliviay\Desktop\Redwood SCREEN3\2Pavement DemoPM25.scr

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE                =         AREA
   EMISSION RATE (G/(S-M**2))  =     0.106019E-06
   SOURCE HEIGHT (M)          =       1.0000
   LENGTH OF LARGER SIDE (M)   =     200.0000
   LENGTH OF SMALLER SIDE (M)  =     200.0000
   RECEPTOR HEIGHT (M)        =       2.0000
   URBAN/RURAL OPTION         =        URBAN
THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

   ANGLE RELATIVE TO LONG AXIS =     150.0000


BUOY. FLUX =    0.000 M**4/S**3;  MOM. FLUX =    0.000 M**4/S**2.

*** STABILITY CLASS  4 ONLY ***
*** ANEMOMETER HEIGHT WIND SPEED OF   3.00 M/S ONLY ***

*********************************
*** SCREEN DISCRETE DISTANCES ***
*********************************

*** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

  DIST     CONC             U10M   USTK  MIX HT   PLUME  MAX DIR
   (M)   (UG/M**3)   STAB  (M/S)  (M/S)    (M)   HT (M)   (DEG)
-------  ----------  ----  -----  -----  ------  ------  -------
    25.  0.5063        4     3.0    3.0   960.0    1.00    150.
    30.  0.5138        4     3.0    3.0   960.0    1.00    150.
    35.  0.5211        4     3.0    3.0   960.0    1.00    150.

     ************************************
     *** SUMMARY OF SCREEN MODEL RESULTS ***
     ************************************

 CALCULATION        MAX CONC    DIST TO   TERRAIN
  PROCEDURE        (UG/M**3)    MAX (M)    HT (M)
--------------    -----------   -------   -------
SIMPLE TERRAIN     0.5211           35.        0.


************************************************
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
************************************************
```

02/05/15
17:30:31

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

C:\Users\oliviay\Desktop\Redwood SCREEN3\2Pavement Demo NOX.scr

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE                =         AREA
   EMISSION RATE (G/(S-M**2))  =     0.197584E-05
   SOURCE HEIGHT (M)          =       5.0000
   LENGTH OF LARGER SIDE (M)   =     200.0000
   LENGTH OF SMALLER SIDE (M)  =     200.0000
   RECEPTOR HEIGHT (M)        =       2.0000
   URBAN/RURAL OPTION         =        URBAN
THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

   ANGLE RELATIVE TO LONG AXIS =     150.0000


BUOY. FLUX =    0.000 M**4/S**3;  MOM. FLUX =    0.000 M**4/S**2.

*** STABILITY CLASS  4 ONLY ***
*** ANEMOMETER HEIGHT WIND SPEED OF   3.00 M/S ONLY ***

*********************************
*** SCREEN DISCRETE DISTANCES ***
*********************************

*** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

  DIST     CONC             U10M   USTK  MIX HT   PLUME  MAX DIR
   (M)   (UG/M**3)   STAB  (M/S)  (M/S)    (M)   HT (M)   (DEG)
-------  ----------  ----  -----  -----  ------  ------  -------
    25.   5.778        4     3.0    3.0   960.0    5.00    150.
    30.   5.904        4     3.0    3.0   960.0    5.00    150.
    35.   6.026        4     3.0    3.0   960.0    5.00    150.

     ************************************
     *** SUMMARY OF SCREEN MODEL RESULTS ***
     ************************************

 CALCULATION        MAX CONC    DIST TO   TERRAIN
  PROCEDURE        (UG/M**3)    MAX (M)    HT (M)
--------------    -----------   -------   -------
SIMPLE TERRAIN      6.026           35.        0.


************************************************
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
************************************************
```

02/05/15
17:35:02

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

C:\Users\oliviay\Desktop\Redwood SCREEN3\3Grading CO.scr

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE                =         AREA
   EMISSION RATE (G/(S-M**2))  =     0.112856E-05
   SOURCE HEIGHT (M)          =       5.0000
   LENGTH OF LARGER SIDE (M)   =     200.0000
   LENGTH OF SMALLER SIDE (M)  =     200.0000
   RECEPTOR HEIGHT (M)        =       2.0000
   URBAN/RURAL OPTION         =        URBAN
THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

   ANGLE RELATIVE TO LONG AXIS =     150.0000


BUOY. FLUX =    0.000 M**4/S**3;  MOM. FLUX =    0.000 M**4/S**2.

*** STABILITY CLASS  4 ONLY ***
*** ANEMOMETER HEIGHT WIND SPEED OF   3.00 M/S ONLY ***

*********************************
*** SCREEN DISCRETE DISTANCES ***
*********************************

*** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

  DIST     CONC             U10M   USTK  MIX HT   PLUME  MAX DIR
   (M)   (UG/M**3)   STAB  (M/S)  (M/S)    (M)   HT (M)   (DEG)
-------  ----------  ----  -----  -----  ------  ------  -------
    25.   3.300        4     3.0    3.0   960.0    5.00    150.
    30.   3.372        4     3.0    3.0   960.0    5.00    150.
    35.   3.442        4     3.0    3.0   960.0    5.00    150.

     ************************************
     *** SUMMARY OF SCREEN MODEL RESULTS ***
     ************************************

 CALCULATION        MAX CONC    DIST TO   TERRAIN
  PROCEDURE        (UG/M**3)    MAX (M)    HT (M)
--------------    -----------   -------   -------
SIMPLE TERRAIN      3.442           35.        0.


************************************************
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
************************************************
```

02/06/15

09:09:29
  *** SCREEN3 MODEL RUN ***
  *** VERSION DATED 96043 ***

 C:\Users\oliviay\Desktop\Redwood SCREEN3\3 Grading NOX.scr

 SIMPLE TERRAIN INPUTS:
    SOURCE TYPE   =   AREA
    EMISSION RATE (G/(S-M**2)) =   0.166384E-05
    SOURCE HEIGHT (M)   =   5.0000
    LENGTH OF LARGER SIDE (M)   =   200.0000
    LENGTH OF SMALLER SIDE (M) =   200.0000
    RECEPTOR HEIGHT (M)   =   2.0000
    URBAN/RURAL OPTION   =   URBAN
 THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
 THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS
ENTERED.

    ANGLE RELATIVE TO LONG AXIS =   150.0000

 BUOY. FLUX =   0.000 M**4/S**3; MOM. FLUX =   0.000 M**4/S**
2.

 *** STABILITY CLASS 4 ONLY ***
 *** ANEMOMETER HEIGHT WIND SPEED OF   3.00 M/S ONLY ***

 ****
 *** SCREEN DISCRETE DISTANCES ***
 ****

 *** TERRAIN HEIGHT OF   0. M ABOVE STACK BASE USED FOR
FOLLOWING DISTANCES ***

   DIST   CONC   U10M   USTK MIX HT   PLUME MAX DIR
    (M)   (UG/M**3)   STAB (M/S) (M/S)   (M)   HT (M)   (DEG)
 ------- ---------- ---- ----- ----- ------ ------ -------
     25.   4.865   4   3.0   3.0   960.0   5.00   150.
     30.   4.972   4   3.0   3.0   960.0   5.00   150.
     35.   5.074   4   3.0   3.0   960.0   5.00   150.

      ****
      *** SUMMARY OF SCREEN MODEL RESULTS ***
      ****

  CALCULATION   MAX CONC   DIST TO   TERRAIN
   PROCEDURE   (UG/M**3)   MAX (M)   HT (M)
 --------------   -----------   -------   -------
 SIMPLE TERRAIN   5.074   35.   0.

****
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
****

02/06/15
08:56:14

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

C:\Users\oliviay\Desktop\Redwood SCREEN3\3Grading PM25.scr

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE                =         AREA
   EMISSION RATE (G/(S-M**2))  =     0.233241E-06
   SOURCE HEIGHT (M)          =       1.0000
   LENGTH OF LARGER SIDE (M)   =     200.0000
   LENGTH OF SMALLER SIDE (M)  =     200.0000
   RECEPTOR HEIGHT (M)        =       2.0000
   URBAN/RURAL OPTION         =        URBAN
THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

   ANGLE RELATIVE TO LONG AXIS =     150.0000


BUOY. FLUX =    0.000 M**4/S**3;  MOM. FLUX =    0.000 M**4/S**2.

*** STABILITY CLASS  4 ONLY ***
*** ANEMOMETER HEIGHT WIND SPEED OF   3.00 M/S ONLY ***

*********************************
*** SCREEN DISCRETE DISTANCES ***
*********************************

*** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

  DIST     CONC             U10M   USTK  MIX HT   PLUME  MAX DIR
   (M)   (UG/M**3)   STAB  (M/S)  (M/S)    (M)   HT (M)   (DEG)
-------  ----------  ----  -----  -----  ------  ------  -------
    25.   1.114        4     3.0    3.0   960.0    1.00    150.
    30.   1.130        4     3.0    3.0   960.0    1.00    150.
    35.   1.146        4     3.0    3.0   960.0    1.00    150.

     ************************************
     *** SUMMARY OF SCREEN MODEL RESULTS ***
     ************************************

 CALCULATION        MAX CONC    DIST TO   TERRAIN
  PROCEDURE        (UG/M**3)    MAX (M)    HT (M)
--------------    -----------   -------   -------
SIMPLE TERRAIN      1.146           35.        0.


************************************************
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
************************************************
```

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

C:\Users\oliviay\Desktop\Redwood SCREEN3\3Grading PM10.scr

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE                =         AREA
   EMISSION RATE (G/(S-M**2))  =     0.378638E-06
   SOURCE HEIGHT (M)          =       1.0000
   LENGTH OF LARGER SIDE (M)   =     200.0000
   LENGTH OF SMALLER SIDE (M)  =     200.0000
   RECEPTOR HEIGHT (M)        =       2.0000
   URBAN/RURAL OPTION         =        URBAN
THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

   ANGLE RELATIVE TO LONG AXIS =     150.0000


BUOY. FLUX =    0.000 M**4/S**3;  MOM. FLUX =    0.000 M**4/S**2.

*** STABILITY CLASS  4 ONLY ***
*** ANEMOMETER HEIGHT WIND SPEED OF   3.00 M/S ONLY ***

*********************************
*** SCREEN DISCRETE DISTANCES ***
*********************************

*** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

  DIST     CONC             U10M   USTK  MIX HT   PLUME  MAX DIR
   (M)   (UG/M**3)   STAB  (M/S)  (M/S)    (M)   HT (M)   (DEG)
-------  ----------  ----  -----  -----  ------  ------  -------
    25.   1.808        4     3.0    3.0   960.0    1.00    150.
    30.   1.835        4     3.0    3.0   960.0    1.00    150.
    35.   1.861        4     3.0    3.0   960.0    1.00    150.

     ************************************
     *** SUMMARY OF SCREEN MODEL RESULTS ***
     ************************************

 CALCULATION        MAX CONC    DIST TO   TERRAIN
  PROCEDURE        (UG/M**3)    MAX (M)    HT (M)
--------------    -----------   -------   -------
SIMPLE TERRAIN      1.861           35.        0.


************************************************
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
************************************************
```

02/05/15
17:37:32

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

C:\Users\oliviay\Desktop\Redwood SCREEN3\4ConstructionCO.scr

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE                =         AREA
   EMISSION RATE (G/(S-M**2))  =     0.800981E-06
   SOURCE HEIGHT (M)          =       5.0000
   LENGTH OF LARGER SIDE (M)   =     200.0000
   LENGTH OF SMALLER SIDE (M)  =     200.0000
   RECEPTOR HEIGHT (M)        =       2.0000
   URBAN/RURAL OPTION         =        URBAN
THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

   ANGLE RELATIVE TO LONG AXIS =     150.0000


BUOY. FLUX =    0.000 M**4/S**3;  MOM. FLUX =    0.000 M**4/S**2.

*** STABILITY CLASS  4 ONLY ***
*** ANEMOMETER HEIGHT WIND SPEED OF   3.00 M/S ONLY ***

*********************************
*** SCREEN DISCRETE DISTANCES ***
*********************************

*** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

  DIST     CONC             U10M   USTK  MIX HT   PLUME  MAX DIR
   (M)   (UG/M**3)   STAB  (M/S)  (M/S)    (M)   HT (M)   (DEG)
-------  ----------  ----  -----  -----  ------  ------  -------
    25.   2.342        4     3.0    3.0   960.0    5.00    150.
    30.   2.393        4     3.0    3.0   960.0    5.00    150.
    35.   2.443        4     3.0    3.0   960.0    5.00    150.

     ************************************
     *** SUMMARY OF SCREEN MODEL RESULTS ***
     ************************************

 CALCULATION        MAX CONC    DIST TO   TERRAIN
  PROCEDURE        (UG/M**3)    MAX (M)    HT (M)
--------------    -----------   -------   -------
SIMPLE TERRAIN      2.443           35.        0.


************************************************
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
************************************************
```

02/06/15
08:56:55

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

C:\Users\oliviay\Desktop\Redwood SCREEN3\4Construction NOX.scr

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE                =         AREA
   EMISSION RATE (G/(S-M**2))  =     0.123371E-05
   SOURCE HEIGHT (M)          =       5.0000
   LENGTH OF LARGER SIDE (M)   =     200.0000
   LENGTH OF SMALLER SIDE (M)  =     200.0000
   RECEPTOR HEIGHT (M)        =       2.0000
   URBAN/RURAL OPTION         =        URBAN
THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

   ANGLE RELATIVE TO LONG AXIS =     150.0000


BUOY. FLUX =    0.000 M**4/S**3;  MOM. FLUX =    0.000 M**4/S**2.

*** STABILITY CLASS  4 ONLY ***
*** ANEMOMETER HEIGHT WIND SPEED OF   3.00 M/S ONLY ***

*********************************
*** SCREEN DISCRETE DISTANCES ***
*********************************

*** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

  DIST     CONC             U10M   USTK  MIX HT   PLUME  MAX DIR
   (M)   (UG/M**3)   STAB  (M/S)  (M/S)    (M)   HT (M)   (DEG)
-------  ----------  ----  -----  -----  ------  ------  -------
    25.   3.608        4     3.0    3.0   960.0    5.00    150.
    30.   3.686        4     3.0    3.0   960.0    5.00    150.
    35.   3.763        4     3.0    3.0   960.0    5.00    150.

     ************************************
     *** SUMMARY OF SCREEN MODEL RESULTS ***
     ************************************

 CALCULATION        MAX CONC    DIST TO   TERRAIN
  PROCEDURE        (UG/M**3)    MAX (M)    HT (M)
--------------    -----------   -------   -------
SIMPLE TERRAIN      3.763           35.        0.


************************************************
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
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```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

C:\Users\oliviay\Desktop\Redwood SCREEN3\4ConstructionPM10.scr

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE                =         AREA
   EMISSION RATE (G/(S-M**2))  =     0.852475E-07
   SOURCE HEIGHT (M)          =       1.0000
   LENGTH OF LARGER SIDE (M)   =     200.0000
   LENGTH OF SMALLER SIDE (M)  =     200.0000
   RECEPTOR HEIGHT (M)        =       2.0000
   URBAN/RURAL OPTION         =        URBAN
THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

   ANGLE RELATIVE TO LONG AXIS =     150.0000


BUOY. FLUX =    0.000 M**4/S**3;  MOM. FLUX =    0.000 M**4/S**2.

*** STABILITY CLASS  4 ONLY ***
*** ANEMOMETER HEIGHT WIND SPEED OF   3.00 M/S ONLY ***

*********************************
*** SCREEN DISCRETE DISTANCES ***
*********************************

*** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

  DIST     CONC             U10M   USTK  MIX HT   PLUME  MAX DIR
   (M)   (UG/M**3)   STAB  (M/S)  (M/S)    (M)   HT (M)   (DEG)
-------  ----------  ----  -----  -----  ------  ------  -------
    25.  0.4071        4     3.0    3.0   960.0    1.00    150.
    30.  0.4132        4     3.0    3.0   960.0    1.00    150.
    35.  0.4190        4     3.0    3.0   960.0    1.00    150.

     ************************************
     *** SUMMARY OF SCREEN MODEL RESULTS ***
     ************************************

 CALCULATION        MAX CONC    DIST TO   TERRAIN
  PROCEDURE        (UG/M**3)    MAX (M)    HT (M)
--------------    -----------   -------   -------
SIMPLE TERRAIN     0.4190           35.        0.


************************************************
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
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```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

C:\Users\oliviay\Desktop\Redwood SCREEN3\4ConstructionPM25.scr

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE                =         AREA
   EMISSION RATE (G/(S-M**2))  =     0.800548E-07
   SOURCE HEIGHT (M)          =       1.0000
   LENGTH OF LARGER SIDE (M)   =     200.0000
   LENGTH OF SMALLER SIDE (M)  =     200.0000
   RECEPTOR HEIGHT (M)        =       2.0000
   URBAN/RURAL OPTION         =        URBAN
THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

   ANGLE RELATIVE TO LONG AXIS =     150.0000


BUOY. FLUX =    0.000 M**4/S**3;  MOM. FLUX =    0.000 M**4/S**2.

*** STABILITY CLASS  4 ONLY ***
*** ANEMOMETER HEIGHT WIND SPEED OF   3.00 M/S ONLY ***

*********************************
*** SCREEN DISCRETE DISTANCES ***
*********************************

*** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

  DIST     CONC             U10M   USTK  MIX HT   PLUME  MAX DIR
   (M)   (UG/M**3)   STAB  (M/S)  (M/S)    (M)   HT (M)   (DEG)
-------  ----------  ----  -----  -----  ------  ------  -------
    25.  0.3823        4     3.0    3.0   960.0    1.00    150.
    30.  0.3880        4     3.0    3.0   960.0    1.00    150.
    35.  0.3935        4     3.0    3.0   960.0    1.00    150.

     ************************************
     *** SUMMARY OF SCREEN MODEL RESULTS ***
     ************************************

 CALCULATION        MAX CONC    DIST TO   TERRAIN
  PROCEDURE        (UG/M**3)    MAX (M)    HT (M)
--------------    -----------   -------   -------
SIMPLE TERRAIN     0.3935           35.        0.


************************************************
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
************************************************
```

02/05/15
17:39:21

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

C:\Users\oliviay\Desktop\Redwood SCREEN3\5Paving CO.scr

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE                =         AREA
   EMISSION RATE (G/(S-M**2))  =     0.637409E-06
   SOURCE HEIGHT (M)          =       5.0000
   LENGTH OF LARGER SIDE (M)   =     200.0000
   LENGTH OF SMALLER SIDE (M)  =     200.0000
   RECEPTOR HEIGHT (M)        =       2.0000
   URBAN/RURAL OPTION         =        URBAN
THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

   ANGLE RELATIVE TO LONG AXIS =     150.0000


BUOY. FLUX =    0.000 M**4/S**3;  MOM. FLUX =    0.000 M**4/S**2.

*** STABILITY CLASS  4 ONLY ***
*** ANEMOMETER HEIGHT WIND SPEED OF   3.00 M/S ONLY ***

*********************************
*** SCREEN DISCRETE DISTANCES ***
*********************************

*** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

  DIST     CONC             U10M   USTK  MIX HT   PLUME  MAX DIR
   (M)   (UG/M**3)   STAB  (M/S)  (M/S)    (M)   HT (M)   (DEG)
-------  ----------  ----  -----  -----  ------  ------  -------
    25.   1.864        4     3.0    3.0   960.0    5.00    150.
    30.   1.905        4     3.0    3.0   960.0    5.00    150.
    35.   1.944        4     3.0    3.0   960.0    5.00    150.

     ************************************
     *** SUMMARY OF SCREEN MODEL RESULTS ***
     ************************************

 CALCULATION        MAX CONC    DIST TO   TERRAIN
  PROCEDURE        (UG/M**3)    MAX (M)    HT (M)
--------------    -----------   -------   -------
SIMPLE TERRAIN      1.944           35.        0.


************************************************
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
************************************************
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02/05/15
17:38:57

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

C:\Users\oliviay\Desktop\Redwood SCREEN3\5Paving NOX.scr

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE                =         AREA
   EMISSION RATE (G/(S-M**2))  =     0.878439E-06
   SOURCE HEIGHT (M)          =       5.0000
   LENGTH OF LARGER SIDE (M)   =     200.0000
   LENGTH OF SMALLER SIDE (M)  =     200.0000
   RECEPTOR HEIGHT (M)        =       2.0000
   URBAN/RURAL OPTION         =        URBAN
THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

   ANGLE RELATIVE TO LONG AXIS =     150.0000


BUOY. FLUX =    0.000 M**4/S**3;  MOM. FLUX =    0.000 M**4/S**2.

*** STABILITY CLASS  4 ONLY ***
*** ANEMOMETER HEIGHT WIND SPEED OF   3.00 M/S ONLY ***

*********************************
*** SCREEN DISCRETE DISTANCES ***
*********************************

*** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

  DIST     CONC             U10M   USTK  MIX HT   PLUME  MAX DIR
   (M)   (UG/M**3)   STAB  (M/S)  (M/S)    (M)   HT (M)   (DEG)
-------  ----------  ----  -----  -----  ------  ------  -------
    25.   2.569        4     3.0    3.0   960.0    5.00    150.
    30.   2.625        4     3.0    3.0   960.0    5.00    150.
    35.   2.679        4     3.0    3.0   960.0    5.00    150.

     ************************************
     *** SUMMARY OF SCREEN MODEL RESULTS ***
     ************************************

 CALCULATION        MAX CONC    DIST TO   TERRAIN
  PROCEDURE        (UG/M**3)    MAX (M)    HT (M)
--------------    -----------   -------   -------
SIMPLE TERRAIN      2.679           35.        0.


************************************************
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
************************************************
```

02/05/15
17:39:46

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

C:\Users\oliviay\Desktop\Redwood SCREEN3\5Paving PM10.scr

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE                =         AREA
   EMISSION RATE (G/(S-M**2))  =     0.493311E-07
   SOURCE HEIGHT (M)          =       1.0000
   LENGTH OF LARGER SIDE (M)   =     200.0000
   LENGTH OF SMALLER SIDE (M)  =     200.0000
   RECEPTOR HEIGHT (M)        =       2.0000
   URBAN/RURAL OPTION         =        URBAN
THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

   ANGLE RELATIVE TO LONG AXIS =     150.0000


BUOY. FLUX =    0.000 M**4/S**3;  MOM. FLUX =    0.000 M**4/S**2.

*** STABILITY CLASS  4 ONLY ***
*** ANEMOMETER HEIGHT WIND SPEED OF   3.00 M/S ONLY ***

*********************************
*** SCREEN DISCRETE DISTANCES ***
*********************************

*** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

  DIST     CONC             U10M   USTK  MIX HT   PLUME  MAX DIR
   (M)   (UG/M**3)   STAB  (M/S)  (M/S)    (M)   HT (M)   (DEG)
-------  ----------  ----  -----  -----  ------  ------  -------
    25.  0.2356        4     3.0    3.0   960.0    1.00    150.
    30.  0.2391        4     3.0    3.0   960.0    1.00    150.
    35.  0.2425        4     3.0    3.0   960.0    1.00    150.

     ************************************
     *** SUMMARY OF SCREEN MODEL RESULTS ***
     ************************************

 CALCULATION        MAX CONC    DIST TO   TERRAIN
  PROCEDURE        (UG/M**3)    MAX (M)    HT (M)
--------------    -----------   -------   -------
SIMPLE TERRAIN     0.2425           35.        0.


************************************************
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
************************************************
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```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

C:\Users\oliviay\Desktop\Redwood SCREEN3\5Paving PM25.scr

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE                =         AREA
   EMISSION RATE (G/(S-M**2))  =     0.454365E-07
   SOURCE HEIGHT (M)          =       1.0000
   LENGTH OF LARGER SIDE (M)   =     200.0000
   LENGTH OF SMALLER SIDE (M)  =     200.0000
   RECEPTOR HEIGHT (M)        =       2.0000
   URBAN/RURAL OPTION         =        URBAN
THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

   ANGLE RELATIVE TO LONG AXIS =     150.0000


BUOY. FLUX =    0.000 M**4/S**3;  MOM. FLUX =    0.000 M**4/S**2.

*** STABILITY CLASS  4 ONLY ***
*** ANEMOMETER HEIGHT WIND SPEED OF   3.00 M/S ONLY ***

*********************************
*** SCREEN DISCRETE DISTANCES ***
*********************************

*** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

  DIST     CONC             U10M   USTK  MIX HT   PLUME  MAX DIR
   (M)   (UG/M**3)   STAB  (M/S)  (M/S)    (M)   HT (M)   (DEG)
-------  ----------  ----  -----  -----  ------  ------  -------
    25.  0.2170        4     3.0    3.0   960.0    1.00    150.
    30.  0.2202        4     3.0    3.0   960.0    1.00    150.
    35.  0.2233        4     3.0    3.0   960.0    1.00    150.

     ************************************
     *** SUMMARY OF SCREEN MODEL RESULTS ***
     ************************************

 CALCULATION        MAX CONC    DIST TO   TERRAIN
  PROCEDURE        (UG/M**3)    MAX (M)    HT (M)
--------------    -----------   -------   -------
SIMPLE TERRAIN     0.2233           35.        0.


************************************************
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
************************************************
```

02/05/15
17:41:11

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

C:\Users\oliviay\Desktop\Redwood SCREEN3\6Coating CO.scr

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE                =         AREA
   EMISSION RATE (G/(S-M**2))  =     0.809203E-07
   SOURCE HEIGHT (M)          =       5.0000
   LENGTH OF LARGER SIDE (M)   =     200.0000
   LENGTH OF SMALLER SIDE (M)  =     200.0000
   RECEPTOR HEIGHT (M)        =       2.0000
   URBAN/RURAL OPTION         =        URBAN
THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

   ANGLE RELATIVE TO LONG AXIS =     150.0000


BUOY. FLUX =    0.000 M**4/S**3;  MOM. FLUX =    0.000 M**4/S**2.

*** STABILITY CLASS  4 ONLY ***
*** ANEMOMETER HEIGHT WIND SPEED OF   3.00 M/S ONLY ***

*********************************
*** SCREEN DISCRETE DISTANCES ***
*********************************

*** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

  DIST     CONC             U10M   USTK  MIX HT   PLUME  MAX DIR
   (M)   (UG/M**3)   STAB  (M/S)  (M/S)    (M)   HT (M)   (DEG)
-------  ----------  ----  -----  -----  ------  ------  -------
    25.  0.2366        4     3.0    3.0   960.0    5.00    150.
    30.  0.2418        4     3.0    3.0   960.0    5.00    150.
    35.  0.2468        4     3.0    3.0   960.0    5.00    150.

     ************************************
     *** SUMMARY OF SCREEN MODEL RESULTS ***
     ************************************

 CALCULATION        MAX CONC    DIST TO   TERRAIN
  PROCEDURE        (UG/M**3)    MAX (M)    HT (M)
--------------    -----------   -------   -------
SIMPLE TERRAIN     0.2468           35.        0.


************************************************
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
************************************************
```

02/06/15
08:57:56

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

C:\Users\oliviay\Desktop\Redwood SCREEN3\6 Coating NOX.scr

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE                =         AREA
   EMISSION RATE (G/(S-M**2))  =     0.947676E-07
   SOURCE HEIGHT (M)          =       5.0000
   LENGTH OF LARGER SIDE (M)   =     200.0000
   LENGTH OF SMALLER SIDE (M)  =     200.0000
   RECEPTOR HEIGHT (M)        =       2.0000
   URBAN/RURAL OPTION         =        URBAN
THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

   ANGLE RELATIVE TO LONG AXIS =     150.0000


BUOY. FLUX =    0.000 M**4/S**3;  MOM. FLUX =    0.000 M**4/S**2.

*** STABILITY CLASS  4 ONLY ***
*** ANEMOMETER HEIGHT WIND SPEED OF   3.00 M/S ONLY ***

*********************************
*** SCREEN DISCRETE DISTANCES ***
*********************************

*** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

  DIST     CONC             U10M   USTK  MIX HT   PLUME  MAX DIR
   (M)   (UG/M**3)   STAB  (M/S)  (M/S)    (M)   HT (M)   (DEG)
-------  ----------  ----  -----  -----  ------  ------  -------
    25.  0.2771        4     3.0    3.0   960.0    5.00    150.
    30.  0.2832        4     3.0    3.0   960.0    5.00    150.
    35.  0.2890        4     3.0    3.0   960.0    5.00    150.

     ************************************
     *** SUMMARY OF SCREEN MODEL RESULTS ***
     ************************************

 CALCULATION        MAX CONC    DIST TO   TERRAIN
  PROCEDURE        (UG/M**3)    MAX (M)    HT (M)
--------------    -----------   -------   -------
SIMPLE TERRAIN     0.2890           35.        0.


************************************************
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
************************************************
```

02/05/15
17:42:08

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

C:\Users\oliviay\Desktop\Redwood SCREEN3\6Coating PM10.scr

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE                =         AREA
   EMISSION RATE (G/(S-M**2))  =     0.735639E-08
   SOURCE HEIGHT (M)          =       1.0000
   LENGTH OF LARGER SIDE (M)   =     200.0000
   LENGTH OF SMALLER SIDE (M)  =     200.0000
   RECEPTOR HEIGHT (M)        =       2.0000
   URBAN/RURAL OPTION         =        URBAN
THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

   ANGLE RELATIVE TO LONG AXIS =     150.0000


BUOY. FLUX =    0.000 M**4/S**3;  MOM. FLUX =    0.000 M**4/S**2.

*** STABILITY CLASS  4 ONLY ***
*** ANEMOMETER HEIGHT WIND SPEED OF   3.00 M/S ONLY ***

*********************************
*** SCREEN DISCRETE DISTANCES ***
*********************************

*** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

  DIST     CONC             U10M   USTK  MIX HT   PLUME  MAX DIR
   (M)   (UG/M**3)   STAB  (M/S)  (M/S)    (M)   HT (M)   (DEG)
-------  ----------  ----  -----  -----  ------  ------  -------
    25.  0.3513E-01    4     3.0    3.0   960.0    1.00    150.
    30.  0.3565E-01    4     3.0    3.0   960.0    1.00    150.
    35.  0.3616E-01    4     3.0    3.0   960.0    1.00    150.

     ************************************
     *** SUMMARY OF SCREEN MODEL RESULTS ***
     ************************************

 CALCULATION        MAX CONC    DIST TO   TERRAIN
  PROCEDURE        (UG/M**3)    MAX (M)    HT (M)
--------------    -----------   -------   -------
SIMPLE TERRAIN     0.3616E-01       35.        0.


************************************************
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
************************************************
```

02/05/15
17:42:08

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

C:\Users\oliviay\Desktop\Redwood SCREEN3\6Coating PM25.scr

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE                =         AREA
   EMISSION RATE (G/(S-M**2))  =     0.735639E-08
   SOURCE HEIGHT (M)          =       1.0000
   LENGTH OF LARGER SIDE (M)   =     200.0000
   LENGTH OF SMALLER SIDE (M)  =     200.0000
   RECEPTOR HEIGHT (M)        =       2.0000
   URBAN/RURAL OPTION         =        URBAN
THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

   ANGLE RELATIVE TO LONG AXIS =     150.0000


BUOY. FLUX =    0.000 M**4/S**3;  MOM. FLUX =    0.000 M**4/S**2.

*** STABILITY CLASS  4 ONLY ***
*** ANEMOMETER HEIGHT WIND SPEED OF   3.00 M/S ONLY ***

*********************************
*** SCREEN DISCRETE DISTANCES ***
*********************************

*** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

  DIST     CONC             U10M   USTK  MIX HT   PLUME  MAX DIR
   (M)   (UG/M**3)   STAB  (M/S)  (M/S)    (M)   HT (M)   (DEG)
-------  ----------  ----  -----  -----  ------  ------  -------
    25.  0.3513E-01    4     3.0    3.0   960.0    1.00    150.
    30.  0.3565E-01    4     3.0    3.0   960.0    1.00    150.
    35.  0.3616E-01    4     3.0    3.0   960.0    1.00    150.

     ************************************
     *** SUMMARY OF SCREEN MODEL RESULTS ***
     ************************************

 CALCULATION        MAX CONC    DIST TO   TERRAIN
  PROCEDURE        (UG/M**3)    MAX (M)    HT (M)
--------------    -----------   -------   -------
SIMPLE TERRAIN     0.3616E-01       35.        0.


************************************************
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
************************************************
```

Appendix C EMFAC2014 Output

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calendar_year	season_mo	sub_area	vehicle_cla	fuel	temperatu	relative_hu	process	speed_time	pollutant	emission_rate
2017	Annual	San Bernardino (SC)	HHDT	Dsl	79	38	RUNEX	10	PM	0.086217146
2017	Annual	San Bernardino (SC)	LHDT1	Dsl	79	38	RUNEX	10	PM	0.083688367
2017	Annual	San Bernardino (SC)	MHDT	Dsl	79	38	RUNEX	10	PM	0.237225206
2017	Annual	San Bernardino (SC)	HHDT	Dsl	51	71	RUNEX	10	PM	0.086217146
2017	Annual	San Bernardino (SC)	LHDT1	Dsl	51	71	RUNEX	10	PM	0.083688367
2017	Annual	San Bernardino (SC)	MHDT	Dsl	51	71	RUNEX	10	PM	0.237225206
2017	Annual	San Bernardino (SC)	HHDT	Dsl			IDLEX		PM	0.066726436
2017	Annual	San Bernardino (SC)	LHDT1	Dsl			IDLEX		PM	0.807220483
2017	Annual	San Bernardino (SC)	MHDT	Dsl			IDLEX		PM	0.336460733