Polopolus

AIR QUALITY IMPACT ANALYSIS

CITY OF EASTVALE

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LIST OF ABBREVIATED TERMS

(1)	Reference
µg/m3	Microgram per Cubic Meter
AADT	Annual Average Daily Trips
AQIA	Air Quality Impact Analysis
AQMD	Air Quality Management District
AQMP	Air Quality Management Plan
ARB	California Air Resources Board
BACM	Best Available Control Measures
BMPs	Best Management Practices
CAA	Federal Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
Caltrans	California Department of Transportation
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CO	Carbon Monoxide
DPM	Diesel Particulate Matter
EPA	Environmental Protection Agency
LST	Localized Significance Threshold
NAAQS	National Ambient Air Quality Standards
NO2	Nitrogen Dioxide
NOx	Oxides of Nitrogen
Pb	Lead
PM10	Particulate Matter 10 microns in diameter or less
PM2.5	Particulate Matter 2.5 microns in diameter or less
PPM	Parts Per Million
Project	Polopolus
ROG	Reactive Organic Gases
Basin	South Coast Air Basin
SCAQMD	South Coast Air Quality Management District
SIPs	State Implementation Plans
SRA	Source Receptor Area
TAC	Toxic Air Contaminant

TIA	Traffic Impact Analysis
TOG	Total Organic Gases
VMT	Vehicle Miles Traveled

EXECUTIVE SUMMARY

CONSTRUCTION-SOURCE EMISSIONS

REGIONAL IMPACTS

Project construction-source emissions would exceed regional thresholds of significance established by the South Coast Air Quality Management District (SCAQMD) for emissions of any criteria pollutant. It should be noted that impacts without mitigation do take credit for reductions achieved through standard regulatory requirements RR AQ-1 (Rule 1113) and RR AQ-3 (Rule 403). Thus, a less than significant impact would occur for Project-related construction-source emissions with implementation of standard regulatory requirements.

LOCALIZED IMPACTS

Without mitigation, emissions during construction activity will exceed the SCAQMD's localized significance threshold for particulate matter emissions (PM10 - particulate matter ≤ 10 microns; and PM2.5 - particulate matter ≤ 2.5 microns). It should be noted that the impacts without mitigation do take credit for reductions achieved through best available control measures (BACMs) and standard regulatory requirements (Rule 403). After implementation of the recommended mitigation measures MM AQ-1, the emissions resulting from short-term construction activity will not exceed the SCAQMD LST thresholds.

ODORS

Established requirements addressing construction equipment operations, and construction material use, storage, and disposal requirements act to minimize odor impacts that may result from construction activities. Moreover, construction-source odor emissions would be temporary, short-term, and intermittent in nature and would not result in persistent impacts that would affect substantial numbers of people. Potential construction-source odor impacts are therefore considered less-than-significant.

OPERATIONAL-SOURCE EMISSIONS

REGIONAL IMPACTS

For regional emissions, the Project would exceed the numerical thresholds of significance established by the SCAQMD for emissions of NO_x. It is important to note that over 90 percent of the Project's NO_x emissions are derived from vehicle usage. Since the Project does not have regulatory authority to control tailpipe emissions, no feasible mitigation measures exist that would reduce NO_x emissions to levels that are less-than-significant, thus these emissions are considered significant and unavoidable.

LOCALIZED IMPACTS

Project operational-source emissions would not result in or cause a significant localized air quality impact as discussed in the operational LSTs section of this report. The proposed Project would

not result in a significant CO "hotspot" as a result of Project related traffic during ongoing operations, nor would the Project result in a significant adverse health impact as discussed in Section 3.8.

ODORS

Substantial odor-generating sources include land uses such as agricultural activities, feedlots, wastewater treatment facilities, landfills or various heavy industrial uses. The Project does not propose any such uses or activities that would result in potentially significant operational-source odor impacts. Potential sources of operational odors generated by the Project would include disposal of miscellaneous refuse. Moreover, SCAQMD Rule 402 acts to prevent occurrences of odor nuisances (1). Consistent with City requirements, all Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with solid waste regulations.

1 INTRODUCTION

This report presents the results of the air quality impact analysis (AQIA) prepared by Urban Crossroads, Inc., for the proposed Polopolus ("Project"). The purpose of this AQIA is to evaluate the potential impacts to air quality associated with construction and operation of the proposed Project and recommend measures to mitigate impacts considered potentially significant in comparison to thresholds established by the South Coast Air Quality Management District (SCAQMD).

1.1 SITE LOCATION

The proposed Polopolus Project is made up of two sites: Site 1 and Site 2. Site 1 is located on the southeast corner of Hamner Avenue and Schleisman Avenue, and Site 2 is located on the southwest corner of Hamner Avenue and Riverboat Drive, in the City of Eastvale as shown on Exhibit 1-A. Existing single-family residential uses are located north, west, and east of both Site 1 and Site 2. The Silverlakes Sports Complex park is located south of the Site 1 and an existing fire station is located south of Site 2. Interstate 15 (I-15) is located approximately one-quarter mile east of the Project site.

1.2 PROJECT DESCRIPTION

The Project is proposed to consist of the following land uses and is anticipated to be operational by 2019:

Site 1

- Parcel 1: 8 vehicle fueling position (VFP) gas station with market
- Parcel 2: 3,500 square feet (SF) of fast-food restaurant with drive-through window
- Parcel 3: 2,000 SF coffee shop with drive-through window
- Parcel 4: 6,000 SF high turnover sit-down restaurant
- Parcel 5: 4,000 SF of commercial retail use
- Parcel 5: 4,000 SF of fast-food restaurant without drive-through window
- Parcel 6: 10,000 SF of medical office use
- Parcel 7: 130 room hotel
- Civic: 40,000 SF government office
- Civic: 25,000 SF library

Site 2

- Hamner Avenue & Riverboat Drive Site: 16 VFP gas station with market and car wash.

EXHIBIT 1-A: LOCATION MAP

1.3 REGULATORY REQUIREMENTS

SCAQMD Rules and California Air Resources Board (CARB) Regulations would act generally to reduce Project construction-source emissions. Implemented Rules and Regulations that are reflected in the Project air quality modeling are listed below.

RR AQ-1

Only "Low-Volatile Organic Compounds" paints (no more than 50 gram/liter of VOC) and/or High Pressure Low Volume (HPLV) applications consistent with South Coast Air Quality Management District Rule 1113 shall be used.

RR AQ-2

The Project is required to adhere to the provisions under Rule 403 (Fugitive Dust) (4).

1.4 CONSTRUCTION-SOURCE AIR QUALITY IMPACT MITIGATION MEASURES

In order to reduce Localized Significance Threshold (LST) impacts of PM_{10} and $PM_{2.5}$, the following mitigation measure is required beyond Rule 403.

MM AQ-1

During site preparation and grading activity all actively graded areas within the Project site shall be watered at 2.1-hour watering intervals (e.g., 4 times per day) or a movable sprinkler system shall be in place to ensure minimum soil moisture of 12% in maintained for actively graded areas. Moisture content can be verified with use of a moisture probe by the grading contractor.

1.5 OPERATIONAL-SOURCE MITIGATION MEASURES

Operational-source emissions has the potential to exceed the threshold of significance, however, no mitigation measures exist that will reduce emissions of NO_x to levels that are less than significance. Therefore, emissions of NO_x are considered significant and unavoidable.

2 AIR QUALITY SETTING

This section provides an overview of the existing air quality conditions in the Project area and region.

2.1 SOUTH COAST AIR BASIN

The Project site is located in the South Coast Air Basin (SCAB) within the jurisdiction of SCAQMD (2). The SCAQMD was created by the 1977 Lewis-Presley Air Quality Management Act, which merged four county air pollution control bodies into one regional district. Under the Act, the SCAQMD is responsible for bringing air quality in areas under its jurisdiction into conformity with federal and state air quality standards. As discussed above, the Project site is located within the South Coast Air Basin, a 6,745-square mile subregion of the SCAQMD, which includes portions of Los Angeles, Riverside, and San Bernardino Counties, and all of Orange County. The larger South Coast district boundary includes 10,743 square miles.

The SCAB is bound by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The Los Angeles County portion of the Mojave Desert Air Basin is bound by the San Gabriel Mountains to the south and west, the Los Angeles / Kern County border to the north, and the Los Angeles / San Bernardino County border to the east. The Riverside County portion of the Salton Sea Air Basin is bound by the San Jacinto Mountains in the west and spans eastward up to the Palo Verde Valley.

2.2 REGIONAL CLIMATE

The regional climate has a substantial influence on air quality in the Basin. In addition, the temperature, wind, humidity, precipitation, and amount of sunshine influence the air quality.

The annual average temperatures throughout the Basin vary from the low to middle 60s (degrees Fahrenheit). Due to a decreased marine influence, the eastern portion of the Basin shows greater variability in average annual minimum and maximum temperatures. January is the coldest month throughout the Basin, with average minimum temperatures of 47°F in downtown Los Angeles and 36°F in San Bernardino. All portions of the Basin have recorded maximum temperatures above 100°F.

Although the climate of the Basin can be characterized as semi-arid, the air near the land surface is quite moist on most days because of the presence of a marine layer. This shallow layer of sea air is an important modifier of Basin climate. Humidity restricts visibility in the Basin, and the conversion of sulfur dioxide to sulfates is heightened in air with high relative humidity. The marine layer provides an environment for that conversion process, especially during the spring and summer months. The annual average relative humidity within the Basin is 71 percent along the coast and 59 percent inland. Since the ocean effect is dominant, periods of heavy early morning fog are frequent and low stratus clouds are a characteristic feature. These effects decrease with distance from the coast.

More than 90 percent of the Basin's rainfall occurs from November through April. The annual average rainfall varies from approximately nine inches in Riverside to fourteen inches in downtown Los Angeles. Monthly and yearly rainfall totals are extremely variable. Summer rainfall usually consists of widely scattered thunderstorms near the coast and slightly heavier shower activity in the eastern portion of the Basin with frequency being higher near the coast.

Due to its generally clear weather, about three-quarters of available sunshine is received in the Basin. The remaining one-quarter is absorbed by clouds. The ultraviolet portion of this abundant radiation is a key factor in photochemical reactions. On the shortest day of the year there are approximately 10 hours of possible sunshine, and on the longest day of the year there are approximately 14 1/2 hours of possible sunshine.

The importance of wind to air pollution is considerable. The direction and speed of the wind determines the horizontal dispersion and transport of the air pollutants. During the late autumn to early spring rainy season, the Basin is subjected to wind flows associated with the traveling storms moving through the region from the northwest. This period also brings five to ten periods of strong, dry offshore winds, locally termed "Santa Anas" each year. During the dry season, which coincides with the months of maximum photochemical smog concentrations, the wind flow is bimodal, typified by a daytime onshore sea breeze and a nighttime offshore drainage wind. Summer wind flows are created by the pressure differences between the relatively cold ocean and the unevenly heated and cooled land surfaces that modify the general northwesterly wind circulation over southern California. Nighttime drainage begins with the radiational cooling of the mountain slopes. Heavy, cool air descends the slopes and flows through the mountain passes and canyons as it follows the lowering terrain toward the ocean. Another characteristic wind regime in the Basin is the "Catalina Eddy," a low level cyclonic (counterclockwise) flow centered over Santa Catalina Island which results in an offshore flow to the southwest. On most spring and summer days, some indication of an eddy is apparent in coastal sections.

In the Basin, there are two distinct temperature inversion structures that control vertical mixing of air pollution. During the summer, warm high-pressure descending (subsiding) air is undercut by a shallow layer of cool marine air. The boundary between these two layers of air is a persistent marine subsidence/inversion. This boundary prevents vertical mixing which effectively acts as an impervious lid to pollutants over the entire Basin. The mixing height for the inversion structure is normally situated 1,000 to 1,500 feet above mean sea level.

A second inversion-type forms in conjunction with the drainage of cool air off the surrounding mountains at night followed by the seaward drift of this pool of cool air. The top of this layer forms a sharp boundary with the warmer air aloft and creates nocturnal radiation inversions. These inversions occur primarily in the winter, when nights are longer and onshore flow is weakest. They are typically only a few hundred feet above mean sea level. These inversions effectively trap pollutants, such as NOX and CO from vehicles, as the pool of cool air drifts seaward. Winter is therefore a period of high levels of primary pollutants along the coastline.

2.3 WIND PATTERNS AND PROJECT LOCATION

The distinctive climate of the Project area and the Basin is determined by its terrain and geographical location. The Basin is located in a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean in the southwest quadrant with high mountains forming the remainder of the perimeter.

Wind patterns across the south coastal region are characterized by westerly and southwesterly on-shore winds during the day and easterly or northeasterly breezes at night. Winds are characteristically light although the speed is somewhat greater during the dry summer months than during the rainy winter season.

2.4 EXISTING AIR QUALITY

Existing air quality is measured at established SCAQMD air quality monitoring stations. Monitored air quality is evaluated and in the context of ambient air quality standards. These standards are the levels of air quality that are considered safe, with an adequate margin of safety, to protect the public health and welfare. National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) currently in effect are shown in Table 2-1 (3).

The determination of whether a region's air quality is healthful or unhealthful is determined by comparing contaminant levels in ambient air samples to the state and federal standards presented in Table 2-1. The air quality in a region is considered to be in attainment by the state if the measured ambient air pollutant levels for O3, CO, SO2, NO2, PM10, and PM2.5 are not equaled or exceeded at any time in any consecutive three-year period; and the federal standards (other than O3, PM10, PM2.5, and those based on annual averages or arithmetic mean) are not exceeded more than once per year. The O3 standard is attained when the fourth highest eight-hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24-hour standard is attained when the expected number of says per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than one. For PM2.5, 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.

TABLE 2-1: AMBIENT AIR QUALITY STANDARDS (1 OF 2)

Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards [1]		National Standards [2]		
		Concentration [3]	Method [4]	Primary [3,5]	Secondary [3,6]	Method [7]
Ozone (O_3)[8]	1 Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m^3)		0.070 ppm (137 µg/m^3)		
Respirable Particulate Matter (PM10)[9]	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 (PM2.5)[9]	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	12.0 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 (10 mg/m^3)		9 ppm (10 mg/m^3)	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		—	—	
Nitrogen Dioxide (NO_2)[10]	1 Hour	0.18 ppm (339 µg/m^3)	Gas Phase Chemiluminescence	100 ppb (188 µg/m^3)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)		0.053 ppm (100 µg/m^3)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[11]	1 Hour	0.25 ppm (655 µg/m^3)	Ultraviolet Fluorescence	75 ppb (196 µg/m^3)	—	Ultraviolet Flourescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 µg/m^3)	
	24 Hour	0.04 ppm (105 µg/m^3)		0.14 ppm (for certain areas)[11]	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas)[11]	—	
Lead[12,13]	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	—		0.15 µg/m^3		
Visibility Reducing Particles[14]	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	No National 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[12]	24 Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography			

See footnotes on next page ...

For more information please call ARB-PIO at (916) 322-2990

California Air Resources Board (5/4/16)

TABLE 2-1: AMBIENT AIR QUALITY STANDARDS (2 OF 2)

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, 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 PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than one. For PM2.5, 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 the 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 U.S. EPA.

8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

9. On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 $\mu g/m^3$ to 12.0 $\mu g/m^3$. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at 35 $\mu g/m^3$, as was the annual secondary standard of 15 $\mu g/m^3$. The existing 24-hour PM10 standards (primary and secondary) of 150 $\mu g/m^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

11. 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.

12. 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.

13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 $\mu g/m^3$ 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.

14. 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.

For more information please call ARB-PIO at (916) 322-2990 **California Air Resources Board (5/4/16)**

2.5 REGIONAL AIR QUALITY

The SCAQMD monitors levels of various criteria pollutants at 38 permanent monitoring stations and 5 single-pollutant source Lead (Pb) air monitoring sites throughout the air district (4). In 2015, the federal and state ambient air quality standards (NAAQS and CAAQS) were exceeded on one or more days for ozone, PM10, and PM2.5 at most monitoring locations (5). No areas of the Basin exceeded federal or state standards for NO2, SO2, CO, sulfates or lead. See Table 2-2, for attainment designations for the Basin (6). Appendix 3.1 provides geographic representation of the state and federal attainment status for applicable criteria pollutants within the Basin.

TABLE 2-2: ATTAINMENT STATUS OF CRITERIA POLLUTANTS IN THE SOUTH COAST AIR BASIN

Criteria Pollutant	State Designation	Federal Designation
Ozone – 1-hour standard	Nonattainment	No Standard
Ozone – 8-hour standard	Nonattainment	Nonattainment (Extreme)
PM_{10}	Nonattainment	Attainment (Maintenance)
$PM_{2.5}$	Nonattainment	Nonattainment (Serious)
Carbon Monoxide	Attainment	Attainment (Maintenance)
Nitrogen Dioxide	Attainment	Attainment (Maintenance)
Sulfur Dioxide	Attainment	Attainment
Lead[1]	Attainment	Nonattainment (Partial)

Source: State/Federal designations were taken from http://www.arb.ca.gov/desig/adm/adm.htm
Note: See Appendix 3.1 for a detailed map of State/National Area Designations within the South Coast Air Basin

2.6 LOCAL AIR QUALITY

Relative to the Project site, the nearest long-term air quality monitoring site for Particulate Matter ≤10 microns (PM_{10}) is the South Coast Air Quality Management District Corona/Norco Area monitoring station, located approximately 2.75 miles southwest of the Project site in Norco (SRA 22). Relative to the Project site, the nearest long-term air quality monitoring site for Ozone (O_3), Carbon Monoxide (CO), Nitrogen Dioxide (NO_2), and Particulate Matter ≤2.5 microns ($PM_{2.5}$) is the South Coast Air Quality Management District Metropolitan Riverside County monitoring station, located approximately 8.85 miles northeast of the Project site in Riverside (SRA 13). It should be noted that the Metropolitan Riverside County monitoring station was utilized in lieu of the Corona/Norco Area monitoring station only in instances where data was not available from the Corona/Norco Area site.

The most recent three years of available air quality monitoring data is shown on Table 2-3 and identifies the number of days ambient air quality standards were exceeded for the study area, which is was considered to be representative of the local air quality at the Project site (7). Data

[1] The Federal nonattainment designation for lead is only applicable towards the Los Angeles County portion of the Basin.

for SO2 has been omitted as attainment is regularly met in the Basin and few monitoring stations measure SO2 concentrations.

TABLE 2-3: PROJECT AREA AIR QUALITY MONITORING SUMMARY 2014-2016

POLLUTANT	STANDARD	YEAR		
		2014	2015	2016
Ozone (O_3)				
Maximum 1-Hour Concentration (ppm)		0.141	0.132	0.142
Maximum 8-Hour Concentration (ppm)		0.104	0.105	0.104
Number of Days Exceeding State 1-Hour Standard	> 0.09 ppm	29	31	33
Number of Days Exceeding State 8-Hour Standard	> 0.07 ppm	69	59	71
Number of Days Exceeding Federal 8-Hour Standard	> 0.07 ppm	66	55	69
Number of Days Exceeding Health Advisory	≥ 0.15 ppm	0	0	0
Carbon Monoxide (CO)				
Maximum 1-Hour Concentration (ppm)		2.0	2.5	1.7
Maximum 8-Hour Concentration (ppm)		1.9	2.3	1.3
Number of Days Exceeding State 1-Hour Standard	> 20 ppm	0	0	0
Number of Days Exceeding Federal / State 8-Hour Standard	> 9.0 ppm	0	0	0
Number of Days Exceeding Federal 1-Hour Standard	> 35 ppm	0	0	0
Nitrogen Dioxide (NO_2)				
Maximum 1-Hour Concentration (ppm)		0.060	0.057	0.073
Annual Arithmetic Mean Concentration (ppm)		0.015	0.014	0.028
Number of Days Exceeding State 1-Hour Standard	> 0.18 ppm	0	0	0
Particulate Matter ≤ 10 Microns (PM_{10})				
Maximum 24-Hour Concentration (µg/m^3)		65	87	62
Number of Samples		59	44	51
Number of Samples Exceeding State Standard	> 50 µg/m^3	3	3	7
Number of Samples Exceeding Federal Standard	> 150 µg/m^3	0	0	0
Particulate Matter ≤ 2.5 Microns ($PM_{2.5}$)				
Maximum 24-Hour Concentration (µg/m^3)		48.9	54.7	39.1
Annual Arithmetic Mean (µg/m^3)		12.48	13.34	12.54
Number of Samples Exceeding Federal 24-Hour Standard	> 35 µg/m^3	5	17	4

-- = data not available from SCAQMD or ARB

Criteria Pollutant Sources

Criteria pollutants are pollutants that are regulated through the development of human health based and/or environmentally based criteria for setting permissible levels. Criteria pollutants, their typical sources are identified below (8). Health effects of pollutants are summarized subsequently.

- Carbon Monoxide (CO): Is a colorless, odorless gas produced by the incomplete combustion of carbon-containing fuels, such as gasoline or wood. CO concentrations tend to be the highest during the winter morning, when little to no wind and surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines, unlike ozone, motor vehicles operating at slow speeds are the primary source of CO in the Basin. The highest ambient CO concentrations are generally found near congested transportation corridors and intersections.
- Sulfur Dioxide (SO2): Is a colorless, extremely irritating gas or liquid. It enters the atmosphere as a pollutant mainly as a result of burning high sulfur-content fuel oils and coal and from chemical processes occurring at chemical plants and refineries. When SO2 oxidizes in the atmosphere, it forms sulfates (SO4). Collectively, these pollutants are referred to as sulfur oxides (SOX).
- Nitrogen Oxides (Oxides of Nitrogen, or NOx): Nitrogen oxides (NOx) consist of nitric oxide (NO), nitrogen dioxide (NO2) and nitrous oxide (N2O) and are formed when nitrogen (N2) combines with oxygen (O2). Their lifespan in the atmosphere ranges from one to seven days for nitric oxide and nitrogen dioxide, to 170 years for nitrous oxide. Nitrogen oxides are typically created during combustion processes and are major contributors to smog formation and acid deposition. NO2 is a criteria air pollutant and may result in numerous adverse health effects; it absorbs blue light, resulting in a brownish-red cast to the atmosphere and reduced visibility. Of the seven types of nitrogen oxide compounds, NO2 is the most abundant in the atmosphere. As ambient concentrations of NO2 are related to traffic density, commuters in heavy traffic may be exposed to higher concentrations of NO2 than those indicated by regional monitors.
- Ozone (O3): Is a highly reactive and unstable gas that is formed when volatile organic compounds (VOCs) and nitrogen oxides (NOX) undergo slow photochemical reactions in the presence of sunlight. Ozone concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable to the formation of this pollutant.
- PM10 (Particulate Matter less than 10 microns): A major air pollutant consisting of tiny solid or liquid particles of soot, dust, smoke, fumes, and aerosols. The size of the particles (10 microns or smaller, about 0.0004 inches or less) allows them to easily enter the lungs where they may be deposited, resulting in adverse health effects. PM10 also causes visibility reduction and is a criteria air pollutant.
- PM2.5 (Particulate Matter less than 2.5 microns): A similar air pollutant consisting of tiny solid or liquid particles which are 2.5 microns or smaller (which is often referred to as fine particles). These particles are formed in the atmosphere from primary gaseous emissions that include sulfates formed from SO2 release from power plants and industrial facilities and nitrates that are formed from NOX release from power plants, automobiles and other types of combustion sources. The chemical composition of fine particles highly depends on location, time of year, and weather conditions. PM2.5 is a criteria air pollutant.

- Volatile Organic Compounds (VOC): Volatile organic compounds are hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air. VOCs contribute to the formation of smog through atmospheric photochemical reactions and/or may be toxic. Compounds of carbon (also known as organic compounds) have different levels of reactivity; that is, they do not react at the same speed or do not form ozone to the same extent when exposed to photochemical processes. VOCs often have an odor, and some examples include gasoline, alcohol, and the solvents used in paints. Exceptions to the VOC designation include: carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate. VOCs are a precursor to O3, which is a criteria pollutant. The SCAQMD uses the terms VOC and ROG (see below) interchangeably.
- Reactive Organic Gases (ROG): Similar to VOC, Reactive Organic Gases (ROG) are also precursors in forming ozone. Smog is formed when ROG and nitrogen oxides react in the presence of sunlight. The SCAQMD uses the terms ROG and VOC (see previous) interchangeably.
- Lead (Pb): Lead is a heavy metal that is highly persistent in the environment. In the past, the primary source of lead in the air was emissions from vehicles burning leaded gasoline. As a result of the removal of lead from gasoline, there have been no violations at any of the SCAQMD's regular air monitoring stations since 1982. Currently, emissions of lead are largely limited to stationary sources such as lead smelters. It should be noted that the Project is not anticipated to generate a quantifiable amount of lead emissions. Lead is a criteria air pollutant.

Health Effects of Criteria Air Pollutants

Ozone

Individuals exercising outdoors, children, and people with preexisting lung disease, such as asthma and chronic pulmonary lung disease, are considered to be the most susceptible sub-groups for ozone effects. Short-term exposure (lasting for a few hours) to ozone at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes. Elevated ozone levels are associated with increased school absences. In recent years, a correlation between elevated ambient ozone levels and increases in daily hospital admission rates, as well as mortality, has also been reported. An increased risk for asthma has been found in children who participate in multiple sports and live in communities with high ozone levels.

Ozone exposure under exercising conditions is known to increase the severity of the responses described above. Animal studies suggest that exposure to a combination of pollutants that includes ozone may be more toxic than exposure to ozone alone. Although lung volume and resistance changes observed after a single exposure diminish with repeated exposures, biochemical and cellular changes appear to persist, which can lead to subsequent lung structural changes.

Carbon Monoxide

Individuals with a deficient blood supply to the heart are the most susceptible to the adverse effects of CO exposure. The effects observed include earlier onset of chest pain with exercise, and electrocardiograph changes indicative of decreased oxygen supply to the heart. Inhaled CO

has no direct toxic effect on the lungs but exerts its effect on tissues by interfering with oxygen transport and competing with oxygen to combine with hemoglobin present in the blood to form carboxyhemoglobin (COHb). Hence, conditions with an increased demand for oxygen supply can be adversely affected by exposure to CO. Individuals most at risk include fetuses, patients with diseases involving heart and blood vessels, and patients with chronic hypoxemia (oxygen deficiency) as seen at high altitudes.

Reduction in birth weight and impaired neurobehavioral development have been observed in animals chronically exposed to CO, resulting in COHb levels similar to those observed in smokers. Recent studies have found increased risks for adverse birth outcomes with exposure to elevated CO levels; these include pre-term births and heart abnormalities.

Particulate Matter

A consistent correlation between elevated ambient fine particulate matter (PM10 and PM2.5) levels and an increase in mortality rates, respiratory infections, number and severity of asthma attacks and the number of hospital admissions has been observed in different parts of the United States and various areas around the world. In recent years, some studies have reported an association between long-term exposure to air pollution dominated by fine particles and increased mortality, reduction in life-span, and an increased mortality from lung cancer.

Daily fluctuations in PM2.5 concentration levels have also been related to hospital admissions for acute respiratory conditions in children, to school and kindergarten absences, to a decrease in respiratory lung volumes in normal children, and to increased medication use in children and adults with asthma. Recent studies show lung function growth in children is reduced with long-term exposure to particulate matter.

The elderly, people with pre-existing respiratory or cardiovascular disease, and children appear to be more susceptible to the effects of high levels of PM10 and PM2.5.

Nitrogen Dioxide

Population-based studies suggest that an increase in acute respiratory illness, including infections and respiratory symptoms in children (not infants), is associated with long-term exposure to NO2 at levels found in homes with gas stoves, which are higher than ambient levels found in Southern California. Increase in resistance to air flow and airway contraction is observed after short-term exposure to NO2 in healthy subjects. Larger decreases in lung functions are observed in individuals with asthma or chronic obstructive pulmonary disease (e.g., chronic bronchitis, emphysema) than in healthy individuals, indicating a greater susceptibility of these sub-groups.

In animals, exposure to levels of NO2 considerably higher than ambient concentrations results in increased susceptibility to infections, possibly due to the observed changes in cells involved in maintaining immune functions. The severity of lung tissue damage associated with high levels of ozone exposure increases when animals are exposed to a combination of ozone and NO2.

Sulfur Dioxide

A few minutes of exposure to low levels of SO2 can result in airway constriction in some asthmatics, all of whom are sensitive to its effects. In asthmatics, increase in resistance to air flow, as well as reduction in breathing capacity leading to severe breathing difficulties, are observed after acute exposure to SO2. In contrast, healthy individuals do not exhibit similar acute responses even after exposure to higher concentrations of SO2.

Animal studies suggest that despite SO2 being a respiratory irritant, it does not cause substantial lung injury at ambient concentrations. However, very high levels of exposure can cause lung edema (fluid accumulation), lung tissue damage, and sloughing off of cells lining the respiratory tract.

Some population-based studies indicate that the mortality and morbidity effects associated with fine particles show a similar association with ambient SO2 levels. In these studies, efforts to separate the effects of SO2 from those of fine particles have not been successful. It is not clear whether the two pollutants act synergistically, or one pollutant alone is the predominant factor.

Lead

Fetuses, infants, and children are more sensitive than others to the adverse effects of Pb exposure. Exposure to low levels of Pb can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. In adults, increased Pb levels are associated with increased blood pressure.

Pb poisoning can cause anemia, lethargy, seizures, and death; although it appears that there are no direct effects of Pb on the respiratory system. Pb can be stored in the bone from early age environmental exposure, and elevated blood Pb levels can occur due to breakdown of bone tissue during pregnancy, hyperthyroidism (increased secretion of hormones from the thyroid gland) and osteoporosis (breakdown of bony tissue). Fetuses and breast-fed babies can be exposed to higher levels of Pb because of previous environmental Pb exposure of their mothers.

Odors

The science of odor as a health concern is still new. Merely identifying the hundreds of VOCs that cause odors poses a big challenge. Offensive odors can potentially affect human health in several ways. First, odorant compounds can irritate the eye, nose, and throat, which can reduce respiratory volume. Second, studies have shown that the VOCs that cause odors can stimulate sensory nerves to cause neurochemical changes that might influence health, for instance, by compromising the immune system. Finally, unpleasant odors can trigger memories or attitudes linked to unpleasant odors, causing cognitive and emotional effects such as stress.

2.7 REGULATORY BACKGROUND

2.7.1 FEDERAL REGULATIONS

The U.S. EPA is responsible for setting and enforcing the NAAQS for O3, CO, NOx, SO2, PM10, and lead (3). The U.S. EPA has jurisdiction over emissions sources that are under the authority of the federal government including aircraft, locomotives, and emissions sources outside state waters (Outer Continental Shelf). The U.S. EPA also establishes emission standards for vehicles sold in states other than California. Automobiles sold in California must meet the stricter emission requirements of the CARB.

The Federal Clean Air Act (CAA) was first enacted in 1955 and has been amended numerous times in subsequent years (1963, 1965, 1967, 1970, 1977, and 1990). The CAA establishes the federal air quality standards, the NAAQS, and specifies future dates for achieving compliance (9). The CAA also mandates that states submit and implement State Implementation Plans (SIPs) for local areas not meeting these standards. These plans must include pollution control measures that demonstrate how the standards will be met.

The 1990 amendments to the CAA that identify specific emission reduction goals for areas not meeting the NAAQS require a demonstration of reasonable further progress toward attainment and incorporate additional sanctions for failure to attain or to meet interim milestones. The sections of the CAA most directly applicable to the development of the Project site include Title I (Non-Attainment Provisions) and Title II (Mobile Source Provisions). Title I provisions were established with the goal of attaining the NAAQS for the following criteria pollutants O3, NO2, SO2, PM10, CO, PM2.5, and lead. The NAAQS were amended in July 1997 to include an additional standard for O3 and to adopt a NAAQS for PM2.5. Table 3-1 (previously presented) provides the NAAQS within the basin.

Mobile source emissions are regulated in accordance with Title II provisions. These provisions require the use of cleaner burning gasoline and other cleaner burning fuels such as methanol and natural gas. Automobile manufacturers are also required to reduce tailpipe emissions of hydrocarbons and nitrogen oxides (NOx). NOx is a collective term that includes all forms of nitrogen oxides (NO, NO2, NO3) which are emitted as byproducts of the combustion process.

2.7.2 CALIFORNIA REGULATIONS

The CARB, which became part of the California EPA in 1991, is responsible for ensuring implementation of the California Clean Air Act (AB 2595), responding to the federal CAA, and for regulating emissions from consumer products and motor vehicles. The California CAA mandates achievement of the maximum degree of emissions reductions possible from vehicular and other mobile sources in order to attain the state ambient air quality standards by the earliest practical date. The CARB established the CAAQS for all pollutants for which the federal government has NAAQS and, in addition, establishes standards for sulfates, visibility, hydrogen sulfide, and vinyl chloride. However, at this time, hydrogen sulfide and vinyl chloride are not measured at any monitoring stations in the SCAB because they are not considered to be a regional air quality problem. Generally, the CAAQS are more stringent than the NAAQS (10) (3).

Local air quality management districts, such as the SCAQMD, regulate air emissions from stationary sources such as commercial and industrial facilities. All air pollution control districts have been formally designated as attainment or non-attainment for each CAAQS.

Serious non-attainment areas are required to prepare air quality management plans that include specified emission reduction strategies in an effort to meet clean air goals. These plans are required to include:

- Application of Best Available Retrofit Control Technology to existing sources;
- Developing control programs for area sources (e.g., architectural coatings and solvents) and indirect sources (e.g. motor vehicle use generated by residential and commercial development);
- A District permitting system designed to allow no net increase in emissions from any new or modified permitted sources of emissions;
- Implementing reasonably available transportation control measures and assuring a substantial reduction in growth rate of vehicle trips and miles traveled;
- Significant use of low emissions vehicles by fleet operators;
- Sufficient control strategies to achieve a five percent or more annual reduction in emissions or 15 percent or more in a period of three years for ROGs, NOx, CO and PM10. However, air basins may use alternative emission reduction strategy that achieves a reduction of less than five percent per year under certain circumstances.

2.7.3 Air Quality Management Planning

Currently, the NAAQS and CAAQS are exceeded in most parts of the SCAB for PM10, PM2.5, and ozone. In response, the SCAQMD has adopted a series of Air Quality Management Plans (AQMPs) to meet the state and federal ambient air quality standards (8). AQMPs are updated regularly in order to more effectively reduce emissions, accommodate growth, and to minimize any negative fiscal impacts of air pollution control on the economy. A detailed discussion on the AQMP and Project consistency with the AQMP is provided in Section 3.8.

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3 PROJECT AIR QUALITY IMPACT

3.1 INTRODUCTION

The Project has been evaluated to determine if it will violate an air quality standard or contribute to an existing or projected air quality violation. Additionally, the Project has been evaluated to determine if it will result in a cumulatively considerable net increase of a criteria pollutant for which the Basin is non-attainment under an applicable federal or state ambient air quality standard. The significance of these potential impacts is described in the following section.

3.2 STANDARDS OF SIGNIFICANCE

CEQA allows the applicable air pollution control district or air pollution management district, which in this case is the SCAQMD, to establish thresholds of significance for air quality impacts.

3.2.1 REGIONAL SIGNIFICANCE THRESHOLDS

The SCAQMD has developed regional significance thresholds for regulated pollutants, shown below in Table 3-1. The SCAQMD's CEQA Air Quality Significance Thresholds (March 2015) indicate that any projects in the Basin with daily regional emissions that exceed any of the indicated thresholds should be considered as having an individually and cumulatively significant air quality impact (11).

TABLE 3-1: MAXIMUM REGIONAL DAILY EMISSIONS THRESHOLDS

Regional Significance Thresholds[A]		
Pollutant	**Construction**	**Operations**
NOx	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM10	150 lbs/day	150 lbs/day
PM2.5	55 lbs/day	55 lbs/day
SOx	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day

[A:] Based on SCAQMD Air Quality Significance Thresholds, March 2015

3.2.2 LOCALIZED SIGNIFICANCE THRESHOLDS

The SCAQMD has established that impacts to air quality are significant if there is a potential to contribute or cause localized exceedances of the federal and/or state ambient air quality standards (NAAQS/CAAQS). Collectively, these are referred to as Localized Significance Thresholds (LSTs). The localized significance thresholds for regulated pollutants are shown in Table 3-2.

TABLE 3-2: MAXIMUM LOCALIZED DAILY EMISSIONS THRESHOLDS

Localized Significance Thresholds[A]		
Pollutant	**Construction**	**Operations**
CO	674 lbs/day (Demolition)*	N/A
	1,354 lbs/day (Site Preparation)**	
	1,123 lbs/day (Grading)***	
NOx	118 lbs/day (Demolition)*	N/A
	220 lbs/day (Site Preparation)**	
	187 lbs/day (Grading)***	
PM10	4 lbs/day (Demolition)*	N/A
	9 lbs/day (Site Preparation)**	
	7 lbs/day (Grading)***	
PM2.5	3 lbs/day (Demolition)*	N/A
	7 lbs/day (Site Preparation)**	
	6 lbs/day (Grading)***	

A: Based on SCAQMD Final Localized Significance Threshold Methodology, June 2003
* Based on SCAQMD's Localized Significance Thresholds for a daily disturbance area of 1 acre
** Based on SCAQMD's Localized Significance Thresholds for a daily disturbance area of 3.5 acre
*** Based on SCAQMD's Localized Significance Thresholds for a daily disturbance of 2.5 acre

Localized significance thresholds (LSTs) are determined based on the ambient air quality within the Project's applicable source receptor area (SRA), the distance to the sensitive receptor and non-sensitive receptors, and the total disturbed area of the emissions source. The Project site is located in SRA 22.

Sensitive receptors near the Project site include existing residential homes, a fire station, a church, and a park. The closest sensitive receptor locations are existing outdoor living areas (backyards) of residential homes approximately 10 to 19 feet (3.05 to 5.79 meters) from the Project site boundaries. Non-sensitive receptors include commercial, industrial and other land uses where individuals remain for shorter durations than is typical of sensitive land uses . It should be noted that LSTs are based on the exposure durations established by the CAAQS and NAAQS—emissions of CO are quantified based on a 1-hour and 8-hour exposure duration, emissions of NO_2 are quantified based on a 1-hour exposure duration, and emissions of PM_{10} and $PM_{2.5}$ are quantified based on a 24-hour exposure duration. Because it is possible for a non-sensitive receptor to remain in a location for shorter durations (1-hour and 8-hours), it is appropriate to base the proximity of the non-sensitive receptor on the exposure duration in which each criteria pollutant is measured to determine localized significance thresholds.

The SCAQMD produced LST Look-Up Tables (LST Tables), based on CAAQS and NAAQS, in which projects that have 5 or less maximum disturbed acreage can use to determine thresholds of significance. Projects that exceed a maximum 5-acre disturbance area may use the LST Tables for

5-acres as a screening tool to determine which criteria pollutants require additional analysis.[2] This approach is conservative as it assumes all on-site emissions would occur within a 5-acre area and would tend to overstate rather than understate potential localized impacts (i.e. more pollutant emissions occurring within a smaller area or within closer proximity to potential sensitive receptors). If the Project air pollutant emissions exceed the 5-acre LSTs, the SCAQMD recommends that air quality dispersion modeling be conducted to further refine and define potential localized impacts (12).

Construction Activity

Emissions subject to LST criteria generated by construction activities include the NOx and CO combustion emissions resulting from construction equipment operations and PM10 dust from site preparation and grading activities. For the purposes of the LST analysis, the total area of the emissions source is based on the total acres graded during the site preparation and grading phases of construction. As presented later in Section 3.6, Table 3-8, the proposed Project could actively disturb approximately 1 acre per day during demolition, approximately 3.5 acres per day during site preparation, and approximately 2.5 acre per day during the grading activities, Since the Project construction activity has a potential maximum disturbed acreage 5 acres or less, the LST Tables are utilized for construction activity. (13) It should be noted that since the LST Tables identify thresholds at only 1-acre, 2-acres, and 5-acres, linear regression has been utilized, consistent with SCAQMD guidance, to interpolate threshold values for disturbed acreages not specifically identified.

Operational Activity

Emissions subject to LST criteria generated by operational activities include NOx and CO combustion emissions from stationary sources and/or on-site mobile equipment. According to SCAQMD LST methodology, LSTs would apply to the operational phase of a proposed project, if the project includes stationary sources, or attracts mobile sources that may spend long periods queuing and idling at the site (e.g., transfer facilities and warehouse buildings). The proposed project does not include such uses, and thus, due to the lack of substantive stationary source emissions, no long-term localized significance threshold analysis is needed. Please refer to Section 3.6 for more detail regarding LSTs.

3.3 CALIFORNIA EMISSIONS ESTIMATOR MODEL™ EMPLOYED TO ESTIMATE AQ EMISSIONS

Land uses such as the Project affect air quality through construction-source and operational-source emissions.

On October 17, 2017, the SCAQMD in conjunction with the California Air Pollution Control Officers Association (CAPCOA) and other California air districts, released the latest version of the California Emissions Estimator Model™ (CalEEMod™) v2016.3.2. The purpose of this model is to calculate construction-source and operational-source criteria pollutant (NO_x, VOC, PM_{10}, $PM_{2.5}$, SO_x, and CO) and greenhouse gas (GHG) emissions from direct and indirect sources; and quantify applicable air quality and GHG reductions achieved from mitigation measures (14). Accordingly,

2 Personal communication with Mr. Ian MacMillan, November 17, 2011

the latest version of CalEEMod™ has been used for this Project to determine construction and operational air quality emissions. Output from the model runs for both construction and operational activity are provided in Appendix 3.2.

3.4 CONSTRUCTION EMISSIONS

Construction activities associated with the Project will result in emissions of CO, VOCs, NOx, SOx, PM10, and PM2.5. Construction related emissions are expected from the following construction activities:

- Demolition
- Site Preparation
- Grading
- Building Construction
- Paving
- Architectural Coating
- Construction Workers Commuting

Construction is expected to commence in March 2018 and will last through May 2019. Construction duration by activity is shown on Table 3-3. The duration of construction activity was estimated based on CalEEMod model defaults and a 2019 opening year. The detailed summary of construction equipment, shown on Table 3-4, was estimated based on CalEEMod model defaults. The site-specific construction fleet may vary due to specific project needs at the time of construction. The duration of construction activity and associated equipment both represent a reasonable approximation of the expected construction fleet as required per CEQA guidelines. Please refer to specific detailed modeling inputs/outputs contained in Appendix 3.2 of this analysis.

As a component of the Project, existing structures and surface features within the Project site would be demolished.

Dust is typically a major concern during rough grading activities. Because such emissions are not amenable to collection and discharge through a controlled source, they are called “fugitive emissions”. Fugitive dust emissions rates vary as a function of many parameters (soil silt, soil moisture, wind speed, area disturbed, number of vehicles, depth of disturbance or excavation, etc.). The CalEEMod model was utilized to calculate fugitive dust emissions resulting from this phase of activity. Preliminary grading concepts indicate that site preparation would not require any fill (soil import) or cut (soil export).

Construction emissions for construction worker vehicles traveling to and from the Project site, as well as vendor trips (construction materials delivered to the Project site) were estimated based on information CalEEMod model defaults.

TABLE 3-3: CONSTRUCTION DURATION

Activity	Start Date	End Date	Days
Demolition	03/01/2018	03/28/2018	20
Site Preparation	03/29/2018	04/11/2018	10
Grading	04/12/2018	05/09/2018	20
Building Construction	05/10/2018	03/27/2019	230
Paving	03/28/2019	04/24/2019	20
Architectural Coating	04/25/2019	05/22/2019	20

TABLE 3-4: CONSTRUCTION EQUIPMENT ASSUMPTIONS

Activity	Equipment	Number	Hours Per Day
Demolition	Concrete/Industrial Saws	1	8
	Excavators	3	8
	Rubber Tired Dozers	2	8
Site Preparation	Crawler Tractors	4	8
	Rubber Tired Dozers	3	8
Graders	Excavators	1	8
	Graders	1	8
	Rubber Tired Dozers	1	8
	Crawler Tractors	3	8
Building Construction	Cranes	1	8
	Forklifts	3	8
	Generator Sets	1	8
	Tractors/Loaders/Backhoes	3	8
	Welders	1	8
Paving	Pavers	2	8
	Paving Equipment	2	8
	Rollers	2	8
Architectural Coating	Air Compressors	1	8

OFF-SITE UTILITY AND INFRASTRUCTURE IMPROVEMENTS

Construction-source air pollutant emissions Impacts associated with implementation of any off-site utility and infrastructure improvements activities would not exceed maximum emissions

impacts identified for Project-related construction activities. As such, no impacts beyond what has already been identified in this report are expected to occur.

3.4.1 CONSTRUCTION EMISSIONS SUMMARY-REGIONAL IMPACTS

Impacts without Mitigation

The estimated maximum daily construction emissions without mitigation measures are summarized on Table 3-5. It should be noted that impacts without mitigation do take credit for reductions achieved through standard regulatory requirements RR AQ-1 (Rule 1113) and RR AQ-3 (Rule 403). Detailed construction model outputs are presented in Appendix 3.2. As indicated in Table 3-5, Project construction activities would not exceed the applicable SCAQMD regional threshold for any criteria pollutant. Thus, Project construction-source emissions will be less than significant.

TABLE 3-5: EMISSIONS SUMMARY OF CONSTRUCTION (WITHOUT MITIGIATION)

Year	Emissions (pounds per day)					
	VOC	NOx	CO	SOx	PM10	PM2.5
2018	6.16	71.68	25.68	0.07	8.57	5.56
2019	66.91	45.35	24.43	0.07	3.45	2.17
Maximum Daily Emissions	**66.91**	**71.68**	**25.68**	**0.07**	**8.57**	**5.56**
SCAQMD Regional Threshold	75	100	550	150	150	55
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

3.5 OPERATIONAL EMISSIONS

Operational activities associated with the proposed Project will result in emissions of ROG, NOX, CO, SOX, PM10, and PM2.5. Operational emissions would be expected from the following primary sources:

- Area Source Emissions
- Energy Source Emissions
- Mobile Source Emissions

3.5.1 AREA SOURCE EMISSIONS

Architectural Coatings

Over a period of time the buildings that are part of this Project will be subject to emissions resulting from the evaporation of solvents contained in paints, varnishes, primers, and other surface coatings as part of Project maintenance. The emissions associated with architectural coatings were calculated using the CalEEMod.

Consumer Products

Consumer products include, but are not limited to detergents, cleaning compounds, polishes, personal care products, and lawn and garden products. Many of these products contain organic compounds which when released in the atmosphere can react to form ozone and other photochemically reactive pollutants. The emissions associated with use of consumer products were calculated based on assumptions provided in the CalEEMod. In the case of the commercial uses proposed by the Project, no substantive on-site use of consumer products is anticipated.

Landscape Maintenance Equipment

Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, shedders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the landscaping of the Project. The emissions associated with landscape maintenance equipment were calculated based on assumptions provided in the CalEEMod.

3.5.2 ENERGY SOURCE EMISSIONS

Combustion Emissions Associated with Natural Gas and Electricity

Electricity and natural gas are used by almost every project. Criteria pollutant emissions are emitted through the generation of electricity and consumption of natural gas. However, because electrical generating facilities for the Project area are located either outside the region (state) or offset through the use of pollution credits (RECLAIM) for generation within the Basin, criteria pollutant emissions from offsite generation of electricity is generally excluded from the evaluation of significance and only natural gas use is considered. The emissions associated with natural gas use were calculated using the CalEEMod.

3.5.3 MOBILE SOURCE EMISSIONS

Vehicles

Project operational (vehicular) impacts are dependent on both overall daily vehicle trip generation and the effect of the Project on peak hour traffic volumes and traffic operations in the vicinity of the Project. The Project related operational air quality impacts derive primarily from vehicle trips generated by the Project. The emissions associated with mobile source emissions were calculated using the CalEEMod.

3.5.4 OPERATIONAL EMISSIONS SUMMARY-REGIONAL IMPACTS

Impacts Without Mitigation

Operational-source emissions without implementation of mitigation measures are summarized on Table 3-6. As indicated at Table 3-6, Project operational-source NOx emissions would exceed the applicable SCAQMD regional threshold. It is important to note that over 90 percent of the Project's NO_x emissions are derived from vehicle usage. Since the Project does not have regulatory authority to control tailpipe emissions, no feasible mitigation measures exist that

would reduce NO_x emissions to levels that are less-than-significant, thus these emissions are considered significant and unavoidable.

TABLE 3-6: SUMMARY OF PEAK OPERATIONAL EMISSIONS

Operational Activities – Summer Scenario	Emissions (pounds per day)					
	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Area Source	6.41	2.40E-04	0.026	0.00	0.90E-04	0.90E-04
Energy Source	0.49	4.45	3.74	0.027	0.338	0.338
Mobile	30.72	192.73	243.92	0.837	51.90	14.46
Total Maximum Daily Emissions	**37.62**	**197.8**	**247.69**	**0.864**	**52.24**	**14.80**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**NO**	**YES**	**NO**	**NO**	**NO**	**NO**

Operational Activities – Winter Scenario	Emissions (pounds per day)					
	VOC	NOx	CO	SOx	PM10	PM2.5
Area Source	6.41	2.40E-04	0.026	0.00	0.90E-04	0.90E-04
Energy Source	0.49	4.45	3.74	0.027	0.338	0.338
Mobile	25.64	190.64	225.06	0.768	51.92	14.48
Total Maximum Daily Emissions	**32.54**	**15.09**	**228.83**	**0.805**	**52.25**	**14.81**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**NO**	**YES**	**NO**	**NO**	**NO**	**NO**

3.6 LOCALIZED SIGNIFICANCE - CONSTRUCTION ACTIVITY

BACKGROUND ON LOCALIZED SIGNIFICANCE THRESHOLDS (LSTS)

The analysis makes use of methodology included in the SCAQMD *Final Localized Significance Threshold Methodology* (Methodology) (15). The SCAQMD has established that impacts to air quality are significant if there is a potential to contribute or cause localized exceedances of the federal and/or state ambient air quality standards (NAAQS/CAAQS). Collectively, these are referred to as Localized Significance Thresholds (LSTs).

The significance of localized emissions impacts depends on whether ambient levels in the vicinity of any given project are above or below State standards. In the case of CO and NO2, if ambient levels are below the standards, a project is considered to have a significant impact if project emissions result in an exceedance of one or more of these standards. If ambient levels already exceed a state or federal standard, then project emissions are considered significant if they increase ambient concentrations by a measurable amount. This would apply to PM10 and PM2.5; both of which are non-attainment pollutants.

The SCAQMD established LSTs in response to the SCAQMD Governing Board's Environmental Justice Initiative I-4[3]. LSTs represent the maximum emissions from a project that will not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard at the nearest residence or sensitive receptor. The SCAQMD states that lead agencies can use the LSTs as another indicator of significance in its air quality impact analyses.

LSTs were developed in response to environmental justice and health concerns raised by the public regarding exposure of individuals to criteria pollutants in local communities. To address the issue of localized significance, the SCAQMD adopted LSTs that show whether a project would cause or contribute to localized air quality impacts and thereby cause or contribute to potential localized adverse health effects. The analysis makes use of methodology included in the SCAQMD *Final Localized Significance Threshold Methodology* (LST Methodology) (16).

APPLICABILITY OF LSTS FOR THE PROJECT

For this Project, the appropriate Source Receptor Area (SRA) for the LST analysis is the Corona/Norco Area monitoring station (SRA 22). LSTs apply to carbon monoxide (CO), nitrogen dioxide (NO2), particulate matter ≤ 10 microns (PM10), and particulate matter ≤ 2.5 microns (PM2.5). The SCAQMD produced look-up tables for projects less than or equal to 5 acres in size.

In order to determine the appropriate methodology for determining localized impacts that could occur as a result of Project-related construction, the following process is undertaken:

- CalEEMod is utilized to determine the maximum daily on-site emissions that will occur during construction activity.
- The SCAQMD's Fact Sheet for Applying CalEEMod to Localized Significance Thresholds (17) is used to determine the maximum site acreage that is actively disturbed based on the construction equipment fleet and equipment hours as estimated in CalEEMod.
- If the total acreage disturbed is less than or equal to five acres per day, then the SCAQMD's screening look-up tables are utilized to determine if a Project has the potential to result in a significant impact. The look-up tables establish a maximum daily emissions threshold in pounds per day that can be compared to CalEEMod outputs.

EMISSIONS CONSIDERED

SCAQMD's Methodology clearly states that "off-site mobile emissions from the Project should NOT be included in the emissions compared to LSTs (18)." Therefore, for purposes of the construction LST analysis only emissions included in the CalEEMod "on-site" emissions outputs were considered.

MAXIMUM DAILY DISTURBED-ACREAGE

Table 3-7 is used to determine the maximum daily disturbed-acreage for purposes of modeling localized emissions. Based on Table 3-7, the proposed Project could actively disturb

3 The purpose of SCAQMD's Environmental Justice program is to ensure that everyone has the right to equal protection from air pollution and fair access to the decision-making process that works to improve the quality of air within their communities. Further, the SCAQMD defines Environmental Justice as "…equitable environmental policymaking and enforcement to protect the health of all residents, regardless of age, culture, ethnicity, gender, race, socioeconomic status, or geographic location, from the health effects of air pollution."

approximately 1.0 acres per day during demolition, 3.5 acres per day during site preparation, and 2.5 acres per day during the grading phase of construction.

TABLE 3-7: MAXIMUM DAILY DISTURBED ACREAGE

Activity	Equipment Type	Equipment Quantity	Disturbed Acreage/ Equipment Piece/ 8-hour day	Operating Hours per Day	Total Daily Disturbed Acreage
Demolition	Rubber Tired Dozers	2	0.5	8	1.0
	Crawler Tractors	0	0.5	8	0
	Graders	0	0.5	8	0
	Scrapers	0	1	8	0
Total Daily Disturbed Acres					1.0

Activity	Equipment Type	Equipment Quantity	Disturbed Acreage/ Equipment Piece/ 8-hour day	Operating Hours per Day	Total Daily Disturbed Acreage
Site Preparation	Rubber Tired Dozers	3	0.5	8	1.5
	Crawler Tractors	4	0.5	8	2.0
	Graders	0	0.5	8	0
	Scrapers	0	1	8	0
Total acres graded per day during Site Preparation					3.5

Activity	Equipment Type	Equipment Quantity	Acres graded per 8-hour day	Operating Hours per Day	Acres graded per day
Grading	Rubber Tired Dozers	1	0.5	8	0.5
	Crawler Tractors	3	0.5	8	1.5
	Graders	1	0.5	8	0.5
	Scrapers	0	1	8	0
Total acres graded per day during Grading					2.5

Sensitive Receptors

Some people are especially sensitive to air pollution and are given special consideration when evaluating air quality impacts from projects. These groups of people include children, the elderly, individuals with pre-existing respiratory or cardiovascular illness, and athletes and others who engage in frequent exercise. Structures that house these persons or places where they gather to exercise are defined as "sensitive receptors"; they are also known to be locations where an individual can remain for 24 hours.

Sensitive receptors near the Project site include existing residential homes, a fire station, a church, and a park, as described below. The closest sensitive receiver locations are represented by R3 and R7 to R9, at approximately 10 to 19 feet (3.05 to 5.79 meters) from the Project site boundaries, s shown on Exhibit 3-A, were identified.

R1: Located approximately 88 feet north of the Project site, R1 represents existing outdoor living areas (backyards) of residential homes on Thornbury Lane. ambient noise environment.

R2: Location R2 represents existing outdoor living areas (backyards) of residential homes located approximately 197 feet northeast of the Project site on Hudson River Drive.

R3: Location R3 represents existing outdoor living areas (backyards) of residential homes located approximately 10 feet west of the Project site on College Park Drive.

R4: Location R4 represents existing outdoor living areas (backyards) of residential homes located approximately 173 feet east of the Project site on Mackinaw Court.

R5: Location R5 represents existing fire station located approximately 146 feet south of the Project site on Hamner Avenue.

R6: Location R6 represents the existing church located approximately 537 feet west of the Project site on Schleisman Road.

R7: Location R7 represents the existing outdoor living areas (backyards) of residential homes located approximately 19 feet north of the Project site on Mississippi Drive.

R8: Location R8 represents the existing outdoor living areas (backyards) of residential homes located approximately 12 feet north of the Project site on Mississippi Drive.

R9: Location R9 represents existing outdoor living areas (backyards) of residential homes located approximately 10 feet east of the Project site on Kern River Drive.

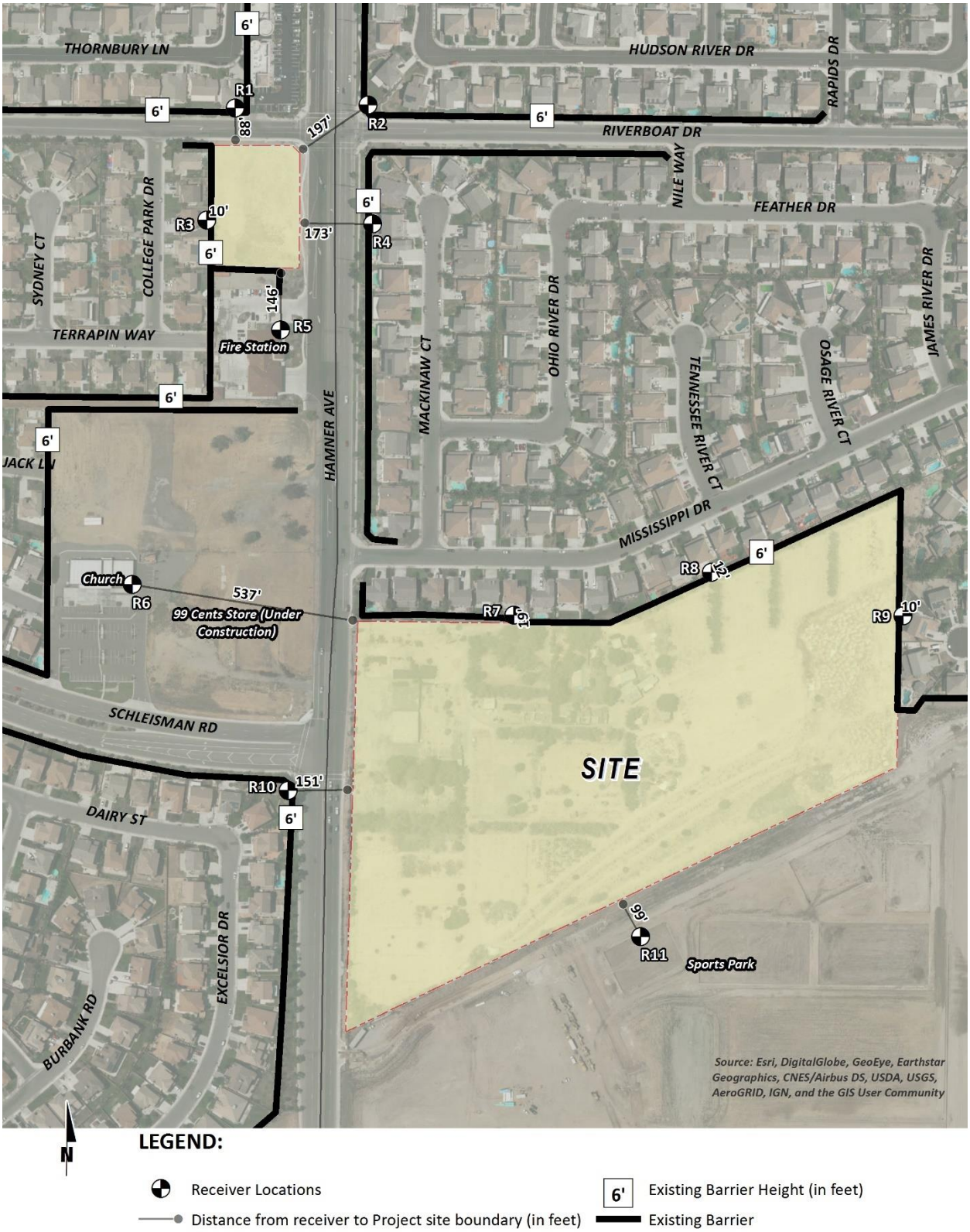
R10: Location R10 represents the existing outdoor living areas (backyards) residential homes located approximately 151 feet west of the Project site across Hamner Avenue.

R11: Location R11 represents the existing Silverlakes Sports Complex located approximately 99 feet south of the Project site, east of Hamner Avenue.

The SCAQMD recommends that the nearest sensitive receptor be considered when determining the Project's potential to cause an individual and cumulatively significant impact.

The nearest sensitive receptor land use is located immediately adjacent north, west, and south of the Project site. Notwithstanding, the *Methodology* explicitly states that "*It is possible that a project may have receptors closer than 25 meters. Projects with boundaries located closer than 25 meters to the nearest receptor should use the LSTs for receptors located at 25 meters* (15)." Accordingly, LSTs for receptors at 25 meters are utilized in this analysis and provide for a conservative i.e. "health protective" standard of care.

EXHIBIT 3-A: SENSITIVE RECEPTOR LOCATIONS



Construction-Source Emissions LST Analysis

Since the total acreage disturbed is less than five acres per day for both the site preparation activities and the grading activities, SCAQMD's screening look-up tables are utilized in determining impacts. As previously noted, a 25-meter receptor distance is utilized to determine the LSTs for emissions of CO, NOx, PM10, and PM2.5.

Impacts without Mitigation Measures

Without implementation of applicable mitigation measures, emissions during construction activity will exceed the SCAQMD's localized significance thresholds for emissions of PM_{10} and $PM_{2.5}$ only. Table 3-8 identifies the unmitigated localized impacts at the nearest receptor location in the vicinity of the Project.

TABLE 3-8: LOCALIZED SIGNIFICANCE SUMMARY CONSTRUCTION (WITHOUT MITIGATION)

On-Site Demolition Emissions	Emissions (pounds per day)			
	NO_x	CO	PM_{10}	$PM_{2.5}$
Maximum Daily Emissions	**38.32**	**22.30**	**1.94**	**1.80**
SCAQMD Localized Threshold	118	674	4	3
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**

On-Site Site Preparation Emissions	Emissions (pounds per day)			
	NO_x	CO	PM_{10}	$PM_{2.5}$
Maximum Daily Emissions	**71.60**	**23.73**	**23.30**	**13.03**
SCAQMD Localized Threshold	220	1,354	9	7
Threshold Exceeded?	**NO**	**NO**	**YES**	**YES**

On-Site Grading Emissions	Emissions (pounds per day)			
	NO_x	CO	PM_{10}	$PM_{2.5}$
Maximum Daily Emissions	**48.23**	**17.52**	**10.10**	**5.34**
SCAQMD Localized Threshold	187	1,123	7	6
Threshold Exceeded?	**NO**	**NO**	**YES**	**NO**

Impacts with Mitigation Measures

After the implementation of MM AQ-1, emissions during construction activity will not exceed the SCAQMD's localized significance threshold for any of the applicable emissions. Table 3-9 identifies the mitigated localized impacts at the nearest receptor location in the vicinity of the Project.

TABLE 3-9: LOCALIZED SIGNIFICANCE SUMMARY CONSTRUCTION (WITH MITIGATION)

On-Site Demolition Emissions	Emissions (pounds per day)			
	NO_x	CO	PM_{10}	$PM_{2.5}$
Maximum Daily Emissions	**38.32**	**22.30**	**1.94**	**1.80**
SCAQMD Localized Threshold	118	674	4	3
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**

On-Site Site Preparation Emissions	Emissions (pounds per day)			
	NO_x	CO	PM_{10}	$PM_{2.5}$
Maximum Daily Emissions	**71.60**	**23.73**	**8.36**	**5.51**
SCAQMD Localized Threshold	220	1,354	9	7
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**

On-Site Grading Emissions	Emissions (pounds per day)			
	NO_x	CO	PM_{10}	$PM_{2.5}$
Maximum Daily Emissions	**52.54**	**18.32**	**5.37**	**3.37**
SCAQMD Localized Threshold	487	1,123	7	6
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**

3.7 LOCALIZED SIGNIFICANCE – LONG-TERM OPERATIONAL ACTIVITY

The Project site is currently developed with single family homes. The proposed project consists of the redevelopment of the entire existing site with proposed library, restaurants, hotel, offices, and supporting parking and landscape areas. According to SCAQMD LST methodology, LSTs would apply to the operational phase of a proposed project, if the project includes stationary sources, or attracts mobile sources that may spend long periods queuing and idling at the site (e.g., transfer facilities and warehouse buildings). The proposed project does not include such uses, and thus, due to the lack of significant stationary source emissions, no long-term localized significance threshold analysis is needed.

3.8 CO "HOT SPOT" ANALYSIS

As discussed below, the Project would not result in potentially adverse CO concentrations or "hot spots." Further, detailed modeling of Project-specific carbon monoxide (CO) "hot spots" is not needed to reach this conclusion.

An adverse CO concentration, known as a "hot spot", would occur if an exceedance of the state one-hour standard of 20 ppm or the eight-hour standard of 9 ppm were to occur. At the time of the 1993 Handbook, the Basin was designated nonattainment under the California AAQS and National AAQS for CO (19).

It has long been recognized that CO hotspots are caused by vehicular emissions, primarily when idling at congested intersections. In response, vehicle emissions standards have become increasingly stringent in the last twenty years. Currently, the allowable CO emissions standard in California is a maximum of 3.4 grams/mile for passenger cars (there are requirements for certain vehicles that are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of increasingly sophisticated and efficient emissions control technologies, CO concentration in the Basin is now designated as attainment, as previously noted in Table 2-2. Also, CO concentrations in the Project vicinity have steadily declined, as indicated by historical emissions data presented previously at Table 2-3.

To establish a more accurate record of baseline CO concentrations affecting the Basin, a CO "hot spot" analysis was conducted in 2003 for four busy intersections in Los Angeles at the peak morning and afternoon time periods. This "hot spot" analysis did not predict any violation of CO standards, as shown on Table 3-11.

Based on the SCAQMD's 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan), peak carbon monoxide concentrations in the Basin were a result of unusual meteorological and topographical conditions and not a result of traffic volumes and congestion at a particular intersection. As evidence of this, for example, 8.4 ppm CO concentration measured at the Long Beach Blvd. and Imperial Hwy. intersection (highest CO generating intersection within the "hot spot" analysis), only 0.7 ppm was attributable to the traffic volumes and congestion at this intersection; the remaining 7.7 ppm were due to the ambient air measurements at the time the 2003 AQMP was prepared (19). Therefore, even if the traffic volumes for the proposed Project were double or even triple of the traffic volumes generated at the Long Beach Blvd. and Imperial Hwy. intersection, coupled with the on-going improvements in ambient air quality, the Project would not be capable of resulting in a CO "hot spot" at any study area intersections.

Similar considerations are also employed by other Air Districts when evaluating potential CO concentration impacts. More specifically, the Bay Area Air Quality Management District (BAAQMD) concludes that under existing and future vehicle emission rates, a given project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal air does not mix—in order to generate a significant CO impact (20).

Traffic volumes generating the CO concentrations for the "hot spot" analysis, shown on Table 3-12. The busiest intersection evaluated was that at Wilshire Blvd. and Veteran Ave., which has a daily traffic volume of approximately 100,000 vehicles per day (19). The 2003 AQMP estimated that the 1-hour concentration for this intersection was 4.6 ppm; this indicates that, should the daily traffic volume increase four times to 400,000 vehicles per day, CO concentrations (4.6 ppm x 4= 18.4 ppm) would still not likely exceed the most stringent 1-hour CO standard (20.0 ppm).[4] None of the study area roadway segments would approach even 100,000 vehicles per day.

The proposed Project considered herein would not produce the volume of traffic required to generate a CO "hot spot" either in the context of the 2003 Los Angeles hot spot study, or based

4 Based on the ratio of the CO standard (20.0 ppm) and the modeled value (4.6 ppm).

on representative BAAQMD CO threshold considerations, as shown on Table 3-13. Therefore, CO "hot spots" are not an environmental impact of concern for the proposed Project.

TABLE 3-11: CO MODEL RESULTS

Intersection Location	Carbon Monoxide Concentrations (parts per million)		
	Morning 1-hour	Afternoon 1-hour	8-hour
Wilshire-Veteran	4.6	3.5	3.7
Sunset-Highland	4	4.5	3.5
La Cienega-Century	3.7	3.1	5.2
Long Beach-Imperial	3	3.1	8.4

Source: 2003 AQMP, Appendix V: Modeling and Attainment Demonstrations
Notes: Federal 1-hour standard is 35 ppm and the deferral 8-hour standard is 9.0 ppm.

TABLE 3-12: TRAFFIC VOLUMES

Intersection Location	Peak Traffic Volumes (vehicles per hour)				
	Eastbound (AM/PM)	Westbound (AM/PM)	Southbound (AM/PM)	Northbound (AM/PM)	Total (AM/PM)
Wilshire-Veteran	4,954/2,069	1,830/3,317	721/1,400	560/933	8,062/7,719
Sunset-Highland	1,417/1,764	1,342/1,540	2,304/1,832	1,551/2,238	6,614/5,374
La Cienega-Century	2,540/2,243	1,890/2,728	1,384/2,029	821/1,674	6,634/8,674
Long Beach-Imperial	1,217/2,020	1,760/1,400	479/944	756/1,150	4,212/5,514

Source: 2003 AQMP

TABLE 3-13: PEAK TRAFFIC VOLUMES

Intersection Location	Peak Traffic Volumes (vehicles per hour)				
	Northbound (AM/PM)	Southbound (AM/PM)	Eastbound (AM/PM)	Westbound (AM/PM)	Total (AM/PM)
I-15 Southbound Ramps & Limonite Avenue	--/--	635/1,119	1,886/2,084	1,721/1,719	4,242/4,921
Hamner Avenue & Schleisman Road	1,319/1,354	1,085/1,383	622/489	306/385	3,332/3,611
Hamner Avenue & Norco Drive/Sixth Street	958/1,596	1,412/1,295	323/264	1,003/1,039	3,697/4,194

Source: Polopolus Traffic Impact Analysis (Urban Crossroads Inc.) 2017

3.9 AIR QUALITY MANAGEMENT PLANNING

The Project site is located within the Basin, which is characterized by relatively poor air quality. The SCAQMD has jurisdiction over an approximately 10,743 square-mile area consisting of the four-county Basin and the Los Angeles County and Riverside County portions of what use to be referred to as the Southeast Desert Air Basin. In these areas, the SCAQMD is principally responsible for air pollution control, and works directly with the Southern California Association of Governments (SCAG), county transportation commissions, local governments, as well as state

and federal agencies to reduce emissions from stationary, mobile, and indirect sources to meet state and federal ambient air quality standards.

Currently, these state and federal air quality standards are exceeded in most parts of the Basin. In response, the SCAQMD has adopted a series of Air Quality Management Plans (AQMPs) to meet the state and federal ambient air quality standards. AQMPs are updated regularly in order to more effectively reduce emissions, accommodate growth, and to minimize any negative fiscal impacts of air pollution control on the economy.

The Final 2012 AQMP was adopted by the AQMD Governing Board on December 7, 2012 (21). The 2012 AQMP incorporates 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.

In March 2017, the AQMD released the Final 2016 AQMP. The 2016 AQMP continues to evaluate current integrated strategies and control measures to meet the NAAQS, as well as, explore new and innovative methods to reach its goals. Some of these approaches include utilizing incentive programs, recognizing existing co-benefit programs from other sectors, and developing a strategy with fair-share reductions at the federal, state, and local levels (22). Similar to the 2012 AQMP, the 2016 AQMP incorporates scientific and technological information and planning assumptions, including the 2016 RTP/SCS and updated emission inventory methodologies for various source categories (23). The Project's consistency with the AQMP will be determined using the 2016 AQMP is discussed below:

- ***Consistency Criterion No. 1: The proposed Project will not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.***

The violations that Criterion No. 1 refers to are the California Ambient Air Quality Standards (CAAQS) and National Ambient Air Quality Standards (NAAQS). The CAAQS and NAAQS comprise Localized Significance Thresholds (LSTs). The Project LST analysis presented herein substantiates that Project mitigated construction-source emissions would not exceed applicable LSTs. And even without mitigation, operational-source emissions would not exceed applicable LSTs. Further, the Project would implement applicable best available control measures (BACMs), and would comply with applicable SCAQMD rules, acting to further reduce potential LST impacts. On this basis, the Project under consideration would not result in an increase in the frequency or severity of existing air quality violations, or cause or contribute to new violations.

With regard to timely attainment of AQMP air quality standards and interim emissions, the Project site's current General Plan Land Use designation is "Medium Density Residential." The Medium Density Residential General Plan Land Use, which is reflected in the 2016 AQMP, would allow for development of conventional single-family residential uses at densities ranging from 2.1 to 5.0 dwelling units per acre (24). As proposed by the Applicant, the current Medium Density Residential General Plan Land use designation would be amended to "Commercial" to allow for the various Project commercial, retail, service, office, and civic uses.

Accordingly, the 2016 AQMP, which assumes the Project site would be developed with Medium Density Residential uses, does not reflect the Project's proposed Commercial General Plan land use designation. Nor do the 2016 AQMP air quality standards and interim emissions reductions targets reflect the Project's proposed Commercial General Plan Land Use designation. For this reason, there lacks an opportunity to determine whether or not the Project would delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.

In conclusion, the Project would not result increase the frequency or severity of existing air quality violations or cause or contribute to new violations. However, because the Medium Density Residential land use designation reflected in the 2016 AQMP differs from the Commercial land use designation proposed under the Project, there is no opportunity to determine whether or not the Project would delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP. As the Project's potential to delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP is indeterminate and cannot be assured at this time, for the purposes of this analysis, the Project is considered to be inconsistent with Criterion No.1.

- ***Consistency Criterion No. 2: The Project will not exceed the assumptions in the AQMP based on the years of Project build-out phase.***

Criterion No. 2 addresses consistency of a given project with approved local and regional land use plan and associated potential AQMP implications. That is, AQMP emissions models and emissions control strategies are based in part on land use data provided by local general plan documentation; and regional plans, which reflect and incorporate local general plan information. Projects that propose general plan amendments may increase the intensity of use and/or result in higher traffic volumes, thereby resulting in increased stationary area source emissions and/or vehicle source emissions when compared to the AQMP assumptions. However, if a given project is consistent with and does not otherwise exceed the growth projections in the applicable local general plan, then that project would be considered consistent with the growth assumptions in the AQMP.

As noted above, the current Medium Density Residential General Plan Land use designation for the Project site would be amended to "Commercial" to allow for the various Project commercial, retail, service, office, and civic uses.

Accordingly, the 2016 AQMP does not reflect the proposed land use designation for the Project site. For this reason, there is no basis for a determination that the Project would not exceed the assumptions in the AQMP or increments based on the years of Project build-out phase. Consequently, the commercial/retail/service/civic use development of the subject site as proposed by the Project is conservatively assumed to generate operational-source emissions not reflected within the current 2016 AQMP regional emissions inventory for the Basin.

Because the Medium Density Residential land use designation reflected in the 2016 AQMP differs from the proposed Commercial land use designation for the Project site, there is no basis for a

determination that the Project would not exceed the assumptions in the AQMP or increments based on the years of Project build-out phase. Based on the preceding, the Project is considered to be inconsistent with AQMP Consistency Criterion No. 2

Impacts without BACMs, Regulatory Requirements, and Mitigation

The Project would be inconsistent with AQMP Criterion No's. 1 and 2, resulting in a determination that impacts in this regard would be considered to be potentially significant.

Impacts with BACMs, Regulatory Requirements, and Mitigation

The Project would implement development-specific air quality mitigation measures identified in this analysis, acting to generally reduce the Project's construction-source and operational-source air pollutant emissions. Additionally, incorporation of contemporary energy-efficient technologies and operational programs, and compliance with SCAQMD emissions reductions and control requirements act to reduce Project air pollutant emissions generally.

In combination, the Project air quality mitigation measures; and Project emissions-reducing design features, and operational programs are consistent with and support overarching AQMP air pollution reduction strategies. Project support of these strategies promotes timely attainment of AQMP air quality standards and would bring the Project into conformance with the AQMP to the extent feasible. Notwithstanding, based on the analysis presented here, the Project is considered to be inconsistent with applicable AQMP Consistency Criteria.

3.10 POTENTIAL IMPACTS TO SENSITIVE RECEPTORS

The potential impact of Project-generated air pollutant emissions at sensitive receptors has also been considered. Sensitive receptors can include uses such as long-term health care facilities, rehabilitation centers, and retirement homes. Residences, schools, playgrounds, child care centers, and athletic facilities can also be considered as sensitive receptors.

Results of the LST analysis indicate that mitigated Project construction-source emissions would not exceed the SCAQMD localized significance thresholds. Therefore, sensitive receptors would not be subject to a significant air quality impact during Project construction.

Results of the LST analysis indicate that the Project would not exceed the SCAQMD localized significance thresholds during operational activity. The proposed Project would not result in a CO "hotspot" as a result of Project related traffic during ongoing operations, nor would the Project result in a significant adverse health impact as discussed in Section 3.8. Thus, a less than significant impact to sensitive receptors during operational activity is expected.

3.11 ODORS

Substantial odor-generating sources include land uses such as agricultural activities, feedlots, wastewater treatment facilities, landfills or various heavy industrial uses. The Project does not propose any such uses or activities that would result in potentially significant operational-source odor impacts. Potential sources of operational odors generated by the Project would include disposal of miscellaneous commercial refuse. Consistent with City requirements, all Project-

generated refuse would be stored in covered containers and removed at regular intervals in compliance with solid waste regulations, thereby precluding substantial generation of odors due to temporary holding of refuse on-site Moreover, SCAQMD Rule 402 acts to prevent occurrences of odor nuisances (1).

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5 CERTIFICATION

The contents of this air study report represent an accurate depiction of the environmental impacts associated with the proposed Polopolus Project. The information contained in this air quality impact assessment report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at (949) 336-5987.

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California State University, Fullerton • May 2010

Bachelor of Arts in Environmental Analysis and Design
University of California, Irvine • June, 2006

PROFESSIONAL AFFILIATIONS

AEP – Association of Environmental Planners
AWMA – Air and Waste Management Association
ASTM – American Society for Testing and Materials

PROFESSIONAL CERTIFICATIONS

Planned Communities and Urban Infill – Urban Land Institute • June 2011
Indoor Air Quality and Industrial Hygiene – EMSL Analytical • April 2008
Principles of Ambient Air Monitoring – California Air Resources Board • August 2007
AB2588 Regulatory Standards – Trinity Consultants • November 2006
Air Dispersion Modeling – Lakes Environmental • June 2006

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APPENDIX 3.1:

STATE/FEDERAL ATTAINMENT STATUS OF CRITERIA POLLUTANTS

TABLE 2-3

National Ambient Air Quality Standards (NAAQS) Attainment Status - South Coast Air Basin

Criteria Pollutant	Averaging Time	Designation[a]	Attainment Date[b]
Ozone (O_3)	(1979) **1-Hour** (0.12 ppm)[c]	Nonattainment ("extreme")	2/26/2023 (revised deadline)
	(2015) **8-Hour** (0.070 ppm)[d]	Pending – Expect Nonattainment ("extreme")	Pending (beyond 2032)
	(2008) **8-Hour** (0.075 ppm)[d]	Nonattainment ("extreme")	7/20/2032
	(1997) **8-Hour** (0.08 ppm)[d]	Nonattainment ("extreme")	6/15/2024
PM2.5[e]	(2006) **24-Hour** (35 µg/m^3)	Nonattainment ("serious")	12/31/2019
	(2012) **Annual** (12.0 µg/m^3)	Nonattainment ("moderate")	12/31/2021
	(1997) **Annual** (15.0 µg/m^3)	Attainment (final determination pending)	4/5/2015 (attained 2013)
PM10[f]	(1987) **24-hour** (150 µg/m^3)	Attainment (Maintenance)	7/26/2013 (attained)
Lead (Pb)[g]	(2008) **3-Months Rolling** (0.15 µg/m^3)	Nonattainment (Partial) (Attainment determination to be requested)	12/31/2015
CO	(1971) **1-Hour** (35 ppm)	Attainment (Maintenance)	6/11/2007 (attained)
	(1971) **8-Hour** (9 ppm)	Attainment (Maintenance)	6/11/2007 (attained)
NO_2[h]	(2010) **1-Hour** (100 ppb)	Unclassifiable/Attainment	N/A (attained)
	(1971) **Annual** (0.053 ppm)	Attainment (Maintenance)	9/22/1998 (attained)
SO_2[i]	(2010) **1-Hour** (75 ppb)	Designations Pending (expect Unclassifiable/Attainment)	N/A (attained)
	(1971) **24-Hour** (0.14 ppm) (1971) **Annual** (0.03 ppm)	Unclassifiable/Attainment	3/19/1979 (attained)

a) U.S. EPA often only declares Nonattainment areas; everywhere else is listed as Unclassifiable/Attainment or Unclassifiable

b) A design value below the NAAQS for data through the full year or smog season prior to the attainment date is typically required for an attainment demonstration

c) The 1979 1-hour ozone NAAQS (0.12 ppm) was revoked, effective 6/15/05 ; however, the Basin has not attained this standard and therefore has some continuing obligations with respect to the revoked standard; original attainment date was 11/15/2010; the revised attainment date is 2/6/23

d) The 2008 8-hour ozone NAAQS (0.075 ppm) was revised to 0.070 ppm, effective 12/28/15 with classifications and implementation goals to be finalized by 10/1/17; the 1997 8-hour ozone NAAQS (0.08 ppm) was revoked in the 2008 ozone NAAQS implementation rule, effective 4/6/15; there are continuing obligations under the revoked 1997 and revised 2008 ozone NAAQS until they are attained

e) The attainment deadline for the 2006 24-hour PM2.5 NAAQS was 12/31/15 for the former "moderate" classification; U.S.EPA approved reclassification to "serious," effective 2/12/16 with an attainment deadline of 12/31/2019; the 2012 (proposal year) annual PM2.5 NAAQS was revised on 1/15/13, effective 3/18/13, from 15 to 12 µg/m^3; new annual designations were final 1/15/15, effective 4/15/15; on July 25, 2016 U.S. EPA finalized a determination that the Basin attained the 1997 annual (15.0 µg/m^3) and 24-hour PM2.5 (65 µg/m^3) NAAQS, effective August 24, 2016

f) The annual PM10 NAAQS was revoked, effective 12/18/06; the 24-hour PM10 NAAQS deadline was 12/31/2006; the Basin's Attainment Re-designation Request and PM10 Maintenance Plan was approved by U.S. EPA on 6/26/13, effective 7/26/13

g) Partial Nonattainment designation – Los Angeles County portion of the Basin only for near-source monitors; expect to remain in attainment based on current monitoring data; attainment re-designation request pending

h) New 1-hour NO_2 NAAQS became effective 8/2/10, with attainment designations 1/20/12; annual NO_2 NAAQS retained

i) The 1971 annual and 24-hour SO2 NAAQS were revoked, effective 8/23/10; however, these 1971 standards will remain in effect until one year after U.S. EPA promulgates area designations for the 2010 SO2 1-hour NAAQS; final area designations expected by 12/31/20 due to new source-specific monitoring requirements; Basin expected to be in attainment due to ongoing clean data

TABLE 2-4

National Ambient Air Quality Standards (NAAQS) Attainment Status

Coachella Valley Portion of the Salton Sea Air Basin

Criteria Pollutant	Averaging Time	Designation[a]	Attainment Date[b]
Ozone (O_3)	(1979) **1-Hour** (0.12 ppm)[c]	Attainment	11/15/2007 (attained 12/31/2013)
	(2015) **8-Hour** (0.070 ppm)[d]	Pending – Expect Nonattainment (Severe)	Pending
	(2008) **8-Hour** (0.075 ppm)[d]	Nonattainment (Severe-15)	7/20/2027
	(1997) **8-Hour** (0.08 ppm)[d]	Nonattainment (Severe-15)	6/15/2019
PM2.5[e]	(2006) **24-Hour** (35 µg/m^3)	Unclassifiable/Attainment	N/A (attained)
	(2012) **Annual** (12.0 µg/m^3)	Unclassifiable/Attainment	N/A (attained)
	(1997) **Annual** (15.0 µg/m^3)	Unclassifiable/Attainment	N/A (attained)
PM10[f]	(1987) **24-hour** (150 µg/m^3)	Nonattainment ("serious")	12/31/2006
Lead (Pb)	(2008) **3-Months Rolling** (0.15 µg/m^3)	Unclassifiable/Attainment	Unclassifiable/ Attainment
CO	(1971) **1-Hour** (35 ppm)	Unclassifiable/Attainment	N/A (attained)
	(1971) **8-Hour** (9 ppm)	Unclassifiable/Attainment	N/A (attained)
NO_2[g]	(2010) **1-Hour** (100 ppb)	Unclassifiable/Attainment	N/A (attained)
	(1971) **Annual** (0.053 ppm)	Unclassifiable/Attainment	N/A (attained)
SO_2[h]	(2010) **1-Hour** (75 ppb)	Designations Pending	N/A
	(1971) **24-Hour** (0.14 ppm) (1971) **Annual** (0.03 ppm)	Unclassifiable/Attainment	Unclassifiable/ Attainment

a) U.S. EPA often only declares Nonattainment areas; everywhere else is listed as Unclassifiable/Attainment or Unclassifiable

b) A design value below the NAAQS for data through the full year or smog season prior to the attainment date is typically required for an attainment demonstration

c) The 1979 1-hour ozone NAAQS (0.12 ppm) was revoked, effective 6/15/05; the Southeast Desert Modified Air Quality Management Area, including the Coachella Valley, had not timely attained this standard by the 11/15/07 "severe-17" deadline, based on 2005-2007 data; on 8/25/14, U.S. EPA proposed a clean data finding based on 2011–2013 data and a determination of attainment for the former 1-hour ozone NAAQS for the Southeast Desert nonattainment area; this rule was finalized by U.S. EPA on 4/15/15, effective 5/15/15, that included preliminary 2014 data

d) The 2008 8-hour ozone NAAQS (0.075 ppm) was revised to 0.070 ppm, effective 12/28/15 with classifications and implementation goals to be finalized by 10/1/17; the 1997 8-hour ozone NAAQS (0.08 ppm) was revoked in the 2008 ozone NAAQS implementation rule, effective 4/6/15; there are continuing obligations under the 1997 and 2008 ozone NAAQS until they are attained

e) The annual PM2.5 standard was revised on 1/15/13, effective 3/18/13, from 15 to 12 µg/m^3

f) The annual PM10 standard was revoked, effective 12/18/06; the 24-hour PM10 NAAQS attainment deadline was 12/31/2006; the Coachella Valley Attainment Re-designation Request and PM10 Maintenance Plan was postponed by U.S. EPA pending additional monitoring and analysis in the southeastern Coachella Valley

g) New 1-hour NO_2 NAAQS became effective 8/2/10; attainment designations 1/20/12; annual NO_2 NAAQS retained

h) The 1971 Annual and 24-hour SO_2 NAAQS were revoked, effective 8/23/10; however, these 1971 standards will remain in effect until one year after U.S. EPA promulgates area designations for the 2010 SO_2 1-hour standard; final area designations expected by 12/31/2020 with SSAB expected to be designated Unclassifiable/Attainment

The current status of CAAQS attainment for the pollutants with State standards is presented in Table 2-5 for the Basin and the Riverside County portion of the SSAB (Coachella Valley).

TABLE 2-5

California Ambient Air Quality Standards (CAAQS) Attainment Status
South Coast Air Basin and Coachella Valley portion of Salton Sea Air Basin

Pollutant	Averaging Time and Level[b]	Designation[a]	
		South Coast Air Basin	Coachella Valley
Ozone (O_3)	**1-Hour** (0.09 ppm)[c]	Nonattainment	Nonattainment
	8-Hour (0.070 ppm)[d]	Nonattainment	Nonattainment
PM2.5	**Annual** (12.0 µg/m^3)	Nonattainment	Attainment
PM10	**24-Hour** (50 µg/m^3)	Nonattainment	Nonattainment
	Annual (20 µg/m^3)	Nonattainment	Nonattainment
Lead (Pb)	**30-Day Average** (1.5 µg/m^3)	Attainment	Attainment
CO	**1-Hour** (20 ppm)	Attainment	Attainment
	8-Hour (9.0 ppm)	Attainment	Attainment
NO_2	**1-Hour** (0.18 ppm)	Attainment	Attainment
	Annual (0.030 ppm)	Attainment	Attainment
SO_2	**1-Hour** (0.25 ppm)	Attainment	Attainment
	24-Hour (0.04 ppm)	Attainment	Attainment
Sulfates	**24-Hour** (25 µg/m^3)	Attainment	Attainment
H_2S[c]	**1-Hour** (0.03 ppm)	Unclassified	Unclassified [c)]

a) CA State designations shown were updated by CARB in 2016, based on the 2013–2015 3-year period; stated designations are based on a 3-year data period after consideration of outliers and exceptional events; Source: http://www.arb.ca.gov/desig/statedesig.htm#current

b) CA State standards, or CAAQS, for ozone, CO, SO_2, NO_2, PM10 and PM2.5 are values not to be exceeded; lead, sulfates, and H_2S standards are values not to be equaled or exceeded; CAAQS are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations

c) SCAQMD began monitoring H_2S in the southeastern Coachella Valley in November 2013 due to odor events related to the Salton Sea; three full years of data are not yet available for a State designation, but nonattainment is anticipated for the H_2S CAAQS in at least part of the Coachella Valley

The 1979 federal 1-hour ozone standard (0.12 ppm) was revoked by the U.S. EPA and replaced by the 8-hour average ozone standard (0.08 ppm), effective June 15, 2005. However, the Basin and the former Southeast Desert Modified Air Quality Management Area (which included the Coachella Valley) had not attained the 1-hour federal ozone NAAQS by the attainment dates in 2010 and 2007, respectively, and, therefore, had continuing obligations under the former standard. On August 25, 2014, U.S. EPA

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APPENDIX 3.2:

CALEEMOD EMISSIONS MODEL OUTPUTS

Polopolus (Construction)

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Convenience Market With Gas Pumps	24.00	Pump	0.08	3,388.20	0
Fast Food Restaurant with Drive Thru	5.50	1000sqft	0.13	5,500.00	0
High Turnover (Sit Down Restaurant)	6.00	1000sqft	0.14	6,000.00	0
Regional Shopping Center	4.00	1000sqft	0.09	4,000.00	0
Fast Food Restaurant w/o Drive Thru	4.00	1000sqft	0.09	4,000.00	0
Medical Office Building	10.00	1000sqft	0.23	10,000.00	0
Government Office Building	40.00	1000sqft	0.92	40,000.00	0
Hotel	130.00	Room	4.33	188,760.00	0
Library	25.00	1000sqft	0.57	25,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2019
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Polopolus (Construction) - Riverside-South Coast County, Winter

Project Characteristics -

Land Use -

Construction Phase -

Off-road Equipment - Hours are based on an 8-hour workday.

Off-road Equipment -

Off-road Equipment - Crawler Tractors used in lieu of Tractors/Loaders/Backhoes.

Off-road Equipment - Crawler Tractors used in lieu of Tractors/Loaders/Backhoes.

Off-road Equipment - Crawler Tractors used in lieu of Tractors/Loaders/Backhoes.

Off-road Equipment -

Grading -

Vehicle Trips - Construction (Mitigated) Run Only.

Energy Use - Construction (Mitigated) Run Only.

Water And Wastewater - Construction (Mitigated) Run Only.

Solid Waste - Construction (Mitigated) Run Only.

Construction Off-road Equipment Mitigation - Increase watering to 4 times per day.

Architectural Coating - Use Low VOC Paint (50g/L)

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblArchitecturalCoating	EF_Parking	100.00	50.00
tblConstDustMitigation	WaterExposedAreaPM10PercentReduction	61	74
tblConstDustMitigation	WaterExposedAreaPM25PercentReduction	61	74
tblEnergyUse	LightingElect	5.61	0.00
tblEnergyUse	LightingElect	6.62	0.00
tblEnergyUse	LightingElect	6.62	0.00
tblEnergyUse	LightingElect	3.66	0.00

tblEnergyUse	LightingElect	6.62	0.00
tblEnergyUse	LightingElect	5.44	0.00
tblEnergyUse	LightingElect	2.93	0.00
tblEnergyUse	LightingElect	3.66	0.00
tblEnergyUse	LightingElect	5.61	0.00
tblEnergyUse	NT24E	2.44	0.00
tblEnergyUse	NT24E	28.48	0.00
tblEnergyUse	NT24E	28.48	0.00
tblEnergyUse	NT24E	2.79	0.00
tblEnergyUse	NT24E	28.48	0.00
tblEnergyUse	NT24E	6.23	0.00
tblEnergyUse	NT24E	5.02	0.00
tblEnergyUse	NT24E	2.79	0.00
tblEnergyUse	NT24E	2.44	0.00
tblEnergyUse	NT24NG	0.30	0.00
tblEnergyUse	NT24NG	195.77	0.00
tblEnergyUse	NT24NG	195.77	0.00
tblEnergyUse	NT24NG	195.77	0.00
tblEnergyUse	NT24NG	4.86	0.00
tblEnergyUse	NT24NG	17.13	0.00
tblEnergyUse	NT24NG	0.30	0.00
tblEnergyUse	T24E	4.58	0.00
tblEnergyUse	T24E	12.38	0.00
tblEnergyUse	T24E	12.38	0.00
tblEnergyUse	T24E	3.07	0.00
tblEnergyUse	T24E	12.38	0.00
tblEnergyUse	T24E	6.47	0.00

tblEnergyUse	T24E	2.20	0.00
tblEnergyUse	T24E	3.07	0.00
tblEnergyUse	T24E	4.58	0.00
tblEnergyUse	T24NG	1.92	0.00
tblEnergyUse	T24NG	77.67	0.00
tblEnergyUse	T24NG	77.67	0.00
tblEnergyUse	T24NG	3.47	0.00
tblEnergyUse	T24NG	77.67	0.00
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tblEnergyUse	T24NG	15.36	0.00
tblEnergyUse	T24NG	3.47	0.00
tblEnergyUse	T24NG	1.92	0.00
tblOffRoadEquipment	LoadFactor	0.43	0.43
tblOffRoadEquipment	LoadFactor	0.43	0.43
tblOffRoadEquipment	LoadFactor	0.43	0.43
tblOffRoadEquipment	OffRoadEquipmentType		Crawler Tractors
tblOffRoadEquipment	OffRoadEquipmentType		Crawler Tractors
tblOffRoadEquipment	OffRoadEquipmentType		Crawler Tractors
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblSolidWaste	SolidWasteGenerationRate	46.08	0.00
tblSolidWaste	SolidWasteGenerationRate	63.35	0.00
tblSolidWaste	SolidWasteGenerationRate	37.20	0.00

tblSolidWaste	SolidWasteGenerationRate	71.40	0.00
tblSolidWaste	SolidWasteGenerationRate	71.17	0.00
tblSolidWaste	SolidWasteGenerationRate	23.02	0.00
tblSolidWaste	SolidWasteGenerationRate	108.00	0.00
tblSolidWaste	SolidWasteGenerationRate	4.20	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TTP	80.20	0.00
tblVehicleTrips	CC_TTP	79.50	0.00
tblVehicleTrips	CC_TTP	78.80	0.00
tblVehicleTrips	CC_TTP	62.00	0.00
tblVehicleTrips	CC_TTP	72.50	0.00
tblVehicleTrips	CC_TTP	61.60	0.00
tblVehicleTrips	CC_TTP	43.00	0.00
tblVehicleTrips	CC_TTP	51.40	0.00
tblVehicleTrips	CC_TTP	64.70	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00

tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	5.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	5.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
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tblVehicleTrips	CW_TTP	33.00	0.00

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tblVehicleTrips	PR_TP	14.00	0.00
tblVehicleTrips	PR_TP	51.00	0.00
tblVehicleTrips	PR_TP	29.00	0.00
tblVehicleTrips	PR_TP	50.00	0.00

tblVehicleTrips	PR_TP	37.00	0.00
tblVehicleTrips	PR_TP	58.00	0.00
tblVehicleTrips	PR_TP	44.00	0.00
tblVehicleTrips	PR_TP	60.00	0.00
tblVehicleTrips	PR_TP	54.00	0.00
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tblVehicleTrips	ST_TR	696.00	0.00
tblVehicleTrips	ST_TR	722.03	0.00
tblVehicleTrips	ST_TR	158.37	0.00
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	ST_TR	46.55	0.00
tblVehicleTrips	ST_TR	8.96	0.00
tblVehicleTrips	ST_TR	49.97	0.00
tblVehicleTrips	SU_TR	166.88	0.00
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tblVehicleTrips	SU_TR	131.84	0.00
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tblVehicleTrips	SU_TR	25.49	0.00
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tblVehicleTrips	SU_TR	25.24	0.00
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tblVehicleTrips	WD_TR	8.17	0.00

tblVehicleTrips	WD_TR	56.24	0.00
tblVehicleTrips	WD_TR	36.13	0.00
tblVehicleTrips	WD_TR	42.70	0.00
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tblWater	IndoorWaterUseRate	1,214,134.85	0.00
tblWater	IndoorWaterUseRate	1,669,435.42	0.00
tblWater	IndoorWaterUseRate	7,946,387.43	0.00
tblWater	IndoorWaterUseRate	1,821,202.27	0.00
tblWater	IndoorWaterUseRate	3,297,680.10	0.00
tblWater	IndoorWaterUseRate	782,222.71	0.00
tblWater	IndoorWaterUseRate	1,254,805.38	0.00
tblWater	IndoorWaterUseRate	296,290.09	0.00
tblWater	OutdoorWaterUseRate	153,821.73	0.00
tblWater	OutdoorWaterUseRate	77,497.97	0.00
tblWater	OutdoorWaterUseRate	106,559.71	0.00
tblWater	OutdoorWaterUseRate	4,870,366.49	0.00
tblWater	OutdoorWaterUseRate	116,246.95	0.00
tblWater	OutdoorWaterUseRate	366,408.90	0.00
tblWater	OutdoorWaterUseRate	1,223,476.55	0.00
tblWater	OutdoorWaterUseRate	239,010.55	0.00
tblWater	OutdoorWaterUseRate	181,597.15	0.00

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					
2018	6.1583	71.6745	25.6124	0.0671	20.3885	3.1164	23.5048	10.2131	2.8671	13.0801	0.0000	6,710.7259	6,710.7259	1.7905	0.0000	6,743.2563
2019	66.9097	45.3496	24.4295	0.0667	1.5864	1.8630	3.4494	0.4276	1.7415	2.1691	0.0000	6,609.2318	6,609.2318	1.2819	0.0000	6,641.2796
Maximum	**66.9097**	**71.6745**	**25.6124**	**0.0671**	**20.3885**	**3.1164**	**23.5048**	**10.2131**	**2.8671**	**13.0801**	**0.0000**	**6,710.7259**	**6,710.7259**	**1.7905**	**0.0000**	**6,743.2563**

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					
2018	6.1583	71.6745	25.6124	0.0671	5.4499	3.1164	8.5663	2.6949	2.8671	5.5619	0.0000	6,710.7259	6,710.7259	1.7905	0.0000	6,743.2563
2019	66.9097	45.3496	24.4295	0.0667	1.5864	1.8630	3.4494	0.4276	1.7415	2.1691	0.0000	6,609.2318	6,609.2318	1.2819	0.0000	6,641.2796
Maximum	**66.9097**	**71.6745**	**25.6124**	**0.0671**	**5.4499**	**3.1164**	**8.5663**	**2.6949**	**2.8671**	**5.5619**	**0.0000**	**6,710.7259**	**6,710.7259**	**1.7905**	**0.0000**	**6,743.2563**

	ROG	NOx	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**	**67.98**	**0.00**	**55.42**	**70.66**	**0.00**	**49.30**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.4061	2.4000e-004	0.0256	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0544	0.0544	1.5000e-004		0.0581
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	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	**6.4061**	**2.4000e-004**	**0.0256**	**0.0000**	**0.0000**	**9.0000e-005**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**9.0000e-005**		**0.0544**	**0.0544**	**1.5000e-004**	**0.0000**	**0.0581**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.4061	2.4000e-004	0.0256	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0544	0.0544	1.5000e-004		0.0581
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	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	**6.4061**	**2.4000e-004**	**0.0256**	**0.0000**	**0.0000**	**9.0000e-005**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**9.0000e-005**		**0.0544**	**0.0544**	**1.5000e-004**	**0.0000**	**0.0581**

	ROG	NOx	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	Demolition	Demolition	3/1/2018	3/28/2018	5	20	
2	Site Preparation	Site Preparation	3/29/2018	4/11/2018	5	10	
3	Grading	Grading	4/12/2018	5/9/2018	5	20	
4	Building Construction	Building Construction	5/10/2018	3/27/2019	5	230	
5	Paving	Paving	3/28/2019	4/24/2019	5	20	
6	Architectural Coating	Architectural Coating	4/25/2019	5/22/2019	5	20	

Acres of Grading (Site Preparation Phase): 20

Acres of Grading (Grading Phase): 40

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 429,972; Non-Residential Outdoor: 143,324; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Polopolus (Construction) - Riverside-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	8.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	1	8.00	158	0.38
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	8.00	46	0.45
Site Preparation	Crawler Tractors	4	8.00	212	0.43
Grading	Crawler Tractors	3	8.00	212	0.43
Building Construction	Crawler Tractors	3	8.00	212	0.43

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
Architectural Coating	1	23.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	115.00	47.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	15.00	0.00	0.00	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
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2018

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	3.7190	38.3225	22.3040	0.0388		1.9386	1.9386		1.8048	1.8048		3,871.7665	3,871.7665	1.0667		3,898.4344
Total	**3.7190**	**38.3225**	**22.3040**	**0.0388**		**1.9386**	**1.9386**		**1.8048**	**1.8048**		**3,871.7665**	**3,871.7665**	**1.0667**		**3,898.4344**

3.2 Demolition - 2018

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	0.0881	0.0595	0.6030	1.5900e-003	0.1677	1.0500e-003	0.1687	0.0445	9.7000e-004	0.0454		157.9077	157.9077	4.6700e-003		158.0245
Total	**0.0881**	**0.0595**	**0.6030**	**1.5900e-003**	**0.1677**	**1.0500e-003**	**0.1687**	**0.0445**	**9.7000e-004**	**0.0454**		**157.9077**	**157.9077**	**4.6700e-003**		**158.0245**

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	3.7190	38.3225	22.3040	0.0388		1.9386	1.9386		1.8048	1.8048	0.0000	3,871.7665	3,871.7665	1.0667		3,898.4344
Total	**3.7190**	**38.3225**	**22.3040**	**0.0388**		**1.9386**	**1.9386**		**1.8048**	**1.8048**	**0.0000**	**3,871.7665**	**3,871.7665**	**1.0667**		**3,898.4344**

3.2 Demolition - 2018

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	0.0881	0.0595	0.6030	1.5900e-003	0.1677	1.0500e-003	0.1687	0.0445	9.7000e-004	0.0454		157.9077	157.9077	4.6700e-003		158.0245
Total	**0.0881**	**0.0595**	**0.6030**	**1.5900e-003**	**0.1677**	**1.0500e-003**	**0.1687**	**0.0445**	**9.7000e-004**	**0.0454**		**157.9077**	**157.9077**	**4.6700e-003**		**158.0245**

3.3 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					20.1873	0.0000	20.1873	10.1597	0.0000	10.1597			0.0000			0.0000
Off-Road	6.0526	71.6031	23.7339	0.0569		3.1151	3.1151		2.8659	2.8659		5,733.2885	5,733.2885	1.7849		5,777.9098
Total	**6.0526**	**71.6031**	**23.7339**	**0.0569**	**20.1873**	**3.1151**	**23.3024**	**10.1597**	**2.8659**	**13.0256**		**5,733.2885**	**5,733.2885**	**1.7849**		**5,777.9098**

3.3 Site Preparation - 2018

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	0.1057	0.0714	0.7236	1.9000e-003	0.2012	1.2600e-003	0.2025	0.0534	1.1600e-003	0.0545		189.4893	189.4893	5.6100e-003		189.6294
Total	**0.1057**	**0.0714**	**0.7236**	**1.9000e-003**	**0.2012**	**1.2600e-003**	**0.2025**	**0.0534**	**1.1600e-003**	**0.0545**		**189.4893**	**189.4893**	**5.6100e-003**		**189.6294**

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					5.2487	0.0000	5.2487	2.6415	0.0000	2.6415			0.0000			0.0000
Off-Road	6.0526	71.6031	23.7339	0.0569		3.1151	3.1151		2.8659	2.8659	0.0000	5,733.2885	5,733.2885	1.7849		5,777.9098
Total	**6.0526**	**71.6031**	**23.7339**	**0.0569**	**5.2487**	**3.1151**	**8.3638**	**2.6415**	**2.8659**	**5.5074**	**0.0000**	**5,733.2885**	**5,733.2885**	**1.7849**		**5,777.9098**

3.3 Site Preparation - 2018

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	0.1057	0.0714	0.7236	1.9000e-003	0.2012	1.2600e-003	0.2025	0.0534	1.1600e-003	0.0545		189.4893	189.4893	5.6100e-003		189.6294
Total	**0.1057**	**0.0714**	**0.7236**	**1.9000e-003**	**0.2012**	**1.2600e-003**	**0.2025**	**0.0534**	**1.1600e-003**	**0.0545**		**189.4893**	**189.4893**	**5.6100e-003**		**189.6294**

3.4 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1431	0.0000	8.1431	3.5393	0.0000	3.5393			0.0000			0.0000
Off-Road	3.8906	48.2258	17.5202	0.0439		1.9550	1.9550		1.7986	1.7986		4,414.2701	4,414.2701	1.3742		4,448.6257
Total	**3.8906**	**48.2258**	**17.5202**	**0.0439**	**8.1431**	**1.9550**	**10.0981**	**3.5393**	**1.7986**	**5.3378**		**4,414.2701**	**4,414.2701**	**1.3742**		**4,448.6257**

3.4 Grading - 2018

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	0.0881	0.0595	0.6030	1.5900e-003	0.1677	1.0500e-003	0.1687	0.0445	9.7000e-004	0.0454		157.9077	157.9077	4.6700e-003		158.0245
Total	**0.0881**	**0.0595**	**0.6030**	**1.5900e-003**	**0.1677**	**1.0500e-003**	**0.1687**	**0.0445**	**9.7000e-004**	**0.0454**		**157.9077**	**157.9077**	**4.6700e-003**		**158.0245**

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					2.1172	0.0000	2.1172	0.9202	0.0000	0.9202			0.0000			0.0000
Off-Road	3.8906	48.2258	17.5202	0.0439		1.9550	1.9550		1.7986	1.7986	0.0000	4,414.2701	4,414.2701	1.3742		4,448.6256
Total	**3.8906**	**48.2258**	**17.5202**	**0.0439**	**2.1172**	**1.9550**	**4.0722**	**0.9202**	**1.7986**	**2.7188**	**0.0000**	**4,414.2701**	**4,414.2701**	**1.3742**		**4,448.6256**

3.4 Grading - 2018

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	0.0881	0.0595	0.6030	1.5900e-003	0.1677	1.0500e-003	0.1687	0.0445	9.7000e-004	0.0454		157.9077	157.9077	4.6700e-003		158.0245
Total	**0.0881**	**0.0595**	**0.6030**	**1.5900e-003**	**0.1677**	**1.0500e-003**	**0.1687**	**0.0445**	**9.7000e-004**	**0.0454**		**157.9077**	**157.9077**	**4.6700e-003**		**158.0245**

3.5 Building Construction - 2018

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	3.9680	42.7820	19.7151	0.0430		2.0103	2.0103		1.8795	1.8795		4,237.0493	4,237.0493	1.1452		4,265.6805
Total	**3.9680**	**42.7820**	**19.7151**	**0.0430**		**2.0103**	**2.0103**		**1.8795**	**1.8795**		**4,237.0493**	**4,237.0493**	**1.1452**		**4,265.6805**

3.5 Building Construction - 2018

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	0.1814	5.7057	1.2742	0.0120	0.3010	0.0485	0.3495	0.0867	0.0464	0.1330		1,263.0507	1,263.0507	0.1202		1,266.0545
Worker	0.6756	0.4563	4.6231	0.0122	1.2854	8.0300e-003	1.2935	0.3409	7.4000e-003	0.3483		1,210.6259	1,210.6259	0.0358		1,211.5213
Total	**0.8570**	**6.1620**	**5.8973**	**0.0242**	**1.5864**	**0.0565**	**1.6429**	**0.4276**	**0.0538**	**0.4813**		**2,473.6766**	**2,473.6766**	**0.1560**		**2,477.5758**

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	3.9680	42.7820	19.7151	0.0430		2.0103	2.0103		1.8795	1.8795	0.0000	4,237.0493	4,237.0493	1.1452		4,265.6805
Total	**3.9680**	**42.7820**	**19.7151**	**0.0430**		**2.0103**	**2.0103**		**1.8795**	**1.8795**	**0.0000**	**4,237.0493**	**4,237.0493**	**1.1452**		**4,265.6805**

3.5 Building Construction - 2018

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	0.1814	5.7057	1.2742	0.0120	0.3010	0.0485	0.3495	0.0867	0.0464	0.1330		1,263.0507	1,263.0507	0.1202		1,266.0545
Worker	0.6756	0.4563	4.6231	0.0122	1.2854	8.0300e-003	1.2935	0.3409	7.4000e-003	0.3483		1,210.6259	1,210.6259	0.0358		1,211.5213
Total	**0.8570**	**6.1620**	**5.8973**	**0.0242**	**1.5864**	**0.0565**	**1.6429**	**0.4276**	**0.0538**	**0.4813**		**2,473.6766**	**2,473.6766**	**0.1560**		**2,477.5758**

3.5 Building Construction - 2019

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	3.6389	39.6094	19.1231	0.0430		1.8139	1.8139		1.6949	1.6949		4,181.0255	4,181.0255	1.1342		4,209.3809
Total	**3.6389**	**39.6094**	**19.1231**	**0.0430**		**1.8139**	**1.8139**		**1.6949**	**1.6949**		**4,181.0255**	**4,181.0255**	**1.1342**		**4,209.3809**

3.5 Building Construction - 2019

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	0.1643	5.3380	1.1657	0.0119	0.3010	0.0411	0.3421	0.0867	0.0394	0.1260		1,254.6116	1,254.6116	0.1159		1,257.5078
Worker	0.6187	0.4023	4.1406	0.0118	1.2854	7.9300e-003	1.2934	0.3409	7.3100e-003	0.3482		1,173.5947	1,173.5947	0.0318		1,174.3908
Total	**0.7830**	**5.7403**	**5.3063**	**0.0237**	**1.5864**	**0.0491**	**1.6355**	**0.4276**	**0.0467**	**0.4742**		**2,428.2063**	**2,428.2063**	**0.1477**		**2,431.8987**

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	3.6389	39.6094	19.1231	0.0430		1.8139	1.8139		1.6949	1.6949	0.0000	4,181.0255	4,181.0255	1.1342		4,209.3809
Total	**3.6389**	**39.6094**	**19.1231**	**0.0430**		**1.8139**	**1.8139**		**1.6949**	**1.6949**	**0.0000**	**4,181.0255**	**4,181.0255**	**1.1342**		**4,209.3809**

3.5 Building Construction - 2019

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	0.1643	5.3380	1.1657	0.0119	0.3010	0.0411	0.3421	0.0867	0.0394	0.1260		1,254.6116	1,254.6116	0.1159		1,257.5078
Worker	0.6187	0.4023	4.1406	0.0118	1.2854	7.9300e-003	1.2934	0.3409	7.3100e-003	0.3482		1,173.5947	1,173.5947	0.0318		1,174.3908
Total	**0.7830**	**5.7403**	**5.3063**	**0.0237**	**1.5864**	**0.0491**	**1.6355**	**0.4276**	**0.0467**	**0.4742**		**2,428.2063**	**2,428.2063**	**0.1477**		**2,431.8987**

3.6 Paving - 2019

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	1.4544	15.2441	14.6648	0.0228		0.8246	0.8246		0.7586	0.7586		2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4544**	**15.2441**	**14.6648**	**0.0228**		**0.8246**	**0.8246**		**0.7586**	**0.7586**		**2,257.0025**	**2,257.0025**	**0.7141**		**2,274.8548**

3.6 Paving - 2019

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	0.0807	0.0525	0.5401	1.5400e-003	0.1677	1.0300e-003	0.1687	0.0445	9.5000e-004	0.0454		153.0776	153.0776	4.1500e-003		153.1814
Total	**0.0807**	**0.0525**	**0.5401**	**1.5400e-003**	**0.1677**	**1.0300e-003**	**0.1687**	**0.0445**	**9.5000e-004**	**0.0454**		**153.0776**	**153.0776**	**4.1500e-003**		**153.1814**

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	1.4544	15.2441	14.6648	0.0228		0.8246	0.8246		0.7586	0.7586	0.0000	2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4544**	**15.2441**	**14.6648**	**0.0228**		**0.8246**	**0.8246**		**0.7586**	**0.7586**	**0.0000**	**2,257.0025**	**2,257.0025**	**0.7141**		**2,274.8548**

3.6 Paving - 2019

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	0.0807	0.0525	0.5401	1.5400e-003	0.1677	1.0300e-003	0.1687	0.0445	9.5000e-004	0.0454		153.0776	153.0776	4.1500e-003		153.1814
Total	**0.0807**	**0.0525**	**0.5401**	**1.5400e-003**	**0.1677**	**1.0300e-003**	**0.1687**	**0.0445**	**9.5000e-004**	**0.0454**		**153.0776**	**153.0776**	**4.1500e-003**		**153.1814**

3.7 Architectural Coating - 2019

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	66.4307					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3553	2.4472	2.4551	3.9600e-003		0.1717	0.1717		0.1717	0.1717		375.2641	375.2641	0.0317		376.0565
Total	**66.7859**	**2.4472**	**2.4551**	**3.9600e-003**		**0.1717**	**0.1717**		**0.1717**	**0.1717**		**375.2641**	**375.2641**	**0.0317**		**376.0565**

3.7 Architectural Coating - 2019

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	0.1237	0.0805	0.8281	2.3600e-003	0.2571	1.5900e-003	0.2587	0.0682	1.4600e-003	0.0696		234.7190	234.7190	6.3700e-003		234.8782
Total	**0.1237**	**0.0805**	**0.8281**	**2.3600e-003**	**0.2571**	**1.5900e-003**	**0.2587**	**0.0682**	**1.4600e-003**	**0.0696**		**234.7190**	**234.7190**	**6.3700e-003**		**234.8782**

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	66.4307					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3553	2.4472	2.4551	3.9600e-003		0.1717	0.1717		0.1717	0.1717	0.0000	375.2641	375.2641	0.0317		376.0565
Total	**66.7859**	**2.4472**	**2.4551**	**3.9600e-003**		**0.1717**	**0.1717**		**0.1717**	**0.1717**	**0.0000**	**375.2641**	**375.2641**	**0.0317**		**376.0565**

3.7 Architectural Coating - 2019

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	0.1237	0.0805	0.8281	2.3600e-003	0.2571	1.5900e-003	0.2587	0.0682	1.4600e-003	0.0696		234.7190	234.7190	6.3700e-003		234.8782
Total	**0.1237**	**0.0805**	**0.8281**	**2.3600e-003**	**0.2571**	**1.5900e-003**	**0.2587**	**0.0682**	**1.4600e-003**	**0.0696**		**234.7190**	**234.7190**	**6.3700e-003**		**234.8782**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market With Gas Pumps	0.00	0.00	0.00		
Fast Food Restaurant w/o Drive Thru	0.00	0.00	0.00		
Fast Food Restaurant with Drive Thru	0.00	0.00	0.00		
Government Office Building	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	0.00	0.00	0.00		
Hotel	0.00	0.00	0.00		
Library	0.00	0.00	0.00		
Medical Office Building	0.00	0.00	0.00		
Regional Shopping Center	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market With Gas	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Fast Food Restaurant w/o Drive	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Fast Food Restaurant with Drive	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Government Office Building	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
High Turnover (Sit Down	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Hotel	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Library	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Medical Office Building	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Regional Shopping Center	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market With Gas Pumps	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
Fast Food Restaurant w/o Drive Thru	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
Fast Food Restaurant with Drive Thru	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
Government Office Building	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
High Turnover (Sit Down Restaurant)	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
Hotel	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
Library	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
Medical Office Building	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
Regional Shopping Center	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Polopolus (Construction) - Riverside-South Coast County, Winter

	ROG	NOx	CO	SO2	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	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

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					
Convenience Market With Gas Pumps	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
Fast Food Restaurant w/o Drive Thru	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
Fast Food Restaurant with Drive Thru	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
Government Office Building	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
High Turnover (Sit Down Restaurant)	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
Hotel	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
Library	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
Medical Office Building	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
Regional Shopping Center	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		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Convenience Market With Gas Pumps	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
Fast Food Restaurant w/o Drive Thru	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
Fast Food Restaurant with Drive Thru	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
Government Office Building	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
High Turnover (Sit Down Restaurant)	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
Hotel	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
Library	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
Medical Office Building	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
Regional Shopping Center	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		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.4061	2.4000e-004	0.0256	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0544	0.0544	1.5000e-004		0.0581
Unmitigated	6.4061	2.4000e-004	0.0256	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0544	0.0544	1.5000e-004		0.0581

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7280					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.6756					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.4300e-003	2.4000e-004	0.0256	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0544	0.0544	1.5000e-004		0.0581
Total	**6.4061**	**2.4000e-004**	**0.0256**	**0.0000**		**9.0000e-005**	**9.0000e-005**		**9.0000e-005**	**9.0000e-005**		**0.0544**	**0.0544**	**1.5000e-004**		**0.0581**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7280					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.6756					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.4300e-003	2.4000e-004	0.0256	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0544	0.0544	1.5000e-004		0.0581
Total	**6.4061**	**2.4000e-004**	**0.0256**	**0.0000**		**9.0000e-005**	**9.0000e-005**		**9.0000e-005**	**9.0000e-005**		**0.0544**	**0.0544**	**1.5000e-004**		**0.0581**

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 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Polopolus (Construction)

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Convenience Market With Gas Pumps	24.00	Pump	0.08	3,388.20	0
Fast Food Restaurant with Drive Thru	5.50	1000sqft	0.13	5,500.00	0
High Turnover (Sit Down Restaurant)	6.00	1000sqft	0.14	6,000.00	0
Regional Shopping Center	4.00	1000sqft	0.09	4,000.00	0
Fast Food Restaurant w/o Drive Thru	4.00	1000sqft	0.09	4,000.00	0
Medical Office Building	10.00	1000sqft	0.23	10,000.00	0
Government Office Building	40.00	1000sqft	0.92	40,000.00	0
Hotel	130.00	Room	4.33	188,760.00	0
Library	25.00	1000sqft	0.57	25,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2019
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Polopolus (Construction) - Riverside-South Coast County, Summer

Project Characteristics -

Land Use -

Construction Phase -

Off-road Equipment - Hours are based on an 8-hour workday.

Off-road Equipment -

Off-road Equipment - Crawler Tractors used in lieu of Tractors/Loaders/Backhoes.

Off-road Equipment - Crawler Tractors used in lieu of Tractors/Loaders/Backhoes.

Off-road Equipment - Crawler Tractors used in lieu of Tractors/Loaders/Backhoes.

Off-road Equipment -

Grading -

Vehicle Trips - Construction (Mitigated) Run Only.

Energy Use - Construction (Mitigated) Run Only.

Water And Wastewater - Construction (Mitigated) Run Only.

Solid Waste - Construction (Mitigated) Run Only.

Construction Off-road Equipment Mitigation - Increase watering to 4 times per day.

Architectural Coating - Use Low VOC Paint (50g/L)

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblArchitecturalCoating	EF_Parking	100.00	50.00
tblConstDustMitigation	WaterExposedAreaPM10PercentReduction	61	74
tblConstDustMitigation	WaterExposedAreaPM25PercentReduction	61	74
tblEnergyUse	LightingElect	5.61	0.00
tblEnergyUse	LightingElect	6.62	0.00
tblEnergyUse	LightingElect	6.62	0.00
tblEnergyUse	LightingElect	3.66	0.00

tblEnergyUse	LightingElect	6.62	0.00
tblEnergyUse	LightingElect	5.44	0.00
tblEnergyUse	LightingElect	2.93	0.00
tblEnergyUse	LightingElect	3.66	0.00
tblEnergyUse	LightingElect	5.61	0.00
tblEnergyUse	NT24E	2.44	0.00
tblEnergyUse	NT24E	28.48	0.00
tblEnergyUse	NT24E	28.48	0.00
tblEnergyUse	NT24E	2.79	0.00
tblEnergyUse	NT24E	28.48	0.00
tblEnergyUse	NT24E	6.23	0.00
tblEnergyUse	NT24E	5.02	0.00
tblEnergyUse	NT24E	2.79	0.00
tblEnergyUse	NT24E	2.44	0.00
tblEnergyUse	NT24NG	0.30	0.00
tblEnergyUse	NT24NG	195.77	0.00
tblEnergyUse	NT24NG	195.77	0.00
tblEnergyUse	NT24NG	195.77	0.00
tblEnergyUse	NT24NG	4.86	0.00
tblEnergyUse	NT24NG	17.13	0.00
tblEnergyUse	NT24NG	0.30	0.00
tblEnergyUse	T24E	4.58	0.00
tblEnergyUse	T24E	12.38	0.00
tblEnergyUse	T24E	12.38	0.00
tblEnergyUse	T24E	3.07	0.00
tblEnergyUse	T24E	12.38	0.00
tblEnergyUse	T24E	6.47	0.00

tblEnergyUse	T24E	2.20	0.00
tblEnergyUse	T24E	3.07	0.00
tblEnergyUse	T24E	4.58	0.00
tblEnergyUse	T24NG	1.92	0.00
tblEnergyUse	T24NG	77.67	0.00
tblEnergyUse	T24NG	77.67	0.00
tblEnergyUse	T24NG	3.47	0.00
tblEnergyUse	T24NG	77.67	0.00
tblEnergyUse	T24NG	55.15	0.00
tblEnergyUse	T24NG	15.36	0.00
tblEnergyUse	T24NG	3.47	0.00
tblEnergyUse	T24NG	1.92	0.00
tblOffRoadEquipment	LoadFactor	0.43	0.43
tblOffRoadEquipment	LoadFactor	0.43	0.43
tblOffRoadEquipment	LoadFactor	0.43	0.43
tblOffRoadEquipment	OffRoadEquipmentType		Crawler Tractors
tblOffRoadEquipment	OffRoadEquipmentType		Crawler Tractors
tblOffRoadEquipment	OffRoadEquipmentType		Crawler Tractors
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblSolidWaste	SolidWasteGenerationRate	46.08	0.00
tblSolidWaste	SolidWasteGenerationRate	63.35	0.00
tblSolidWaste	SolidWasteGenerationRate	37.20	0.00

tblSolidWaste	SolidWasteGenerationRate	71.40	0.00
tblSolidWaste	SolidWasteGenerationRate	71.17	0.00
tblSolidWaste	SolidWasteGenerationRate	23.02	0.00
tblSolidWaste	SolidWasteGenerationRate	108.00	0.00
tblSolidWaste	SolidWasteGenerationRate	4.20	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TTP	80.20	0.00
tblVehicleTrips	CC_TTP	79.50	0.00
tblVehicleTrips	CC_TTP	78.80	0.00
tblVehicleTrips	CC_TTP	62.00	0.00
tblVehicleTrips	CC_TTP	72.50	0.00
tblVehicleTrips	CC_TTP	61.60	0.00
tblVehicleTrips	CC_TTP	43.00	0.00
tblVehicleTrips	CC_TTP	51.40	0.00
tblVehicleTrips	CC_TTP	64.70	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00

tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	5.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	5.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TTP	0.80	0.00
tblVehicleTrips	CW_TTP	1.50	0.00
tblVehicleTrips	CW_TTP	2.20	0.00
tblVehicleTrips	CW_TTP	33.00	0.00

tblVehicleTrips	CW_TTP	8.50	0.00
tblVehicleTrips	CW_TTP	19.40	0.00
tblVehicleTrips	CW_TTP	52.00	0.00
tblVehicleTrips	CW_TTP	29.60	0.00
tblVehicleTrips	CW_TTP	16.30	0.00
tblVehicleTrips	DV_TP	21.00	0.00
tblVehicleTrips	DV_TP	37.00	0.00
tblVehicleTrips	DV_TP	21.00	0.00
tblVehicleTrips	DV_TP	34.00	0.00
tblVehicleTrips	DV_TP	20.00	0.00
tblVehicleTrips	DV_TP	38.00	0.00
tblVehicleTrips	DV_TP	44.00	0.00
tblVehicleTrips	DV_TP	30.00	0.00
tblVehicleTrips	DV_TP	35.00	0.00
tblVehicleTrips	PB_TP	65.00	0.00
tblVehicleTrips	PB_TP	12.00	0.00
tblVehicleTrips	PB_TP	50.00	0.00
tblVehicleTrips	PB_TP	16.00	0.00
tblVehicleTrips	PB_TP	43.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	12.00	0.00
tblVehicleTrips	PB_TP	10.00	0.00
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PR_TP	14.00	0.00
tblVehicleTrips	PR_TP	51.00	0.00
tblVehicleTrips	PR_TP	29.00	0.00
tblVehicleTrips	PR_TP	50.00	0.00

tblVehicleTrips	PR_TP	37.00	0.00
tblVehicleTrips	PR_TP	58.00	0.00
tblVehicleTrips	PR_TP	44.00	0.00
tblVehicleTrips	PR_TP	60.00	0.00
tblVehicleTrips	PR_TP	54.00	0.00
tblVehicleTrips	ST_TR	204.47	0.00
tblVehicleTrips	ST_TR	696.00	0.00
tblVehicleTrips	ST_TR	722.03	0.00
tblVehicleTrips	ST_TR	158.37	0.00
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	ST_TR	46.55	0.00
tblVehicleTrips	ST_TR	8.96	0.00
tblVehicleTrips	ST_TR	49.97	0.00
tblVehicleTrips	SU_TR	166.88	0.00
tblVehicleTrips	SU_TR	500.00	0.00
tblVehicleTrips	SU_TR	542.72	0.00
tblVehicleTrips	SU_TR	131.84	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	SU_TR	25.49	0.00
tblVehicleTrips	SU_TR	1.55	0.00
tblVehicleTrips	SU_TR	25.24	0.00
tblVehicleTrips	WD_TR	542.60	0.00
tblVehicleTrips	WD_TR	716.00	0.00
tblVehicleTrips	WD_TR	496.12	0.00
tblVehicleTrips	WD_TR	68.93	0.00
tblVehicleTrips	WD_TR	127.15	0.00
tblVehicleTrips	WD_TR	8.17	0.00

tblVehicleTrips	WD_TR	56.24	0.00
tblVehicleTrips	WD_TR	36.13	0.00
tblVehicleTrips	WD_TR	42.70	0.00
tblWater	IndoorWaterUseRate	250,972.30	0.00
tblWater	IndoorWaterUseRate	1,214,134.85	0.00
tblWater	IndoorWaterUseRate	1,669,435.42	0.00
tblWater	IndoorWaterUseRate	7,946,387.43	0.00
tblWater	IndoorWaterUseRate	1,821,202.27	0.00
tblWater	IndoorWaterUseRate	3,297,680.10	0.00
tblWater	IndoorWaterUseRate	782,222.71	0.00
tblWater	IndoorWaterUseRate	1,254,805.38	0.00
tblWater	IndoorWaterUseRate	296,290.09	0.00
tblWater	OutdoorWaterUseRate	153,821.73	0.00
tblWater	OutdoorWaterUseRate	77,497.97	0.00
tblWater	OutdoorWaterUseRate	106,559.71	0.00
tblWater	OutdoorWaterUseRate	4,870,366.49	0.00
tblWater	OutdoorWaterUseRate	116,246.95	0.00
tblWater	OutdoorWaterUseRate	366,408.90	0.00
tblWater	OutdoorWaterUseRate	1,223,476.55	0.00
tblWater	OutdoorWaterUseRate	239,010.55	0.00
tblWater	OutdoorWaterUseRate	181,597.15	0.00

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					
2018	6.1609	71.6720	26.5075	0.0690	20.3885	3.1164	23.5048	10.2131	2.8671	13.0801	0.0000	6,898.2305	6,898.2305	1.7913	0.0000	6,930.5972
2019	66.9126	45.3481	25.2347	0.0685	1.5864	1.8625	3.4489	0.4276	1.7411	2.1686	0.0000	6,792.4984	6,792.4984	1.2751	0.0000	6,824.3765
Maximum	**66.9126**	**71.6720**	**26.5075**	**0.0690**	**20.3885**	**3.1164**	**23.5048**	**10.2131**	**2.8671**	**13.0801**	**0.0000**	**6,898.2305**	**6,898.2305**	**1.7913**	**0.0000**	**6,930.5972**

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					
2018	6.1609	71.6720	26.5075	0.0690	5.4499	3.1164	8.5663	2.6949	2.8671	5.5619	0.0000	6,898.2305	6,898.2305	1.7913	0.0000	6,930.5972
2019	66.9126	45.3481	25.2347	0.0685	1.5864	1.8625	3.4489	0.4276	1.7411	2.1686	0.0000	6,792.4984	6,792.4984	1.2751	0.0000	6,824.3765
Maximum	**66.9126**	**71.6720**	**26.5075**	**0.0690**	**5.4499**	**3.1164**	**8.5663**	**2.6949**	**2.8671**	**5.5619**	**0.0000**	**6,898.2305**	**6,898.2305**	**1.7913**	**0.0000**	**6,930.5972**

	ROG	NOx	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**	**67.98**	**0.00**	**55.42**	**70.66**	**0.00**	**49.30**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.4061	2.4000e-004	0.0256	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0544	0.0544	1.5000e-004		0.0581
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	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	**6.4061**	**2.4000e-004**	**0.0256**	**0.0000**	**0.0000**	**9.0000e-005**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**9.0000e-005**		**0.0544**	**0.0544**	**1.5000e-004**	**0.0000**	**0.0581**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.4061	2.4000e-004	0.0256	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0544	0.0544	1.5000e-004		0.0581
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	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	**6.4061**	**2.4000e-004**	**0.0256**	**0.0000**	**0.0000**	**9.0000e-005**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**9.0000e-005**		**0.0544**	**0.0544**	**1.5000e-004**	**0.0000**	**0.0581**

	ROG	NOx	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	Demolition	Demolition	3/1/2018	3/28/2018	5	20	
2	Site Preparation	Site Preparation	3/29/2018	4/11/2018	5	10	
3	Grading	Grading	4/12/2018	5/9/2018	5	20	
4	Building Construction	Building Construction	5/10/2018	3/27/2019	5	230	
5	Paving	Paving	3/28/2019	4/24/2019	5	20	
6	Architectural Coating	Architectural Coating	4/25/2019	5/22/2019	5	20	

Acres of Grading (Site Preparation Phase): 20

Acres of Grading (Grading Phase): 40

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 429,972; Non-Residential Outdoor: 143,324; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Polopolus (Construction) - Riverside-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	8.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	1	8.00	158	0.38
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	8.00	46	0.45
Site Preparation	Crawler Tractors	4	8.00	212	0.43
Grading	Crawler Tractors	3	8.00	212	0.43
Building Construction	Crawler Tractors	3	8.00	212	0.43

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
Architectural Coating	1	23.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	115.00	47.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	15.00	0.00	0.00	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
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2018

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	3.7190	38.3225	22.3040	0.0388		1.9386	1.9386		1.8048	1.8048		3,871.7665	3,871.7665	1.0667		3,898.4344
Total	**3.7190**	**38.3225**	**22.3040**	**0.0388**		**1.9386**	**1.9386**		**1.8048**	**1.8048**		**3,871.7665**	**3,871.7665**	**1.0667**		**3,898.4344**

3.2 Demolition - 2018

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	0.0903	0.0574	0.7419	1.7700e-003	0.1677	1.0500e-003	0.1687	0.0445	9.7000e-004	0.0454		175.9907	175.9907	5.3600e-003		176.1247
Total	**0.0903**	**0.0574**	**0.7419**	**1.7700e-003**	**0.1677**	**1.0500e-003**	**0.1687**	**0.0445**	**9.7000e-004**	**0.0454**		**175.9907**	**175.9907**	**5.3600e-003**		**176.1247**

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	3.7190	38.3225	22.3040	0.0388		1.9386	1.9386		1.8048	1.8048	0.0000	3,871.7665	3,871.7665	1.0667		3,898.4344
Total	**3.7190**	**38.3225**	**22.3040**	**0.0388**		**1.9386**	**1.9386**		**1.8048**	**1.8048**	**0.0000**	**3,871.7665**	**3,871.7665**	**1.0667**		**3,898.4344**

3.2 Demolition - 2018

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	0.0903	0.0574	0.7419	1.7700e-003	0.1677	1.0500e-003	0.1687	0.0445	9.7000e-004	0.0454		175.9907	175.9907	5.3600e-003		176.1247
Total	**0.0903**	**0.0574**	**0.7419**	**1.7700e-003**	**0.1677**	**1.0500e-003**	**0.1687**	**0.0445**	**9.7000e-004**	**0.0454**		**175.9907**	**175.9907**	**5.3600e-003**		**176.1247**

3.3 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					20.1873	0.0000	20.1873	10.1597	0.0000	10.1597			0.0000			0.0000
Off-Road	6.0526	71.6031	23.7339	0.0569		3.1151	3.1151		2.8659	2.8659		5,733.2885	5,733.2885	1.7849		5,777.9098
Total	**6.0526**	**71.6031**	**23.7339**	**0.0569**	**20.1873**	**3.1151**	**23.3024**	**10.1597**	**2.8659**	**13.0256**		**5,733.2885**	**5,733.2885**	**1.7849**		**5,777.9098**

3.3 Site Preparation - 2018

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	0.1084	0.0689	0.8902	2.1200e-003	0.2012	1.2600e-003	0.2025	0.0534	1.1600e-003	0.0545		211.1889	211.1889	6.4300e-003		211.3496
Total	**0.1084**	**0.0689**	**0.8902**	**2.1200e-003**	**0.2012**	**1.2600e-003**	**0.2025**	**0.0534**	**1.1600e-003**	**0.0545**		**211.1889**	**211.1889**	**6.4300e-003**		**211.3496**

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					5.2487	0.0000	5.2487	2.6415	0.0000	2.6415			0.0000			0.0000
Off-Road	6.0526	71.6031	23.7339	0.0569		3.1151	3.1151		2.8659	2.8659	0.0000	5,733.2885	5,733.2885	1.7849		5,777.9098
Total	**6.0526**	**71.6031**	**23.7339**	**0.0569**	**5.2487**	**3.1151**	**8.3638**	**2.6415**	**2.8659**	**5.5074**	**0.0000**	**5,733.2885**	**5,733.2885**	**1.7849**		**5,777.9098**

3.3 Site Preparation - 2018

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	0.1084	0.0689	0.8902	2.1200e-003	0.2012	1.2600e-003	0.2025	0.0534	1.1600e-003	0.0545		211.1889	211.1889	6.4300e-003		211.3496
Total	**0.1084**	**0.0689**	**0.8902**	**2.1200e-003**	**0.2012**	**1.2600e-003**	**0.2025**	**0.0534**	**1.1600e-003**	**0.0545**		**211.1889**	**211.1889**	**6.4300e-003**		**211.3496**

3.4 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1431	0.0000	8.1431	3.5393	0.0000	3.5393			0.0000			0.0000
Off-Road	3.8906	48.2258	17.5202	0.0439		1.9550	1.9550		1.7986	1.7986		4,414.2701	4,414.2701	1.3742		4,448.6257
Total	**3.8906**	**48.2258**	**17.5202**	**0.0439**	**8.1431**	**1.9550**	**10.0981**	**3.5393**	**1.7986**	**5.3378**		**4,414.2701**	**4,414.2701**	**1.3742**		**4,448.6257**

3.4 Grading - 2018

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	0.0903	0.0574	0.7419	1.7700e-003	0.1677	1.0500e-003	0.1687	0.0445	9.7000e-004	0.0454		175.9907	175.9907	5.3600e-003		176.1247
Total	**0.0903**	**0.0574**	**0.7419**	**1.7700e-003**	**0.1677**	**1.0500e-003**	**0.1687**	**0.0445**	**9.7000e-004**	**0.0454**		**175.9907**	**175.9907**	**5.3600e-003**		**176.1247**

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					2.1172	0.0000	2.1172	0.9202	0.0000	0.9202			0.0000			0.0000
Off-Road	3.8906	48.2258	17.5202	0.0439		1.9550	1.9550		1.7986	1.7986	0.0000	4,414.2701	4,414.2701	1.3742		4,448.6256
Total	**3.8906**	**48.2258**	**17.5202**	**0.0439**	**2.1172**	**1.9550**	**4.0722**	**0.9202**	**1.7986**	**2.7188**	**0.0000**	**4,414.2701**	**4,414.2701**	**1.3742**		**4,448.6256**

3.4 Grading - 2018

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	0.0903	0.0574	0.7419	1.7700e-003	0.1677	1.0500e-003	0.1687	0.0445	9.7000e-004	0.0454		175.9907	175.9907	5.3600e-003		176.1247
Total	**0.0903**	**0.0574**	**0.7419**	**1.7700e-003**	**0.1677**	**1.0500e-003**	**0.1687**	**0.0445**	**9.7000e-004**	**0.0454**		**175.9907**	**175.9907**	**5.3600e-003**		**176.1247**

3.5 Building Construction - 2018

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	3.9680	42.7820	19.7151	0.0430		2.0103	2.0103		1.8795	1.8795		4,237.0493	4,237.0493	1.1452		4,265.6805
Total	**3.9680**	**42.7820**	**19.7151**	**0.0430**		**2.0103**	**2.0103**		**1.8795**	**1.8795**		**4,237.0493**	**4,237.0493**	**1.1452**		**4,265.6805**

3.5 Building Construction - 2018

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	0.1732	5.7105	1.1047	0.0125	0.3010	0.0479	0.3489	0.0867	0.0458	0.1325		1,311.9190	1,311.9190	0.1084		1,314.6277
Worker	0.6923	0.4403	5.6876	0.0136	1.2854	8.0300e-003	1.2935	0.3409	7.4000e-003	0.3483		1,349.2622	1,349.2622	0.0411		1,350.2891
Total	**0.8656**	**6.1507**	**6.7924**	**0.0260**	**1.5864**	**0.0559**	**1.6423**	**0.4276**	**0.0532**	**0.4808**		**2,661.1811**	**2,661.1811**	**0.1494**		**2,664.9168**

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	3.9680	42.7820	19.7151	0.0430		2.0103	2.0103		1.8795	1.8795	0.0000	4,237.0493	4,237.0493	1.1452		4,265.6805
Total	**3.9680**	**42.7820**	**19.7151**	**0.0430**		**2.0103**	**2.0103**		**1.8795**	**1.8795**	**0.0000**	**4,237.0493**	**4,237.0493**	**1.1452**		**4,265.6805**

3.5 Building Construction - 2018

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	0.1732	5.7105	1.1047	0.0125	0.3010	0.0479	0.3489	0.0867	0.0458	0.1325		1,311.9190	1,311.9190	0.1084		1,314.6277
Worker	0.6923	0.4403	5.6876	0.0136	1.2854	8.0300e-003	1.2935	0.3409	7.4000e-003	0.3483		1,349.2622	1,349.2622	0.0411		1,350.2891
Total	**0.8656**	**6.1507**	**6.7924**	**0.0260**	**1.5864**	**0.0559**	**1.6423**	**0.4276**	**0.0532**	**0.4808**		**2,661.1811**	**2,661.1811**	**0.1494**		**2,664.9168**

3.5 Building Construction - 2019

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	3.6389	39.6094	19.1231	0.0430		1.8139	1.8139		1.6949	1.6949		4,181.0255	4,181.0255	1.1342		4,209.3809
Total	**3.6389**	**39.6094**	**19.1231**	**0.0430**		**1.8139**	**1.8139**		**1.6949**	**1.6949**		**4,181.0255**	**4,181.0255**	**1.1342**		**4,209.3809**

3.5 Building Construction - 2019

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	0.1566	5.3502	1.0026	0.0124	0.3010	0.0406	0.3416	0.0867	0.0389	0.1255		1,303.3223	1,303.3223	0.1043		1,305.9294
Worker	0.6332	0.3886	5.1089	0.0131	1.2854	7.9300e-003	1.2934	0.3409	7.3100e-003	0.3482		1,308.1507	1,308.1507	0.0366		1,309.0662
Total	**0.7897**	**5.7388**	**6.1115**	**0.0255**	**1.5864**	**0.0486**	**1.6350**	**0.4276**	**0.0462**	**0.4738**		**2,611.4730**	**2,611.4730**	**0.1409**		**2,614.9956**

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	3.6389	39.6094	19.1231	0.0430		1.8139	1.8139		1.6949	1.6949	0.0000	4,181.0255	4,181.0255	1.1342		4,209.3809
Total	**3.6389**	**39.6094**	**19.1231**	**0.0430**		**1.8139**	**1.8139**		**1.6949**	**1.6949**	**0.0000**	**4,181.0255**	**4,181.0255**	**1.1342**		**4,209.3809**

3.5 Building Construction - 2019

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	0.1566	5.3502	1.0026	0.0124	0.3010	0.0406	0.3416	0.0867	0.0389	0.1255		1,303.3223	1,303.3223	0.1043		1,305.9294
Worker	0.6332	0.3886	5.1089	0.0131	1.2854	7.9300e-003	1.2934	0.3409	7.3100e-003	0.3482		1,308.1507	1,308.1507	0.0366		1,309.0662
Total	**0.7897**	**5.7388**	**6.1115**	**0.0255**	**1.5864**	**0.0486**	**1.6350**	**0.4276**	**0.0462**	**0.4738**		**2,611.4730**	**2,611.4730**	**0.1409**		**2,614.9956**

3.6 Paving - 2019

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	1.4544	15.2441	14.6648	0.0228		0.8246	0.8246		0.7586	0.7586		2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4544**	**15.2441**	**14.6648**	**0.0228**		**0.8246**	**0.8246**		**0.7586**	**0.7586**		**2,257.0025**	**2,257.0025**	**0.7141**		**2,274.8548**

3.6 Paving - 2019

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	0.0826	0.0507	0.6664	1.7100e-003	0.1677	1.0300e-003	0.1687	0.0445	9.5000e-004	0.0454		170.6284	170.6284	4.7800e-003		170.7478
Total	**0.0826**	**0.0507**	**0.6664**	**1.7100e-003**	**0.1677**	**1.0300e-003**	**0.1687**	**0.0445**	**9.5000e-004**	**0.0454**		**170.6284**	**170.6284**	**4.7800e-003**		**170.7478**

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	1.4544	15.2441	14.6648	0.0228		0.8246	0.8246		0.7586	0.7586	0.0000	2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4544**	**15.2441**	**14.6648**	**0.0228**		**0.8246**	**0.8246**		**0.7586**	**0.7586**	**0.0000**	**2,257.0025**	**2,257.0025**	**0.7141**		**2,274.8548**

3.6 Paving - 2019

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	0.0826	0.0507	0.6664	1.7100e-003	0.1677	1.0300e-003	0.1687	0.0445	9.5000e-004	0.0454		170.6284	170.6284	4.7800e-003		170.7478
Total	**0.0826**	**0.0507**	**0.6664**	**1.7100e-003**	**0.1677**	**1.0300e-003**	**0.1687**	**0.0445**	**9.5000e-004**	**0.0454**		**170.6284**	**170.6284**	**4.7800e-003**		**170.7478**

3.7 Architectural Coating - 2019

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	66.4307					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3553	2.4472	2.4551	3.9600e-003		0.1717	0.1717		0.1717	0.1717		375.2641	375.2641	0.0317		376.0565
Total	**66.7859**	**2.4472**	**2.4551**	**3.9600e-003**		**0.1717**	**0.1717**		**0.1717**	**0.1717**		**375.2641**	**375.2641**	**0.0317**		**376.0565**

3.7 Architectural Coating - 2019

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	0.1266	0.0777	1.0218	2.6300e-003	0.2571	1.5900e-003	0.2587	0.0682	1.4600e-003	0.0696		261.6301	261.6301	7.3200e-003		261.8133
Total	**0.1266**	**0.0777**	**1.0218**	**2.6300e-003**	**0.2571**	**1.5900e-003**	**0.2587**	**0.0682**	**1.4600e-003**	**0.0696**		**261.6301**	**261.6301**	**7.3200e-003**		**261.8133**

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	66.4307					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3553	2.4472	2.4551	3.9600e-003		0.1717	0.1717		0.1717	0.1717	0.0000	375.2641	375.2641	0.0317		376.0565
Total	**66.7859**	**2.4472**	**2.4551**	**3.9600e-003**		**0.1717**	**0.1717**		**0.1717**	**0.1717**	**0.0000**	**375.2641**	**375.2641**	**0.0317**		**376.0565**

3.7 Architectural Coating - 2019

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	0.1266	0.0777	1.0218	2.6300e-003	0.2571	1.5900e-003	0.2587	0.0682	1.4600e-003	0.0696		261.6301	261.6301	7.3200e-003		261.8133
Total	**0.1266**	**0.0777**	**1.0218**	**2.6300e-003**	**0.2571**	**1.5900e-003**	**0.2587**	**0.0682**	**1.4600e-003**	**0.0696**		**261.6301**	**261.6301**	**7.3200e-003**		**261.8133**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market With Gas Pumps	0.00	0.00	0.00		
Fast Food Restaurant w/o Drive Thru	0.00	0.00	0.00		
Fast Food Restaurant with Drive Thru	0.00	0.00	0.00		
Government Office Building	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	0.00	0.00	0.00		
Hotel	0.00	0.00	0.00		
Library	0.00	0.00	0.00		
Medical Office Building	0.00	0.00	0.00		
Regional Shopping Center	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market With Gas	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Fast Food Restaurant w/o Drive	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Fast Food Restaurant with Drive	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Government Office Building	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
High Turnover (Sit Down	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Hotel	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Library	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Medical Office Building	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Regional Shopping Center	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market With Gas Pumps	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
Fast Food Restaurant w/o Drive Thru	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
Fast Food Restaurant with Drive Thru	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
Government Office Building	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
High Turnover (Sit Down Restaurant)	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
Hotel	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
Library	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
Medical Office Building	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
Regional Shopping Center	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Polopolus (Construction) - Riverside-South Coast County, Summer

	ROG	NOx	CO	SO2	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	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

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					
Convenience Market With Gas Pumps	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
Fast Food Restaurant w/o Drive Thru	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
Fast Food Restaurant with Drive Thru	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
Government Office Building	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
High Turnover (Sit Down Restaurant)	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
Hotel	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
Library	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
Medical Office Building	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
Regional Shopping Center	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		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Convenience Market With Gas Pumps	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
Fast Food Restaurant w/o Drive Thru	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
Fast Food Restaurant with Drive Thru	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
Government Office Building	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
High Turnover (Sit Down Restaurant)	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
Hotel	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
Library	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
Medical Office Building	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
Regional Shopping Center	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		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.4061	2.4000e-004	0.0256	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0544	0.0544	1.5000e-004		0.0581
Unmitigated	6.4061	2.4000e-004	0.0256	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0544	0.0544	1.5000e-004		0.0581

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7280					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.6756					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.4300e-003	2.4000e-004	0.0256	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0544	0.0544	1.5000e-004		0.0581
Total	**6.4061**	**2.4000e-004**	**0.0256**	**0.0000**		**9.0000e-005**	**9.0000e-005**		**9.0000e-005**	**9.0000e-005**		**0.0544**	**0.0544**	**1.5000e-004**		**0.0581**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7280					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.6756					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.4300e-003	2.4000e-004	0.0256	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0544	0.0544	1.5000e-004		0.0581
Total	**6.4061**	**2.4000e-004**	**0.0256**	**0.0000**		**9.0000e-005**	**9.0000e-005**		**9.0000e-005**	**9.0000e-005**		**0.0544**	**0.0544**	**1.5000e-004**		**0.0581**

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 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Polopolus (Operations)

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Convenience Market With Gas Pumps	24.00	Pump	0.08	3,388.20	0
Fast Food Restaurant with Drive Thru	5.50	1000sqft	0.13	5,500.00	0
High Turnover (Sit Down Restaurant)	6.00	1000sqft	0.14	6,000.00	0
Regional Shopping Center	4.00	1000sqft	0.09	4,000.00	0
Fast Food Restaurant w/o Drive Thru	4.00	1000sqft	0.09	4,000.00	0
Medical Office Building	10.00	1000sqft	0.23	10,000.00	0
Hotel	130.00	Room	4.33	188,760.00	0
Government Office Building	40.00	1000sqft	0.92	40,000.00	0
Library	25.00	1000sqft	0.57	25,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2019
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**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 - Operations Run Only.

Off-road Equipment - Operations Run Only.

Trips and VMT - Operations Run Only.

Vehicle Trips - Trip Rates from TIA by Urban Crossroads

Mobile Land Use Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	1.00
tblConstructionPhase	PhaseEndDate	3/28/2018	3/1/2018
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblVehicleTrips	ST_TR	204.47	67.23
tblVehicleTrips	ST_TR	722.03	490.21
tblVehicleTrips	ST_TR	0.00	30.00
tblVehicleTrips	ST_TR	49.97	209.52
tblVehicleTrips	SU_TR	166.88	67.23
tblVehicleTrips	SU_TR	542.72	400.95
tblVehicleTrips	SU_TR	0.00	30.00
tblVehicleTrips	SU_TR	25.24	209.52
tblVehicleTrips	WD_TR	542.60	156.15
tblVehicleTrips	WD_TR	496.12	613.38
tblVehicleTrips	WD_TR	68.93	30.00
tblVehicleTrips	WD_TR	42.70	209.52

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					
2018	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
2018	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Polopolus (Operations) - Riverside-South Coast County, Winter

	ROG	NOx	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	6.4061	2.4000e-004	0.0256	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0544	0.0544	1.5000e-004		0.0581
Energy	0.4895	4.4502	3.7381	0.0267		0.3382	0.3382		0.3382	0.3382		5,340.1964	5,340.1964	0.1024	0.0979	5,371.9305
Mobile	25.6406	190.6441	225.0623	0.7684	51.0541	0.8615	51.9156	13.6630	0.8137	14.4767		78,491.7332	78,491.7332	6.6426		78,657.7978
Total	**32.5362**	**195.0945**	**228.8261**	**0.7951**	**51.0541**	**1.1998**	**52.2539**	**13.6630**	**1.1520**	**14.8150**		**83,831.9840**	**83,831.9840**	**6.7451**	**0.0979**	**84,029.7864**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.4061	2.4000e-004	0.0256	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0544	0.0544	1.5000e-004		0.0581
Energy	0.4895	4.4502	3.7381	0.0267		0.3382	0.3382		0.3382	0.3382		5,340.1964	5,340.1964	0.1024	0.0979	5,371.9305
Mobile	25.6406	190.6441	225.0623	0.7684	51.0541	0.8615	51.9156	13.6630	0.8137	14.4767		78,491.7332	78,491.7332	6.6426		78,657.7978
Total	**32.5362**	**195.0945**	**228.8261**	**0.7951**	**51.0541**	**1.1998**	**52.2539**	**13.6630**	**1.1520**	**14.8150**		**83,831.9840**	**83,831.9840**	**6.7451**	**0.0979**	**84,029.7864**

	ROG	NOx	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	Demolition	Demolition	3/1/2018	3/1/2018	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Excavators	0	8.00	158	0.38
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Rubber Tired Dozers	0	8.00	247	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2018

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	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	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	0.0000	0.0000	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	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Demolition - 2018

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	0.0000	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	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	0.0000	0.0000	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	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	25.6406	190.6441	225.0623	0.7684	51.0541	0.8615	51.9156	13.6630	0.8137	14.4767		78,491.7332	78,491.7332	6.6426		78,657.7978
Unmitigated	25.6406	190.6441	225.0623	0.7684	51.0541	0.8615	51.9156	13.6630	0.8137	14.4767		78,491.7332	78,491.7332	6.6426		78,657.7978

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market With Gas Pumps	3,747.60	1,613.52	1613.52	1,872,911	1,872,911
Fast Food Restaurant w/o Drive Thru	2,864.00	2,784.00	2000.00	4,942,597	4,942,597
Fast Food Restaurant with Drive Thru	3,373.59	2,696.16	2205.23	3,272,824	3,272,824
Government Office Building	1,200.00	1,200.00	1200.00	2,825,718	2,825,718
High Turnover (Sit Down Restaurant)	762.90	950.22	791.04	1,081,651	1,081,651
Hotel	1,062.10	1,064.70	773.50	2,436,860	2,436,860
Library	1,406.00	1,163.75	637.25	3,185,071	3,185,071
Medical Office Building	361.30	89.60	15.50	708,346	708,346
Regional Shopping Center	838.08	838.08	838.08	1,812,636	1,812,636
Total	15,615.57	12,400.03	10,074.12	22,138,616	22,138,616

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market With Gas	16.60	8.40	6.90	0.80	80.20	19.00	14	21	65
Fast Food Restaurant w/o Drive	16.60	8.40	6.90	1.50	79.50	19.00	51	37	12
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
Government Office Building	16.60	8.40	6.90	33.00	62.00	5.00	50	34	16
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Library	16.60	8.40	6.90	52.00	43.00	5.00	44	44	12
Medical Office Building	16.60	8.40	6.90	29.60	51.40	19.00	60	30	10
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market With Gas Pumps	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
Fast Food Restaurant w/o Drive Thru	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
Fast Food Restaurant with Drive Thru	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
Government Office Building	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
High Turnover (Sit Down Restaurant)	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
Hotel	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
Library	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
Medical Office Building	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
Regional Shopping Center	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Polopolus (Operations) - Riverside-South Coast County, Winter

	ROG	NOx	CO	SO2	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	0.4895	4.4502	3.7381	0.0267		0.3382	0.3382		0.3382	0.3382		5,340.1964	5,340.1964	0.1024	0.0979	5,371.9305
NaturalGas Unmitigated	0.4895	4.4502	3.7381	0.0267		0.3382	0.3382		0.3382	0.3382		5,340.1964	5,340.1964	0.1024	0.0979	5,371.9305

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					
Convenience Market With Gas Pumps	20.6077	2.2000e-004	2.0200e-003	1.7000e-003	1.0000e-005		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004		2.4244	2.4244	5.0000e-005	4.0000e-005	2.4388
Fast Food Restaurant w/o Drive Thru	2996.6	0.0323	0.2938	0.2468	1.7600e-003		0.0223	0.0223		0.0223	0.0223		352.5415	352.5415	6.7600e-003	6.4600e-003	354.6365
Fast Food Restaurant with Drive Thru	4120.33	0.0444	0.4040	0.3393	2.4200e-003		0.0307	0.0307		0.0307	0.0307		484.7446	484.7446	9.2900e-003	8.8900e-003	487.6252
Government Office Building	380.274	4.1000e-003	0.0373	0.0313	2.2000e-004		2.8300e-003	2.8300e-003		2.8300e-003	2.8300e-003		44.7381	44.7381	8.6000e-004	8.2000e-004	45.0040
High Turnover (Sit Down Restaurant)	4494.9	0.0485	0.4407	0.3702	2.6400e-003		0.0335	0.0335		0.0335	0.0335		528.8123	528.8123	0.0101	9.6900e-003	531.9547
Hotel	31034.2	0.3347	3.0426	2.5558	0.0183		0.2312	0.2312		0.2312	0.2312		3,651.0838	3,651.0838	0.0700	0.0669	3,672.7804
Library	2225.34	0.0240	0.2182	0.1833	1.3100e-003		0.0166	0.0166		0.0166	0.0166		261.8050	261.8050	5.0200e-003	4.8000e-003	263.3608
Medical Office Building	95.0685	1.0300e-003	9.3200e-003	7.8300e-003	6.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004		11.1845	11.1845	2.1000e-004	2.1000e-004	11.2510
Regional Shopping Center	24.3288	2.6000e-004	2.3900e-003	2.0000e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		2.8622	2.8622	5.0000e-005	5.0000e-005	2.8792
Total		**0.4895**	**4.4502**	**3.7381**	**0.0267**		**0.3382**	**0.3382**		**0.3382**	**0.3382**		**5,340.1964**	**5,340.1964**	**0.1024**	**0.0979**	**5,371.9305**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Convenience Market With Gas Pumps	0.0206077	2.2000e-004	2.0200e-003	1.7000e-003	1.0000e-005		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004		2.4244	2.4244	5.0000e-005	4.0000e-005	2.4388
Fast Food Restaurant w/o Drive Thru	2.9966	0.0323	0.2938	0.2468	1.7600e-003		0.0223	0.0223		0.0223	0.0223		352.5415	352.5415	6.7600e-003	6.4600e-003	354.6365
Fast Food Restaurant with Drive Thru	4.12033	0.0444	0.4040	0.3393	2.4200e-003		0.0307	0.0307		0.0307	0.0307		484.7446	484.7446	9.2900e-003	8.8900e-003	487.6252
Government Office Building	0.380274	4.1000e-003	0.0373	0.0313	2.2000e-004		2.8300e-003	2.8300e-003		2.8300e-003	2.8300e-003		44.7381	44.7381	8.6000e-004	8.2000e-004	45.0040
High Turnover (Sit Down Restaurant)	4.4949	0.0485	0.4407	0.3702	2.6400e-003		0.0335	0.0335		0.0335	0.0335		528.8123	528.8123	0.0101	9.6900e-003	531.9547
Hotel	31.0342	0.3347	3.0426	2.5558	0.0183		0.2312	0.2312		0.2312	0.2312		3,651.0838	3,651.0838	0.0700	0.0669	3,672.7804
Library	2.22534	0.0240	0.2182	0.1833	1.3100e-003		0.0166	0.0166		0.0166	0.0166		261.8050	261.8050	5.0200e-003	4.8000e-003	263.3608
Medical Office Building	0.0950685	1.0300e-003	9.3200e-003	7.8300e-003	6.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004		11.1845	11.1845	2.1000e-004	2.1000e-004	11.2510
Regional Shopping Center	0.0243288	2.6000e-004	2.3900e-003	2.0000e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		2.8622	2.8622	5.0000e-005	5.0000e-005	2.8792
Total		**0.4895**	**4.4502**	**3.7381**	**0.0267**		**0.3382**	**0.3382**		**0.3382**	**0.3382**		**5,340.1964**	**5,340.1964**	**0.1024**	**0.0979**	**5,371.9305**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.4061	2.4000e-004	0.0256	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0544	0.0544	1.5000e-004		0.0581
Unmitigated	6.4061	2.4000e-004	0.0256	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0544	0.0544	1.5000e-004		0.0581

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7280					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.6756					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.4300e-003	2.4000e-004	0.0256	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0544	0.0544	1.5000e-004		0.0581
Total	**6.4061**	**2.4000e-004**	**0.0256**	**0.0000**		**9.0000e-005**	**9.0000e-005**		**9.0000e-005**	**9.0000e-005**		**0.0544**	**0.0544**	**1.5000e-004**		**0.0581**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7280					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.6756					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.4300e-003	2.4000e-004	0.0256	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0544	0.0544	1.5000e-004		0.0581
Total	**6.4061**	**2.4000e-004**	**0.0256**	**0.0000**		**9.0000e-005**	**9.0000e-005**		**9.0000e-005**	**9.0000e-005**		**0.0544**	**0.0544**	**1.5000e-004**		**0.0581**

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 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Polopolus (Operations)

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Convenience Market With Gas Pumps	24.00	Pump	0.08	3,388.20	0
Fast Food Restaurant with Drive Thru	5.50	1000sqft	0.13	5,500.00	0
High Turnover (Sit Down Restaurant)	6.00	1000sqft	0.14	6,000.00	0
Regional Shopping Center	4.00	1000sqft	0.09	4,000.00	0
Fast Food Restaurant w/o Drive Thru	4.00	1000sqft	0.09	4,000.00	0
Medical Office Building	10.00	1000sqft	0.23	10,000.00	0
Hotel	130.00	Room	4.33	188,760.00	0
Government Office Building	40.00	1000sqft	0.92	40,000.00	0
Library	25.00	1000sqft	0.57	25,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2019
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**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 - Operations Run Only.

Off-road Equipment - Operations Run Only.

Trips and VMT - Operations Run Only.

Vehicle Trips - Trip Rates from TIA by Urban Crossroads

Mobile Land Use Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	1.00
tblConstructionPhase	PhaseEndDate	3/28/2018	3/1/2018
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblVehicleTrips	ST_TR	204.47	67.23
tblVehicleTrips	ST_TR	722.03	490.21
tblVehicleTrips	ST_TR	0.00	30.00
tblVehicleTrips	ST_TR	49.97	209.52
tblVehicleTrips	SU_TR	166.88	67.23
tblVehicleTrips	SU_TR	542.72	400.95
tblVehicleTrips	SU_TR	0.00	30.00
tblVehicleTrips	SU_TR	25.24	209.52
tblVehicleTrips	WD_TR	542.60	156.15
tblVehicleTrips	WD_TR	496.12	613.38
tblVehicleTrips	WD_TR	68.93	30.00
tblVehicleTrips	WD_TR	42.70	209.52

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					
2018	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
2018	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Polopolus (Operations) - Riverside-South Coast County, Summer

	ROG	NOx	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	6.4061	2.4000e-004	0.0256	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0544	0.0544	1.5000e-004		0.0581
Energy	0.4895	4.4502	3.7381	0.0267		0.3382	0.3382		0.3382	0.3382		5,340.1964	5,340.1964	0.1024	0.0979	5,371.9305
Mobile	30.7206	192.7261	243.9231	0.8374	51.0541	0.8426	51.8968	13.6630	0.7956	14.4586		85,487.9283	85,487.9283	6.2359		85,643.8253
Total	**37.6161**	**197.1765**	**247.6869**	**0.8641**	**51.0541**	**1.1809**	**52.2351**	**13.6630**	**1.1339**	**14.7969**		**90,828.1791**	**90,828.1791**	**6.3384**	**0.0979**	**91,015.8139**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.4061	2.4000e-004	0.0256	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0544	0.0544	1.5000e-004		0.0581
Energy	0.4895	4.4502	3.7381	0.0267		0.3382	0.3382		0.3382	0.3382		5,340.1964	5,340.1964	0.1024	0.0979	5,371.9305
Mobile	30.7206	192.7261	243.9231	0.8374	51.0541	0.8426	51.8968	13.6630	0.7956	14.4586		85,487.9283	85,487.9283	6.2359		85,643.8253
Total	**37.6161**	**197.1765**	**247.6869**	**0.8641**	**51.0541**	**1.1809**	**52.2351**	**13.6630**	**1.1339**	**14.7969**		**90,828.1791**	**90,828.1791**	**6.3384**	**0.0979**	**91,015.8139**

	ROG	NOx	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	Demolition	Demolition	3/1/2018	3/1/2018	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Excavators	0	8.00	158	0.38
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Rubber Tired Dozers	0	8.00	247	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2018

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	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	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	0.0000	0.0000	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	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Demolition - 2018

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	0.0000	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	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	0.0000	0.0000	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	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	30.7206	192.7261	243.9231	0.8374	51.0541	0.8426	51.8968	13.6630	0.7956	14.4586		85,487.9283	85,487.9283	6.2359		85,643.8253
Unmitigated	30.7206	192.7261	243.9231	0.8374	51.0541	0.8426	51.8968	13.6630	0.7956	14.4586		85,487.9283	85,487.9283	6.2359		85,643.8253

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market With Gas Pumps	3,747.60	1,613.52	1613.52	1,872,911	1,872,911
Fast Food Restaurant w/o Drive Thru	2,864.00	2,784.00	2000.00	4,942,597	4,942,597
Fast Food Restaurant with Drive Thru	3,373.59	2,696.16	2205.23	3,272,824	3,272,824
Government Office Building	1,200.00	1,200.00	1200.00	2,825,718	2,825,718
High Turnover (Sit Down Restaurant)	762.90	950.22	791.04	1,081,651	1,081,651
Hotel	1,062.10	1,064.70	773.50	2,436,860	2,436,860
Library	1,406.00	1,163.75	637.25	3,185,071	3,185,071
Medical Office Building	361.30	89.60	15.50	708,346	708,346
Regional Shopping Center	838.08	838.08	838.08	1,812,636	1,812,636
Total	15,615.57	12,400.03	10,074.12	22,138,616	22,138,616

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market With Gas	16.60	8.40	6.90	0.80	80.20	19.00	14	21	65
Fast Food Restaurant w/o Drive	16.60	8.40	6.90	1.50	79.50	19.00	51	37	12
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
Government Office Building	16.60	8.40	6.90	33.00	62.00	5.00	50	34	16
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Library	16.60	8.40	6.90	52.00	43.00	5.00	44	44	12
Medical Office Building	16.60	8.40	6.90	29.60	51.40	19.00	60	30	10
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market With Gas Pumps	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
Fast Food Restaurant w/o Drive Thru	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
Fast Food Restaurant with Drive Thru	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
Government Office Building	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
High Turnover (Sit Down Restaurant)	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
Hotel	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
Library	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
Medical Office Building	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211
Regional Shopping Center	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Polopolus (Operations) - Riverside-South Coast County, Summer

	ROG	NOx	CO	SO2	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	0.4895	4.4502	3.7381	0.0267		0.3382	0.3382		0.3382	0.3382		5,340.1964	5,340.1964	0.1024	0.0979	5,371.9305
NaturalGas Unmitigated	0.4895	4.4502	3.7381	0.0267		0.3382	0.3382		0.3382	0.3382		5,340.1964	5,340.1964	0.1024	0.0979	5,371.9305

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					
Convenience Market With Gas Pumps	20.6077	2.2000e-004	2.0200e-003	1.7000e-003	1.0000e-005		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004		2.4244	2.4244	5.0000e-005	4.0000e-005	2.4388
Fast Food Restaurant w/o Drive Thru	2996.6	0.0323	0.2938	0.2468	1.7600e-003		0.0223	0.0223		0.0223	0.0223		352.5415	352.5415	6.7600e-003	6.4600e-003	354.6365
Fast Food Restaurant with Drive Thru	4120.33	0.0444	0.4040	0.3393	2.4200e-003		0.0307	0.0307		0.0307	0.0307		484.7446	484.7446	9.2900e-003	8.8900e-003	487.6252
Government Office Building	380.274	4.1000e-003	0.0373	0.0313	2.2000e-004		2.8300e-003	2.8300e-003		2.8300e-003	2.8300e-003		44.7381	44.7381	8.6000e-004	8.2000e-004	45.0040
High Turnover (Sit Down Restaurant)	4494.9	0.0485	0.4407	0.3702	2.6400e-003		0.0335	0.0335		0.0335	0.0335		528.8123	528.8123	0.0101	9.6900e-003	531.9547
Hotel	31034.2	0.3347	3.0426	2.5558	0.0183		0.2312	0.2312		0.2312	0.2312		3,651.0838	3,651.0838	0.0700	0.0669	3,672.7804
Library	2225.34	0.0240	0.2182	0.1833	1.3100e-003		0.0166	0.0166		0.0166	0.0166		261.8050	261.8050	5.0200e-003	4.8000e-003	263.3608
Medical Office Building	95.0685	1.0300e-003	9.3200e-003	7.8300e-003	6.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004		11.1845	11.1845	2.1000e-004	2.1000e-004	11.2510
Regional Shopping Center	24.3288	2.6000e-004	2.3900e-003	2.0000e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		2.8622	2.8622	5.0000e-005	5.0000e-005	2.8792
Total		**0.4895**	**4.4502**	**3.7381**	**0.0267**		**0.3382**	**0.3382**		**0.3382**	**0.3382**		**5,340.1964**	**5,340.1964**	**0.1024**	**0.0979**	**5,371.9305**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Convenience Market With Gas Pumps	0.0206077	2.2000e-004	2.0200e-003	1.7000e-003	1.0000e-005		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004		2.4244	2.4244	5.0000e-005	4.0000e-005	2.4388
Fast Food Restaurant w/o Drive Thru	2.9966	0.0323	0.2938	0.2468	1.7600e-003		0.0223	0.0223		0.0223	0.0223		352.5415	352.5415	6.7600e-003	6.4600e-003	354.6365
Fast Food Restaurant with Drive Thru	4.12033	0.0444	0.4040	0.3393	2.4200e-003		0.0307	0.0307		0.0307	0.0307		484.7446	484.7446	9.2900e-003	8.8900e-003	487.6252
Government Office Building	0.380274	4.1000e-003	0.0373	0.0313	2.2000e-004		2.8300e-003	2.8300e-003		2.8300e-003	2.8300e-003		44.7381	44.7381	8.6000e-004	8.2000e-004	45.0040
High Turnover (Sit Down Restaurant)	4.4949	0.0485	0.4407	0.3702	2.6400e-003		0.0335	0.0335		0.0335	0.0335		528.8123	528.8123	0.0101	9.6900e-003	531.9547
Hotel	31.0342	0.3347	3.0426	2.5558	0.0183		0.2312	0.2312		0.2312	0.2312		3,651.0838	3,651.0838	0.0700	0.0669	3,672.7804
Library	2.22534	0.0240	0.2182	0.1833	1.3100e-003		0.0166	0.0166		0.0166	0.0166		261.8050	261.8050	5.0200e-003	4.8000e-003	263.3608
Medical Office Building	0.0950685	1.0300e-003	9.3200e-003	7.8300e-003	6.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004		11.1845	11.1845	2.1000e-004	2.1000e-004	11.2510
Regional Shopping Center	0.0243288	2.6000e-004	2.3900e-003	2.0000e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		2.8622	2.8622	5.0000e-005	5.0000e-005	2.8792
Total		**0.4895**	**4.4502**	**3.7381**	**0.0267**		**0.3382**	**0.3382**		**0.3382**	**0.3382**		**5,340.1964**	**5,340.1964**	**0.1024**	**0.0979**	**5,371.9305**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.4061	2.4000e-004	0.0256	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0544	0.0544	1.5000e-004		0.0581
Unmitigated	6.4061	2.4000e-004	0.0256	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0544	0.0544	1.5000e-004		0.0581

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7280					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.6756					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.4300e-003	2.4000e-004	0.0256	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0544	0.0544	1.5000e-004		0.0581
Total	**6.4061**	**2.4000e-004**	**0.0256**	**0.0000**		**9.0000e-005**	**9.0000e-005**		**9.0000e-005**	**9.0000e-005**		**0.0544**	**0.0544**	**1.5000e-004**		**0.0581**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7280					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.6756					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.4300e-003	2.4000e-004	0.0256	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0544	0.0544	1.5000e-004		0.0581
Total	**6.4061**	**2.4000e-004**	**0.0256**	**0.0000**		**9.0000e-005**	**9.0000e-005**		**9.0000e-005**	**9.0000e-005**		**0.0544**	**0.0544**	**1.5000e-004**		**0.0581**

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 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation