Emerald Necklace Implementation Plan Phase I

AIR QUALITY IMPACT ANALYSIS

WATERSHED CONSERVATION AUTHORITY

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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
O^3	Ozone
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	Emerald Necklace Implementation Plan Phase I
ROG	Reactive Organic Gases
SCAB	South Coast Air Basin
SCAQMD	South Coast Air Quality Management District
SIPs	State Implementation Plans
SRA	Source Receptor Area

SO2	Sulfur Dioxide
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 not exceed the numerical regional thresholds of significance established by the South Coast Air Quality Management District (SCAQMD) for any criteria pollutants. It should be noted that Best Available Control Measures (BACMs) are not mitigation as they are standard regulatory requirements. Thus, a less than significant impact would occur for Project-related construction-source and no mitigation measures are required.

LOCALIZED IMPACTS

Project construction-source emissions would not exceed the SCAQMD's localized significance thresholds for any criteria pollutant. Therefore, a less than significant impact would occur.

Project construction-source emissions would be consistent with the applicable Air Quality Management Plans (AQMP).

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 not exceed the numerical thresholds of significance established by the SCAQMD. Thus a less than significant impact would occur for Project-related operational-source emissions and no mitigation measures are required.

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.

Project operational-source emissions would be consistent with the applicable AQMP.

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/County requirements, all Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with solid waste regulations. Potential operational-source odor impacts are therefore considered less-than-significant.

1 INTRODUCTION

This report presents the results of the air quality impact analysis (AQIA) prepared by Urban Crossroads, Inc., for the proposed Emerald Necklace Implementation Plan Phase I ("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 Project is located beside two waterways, the San Gabriel River and the Rio Hondo, as shown on Exhibit 1-A. Existing land uses in the Project study area include residential, school, commercial, park, open space, business park, and industrial. The El Monte Airport is located in the Project study area, south of Lower Azusa Road, approximately one half-mile north of the proposed Project trail.

1.2 PROJECT DESCRIPTION

The Project is proposed to include the development of a 17-mile loop of bicycle and multi-use trails which link parks and open spaces through multiple jurisdictions. Phase I includes 16 projects which are designed to close gaps in the existing regional recreational trails network. However, for the purposes of this analysis, project number four of 16 will be analyzed separately from this Phase I program-level analysis. The 15 projects within Phase I development analyzed in this AQIA are provided on Table 1-1.

For the purposes of this AQIA, it is assumed that the Project will be constructed and at full occupancy in 2017.

TABLE 1-1: PHASE I PROJECT DESCRIPTIONS

Chapter	Title
1	Quarry Clasp Park Development
2	Quarry Clasp Multi-Use Trail
3	Quarry Clasp Peck Road Signalized Crossing
5	Rosemead Bike Path
6	Whittier North San Gabriel Bike Path
7	Whittier SCE Easement Bike Path
8	Whittier North Pellissier Multi-Use Trail
9	Whittier North Pellissier Bridge
10	San Jose Creek Trails and Bridges
11	San Jose Eastside Trail
12	West Alhambra to Garvey
13	West Side Rosemead Access Ramp
14	West Site Rosemead Underpass
15	West Side Rosemead to Valley
16	West 10 Underpass

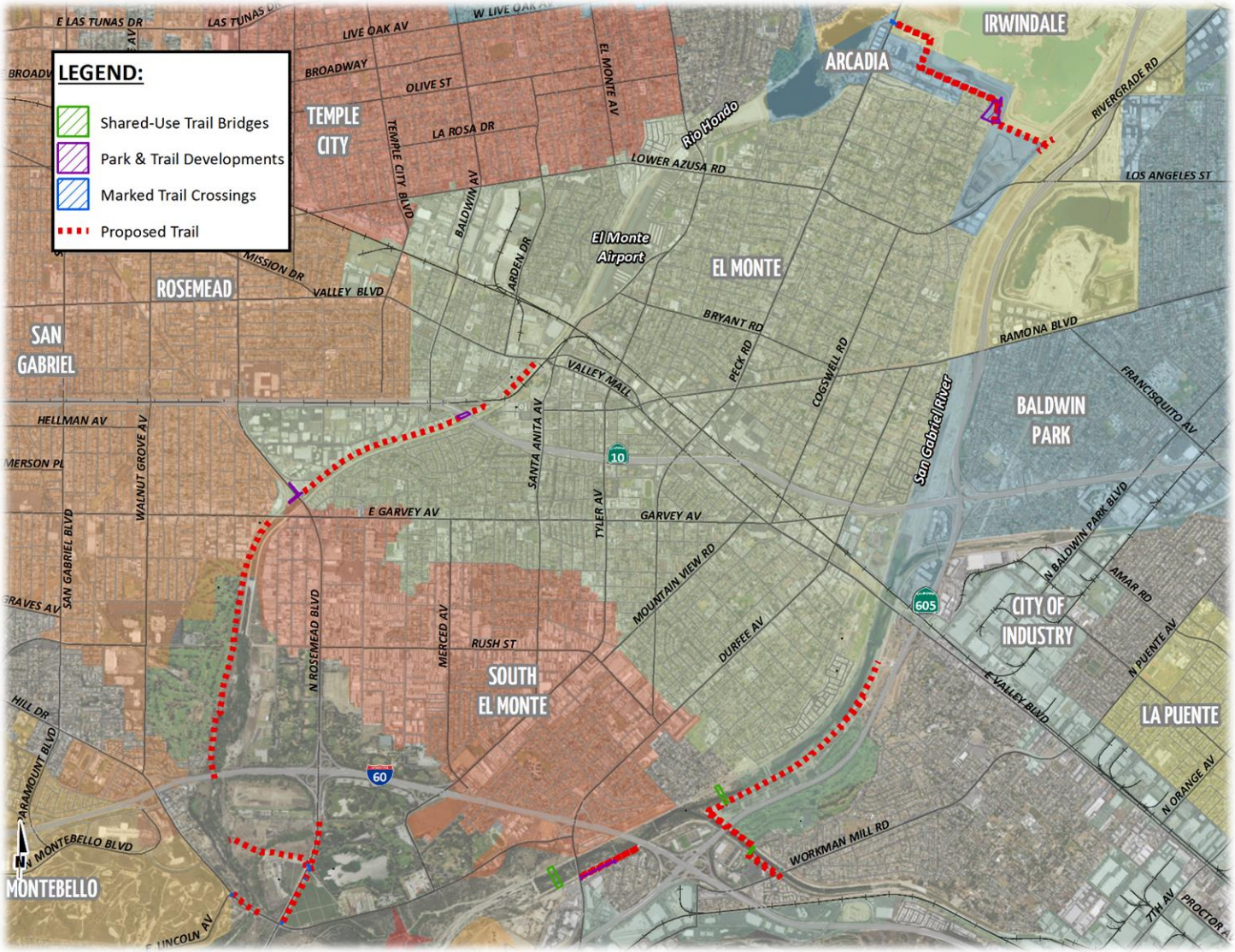
1.3 CONSTRUCTION-SOURCE AIR POLLUTANT EMISSIONS MITIGATION MEASURES

No significant impacts would occur, thus no mitigation is required.

1.4 OPERATIONAL-SOURCE AIR POLLUTANT EMISSIONS MITIGATION MEASURES

No significant impacts would occur, thus no mitigation is required.

EXHIBIT 1-A: LOCATION MAP



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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 sub-region 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 SCAB. In addition, the temperature, wind, humidity, precipitation, and amount of sunshine influence the air quality.

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

Although the climate of the SCAB 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 SCAB climate. Humidity restricts visibility in the SCAB, 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 SCAB 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 SCAB'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 SCAB with frequency being higher near the coast.

Due to its generally clear weather, about three-quarters of available sunshine is received in the SCAB. 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 SCAB 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 SCAB 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 SCAB, 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 SCAB. 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 nitrous oxide (NOx) and carbon monoxide (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 SCAB 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 99 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)[10]	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas)[10]	—	
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 13	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 (10/1/15)

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 (10/1/15)**

2.5 REGIONAL AIR QUALITY

The SCAQMD monitors levels of various criteria pollutants at 30 monitoring stations throughout the air district. In 2013, 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 (4). No areas of the SCAB exceeded federal or state standards for NO2, SO2, CO, sulfates or lead. See Table 2-2 for attainment designations for the SCAB (5). Appendix 3.1 provides geographic representation of the state and federal attainment status for applicable criteria pollutants within the SCAB.

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

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

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 Carbon Monoxide (CO), Ozone (O), Nitrogen Dioxide (NO_2), Inhalable Particulates (PM_{10}) and Ultra-Fine Particulates ($PM_{2.5}$) is the South Coast Air Quality Management District East San Gabriel Valley 2 monitoring station, located northeast of the Project site in Azusa (SRA 9).

The most recent three (3) years of data available 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 (6). Additionally, data for SO2 has been omitted as attainment is regularly met in the SCAB and few monitoring stations measure SO2 concentrations.

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

TABLE 2-3: PROJECT AREA AIR QUALITY MONITORING SUMMARY 2012-2014

POLLUTANT	STANDARD	YEAR		
		2012	2013	2014
Ozone (O_3)				
Maximum 1-Hour Concentration (ppm)		0.147	0.135	0.123
Maximum 8-Hour Concentration (ppm)		0.110	0.100	0.092
Number of Days Exceeding State 1-Hour Standard	> 0.09 ppm	45	24	11
Number of Days Exceeding State 8-Hour Standard	> 0.07 ppm	81	43	20
Number of Days Exceeding Federal 1-Hour Standard	> 0.12 ppm	3	1	11
Number of Days Exceeding Federal 8-Hour Standard	> 0.075 ppm	45	24	3
Number of Days Exceeding Health Advisory	≥ 0.15 ppm	0	0	0
Carbon Monoxide (CO)				
Maximum 1-Hour Concentration (ppm)		--	--	2.0
Maximum 8-Hour Concentration (ppm)		1.1	0.8	1.9
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	0.056	0.070
Annual Arithmetic Mean Concentration (ppm)		0.014	0.013	0.018
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)		78	76	96
Number of Samples		61	61	60
Number of Samples Exceeding State Standard	> 50 µg/m^3	6	6	21
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)		39.6	29.6	32.4
Annual Arithmetic Mean (µg/m^3)		11.0	10.54	11.6
Number of Samples Exceeding Federal 24-Hour Standard	> 35 µg/m^3	1	0	0

-- = data not available from SCAQMD or ARB

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, and effects are identified below (7):

- 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 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 lead (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, PM2.5, 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 (8). 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 2-1 (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 (9) (3).

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

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. In regards to the NAAQS, the Project region within the SCAB is in nonattainment for ozone (8-hour) and PM2.5. For the CAAQS, the Project region within the SCAB is in nonattainment for ozone (1-hour and 8-hour), PM10, and PM2.5. In response, the SCAQMD has adopted a series of Air Quality Management Plans (AQMPs) to meet the state and federal ambient air quality standards (7). 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 3.9.

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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 SCAB 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

The SCAQMD has developed regional and localized significance thresholds for regulated pollutants, as summarized in Tables 3-1 and 3-2 (10). The SCAQMD's CEQA Air Quality Significance Thresholds (March 2015) indicate that any projects in the SCAB with daily emissions that exceed any of the indicated thresholds should be considered as having an individually and cumulatively significant air quality impact.

TABLE 3-1: MAXIMUM DAILY REGIONAL EMISSIONS THRESHOLDS

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

TABLE 3-2: MAXIMUM DAILY LOCALIZED EMISSIONS THRESHOLDS

Pollutant	Construction	Operations
Group A[1]		
NOx	203 lbs/day	N/A
CO	1,733 lbs/day	N/A
PM10	14 lbs/day	N/A
PM2.5	8 lbs/day	N/A
Group B, C, D[2]		
NOx	89 lbs/day	N/A
CO	623 lbs/day	N/A
PM10	5 lbs/day	N/A
PM2.5	3 lbs/day	N/A

Note: lbs/day – pounds per day.
[1]: Localized Thresholds based on SCAQMD's Look up tables for a 1-acre site at 25 meters
[2]: Localized Thresholds based on SCAQMD's Look up tables for a 5-acre site at 25 meters

3.3 PROJECT-RELATED SOURCES OF POTENTIAL IMPACT

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

On October 2, 2013, the SCAQMD in conjunction with the California Air Pollution Control Officers Association (CAPCOA) released the latest version of the California Emissions Estimator Model™ (CalEEMod™) v2013.2.2. The purpose of this model is to calculate construction-source and operational-source criteria pollutant (NOx, VOC, PM10, PM2.5, SOx, and CO) and greenhouse gas (GHG) emissions from direct and indirect sources; and quantify applicable air quality and GHG reductions achieved from mitigation measures (11). Accordingly, 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

For the purposes of this analysis, construction is expected to commence in September 2016 and will last through December 2017. Construction duration by phase is shown on Table 3-3. For the purposes of this analysis, it is assumed that no overlapping will occur between the various groups and individual projects. The construction schedule utilized in the analysis represents a "worst-case" analysis scenario should construction occur any time after the respective dates since emission factors for construction decrease as time passes and the analysis year increases due to emission regulations becoming more stringent.[2] The duration of construction activity and associated equipment represents a reasonable approximation of the expected construction fleet as required per CEQA guidelines. Site specific construction fleet may vary due to specific project needs at the time of construction. The duration of construction activity and associated construction equipment were based on SCAQMD's Summary of a 5-acre site for Group A, SCAQMD's Summary of a 1-acre site for Groups B, C, and D and CalEEMod 2013.2.2 defaults. Please refer to specific detailed modeling inputs/outputs contained in Appendix 3.2 of this analysis. A detailed summary of construction equipment assumptions by phase is provided at Table 3-4.

TABLE 3-3: CONSTRUCTION DURATION (1 OF 3)

Group A	
Phase Name	**Days**
Demolition	20
Site Preparation	5
Grading	8
Building Construction	115*
Paving	18

*: Since the Project does not include building structures, the number of building construction days are halved.

TABLE 3-3: CONSTRUCTION DURATION (2 OF 3)

Group B/ Group C	
Phase Name	**Days**
Demolition	10
Site Preparation	1
Grading	2
Paving	2

[2] As shown in the California Emissions Estimator Model (CalEEMod) User's Guide Version 2013.2, Table 3.4 "OFFROAD Equipment Emission Factors" as the analysis year increases, emission factors for the same equipment pieces decrease due to the natural turnover of older equipment being replaced by newer less polluting equipment and new regulatory requirements.

TABLE 3-3: CONSTRUCTION DURATION (3 OF 3)

Group D	
Phase Name	**Days**
Demolition	10
Site Preparation	1
Grading	2
Building Construction	115*
Paving	2

*: Since the Project does not include building structures, the number of building construction days are halved.

TABLE 3-4: CONSTRUCTION EQUIPMENT ASSUMPTIONS (1 OF 3)

Group A			
Activity	**Equipment**	**Number**	**Hours Per Day**
Demolition	Concrete/Industrial Saws	1	8
	Tractors/Loaders/Backhoe	2	8
	Rubber Tired Dozers	1	8
Site Preparation	Rubber Tired Dozers	3	8
	Tractors/Loaders/Backhoe	4	8
Grading	Rubber Tired Dozers	1	8
	Graders	2	8
	Tractors/Loaders/Backhoe	3	8
Building Construction	Cranes	1	8
	Forklifts	3	8
	Tractors/Loaders/Backhoe	3	8
	Generator Sets	1	8
	Electric Welders	1	8
Paving & Site Finishes	Pavers	1	8
	Paving Equipment	2	8
	Rollers	1	8
	Cement and Mortar Mixes	2	8
	Tractors/Loaders/Backhoe	1	8

TABLE 3-4: CONSTRUCTION EQUIPMENT ASSUMPTIONS (2 OF 3)

Group B/ Group C			
Activity	**Equipment**	**Number**	**Hours Per Day**
Demolition	Concrete/Industrial Saws	1	8
	Tractors/Loaders/Backhoe	2	8
	Rubber Tired Dozers	1	8
Site Preparation	Graders	1	8
	Tractors/Loaders/Backhoe	1	8
Grading	Rubber Tired Dozers	1	8
	Graders	1	8
	Tractors/Loaders/Backhoe	1	8
Paving & Site Finishes	Pavers	1	8
	Cement and Mortar Mixers	4	8
	Rollers	1	8
	Tractors/Loaders/Backhoe	1	8

TABLE 3-4: CONSTRUCTION EQUIPMENT ASSUMPTIONS (3 OF 3)

Group D			
Activity	**Equipment**	**Number**	**Hours Per Day**
Demolition	Concrete/Industrial Saws	1	8
	Tractors/Loaders/Backhoe	2	8
	Rubber Tired Dozers	1	8
Site Preparation	Graders	1	8
	Tractors/Loaders/Backhoe	1	8
Grading	Rubber Tired Dozers	1	8
	Graders	1	8
	Tractors/Loaders/Backhoe	1	8
Building Construction	Cranes	1	8
	Forklifts	2	8
	Tractors/Loaders/Backhoe	2	8
	Welding Trucks	3	8
Paving & Site Finishes	Pavers	1	8
	Cement and Mortar Mixers	4	8
	Rollers	1	8
	Tractors/Loaders/Backhoe	1	8

Dust is typically a major concern during 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. For the purposes of this analysis, it is estimated the groups will require the following maximum potential quantities of demolition and soil import/export, as shown on Table 3-5.

TABLE 3-5: PROJECT DEMOLITION AND SOIL IMPORT/EXPORT QUANTITIES BY GROUP

Group	Demolition (square feet)	Soil import/export (cubic yards)
A	3,000	0
B	800	0
C	800	0
D	800	3,000 import

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.

OFF-SITE UTILITY AND INFRASTRUCTURE IMPROVEMENTS

Construction emissions associated with off-site utility and infrastructure improvements may occur, however at this time, a specific schedule of off-site utility and infrastructure improvements is unknown. However, impacts associated with these expected activities are not expected to exceed the emissions 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

SCAQMD Rules that are currently applicable during construction activity for this Project include but are not limited to: Rule 1403 (Asbestos); Rule 1113 (Architectural Coatings) (12); Rule 431.2 (Low Sulfur Fuel) (13); Rule 403 (Fugitive Dust) (14); and Rule 1186 / 1186.1 (Street Sweepers) (15). It should be noted that these rules are not mitigation as they are standard regulatory requirements. Notwithstanding, credit for Rule 403 has been taken.

The estimated maximum daily construction emissions are summarized on Table 3-6. Detailed construction model outputs are presented in Appendix 3.2. Under the assumed scenarios, emissions resulting from the Project construction would not exceed the applicable SCAQMD regional thresholds of significance for any criteria pollutant. Therefore, a less than significant impact would occur and no mitigation measures are required.

TABLE 3-6: EMISSIONS SUMMARY OF CONSTRUCTION

Year	Emissions (pounds per day)					
	VOC	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**
Group A						
2016	5.16	54.74	42.35	0.05	10.19	6.63
2017	3.30	28.51	19.37	0.03	1.91	1.79
Group B						
2017	2.49	25.92	19.18	0.02	4.03	2.61
Group C						
2017	2.49	25.92	19.18	0.02	4.03	2.61
Group D						
2017	5.16	74.19	53.41	0.16	8.07	4.17
Maximum Daily Emissions	**5.16**	**74.19**	**53.41**	**0.16**	**10.19**	**6.63**
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 VOCs, 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 model.

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 model. In the case of the commercial/retail 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 model.

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 SCAB, 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 model.

3.5.3 MOBILE SOURCE EMISSIONS

Vehicles

Project-related operational air quality impacts derive primarily from vehicle trips generated by the Project. Trip characteristics available from the report, Emerald Necklace Implementation Plan Phase I Traffic Impact Analysis (Urban Crossroads) 2016 were utilized in this analysis (16). Weekend trip generation rates from The Institute of Transportation Engineers Trip Generation Handbook, 9th Edition were also used in the analysis.

Fugitive Dust Related to Vehicular Travel

Vehicles traveling on paved roads would be a source of fugitive emissions due to the generation of road dust inclusive of tire wear particulates. The emissions estimate for travel on paved roads were calculated using the CalEEMod model.

3.5.4 OPERATIONAL EMISSIONS SUMMARY

The estimated maximum peak operational emissions are summarized on Table 3-7. Detailed construction model outputs are presented in Appendix 3.2. Under the assumed scenarios, emissions resulting from the Project operations would not exceed the applicable SCAQMD regional thresholds of significance for any criteria pollutant. Therefore, a less than significant impact would occur and no mitigation measures are required.

TABLE 3-7: SUMMAR 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	0.28	0.00	0.00	0.00	0.00	0.00
Energy Source	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	1.97	5.34	21.85	0.05	3.60	1.02
Total Maximum Daily Emissions	**2.25**	**5.34**	**21.85**	**0.05**	**3.60**	**1.02**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

Operational Activities – Winter Scenario	Emissions (pounds per day)					
	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Area Source	0.28	0.00	0.00	0.00	0.00	0.00
Energy Source	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	2.07	5.61	22.03	0.05	3.60	1.02
Total Maximum Daily Emissions	**2.35**	**5.61**	**22.03**	**0.05**	**3.60**	**1.02**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**NO**	**NO**	**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) (17). 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) (18).

APPLICABILITY OF LSTS FOR THE PROJECT

For this Project, the appropriate Source Receptor Area (SRA) for the LST is the East San Gabriel Valley 1 monitoring station (SRA 9). LSTs apply to CO, NO2, PM10, and 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.

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."

- The SCAQMD's Fact Sheet for Applying CalEEMod to Localized Significance Thresholds (19) 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 (20)." Therefore, for purposes of the construction LST analysis only emissions included in the CalEEMod "on-site" emissions outputs were considered.

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, persons with preexisting 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".

The nearest sensitive receptor is the residential community located immediately adjacent to 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* (21)." Therefore, LSTs for receptors located at 25 meters were utilized in this AQIA.

CONSTRUCTION-SOURCE EMISSIONS LST ANALYSIS

The Project's construction activity is based on SCAQMD's Summary of Five Acre Site for Group A and SCAQMD's Summary of One Acre Site for Group B, C, and D (22). Therefore, the maximum daily disturbed-acreage of five acres for Group A and one acre for Groups B, C, and D are used in determining the applicability of the SCAQMD's LST look-up tables. This methodology is consistent with recent recommendations made by SCAQMD planning staff.

Impacts Summary

Table 3-8 identifies the localized impacts at the nearest receptor location in the vicinity of the Project. Emissions during construction activity would not exceed SCAQMD's localized significance thresholds for any criteria pollutant. It should be noted that credit for Rule 403 has been taken.

TABLE 3-8: LOCALIZED SIGNIFICANCE SUMMARY CONSTRUCTION (1 OF 2)

On-Site Site Maximum Daily Emissions	Emissions (pounds per day)			
	NO_x	CO	PM_{10}	$PM_{2.5}$
Site Preparation				
Group A	**54.63**	**41.63**	**9.98**	**6.58**
Grading				
Group A	**44.4**	**27.6**	**9.65**	**5.78**
SCAQMD Localized Threshold	203	1,733	14	8
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**

TABLE 3-8: LOCALIZED SIGNIFICANCE SUMMARY CONSTRUCTION (2 OF 2)

On-Site Maximum Daily Emissions[1]	Emissions (pounds per day)			
	NO_x	CO	PM_{10}	$PM_{2.5}$
Site Preparation				
Group B/ Group C/ Group D	**8.86**	**5.44**	**0.92**	**0.67**
Grading				
Group B/ Group C/ Group D	**25.88**	**17.17**	**3.94**	**2.59**
SCAQMD Localized Threshold	89	623	5	3
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**

[1]: Groups B, C, and D utilize identical construction equipment for the site preparation and grading phases. As such, the maximum daily emissions for groups B, C, and D would be the same.

3.7 LOCALIZED SIGNIFICANCE – LONG-TERM OPERATIONAL ACTIVITY

The proposed project involves the construction and operation of a park, numerous trail developments (bicycle path, pedestrian paths, and multi-use trails), trail access improvements, and bridges. 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 SCAB was designated nonattainment under the California AAQS and National AAQS for CO (23).

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 SCAB 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 SCAB, 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 3-9.

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 SCAB 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, 9.3 ppm 8-hr 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 8.6 ppm were due to the ambient air measurements at the time the 2003 AQMP was prepared (23). In contrast, the ambient 8-hr CO concentration within the Project study area is estimated at 1.4 ppm—1.6 ppm (please refer to previous Table 2-3). 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 (24).

Traffic volumes generating the CO concentrations for the "hot spot" analysis, shown on Table 3-10. 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. 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]

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 on representative BAAQMD CO threshold considerations. Furthermore, the Project is intended to enhance the existing uses and improve connectivity. As such, traffic volumes generated by the Project would be considered *de minimus*. Therefore, CO "hot spots" are not an environmental impact of concern for the proposed Project. Localized air quality impacts related to mobile-source emissions would therefore be less than significant.

TABLE 3-9: CO MODEL RESULTS

Intersection Location	Carbon Monoxide Concentrations (ppm)		
	Morning 1-hour	Afternoon 1-hour	8-hour
Wilshire-Veteran	4.6	3.5	4.2
Sunset-Highland	4	4.5	3.9
La Cienega-Century	3.7	3.1	5.8
Long Beach-Imperial	3	3.1	9.3

TABLE 3-10: TRAFFIC VOLUMES FOR INTERSECTIONS EVALUATED IN AQMP

Intersection Location	Peak Traffic Volumes (vph)				
	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

3.9 AIR QUALITY MANAGEMENT PLANNING

The Project site is located within the SCAB, 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

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

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 (25) (7). 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.

Similar to the 2007 AQMP, the 2012 AQMP was based on assumptions provided by both CARB and SCAG in the latest available EMFAC model for the most recent motor vehicle and demographics information, respectively. The air quality levels projected in the 2012 AQMP are based on several assumptions. For example, the 2012 AQMP has assumed that development associated with general plans, specific plans, residential projects, and wastewater facilities will be constructed in accordance with population growth projections identified by SCAG in its 2012 RTP. The 2012 AQMP also has assumed that such development projects will implement strategies to reduce emissions generated during the construction and operational phases of development. The Project's consistency with the 2012 AQMP is discussed as follows:

Criteria for determining consistency with the AQMP are defined in Chapter 12, Section 12.2 and Section 12.3 of the SCAQMD's CEQA Air Quality Handbook (1993) (26). These indicators are 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.

Construction Impacts

Consistency Criterion No. 1 refers to violations of the CAAQS and NAAQS. CAAQS and NAAQS violations would occur if LSTs were exceeded. As evaluated as part of the Project LST analysis (previously presented), the Project's localized construction-source emissions would not exceed applicable LSTs, and a less than significant impact is expected.

Operational Impacts

The Project regional analysis demonstrates that Project operational-source emissions would not exceed applicable thresholds, and would therefore not result in or cause violations of the CAAQS and NAAQS.

On the basis of the preceding discussion, the Project is determined to be consistent with the first criterion.

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

Overview

The 2012 AQMP demonstrates that the applicable ambient air quality standards can be achieved within the timeframes required under federal law. Growth projections from local general plans adopted by cities in the district are provided to the Southern California Association of Governments (SCAG), which develops regional growth forecasts, which are then used to develop future air quality forecasts for the AQMP. Development consistent with the growth projections in the General Plan is considered to be consistent with the AQMP.

Construction Impacts

Peak day emissions generated by construction activities are largely independent of land use assignments, but rather are a function of development scope and maximum area of disturbance. Irrespective of the site's land use designation, development of the site to its maximum potential would likely occur, with disturbance of the entire site occurring during construction activities.

Operational Impacts

A project would conflict with the AQMP if it will exceed the assumptions in the AQMP or increments based on the year of project buildout and phase.

The Project is intended to close gaps in the existing regional recreational trails network, thereby improving connectivity. Furthermore, it should be noted that the proposed recreational development would not exceed regional thresholds for operational emissions, and would therefore be considered to have a less than significant impact. As such, development proposed by the Project is consistent with the growth projections in the General Plan and is therefore considered to be consistent with the AQMP.

On the basis of the preceding discussion, the Project is determined to be consistent with the second criterion.

AQMP Consistency Conclusion

The Project would not result in or cause NAAQS or CAAQS violations. The Project's proposed land use designation for the subject site does not materially affect the uses allowed or increase the development intensities as reflected in the adopted General Plan. The Project is therefore considered to be consistent with the AQMP.

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 the Project would not exceed the SCAQMD localized significance thresholds during construction. Therefore, sensitive receptors would not be subjected to a significant air quality impact during Project construction.

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 3.9. 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/County 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).

3.12 CUMULATIVE IMPACTS

The Project area is designated as an extreme non-attainment area for ozone, and a non-attainment area for PM_{10}, $PM_{2.5}$, and lead.

The SCAQMD has published a report on how to address cumulative impacts from air pollution: *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution* (27). In this report the AQMD clearly states (Page D-3):

"…the SCAQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR. The only case where the significance thresholds for project specific and cumulative impacts differ is the Hazard Index (HI) significance threshold for toxic air contaminant (TAC) emissions. The project specific (project increment) significance threshold is HI > 1.0 while the cumulative (facility-wide) is HI > 3.0. It should be noted that the HI is only one of three TAC emission significance thresholds considered (when applicable) in a CEQA analysis. The other two are the maximum individual cancer risk (MICR) and the cancer burden, both of which use the same significance thresholds (MICR of 10 in 1 million and cancer burden of 0.5) for project specific and cumulative impacts.

Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant."

Therefore, this analysis assumes that individual projects that do not generate operational or construction emissions that exceed the SCAQMD's recommended daily thresholds for project-specific impacts would also not cause a cumulatively considerable increase in emissions for those pollutants for which the Basin is in nonattainment, and, therefore, would not be considered to have a significant, adverse air quality impact. Alternatively, individual project-related construction and operational emissions that exceed SCAQMD thresholds for project-specific

impacts would be considered cumulatively considerable. As previously noted, the Project will not exceed the applicable SCAQMD regional threshold for construction and operational-source emissions. As such, the Project will not result in a cumulatively significant impact.

CRITERION 1; REGIONAL EMISSIONS ANALYSIS

Construction Impacts

The Project-specific evaluation of emissions presented in the preceding analysis demonstrates that Project construction-source air pollutant emissions would not result in exceedances of regional thresholds. Therefore, Project construction-source emissions would be considered less than significant on a project-specific and cumulative basis.

Operational Impacts

Project operational-source emissions would not exceed applicable SCAQMD regional thresholds. Therefore, Project operational-source emissions would be considered less than significant on a project-specific and cumulative basis.

4 FINDINGS & CONCLUSIONS

4.1 CONSTRUCTION-SOURCE EMISSIONS

REGIONAL IMPACTS

Project construction-source emissions would not exceed the numerical regional thresholds of significance established by the SCAQMD for any criteria pollutants. It should be noted that BACMs are not mitigation as they are standard regulatory requirements. Thus, a less than significant impact would occur for Project-related construction-source and no mitigation measures are required.

LOCALIZED IMPACTS

Project construction-source emissions would not exceed the SCAQMD's localized significance thresholds for any criteria pollutant. Therefore, a less than significant impact would occur.

Project construction-source emissions would be consistent with the applicable AQMP.

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. There are no anticipated Project construction-source emissions. Therefore, potential construction-source odor impacts are considered less than significant.

4.2 OPERATIONAL-SOURCE EMISSIONS

REGIONAL IMPACTS

For regional emissions, the Project would not exceed the numerical thresholds of significance established by the SCAQMD. Thus a less than significant impact would occur for Project-related operational-source emissions and no mitigation measures are required.

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.

Project operational-source emissions would be consistent with the applicable AQMP.

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 residential refuse. Moreover, SCAQMD Rule 402 acts to prevent

occurrences of odor nuisances (28). Consistent with City/County requirements, all Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with solid waste regulations. Potential operational-source odor impacts are therefore considered less-than-significant.

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6 CERTIFICATION

The contents of this AQIA represent an accurate depiction of the environmental impacts associated with the proposed Project. The information contained in this AQIA is based on the best available data at the time of preparation. If you have any questions, please contact me directly at (949) 660-1994 ext. 217.

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Master of Science in Environmental Studies
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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

APPENDIX B

2013
Area Designations for State Ambient Air Quality Standards
OZONE

Source Date:
June 2013
Air Quality Planning Branch, AQPSD

APPENDIX B

2013
Area Designations for State Ambient Air Quality Standards
PM10

Source Date:
June 2013
Air Quality Planning Branch, AQPSD

APPENDIX B

2013
Area Designations for State Ambient Air Quality Standards
PM2.5

Source Date:
June 2013
Air Quality Planning Branch, AQPSD

APPENDIX B

2013
Area Designations for State Ambient Air Quality Standards
CARBON MONOXIDE

Source Date:
June 2013
Air Quality Planning Branch, AQPSD

APPENDIX B

2013
Area Designations for State Ambient Air Quality Standards
NITROGEN DIOXIDE

Source Date:
June 2013
Air Quality Planning Branch, AQPSD

APPENDIX B

2013
Area Designations for State Ambient Air Quality Standards
SULFUR DIOXIDE

Source Date:
June 2013
Air Quality Planning Branch, AQPSD

APPENDIX B

2013
Area Designations for State Ambient Air Quality Standards
LEAD

Source Date:
June 2013
Air Quality Planning Branch, AQPSD

APPENDIX B

Area Designations for National Ambient Air Quality Standards 8-HOUR OZONE

Source Date:
June 2013
Air Quality Planning Branch, AQPSD

APPENDIX B

Area Designations for National Ambient Air Quality Standards PM10

Source Date:
September 2013
Air Quality Planning Branch, AQPSD

APPENDIX B

Area Designations for National Ambient Air Quality Standards PM2.5

Source Date:
June 2013
Air Quality Planning Branch, AQPSD

APPENDIX B

Area Designations for National Ambient Air Quality Standards CARBON MONOXIDE

Source Date:
June 2013
Air Quality Planning Branch, AQPSD

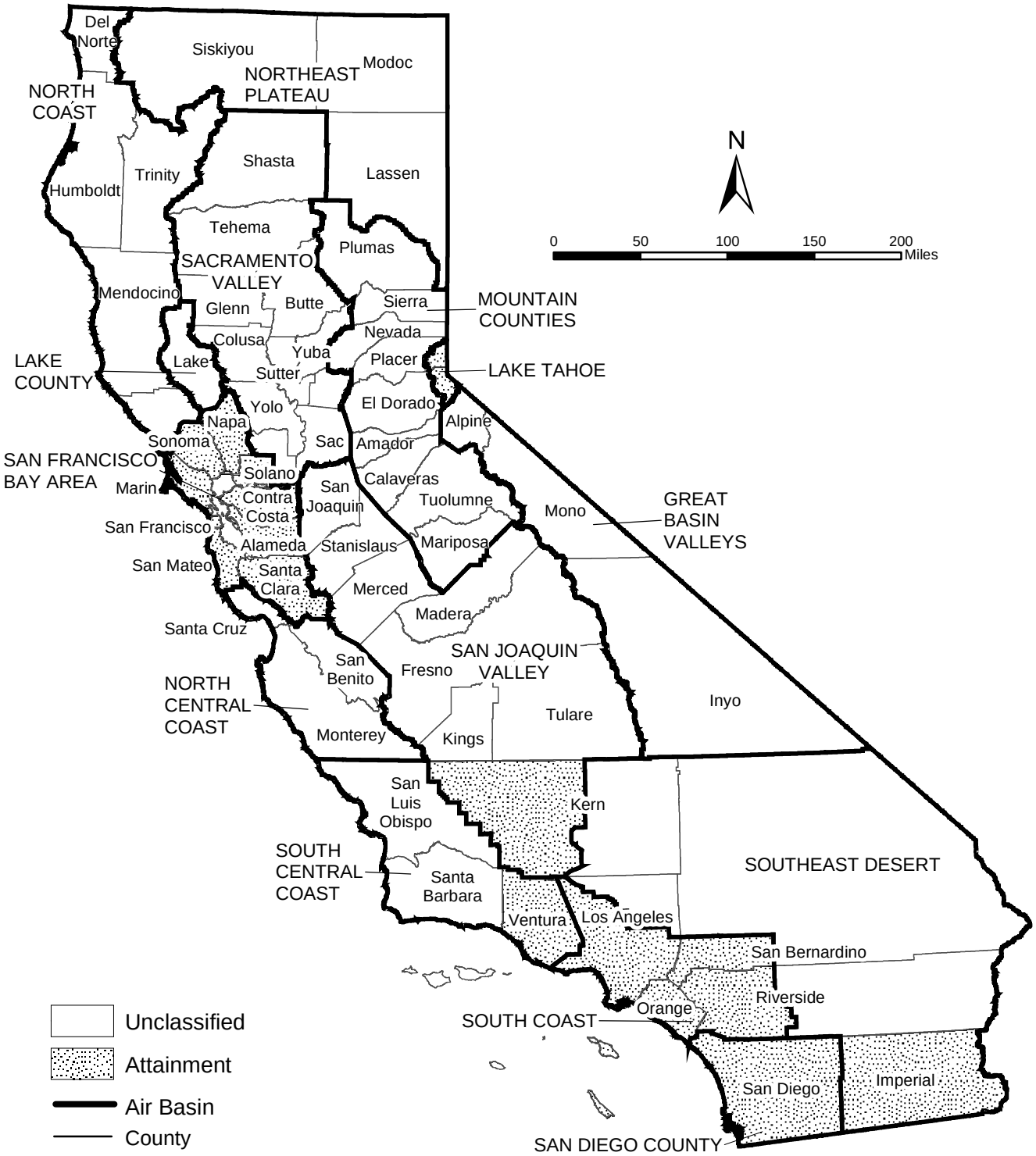
APPENDIX B

Area Designations for National Ambient Air Quality Standards NITROGEN DIOXIDE

Source Date:
June 2013
Air Quality Planning Branch, AQPSD

APPENDIX B

Area Designations for National Ambient Air Quality Standards SULFUR DIOXIDE



Source Date:
June 2013
Air Quality Planning Branch, AQPSD

APPENDIX B

Area Designations for National Ambient Air Quality Standards LEAD

Source Date:
June 2013
Air Quality Planning Branch, AQPSD

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APPENDIX 3.2:

CALEEMOD EMISSIONS MODEL OUTPUTS

Emerald Acres: Group A

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	5.00	Acre	5.00	600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2017
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	515.47	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Modeled after Group A: Project 1; Project includes construction of a 600 ft bathroom facility

Construction Phase - Based on the SCAQMD's Summary of a 5 Acre Site. Building Construction phase based on defaults. Since the Project does not include building structures, the number of days are halved.

Off-road Equipment - Based on the SCAQMD's Summary of a 5 Acre Site

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Off-road Equipment - Based on the SCAQMD's Summary of a 5 Acre Site

Off-road Equipment - Based on the SCAQMD's Summary of a 5 Acre Site

Trips and VMT -

Demolition -

Grading -

Vehicle Trips - Trip rate based on Traffic Study and SANDAG's Not So Brief Guide of Vehicular Traffic Generation Rates

Area Coating -

Energy Use - .

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	230.00	115.00
tblLandUse	LandUseSquareFeet	217,800.00	600.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	515.47
tblProjectCharacteristics	OperationalYear	2014	2017
tblVehicleTrips	ST_TR	1.59	20.00
tblVehicleTrips	SU_TR	1.59	20.00
tblVehicleTrips	WD_TR	1.59	20.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	5.1572	54.7332	42.3539	0.0417	18.2675	2.9406	21.2080	9.9840	2.7053	12.6894	0.0000	4,286.2291	4,286.2291	1.2382	0.0000	4,312.2311
2017	3.3022	28.5087	19.3714	0.0287	0.2012	1.9099	1.9099	0.0534	1.7914	1.7914	0.0000	2,831.3094	2,831.3094	0.7084	0.0000	2,846.1853
Total	**8.4594**	**83.2420**	**61.7253**	**0.0704**	**18.4687**	**4.8505**	**23.1180**	**10.0374**	**4.4967**	**14.4808**	**0.0000**	**7,117.5385**	**7,117.5385**	**1.9466**	**0.0000**	**7,158.4165**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	5.1572	54.7332	42.3539	0.0417	7.2470	2.9406	10.1876	3.9263	2.7053	6.6317	0.0000	4,286.2291	4,286.2291	1.2382	0.0000	4,312.2311
2017	3.3022	28.5087	19.3714	0.0287	0.2012	1.9099	1.9099	0.0534	1.7914	1.7914	0.0000	2,831.3094	2,831.3094	0.7084	0.0000	2,846.1853
Total	**8.4594**	**83.2420**	**61.7253**	**0.0704**	**7.4482**	**4.8505**	**12.0976**	**3.9797**	**4.4967**	**8.4230**	**0.0000**	**7,117.5385**	**7,117.5385**	**1.9466**	**0.0000**	**7,158.4165**

	ROG	NOx	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**	**59.67**	**0.00**	**47.67**	**60.35**	**0.00**	**41.83**	**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	0.0157	0.0000	5.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1600e-003
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	0.3413	0.9245	3.7866	9.3600e-003	0.6111	0.0135	0.6246	0.1634	0.0124	0.1758		799.4100	799.4100	0.0319		800.0794
Total	**0.3571**	**0.9245**	**3.7871**	**9.3600e-003**	**0.6111**	**0.0135**	**0.6246**	**0.1634**	**0.0124**	**0.1758**		**799.4111**	**799.4111**	**0.0319**	**0.0000**	**800.0806**

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	0.0157	0.0000	5.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1600e-003
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	0.3413	0.9245	3.7866	9.3600e-003	0.6111	0.0135	0.6246	0.1634	0.0124	0.1758		799.4100	799.4100	0.0319		800.0794
Total	**0.3571**	**0.9245**	**3.7871**	**9.3600e-003**	**0.6111**	**0.0135**	**0.6246**	**0.1634**	**0.0124**	**0.1758**		**799.4111**	**799.4111**	**0.0319**	**0.0000**	**800.0806**

	ROG	NOx	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	9/15/2016	10/12/2016	5	20	
2	Site Preparation	Site Preparation	10/13/2016	10/19/2016	5	5	
3	Grading	Grading	10/20/2016	10/31/2016	5	8	
4	Building Construction	Building Construction	11/1/2016	4/10/2017	5	115	
5	Paving & Site Finishes	Paving	4/11/2017	5/4/2017	5	18	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 8

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	1	8.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	0	8.00	162	0.38
Grading	Graders	2	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	8.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving & Site Finishes	Cement and Mortar Mixers	2	8.00	9	0.56
Paving & Site Finishes	Pavers	1	8.00	125	0.42
Paving & Site Finishes	Paving Equipment	2	8.00	130	0.36
Paving & Site Finishes	Rollers	1	8.00	80	0.38
Paving & Site Finishes	Tractors/Loaders/Backhoes	1	8.00	97	0.37

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	4	10.00	0.00	14.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving & Site Finishes	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

Clean Paved Roads

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1477	0.0000	0.1477	0.0224	0.0000	0.0224			0.0000			0.0000
Off-Road	2.5660	25.0028	19.0854	0.0214		1.4939	1.4939		1.4022	1.4022		2,163.4523	2,163.4523	0.5312		2,174.6067
Total	**2.5660**	**25.0028**	**19.0854**	**0.0214**	**0.1477**	**1.4939**	**1.6416**	**0.0224**	**1.4022**	**1.4245**		**2,163.4523**	**2,163.4523**	**0.5312**		**2,174.6067**

3.2 Demolition - 2016

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	0.0123	0.1962	0.1393	5.2000e-004	0.0122	2.9100e-003	0.0151	3.3400e-003	2.6700e-003	6.0100e-003		52.6879	52.6879	3.9000e-004		52.6961
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	0.0445	0.0561	0.6937	1.4500e-003	0.1118	1.0600e-003	0.1128	0.0296	9.7000e-004	0.0306		122.9021	122.9021	6.6900e-003		123.0426
Total	**0.0569**	**0.2523**	**0.8330**	**1.9700e-003**	**0.1240**	**3.9700e-003**	**0.1279**	**0.0330**	**3.6400e-003**	**0.0366**		**175.5900**	**175.5900**	**7.0800e-003**		**175.7387**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0576	0.0000	0.0576	8.7200e-003	0.0000	8.7200e-003			0.0000			0.0000
Off-Road	2.5660	25.0028	19.0854	0.0214		1.4939	1.4939		1.4022	1.4022	0.0000	2,163.4523	2,163.4523	0.5312		2,174.6067
Total	**2.5660**	**25.0028**	**19.0854**	**0.0214**	**0.0576**	**1.4939**	**1.5515**	**8.7200e-003**	**1.4022**	**1.4109**	**0.0000**	**2,163.4523**	**2,163.4523**	**0.5312**		**2,174.6067**

3.2 Demolition - 2016

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	0.0123	0.1962	0.1393	5.2000e-004	0.0122	2.9100e-003	0.0151	3.3400e-003	2.6700e-003	6.0100e-003		52.6879	52.6879	3.9000e-004		52.6961
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	0.0445	0.0561	0.6937	1.4500e-003	0.1118	1.0600e-003	0.1128	0.0296	9.7000e-004	0.0306		122.9021	122.9021	6.6900e-003		123.0426
Total	**0.0569**	**0.2523**	**0.8330**	**1.9700e-003**	**0.1240**	**3.9700e-003**	**0.1279**	**0.0330**	**3.6400e-003**	**0.0366**		**175.5900**	**175.5900**	**7.0800e-003**		**175.7387**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	5.0771	54.6323	41.1053	0.0391		2.9387	2.9387		2.7036	2.7036		4,065.0053	4,065.0053	1.2262		4,090.7544
Total	**5.0771**	**54.6323**	**41.1053**	**0.0391**	**18.0663**	**2.9387**	**21.0049**	**9.9307**	**2.7036**	**12.6343**		**4,065.0053**	**4,065.0053**	**1.2262**		**4,090.7544**

3.3 Site Preparation - 2016

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	0.0802	0.1009	1.2487	2.6200e-003	0.2012	1.9000e-003	0.2031	0.0534	1.7500e-003	0.0551		221.2238	221.2238	0.0120		221.4767
Total	**0.0802**	**0.1009**	**1.2487**	**2.6200e-003**	**0.2012**	**1.9000e-003**	**0.2031**	**0.0534**	**1.7500e-003**	**0.0551**		**221.2238**	**221.2238**	**0.0120**		**221.4767**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0458	0.0000	7.0458	3.8730	0.0000	3.8730			0.0000			0.0000
Off-Road	5.0771	54.6323	41.1053	0.0391		2.9387	2.9387		2.7036	2.7036	0.0000	4,065.0053	4,065.0053	1.2262		4,090.7544
Total	**5.0771**	**54.6323**	**41.1053**	**0.0391**	**7.0458**	**2.9387**	**9.9845**	**3.8730**	**2.7036**	**6.5766**	**0.0000**	**4,065.0053**	**4,065.0053**	**1.2262**		**4,090.7544**

3.3 Site Preparation - 2016

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	0.0802	0.1009	1.2487	2.6200e-003	0.2012	1.9000e-003	0.2031	0.0534	1.7500e-003	0.0551		221.2238	221.2238	0.0120		221.4767
Total	**0.0802**	**0.1009**	**1.2487**	**2.6200e-003**	**0.2012**	**1.9000e-003**	**0.2031**	**0.0534**	**1.7500e-003**	**0.0551**		**221.2238**	**221.2238**	**0.0120**		**221.4767**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	4.2975	44.3957	27.5778	0.0307		2.5635	2.5635		2.3584	2.3584		3,193.2777	3,193.2777	0.9632		3,213.5051
Total	**4.2975**	**44.3957**	**27.5778**	**0.0307**	**7.0826**	**2.5635**	**9.6461**	**3.4247**	**2.3584**	**5.7832**		**3,193.2777**	**3,193.2777**	**0.9632**		**3,213.5051**

3.4 Grading - 2016

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	0.0668	0.0841	1.0406	2.1800e-003	0.1677	1.5900e-003	0.1693	0.0445	1.4600e-003	0.0459		184.3532	184.3532	0.0100		184.5639
Total	**0.0668**	**0.0841**	**1.0406**	**2.1800e-003**	**0.1677**	**1.5900e-003**	**0.1693**	**0.0445**	**1.4600e-003**	**0.0459**		**184.3532**	**184.3532**	**0.0100**		**184.5639**

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					2.7622	0.0000	2.7622	1.3357	0.0000	1.3357			0.0000			0.0000
Off-Road	4.2975	44.3957	27.5778	0.0307		2.5635	2.5635		2.3584	2.3584	0.0000	3,193.2777	3,193.2777	0.9632		3,213.5050
Total	**4.2975**	**44.3957**	**27.5778**	**0.0307**	**2.7622**	**2.5635**	**5.3257**	**1.3357**	**2.3584**	**3.6941**	**0.0000**	**3,193.2777**	**3,193.2777**	**0.9632**		**3,213.5050**

3.4 Grading - 2016

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	0.0668	0.0841	1.0406	2.1800e-003	0.1677	1.5900e-003	0.1693	0.0445	1.4600e-003	0.0459		184.3532	184.3532	0.0100		184.5639
Total	**0.0668**	**0.0841**	**1.0406**	**2.1800e-003**	**0.1677**	**1.5900e-003**	**0.1693**	**0.0445**	**1.4600e-003**	**0.0459**		**184.3532**	**184.3532**	**0.0100**		**184.5639**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.6240	30.7934	19.7845	0.0287		2.1098	2.1098		1.9794	1.9794		2,863.9447	2,863.9447	0.7208		2,879.0804
Total	**3.6240**	**30.7934**	**19.7845**	**0.0287**		**2.1098**	**2.1098**		**1.9794**	**1.9794**		**2,863.9447**	**2,863.9447**	**0.7208**		**2,879.0804**

3.5 Building Construction - 2016

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**

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	3.6240	30.7934	19.7845	0.0287		2.1098	2.1098		1.9794	1.9794	0.0000	2,863.9447	2,863.9447	0.7208		2,879.0804
Total	**3.6240**	**30.7934**	**19.7845**	**0.0287**		**2.1098**	**2.1098**		**1.9794**	**1.9794**	**0.0000**	**2,863.9447**	**2,863.9447**	**0.7208**		**2,879.0804**

3.5 Building Construction - 2016

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**

3.5 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3022	28.5087	19.3714	0.0287		1.9099	1.9099		1.7914	1.7914		2,831.3094	2,831.3094	0.7084		2,846.1853
Total	**3.3022**	**28.5087**	**19.3714**	**0.0287**		**1.9099**	**1.9099**		**1.7914**	**1.7914**		**2,831.3094**	**2,831.3094**	**0.7084**		**2,846.1853**

3.5 Building Construction - 2017

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**

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	3.3022	28.5087	19.3714	0.0287		1.9099	1.9099		1.7914	1.7914	0.0000	2,831.3094	2,831.3094	0.7084		2,846.1853
Total	**3.3022**	**28.5087**	**19.3714**	**0.0287**		**1.9099**	**1.9099**		**1.7914**	**1.7914**	**0.0000**	**2,831.3094**	**2,831.3094**	**0.7084**		**2,846.1853**

3.5 Building Construction - 2017

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**

3.6 Paving & Site Finishes - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6707	17.1450	12.9107	0.0197		0.9881	0.9881		0.9114	0.9114		1,970.1783	1,970.1783	0.5832		1,982.4253
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6707**	**17.1450**	**12.9107**	**0.0197**		**0.9881**	**0.9881**		**0.9114**	**0.9114**		**1,970.1783**	**1,970.1783**	**0.5832**		**1,982.4253**

3.6 Paving & Site Finishes - 2017

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	0.0720	0.0913	1.1313	2.6200e-003	0.2012	1.8200e-003	0.2030	0.0534	1.6800e-003	0.0550		212.9450	212.9450	0.0111		213.1787
Total	**0.0720**	**0.0913**	**1.1313**	**2.6200e-003**	**0.2012**	**1.8200e-003**	**0.2030**	**0.0534**	**1.6800e-003**	**0.0550**		**212.9450**	**212.9450**	**0.0111**		**213.1787**

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	1.6707	17.1450	12.9107	0.0197		0.9881	0.9881		0.9114	0.9114	0.0000	1,970.1783	1,970.1783	0.5832		1,982.4253
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6707**	**17.1450**	**12.9107**	**0.0197**		**0.9881**	**0.9881**		**0.9114**	**0.9114**	**0.0000**	**1,970.1783**	**1,970.1783**	**0.5832**		**1,982.4253**

3.6 Paving & Site Finishes - 2017

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	0.0720	0.0913	1.1313	2.6200e-003	0.2012	1.8200e-003	0.2030	0.0534	1.6800e-003	0.0550		212.9450	212.9450	0.0111		213.1787
Total	**0.0720**	**0.0913**	**1.1313**	**2.6200e-003**	**0.2012**	**1.8200e-003**	**0.2030**	**0.0534**	**1.6800e-003**	**0.0550**		**212.9450**	**212.9450**	**0.0111**		**213.1787**

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	0.3413	0.9245	3.7866	9.3600e-003	0.6111	0.0135	0.6246	0.1634	0.0124	0.1758		799.4100	799.4100	0.0319		800.0794
Unmitigated	0.3413	0.9245	3.7866	9.3600e-003	0.6111	0.0135	0.6246	0.1634	0.0124	0.1758		799.4100	799.4100	0.0319		800.0794

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	100.00	100.00	100.00	287,754	287,754
Total	100.00	100.00	100.00	287,754	287,754

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.532559	0.058242	0.178229	0.125155	0.038934	0.006273	0.016761	0.032323	0.002478	0.003154	0.003685	0.000544	0.001663

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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	0.0157	0.0000	5.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1600e-003
Unmitigated	0.0157	0.0000	5.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1600e-003

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					
Consumer Products	0.0119					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.0000e-005	0.0000	5.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1600e-003
Architectural Coating	3.8100e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.0157**	**0.0000**	**5.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.0900e-003**	**1.0900e-003**	**0.0000**		**1.1600e-003**

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					
Consumer Products	0.0119					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.0000e-005	0.0000	5.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1600e-003
Architectural Coating	3.8100e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.0157**	**0.0000**	**5.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.0900e-003**	**1.0900e-003**	**0.0000**		**1.1600e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Vegetation

Emerald Acres: Group A

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	5.00	Acre	5.00	600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2017
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	515.47	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Modeled after Group A: Project 1; Project includes construction of a 600 ft bathroom facility

Construction Phase - Based on the SCAQMD's Summary of a 5 Acre Site. Building Construction phase based on defaults. Since the Project does not include building structures, the number of days are halved.

Off-road Equipment - Based on the SCAQMD's Summary of a 5 Acre Site

Off-road Equipment - Based on the SCAQMD's Summary of a 5 Acre Site

Off-road Equipment - Based on the SCAQMD's Summary of a 5 Acre Site

Off-road Equipment - Based on the SCAQMD's Summary of a 5 Acre Site

Off-road Equipment - Based on the SCAQMD's Summary of a 5 Acre Site

Off-road Equipment - Based on the SCAQMD's Summary of a 5 Acre Site

Trips and VMT -

Demolition -

Grading -

Vehicle Trips - Trip rate based on Traffic Study and SANDAG's Not So Brief Guide of Vehicular Traffic Generation Rates

Area Coating -

Energy Use - .

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	230.00	115.00
tblLandUse	LandUseSquareFeet	217,800.00	600.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	515.47
tblProjectCharacteristics	OperationalYear	2014	2017
tblVehicleTrips	ST_TR	1.59	20.00
tblVehicleTrips	SU_TR	1.59	20.00
tblVehicleTrips	WD_TR	1.59	20.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	5.1605	54.7442	42.2777	0.0416	18.2675	2.9406	21.2080	9.9840	2.7053	12.6894	0.0000	4,273.8109	4,273.8109	1.2382	0.0000	4,299.8129
2017	3.3022	28.5087	19.3714	0.0287	0.2012	1.9099	1.9099	0.0534	1.7914	1.7914	0.0000	2,831.3094	2,831.3094	0.7084	0.0000	2,846.1853
Total	**8.4626**	**83.2529**	**61.6491**	**0.0702**	**18.4687**	**4.8505**	**23.1180**	**10.0374**	**4.4967**	**14.4808**	**0.0000**	**7,105.1203**	**7,105.1203**	**1.9466**	**0.0000**	**7,145.9982**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	5.1605	54.7442	42.2777	0.0416	7.2470	2.9406	10.1876	3.9263	2.7053	6.6317	0.0000	4,273.8108	4,273.8108	1.2382	0.0000	4,299.8129
2017	3.3022	28.5087	19.3714	0.0287	0.2012	1.9099	1.9099	0.0534	1.7914	1.7914	0.0000	2,831.3094	2,831.3094	0.7084	0.0000	2,846.1853
Total	**8.4626**	**83.2529**	**61.6491**	**0.0702**	**7.4482**	**4.8505**	**12.0976**	**3.9797**	**4.4967**	**8.4230**	**0.0000**	**7,105.1203**	**7,105.1203**	**1.9466**	**0.0000**	**7,145.9982**

	ROG	NOx	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**	**59.67**	**0.00**	**47.67**	**60.35**	**0.00**	**41.83**	**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	0.0157	0.0000	5.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1600e-003
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	0.3589	0.9736	3.8178	8.9400e-003	0.6111	0.0136	0.6246	0.1634	0.0125	0.1759		764.6184	764.6184	0.0319		765.2885
Total	**0.3746**	**0.9736**	**3.8183**	**8.9400e-003**	**0.6111**	**0.0136**	**0.6246**	**0.1634**	**0.0125**	**0.1759**		**764.6195**	**764.6195**	**0.0319**	**0.0000**	**765.2896**

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	0.0157	0.0000	5.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1600e-003
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	0.3589	0.9736	3.8178	8.9400e-003	0.6111	0.0136	0.6246	0.1634	0.0125	0.1759		764.6184	764.6184	0.0319		765.2885
Total	**0.3746**	**0.9736**	**3.8183**	**8.9400e-003**	**0.6111**	**0.0136**	**0.6246**	**0.1634**	**0.0125**	**0.1759**		**764.6195**	**764.6195**	**0.0319**	**0.0000**	**765.2896**

	ROG	NOx	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	9/15/2016	10/12/2016	5	20	
2	Site Preparation	Site Preparation	10/13/2016	10/19/2016	5	5	
3	Grading	Grading	10/20/2016	10/31/2016	5	8	
4	Building Construction	Building Construction	11/1/2016	4/10/2017	5	115	
5	Paving & Site Finishes	Paving	4/11/2017	5/4/2017	5	18	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 8

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	1	8.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	0	8.00	162	0.38
Grading	Graders	2	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	8.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving & Site Finishes	Cement and Mortar Mixers	2	8.00	9	0.56
Paving & Site Finishes	Pavers	1	8.00	125	0.42
Paving & Site Finishes	Paving Equipment	2	8.00	130	0.36
Paving & Site Finishes	Rollers	1	8.00	80	0.38
Paving & Site Finishes	Tractors/Loaders/Backhoes	1	8.00	97	0.37

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	4	10.00	0.00	14.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving & Site Finishes	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

Clean Paved Roads

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1477	0.0000	0.1477	0.0224	0.0000	0.0224			0.0000			0.0000
Off-Road	2.5660	25.0028	19.0854	0.0214		1.4939	1.4939		1.4022	1.4022		2,163.4523	2,163.4523	0.5312		2,174.6067
Total	**2.5660**	**25.0028**	**19.0854**	**0.0214**	**0.1477**	**1.4939**	**1.6416**	**0.0224**	**1.4022**	**1.4245**		**2,163.4523**	**2,163.4523**	**0.5312**		**2,174.6067**

3.2 Demolition - 2016

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	0.0131	0.2031	0.1614	5.2000e-004	0.0122	2.9100e-003	0.0151	3.3400e-003	2.6800e-003	6.0200e-003		52.5642	52.5642	3.9000e-004		52.5725
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	0.0463	0.0622	0.6514	1.3700e-003	0.1118	1.0600e-003	0.1128	0.0296	9.7000e-004	0.0306		116.0031	116.0031	6.6900e-003		116.1436
Total	**0.0594**	**0.2653**	**0.8128**	**1.8900e-003**	**0.1240**	**3.9700e-003**	**0.1279**	**0.0330**	**3.6500e-003**	**0.0366**		**168.5673**	**168.5673**	**7.0800e-003**		**168.7161**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0576	0.0000	0.0576	8.7200e-003	0.0000	8.7200e-003			0.0000			0.0000
Off-Road	2.5660	25.0028	19.0854	0.0214		1.4939	1.4939		1.4022	1.4022	0.0000	2,163.4523	2,163.4523	0.5312		2,174.6067
Total	**2.5660**	**25.0028**	**19.0854**	**0.0214**	**0.0576**	**1.4939**	**1.5515**	**8.7200e-003**	**1.4022**	**1.4109**	**0.0000**	**2,163.4523**	**2,163.4523**	**0.5312**		**2,174.6067**

3.2 Demolition - 2016

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	0.0131	0.2031	0.1614	5.2000e-004	0.0122	2.9100e-003	0.0151	3.3400e-003	2.6800e-003	6.0200e-003		52.5642	52.5642	3.9000e-004		52.5725
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	0.0463	0.0622	0.6514	1.3700e-003	0.1118	1.0600e-003	0.1128	0.0296	9.7000e-004	0.0306		116.0031	116.0031	6.6900e-003		116.1436
Total	**0.0594**	**0.2653**	**0.8128**	**1.8900e-003**	**0.1240**	**3.9700e-003**	**0.1279**	**0.0330**	**3.6500e-003**	**0.0366**		**168.5673**	**168.5673**	**7.0800e-003**		**168.7161**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	5.0771	54.6323	41.1053	0.0391		2.9387	2.9387		2.7036	2.7036		4,065.0053	4,065.0053	1.2262		4,090.7544
Total	**5.0771**	**54.6323**	**41.1053**	**0.0391**	**18.0663**	**2.9387**	**21.0049**	**9.9307**	**2.7036**	**12.6343**		**4,065.0053**	**4,065.0053**	**1.2262**		**4,090.7544**

3.3 Site Preparation - 2016

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	0.0834	0.1119	1.1725	2.4700e-003	0.2012	1.9000e-003	0.2031	0.0534	1.7500e-003	0.0551		208.8056	208.8056	0.0120		209.0585
Total	**0.0834**	**0.1119**	**1.1725**	**2.4700e-003**	**0.2012**	**1.9000e-003**	**0.2031**	**0.0534**	**1.7500e-003**	**0.0551**		**208.8056**	**208.8056**	**0.0120**		**209.0585**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0458	0.0000	7.0458	3.8730	0.0000	3.8730			0.0000			0.0000
Off-Road	5.0771	54.6323	41.1053	0.0391		2.9387	2.9387		2.7036	2.7036	0.0000	4,065.0053	4,065.0053	1.2262		4,090.7544
Total	**5.0771**	**54.6323**	**41.1053**	**0.0391**	**7.0458**	**2.9387**	**9.9845**	**3.8730**	**2.7036**	**6.5766**	**0.0000**	**4,065.0053**	**4,065.0053**	**1.2262**		**4,090.7544**

3.3 Site Preparation - 2016

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	0.0834	0.1119	1.1725	2.4700e-003	0.2012	1.9000e-003	0.2031	0.0534	1.7500e-003	0.0551		208.8056	208.8056	0.0120		209.0585
Total	**0.0834**	**0.1119**	**1.1725**	**2.4700e-003**	**0.2012**	**1.9000e-003**	**0.2031**	**0.0534**	**1.7500e-003**	**0.0551**		**208.8056**	**208.8056**	**0.0120**		**209.0585**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	4.2975	44.3957	27.5778	0.0307		2.5635	2.5635		2.3584	2.3584		3,193.2777	3,193.2777	0.9632		3,213.5051
Total	**4.2975**	**44.3957**	**27.5778**	**0.0307**	**7.0826**	**2.5635**	**9.6461**	**3.4247**	**2.3584**	**5.7832**		**3,193.2777**	**3,193.2777**	**0.9632**		**3,213.5051**

3.4 Grading - 2016

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	0.0695	0.0932	0.9771	2.0600e-003	0.1677	1.5900e-003	0.1693	0.0445	1.4600e-003	0.0459		174.0047	174.0047	0.0100		174.2154
Total	**0.0695**	**0.0932**	**0.9771**	**2.0600e-003**	**0.1677**	**1.5900e-003**	**0.1693**	**0.0445**	**1.4600e-003**	**0.0459**		**174.0047**	**174.0047**	**0.0100**		**174.2154**

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					2.7622	0.0000	2.7622	1.3357	0.0000	1.3357			0.0000			0.0000
Off-Road	4.2975	44.3957	27.5778	0.0307		2.5635	2.5635		2.3584	2.3584	0.0000	3,193.2777	3,193.2777	0.9632		3,213.5050
Total	**4.2975**	**44.3957**	**27.5778**	**0.0307**	**2.7622**	**2.5635**	**5.3257**	**1.3357**	**2.3584**	**3.6941**	**0.0000**	**3,193.2777**	**3,193.2777**	**0.9632**		**3,213.5050**

3.4 Grading - 2016

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	0.0695	0.0932	0.9771	2.0600e-003	0.1677	1.5900e-003	0.1693	0.0445	1.4600e-003	0.0459		174.0047	174.0047	0.0100		174.2154
Total	**0.0695**	**0.0932**	**0.9771**	**2.0600e-003**	**0.1677**	**1.5900e-003**	**0.1693**	**0.0445**	**1.4600e-003**	**0.0459**		**174.0047**	**174.0047**	**0.0100**		**174.2154**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.6240	30.7934	19.7845	0.0287		2.1098	2.1098		1.9794	1.9794		2,863.9447	2,863.9447	0.7208		2,879.0804
Total	**3.6240**	**30.7934**	**19.7845**	**0.0287**		**2.1098**	**2.1098**		**1.9794**	**1.9794**		**2,863.9447**	**2,863.9447**	**0.7208**		**2,879.0804**

3.5 Building Construction - 2016

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**

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	3.6240	30.7934	19.7845	0.0287		2.1098	2.1098		1.9794	1.9794	0.0000	2,863.9447	2,863.9447	0.7208		2,879.0804
Total	**3.6240**	**30.7934**	**19.7845**	**0.0287**		**2.1098**	**2.1098**		**1.9794**	**1.9794**	**0.0000**	**2,863.9447**	**2,863.9447**	**0.7208**		**2,879.0804**

3.5 Building Construction - 2016

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**

3.5 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3022	28.5087	19.3714	0.0287		1.9099	1.9099		1.7914	1.7914		2,831.3094	2,831.3094	0.7084		2,846.1853
Total	**3.3022**	**28.5087**	**19.3714**	**0.0287**		**1.9099**	**1.9099**		**1.7914**	**1.7914**		**2,831.3094**	**2,831.3094**	**0.7084**		**2,846.1853**

3.5 Building Construction - 2017

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**

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	3.3022	28.5087	19.3714	0.0287		1.9099	1.9099		1.7914	1.7914	0.0000	2,831.3094	2,831.3094	0.7084		2,846.1853
Total	**3.3022**	**28.5087**	**19.3714**	**0.0287**		**1.9099**	**1.9099**		**1.7914**	**1.7914**	**0.0000**	**2,831.3094**	**2,831.3094**	**0.7084**		**2,846.1853**

3.5 Building Construction - 2017

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**

3.6 Paving & Site Finishes - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6707	17.1450	12.9107	0.0197		0.9881	0.9881		0.9114	0.9114		1,970.1783	1,970.1783	0.5832		1,982.4253
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6707**	**17.1450**	**12.9107**	**0.0197**		**0.9881**	**0.9881**		**0.9114**	**0.9114**		**1,970.1783**	**1,970.1783**	**0.5832**		**1,982.4253**

3.6 Paving & Site Finishes - 2017

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	0.0748	0.1012	1.0580	2.4700e-003	0.2012	1.8200e-003	0.2030	0.0534	1.6800e-003	0.0550		200.9764	200.9764	0.0111		201.2101
Total	**0.0748**	**0.1012**	**1.0580**	**2.4700e-003**	**0.2012**	**1.8200e-003**	**0.2030**	**0.0534**	**1.6800e-003**	**0.0550**		**200.9764**	**200.9764**	**0.0111**		**201.2101**

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	1.6707	17.1450	12.9107	0.0197		0.9881	0.9881		0.9114	0.9114	0.0000	1,970.1783	1,970.1783	0.5832		1,982.4253
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6707**	**17.1450**	**12.9107**	**0.0197**		**0.9881**	**0.9881**		**0.9114**	**0.9114**	**0.0000**	**1,970.1783**	**1,970.1783**	**0.5832**		**1,982.4253**

3.6 Paving & Site Finishes - 2017

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	0.0748	0.1012	1.0580	2.4700e-003	0.2012	1.8200e-003	0.2030	0.0534	1.6800e-003	0.0550		200.9764	200.9764	0.0111		201.2101
Total	**0.0748**	**0.1012**	**1.0580**	**2.4700e-003**	**0.2012**	**1.8200e-003**	**0.2030**	**0.0534**	**1.6800e-003**	**0.0550**		**200.9764**	**200.9764**	**0.0111**		**201.2101**

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	0.3589	0.9736	3.8178	8.9400e-003	0.6111	0.0136	0.6246	0.1634	0.0125	0.1759		764.6184	764.6184	0.0319		765.2885
Unmitigated	0.3589	0.9736	3.8178	8.9400e-003	0.6111	0.0136	0.6246	0.1634	0.0125	0.1759		764.6184	764.6184	0.0319		765.2885

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	100.00	100.00	100.00	287,754	287,754
Total	100.00	100.00	100.00	287,754	287,754

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.532559	0.058242	0.178229	0.125155	0.038934	0.006273	0.016761	0.032323	0.002478	0.003154	0.003685	0.000544	0.001663

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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	0.0157	0.0000	5.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1600e-003
Unmitigated	0.0157	0.0000	5.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1600e-003

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	3.8100e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0119					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.0000e-005	0.0000	5.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1600e-003
Total	**0.0157**	**0.0000**	**5.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.0900e-003**	**1.0900e-003**	**0.0000**		**1.1600e-003**

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					
Consumer Products	0.0119					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.0000e-005	0.0000	5.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1600e-003
Architectural Coating	3.8100e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.0157**	**0.0000**	**5.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.0900e-003**	**1.0900e-003**	**0.0000**		**1.1600e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Vegetation

Emerald Acres: Group B

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	17.72	Acre	17.72	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2017
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	515.47	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Modeled after Group B: Project # 2, 5, 7, 8, 12, 16; Group B does not contain construction of buildings/structures, as such, the Project is modeled with no building square feet.

Construction Phase - Based on the SCAQMD's Summary of a 1 Acre Site.

Off-road Equipment - Based on the SCAQMD's Summary of a 1 Acre Site

Off-road Equipment - Based on the SCAQMD's Summary of a 1 Acre Site

Off-road Equipment - Based on the SCAQMD's Summary of a 1 Acre Site

Off-road Equipment - Based on the SCAQMD's Summary of a 1 Acre Site

Off-road Equipment - Based on the SCAQMD's Summary of a 1 Acre Site

Demolition -

Grading -

Vehicle Trips - Trip rates based on Traffic Study and SANDAG's Not So Brief Guide of Vehicular Traffic Generation Rates

Area Coating -

Energy Use - .

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	30.00	2.00
tblConstructionPhase	NumDays	20.00	2.00
tblConstructionPhase	NumDays	10.00	1.00
tblLandUse	LandUseSquareFeet	771,883.20	0.00
tblOffRoadEquipment	HorsePower	174.00	97.00
tblOffRoadEquipment	LoadFactor	0.41	0.37
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	515.47
tblProjectCharacteristics	OperationalYear	2014	2017
tblVehicleTrips	ST_TR	1.59	20.00
tblVehicleTrips	SU_TR	1.59	20.00
tblVehicleTrips	WD_TR	1.59	20.00

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					
2017	2.4917	25.9184	19.1821	0.0231	6.6418	1.3842	8.0259	3.3912	1.2940	4.6646	0.0000	2,287.1245	2,287.1245	0.5767	0.0000	2,299.2341
Total	**2.4917**	**25.9184**	**19.1821**	**0.0231**	**6.6418**	**1.3842**	**8.0259**	**3.3912**	**1.2940**	**4.6646**	**0.0000**	**2,287.1245**	**2,287.1245**	**0.5767**	**0.0000**	**2,299.2341**

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					
2017	2.4917	25.9184	19.1821	0.0231	2.6448	1.3842	4.0290	1.3370	1.2940	2.6105	0.0000	2,287.1245	2,287.1245	0.5767	0.0000	2,299.2341
Total	**2.4917**	**25.9184**	**19.1821**	**0.0231**	**2.6448**	**1.3842**	**4.0290**	**1.3370**	**1.2940**	**2.6105**	**0.0000**	**2,287.1245**	**2,287.1245**	**0.5767**	**0.0000**	**2,299.2341**

	ROG	NOx	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**	**60.18**	**0.00**	**49.80**	**60.57**	**0.00**	**44.04**	**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	1.8000e-004	2.0000e-005	1.8400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.8800e-003	3.8800e-003	1.0000e-005		4.1000e-003
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	1.2096	3.2763	13.4195	0.0332	2.1656	0.0479	2.2135	0.5791	0.0441	0.6232		2,833.1090	2,833.1090	0.1130		2,835.4814
Total	**1.2098**	**3.2763**	**13.4214**	**0.0332**	**2.1656**	**0.0479**	**2.2135**	**0.5791**	**0.0441**	**0.6232**		**2,833.1129**	**2,833.1129**	**0.1130**	**0.0000**	**2,835.4855**

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	1.8000e-004	2.0000e-005	1.8400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.8800e-003	3.8800e-003	1.0000e-005		4.1000e-003
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	1.2096	3.2763	13.4195	0.0332	2.1656	0.0479	2.2135	0.5791	0.0441	0.6232		2,833.1090	2,833.1090	0.1130		2,835.4814
Total	**1.2098**	**3.2763**	**13.4214**	**0.0332**	**2.1656**	**0.0479**	**2.2135**	**0.5791**	**0.0441**	**0.6232**		**2,833.1129**	**2,833.1129**	**0.1130**	**0.0000**	**2,835.4855**

	ROG	NOx	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	5/5/2017	5/18/2017	5	10	
2	Site Preparation	Site Preparation	5/19/2017	5/19/2017	5	1	
3	Grading	Grading	5/20/2017	5/23/2017	5	2	
4	Paving & Site Finishes	Paving	5/24/2017	5/25/2017	5	2	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 1

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	1	8.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Graders	1	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Excavators	0	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	0	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Paving & Site Finishes	Cement and Mortar Mixers	4	8.00	9	0.56
Paving & Site Finishes	Pavers	1	8.00	125	0.42
Paving & Site Finishes	Paving Equipment	0	8.00	130	0.36
Paving & Site Finishes	Rollers	1	8.00	80	0.38
Paving & Site Finishes	Tractors/Loaders/Backhoes	1	8.00	97	0.37

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	4	10.00	0.00	4.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving & Site Finishes	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

Clean Paved Roads

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0788	0.0000	0.0788	0.0119	0.0000	0.0119			0.0000			0.0000
Off-Road	2.4048	23.5416	18.4774	0.0214		1.3773	1.3773		1.2916	1.2916		2,139.2032	2,139.2032	0.5260		2,150.2492
Total	**2.4048**	**23.5416**	**18.4774**	**0.0214**	**0.0788**	**1.3773**	**1.4560**	**0.0119**	**1.2916**	**1.3036**		**2,139.2032**	**2,139.2032**	**0.5260**		**2,150.2492**

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	6.6600e-003	0.1030	0.0762	3.0000e-004	6.9700e-003	1.5200e-003	8.4800e-003	1.9100e-003	1.4000e-003	3.3000e-003		29.6185	29.6185	2.2000e-004		29.6231
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	0.0400	0.0507	0.6285	1.4500e-003	0.1118	1.0100e-003	0.1128	0.0296	9.3000e-004	0.0306		118.3028	118.3028	6.1800e-003		118.4326
Total	**0.0467**	**0.1537**	**0.7048**	**1.7500e-003**	**0.1188**	**2.5300e-003**	**0.1213**	**0.0316**	**2.3300e-003**	**0.0339**		**147.9213**	**147.9213**	**6.4000e-003**		**148.0557**

3.2 Demolition - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0307	0.0000	0.0307	4.6500e-003	0.0000	4.6500e-003			0.0000			0.0000
Off-Road	2.4048	23.5416	18.4774	0.0214		1.3773	1.3773		1.2916	1.2916	0.0000	2,139.2032	2,139.2032	0.5260		2,150.2492
Total	**2.4048**	**23.5416**	**18.4774**	**0.0214**	**0.0307**	**1.3773**	**1.4080**	**4.6500e-003**	**1.2916**	**1.2963**	**0.0000**	**2,139.2032**	**2,139.2032**	**0.5260**		**2,150.2492**

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	6.6600e-003	0.1030	0.0762	3.0000e-004	6.9700e-003	1.5200e-003	8.4800e-003	1.9100e-003	1.4000e-003	3.3000e-003		29.6185	29.6185	2.2000e-004		29.6231
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	0.0400	0.0507	0.6285	1.4500e-003	0.1118	1.0100e-003	0.1128	0.0296	9.3000e-004	0.0306		118.3028	118.3028	6.1800e-003		118.4326
Total	**0.0467**	**0.1537**	**0.7048**	**1.7500e-003**	**0.1188**	**2.5300e-003**	**0.1213**	**0.0316**	**2.3300e-003**	**0.0339**		**147.9213**	**147.9213**	**6.4000e-003**		**148.0557**

3.3 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.0539	8.8619	5.4388	6.1700e-003		0.7090	0.7090		0.6523	0.6523		632.1771	632.1771	0.1937		636.2448
Total	**1.0539**	**8.8619**	**5.4388**	**6.1700e-003**	**0.5303**	**0.7090**	**1.2393**	**0.0573**	**0.6523**	**0.7096**		**632.1771**	**632.1771**	**0.1937**		**636.2448**

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	0.0200	0.0254	0.3143	7.3000e-004	0.0559	5.1000e-004	0.0564	0.0148	4.7000e-004	0.0153		59.1514	59.1514	3.0900e-003		59.2163
Total	**0.0200**	**0.0254**	**0.3143**	**7.3000e-004**	**0.0559**	**5.1000e-004**	**0.0564**	**0.0148**	**4.7000e-004**	**0.0153**		**59.1514**	**59.1514**	**3.0900e-003**		**59.2163**

3.3 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2068	0.0000	0.2068	0.0223	0.0000	0.0223			0.0000			0.0000
Off-Road	1.0539	8.8619	5.4388	6.1700e-003		0.7090	0.7090		0.6523	0.6523	0.0000	632.1771	632.1771	0.1937		636.2448
Total	**1.0539**	**8.8619**	**5.4388**	**6.1700e-003**	**0.2068**	**0.7090**	**0.9158**	**0.0223**	**0.6523**	**0.6747**	**0.0000**	**632.1771**	**632.1771**	**0.1937**		**636.2448**

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	0.0200	0.0254	0.3143	7.3000e-004	0.0559	5.1000e-004	0.0564	0.0148	4.7000e-004	0.0153		59.1514	59.1514	3.0900e-003		59.2163
Total	**0.0200**	**0.0254**	**0.3143**	**7.3000e-004**	**0.0559**	**5.1000e-004**	**0.0564**	**0.0148**	**4.7000e-004**	**0.0153**		**59.1514**	**59.1514**	**3.0900e-003**		**59.2163**

3.4 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.4597	25.8779	17.1725	0.0182		1.3833	1.3833		1.2727	1.2727		1,865.8750	1,865.8750	0.5717		1,877.8807
Total	**2.4597**	**25.8779**	**17.1725**	**0.0182**	**6.5523**	**1.3833**	**7.9357**	**3.3675**	**1.2727**	**4.6402**		**1,865.8750**	**1,865.8750**	**0.5717**		**1,877.8807**

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	0.0320	0.0406	0.5028	1.1600e-003	0.0894	8.1000e-004	0.0902	0.0237	7.5000e-004	0.0245		94.6422	94.6422	4.9500e-003		94.7461
Total	**0.0320**	**0.0406**	**0.5028**	**1.1600e-003**	**0.0894**	**8.1000e-004**	**0.0902**	**0.0237**	**7.5000e-004**	**0.0245**		**94.6422**	**94.6422**	**4.9500e-003**		**94.7461**

3.4 Grading - 2017

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					2.5554	0.0000	2.5554	1.3133	0.0000	1.3133			0.0000			0.0000
Off-Road	2.4597	25.8779	17.1725	0.0182		1.3833	1.3833		1.2727	1.2727	0.0000	1,865.8750	1,865.8750	0.5717		1,877.8807
Total	**2.4597**	**25.8779**	**17.1725**	**0.0182**	**2.5554**	**1.3833**	**3.9388**	**1.3133**	**1.2727**	**2.5860**	**0.0000**	**1,865.8750**	**1,865.8750**	**0.5717**		**1,877.8807**

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	0.0320	0.0406	0.5028	1.1600e-003	0.0894	8.1000e-004	0.0902	0.0237	7.5000e-004	0.0245		94.6422	94.6422	4.9500e-003		94.7461
Total	**0.0320**	**0.0406**	**0.5028**	**1.1600e-003**	**0.0894**	**8.1000e-004**	**0.0902**	**0.0237**	**7.5000e-004**	**0.0245**		**94.6422**	**94.6422**	**4.9500e-003**		**94.7461**

3.5 Paving & Site Finishes - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2228	11.4498	8.4541	0.0131		0.6961	0.6961		0.6451	0.6451		1,250.5083	1,250.5083	0.3422		1,257.6949
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2228**	**11.4498**	**8.4541**	**0.0131**		**0.6961**	**0.6961**		**0.6451**	**0.6451**		**1,250.5083**	**1,250.5083**	**0.3422**		**1,257.6949**

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	0.0720	0.0913	1.1313	2.6200e-003	0.2012	1.8200e-003	0.2030	0.0534	1.6800e-003	0.0550		212.9450	212.9450	0.0111		213.1787
Total	**0.0720**	**0.0913**	**1.1313**	**2.6200e-003**	**0.2012**	**1.8200e-003**	**0.2030**	**0.0534**	**1.6800e-003**	**0.0550**		**212.9450**	**212.9450**	**0.0111**		**213.1787**

3.5 Paving & Site Finishes - 2017

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	1.2228	11.4498	8.4541	0.0131		0.6961	0.6961		0.6451	0.6451	0.0000	1,250.5083	1,250.5083	0.3422		1,257.6949
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2228**	**11.4498**	**8.4541**	**0.0131**		**0.6961**	**0.6961**		**0.6451**	**0.6451**	**0.0000**	**1,250.5083**	**1,250.5083**	**0.3422**		**1,257.6949**

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	0.0720	0.0913	1.1313	2.6200e-003	0.2012	1.8200e-003	0.2030	0.0534	1.6800e-003	0.0550		212.9450	212.9450	0.0111		213.1787
Total	**0.0720**	**0.0913**	**1.1313**	**2.6200e-003**	**0.2012**	**1.8200e-003**	**0.2030**	**0.0534**	**1.6800e-003**	**0.0550**		**212.9450**	**212.9450**	**0.0111**		**213.1787**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.2096	3.2763	13.4195	0.0332	2.1656	0.0479	2.2135	0.5791	0.0441	0.6232		2,833.1090	2,833.1090	0.1130		2,835.4814
Unmitigated	1.2096	3.2763	13.4195	0.0332	2.1656	0.0479	2.2135	0.5791	0.0441	0.6232		2,833.1090	2,833.1090	0.1130		2,835.4814

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	354.40	354.40	354.40	1,019,800	1,019,800
Total	354.40	354.40	354.40	1,019,800	1,019,800

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.532559	0.058242	0.178229	0.125155	0.038934	0.006273	0.016761	0.032323	0.002478	0.003154	0.003685	0.000544	0.001663

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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	1.8000e-004	2.0000e-005	1.8400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.8800e-003	3.8800e-003	1.0000e-005		4.1000e-003
Unmitigated	1.8000e-004	2.0000e-005	1.8400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.8800e-003	3.8800e-003	1.0000e-005		4.1000e-003

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					
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.8000e-004	2.0000e-005	1.8400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.8800e-003	3.8800e-003	1.0000e-005		4.1000e-003
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.8000e-004**	**2.0000e-005**	**1.8400e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**3.8800e-003**	**3.8800e-003**	**1.0000e-005**		**4.1000e-003**

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					
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.8000e-004	2.0000e-005	1.8400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.8800e-003	3.8800e-003	1.0000e-005		4.1000e-003
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.8000e-004**	**2.0000e-005**	**1.8400e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**3.8800e-003**	**3.8800e-003**	**1.0000e-005**		**4.1000e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Vegetation

Emerald Acres: Group B

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	17.72	Acre	17.72	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2017
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	515.47	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Modeled after Group B: Project # 2, 5, 7, 8, 12, 16; Group B does not contain construction of buildings/structures, as such, the Project is modeled with no building square feet.

Construction Phase - Based on the SCAQMD's Summary of a 1 Acre Site.

Off-road Equipment - Based on the SCAQMD's Summary of a 1 Acre Site

Off-road Equipment - Based on the SCAQMD's Summary of a 1 Acre Site

Off-road Equipment - Based on the SCAQMD's Summary of a 1 Acre Site

Off-road Equipment - Based on the SCAQMD's Summary of a 1 Acre Site

Off-road Equipment - Based on the SCAQMD's Summary of a 1 Acre Site

Demolition -

Grading -

Vehicle Trips - Trip rates based on Traffic Study and SANDAG's Not So Brief Guide of Vehicular Traffic Generation Rates

Area Coating -

Energy Use - .

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	30.00	2.00
tblConstructionPhase	NumDays	20.00	2.00
tblConstructionPhase	NumDays	10.00	1.00
tblLandUse	LandUseSquareFeet	771,883.20	0.00
tblOffRoadEquipment	HorsePower	174.00	97.00
tblOffRoadEquipment	LoadFactor	0.41	0.37
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	515.47
tblProjectCharacteristics	OperationalYear	2014	2017
tblVehicleTrips	ST_TR	1.59	20.00
tblVehicleTrips	SU_TR	1.59	20.00
tblVehicleTrips	WD_TR	1.59	20.00

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					
2017	2.4930	25.9228	19.1541	0.0230	6.6418	1.3842	8.0259	3.3912	1.2940	4.6646	0.0000	2,280.4057	2,280.4057	0.5767	0.0000	2,292.5153
Total	**2.4930**	**25.9228**	**19.1541**	**0.0230**	**6.6418**	**1.3842**	**8.0259**	**3.3912**	**1.2940**	**4.6646**	**0.0000**	**2,280.4057**	**2,280.4057**	**0.5767**	**0.0000**	**2,292.5153**

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					
2017	2.4930	25.9228	19.1541	0.0230	2.6448	1.3842	4.0290	1.3370	1.2940	2.6105	0.0000	2,280.4057	2,280.4057	0.5767	0.0000	2,292.5153
Total	**2.4930**	**25.9228**	**19.1541**	**0.0230**	**2.6448**	**1.3842**	**4.0290**	**1.3370**	**1.2940**	**2.6105**	**0.0000**	**2,280.4057**	**2,280.4057**	**0.5767**	**0.0000**	**2,292.5153**

	ROG	NOx	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**	**60.18**	**0.00**	**49.80**	**60.57**	**0.00**	**44.04**	**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	1.8000e-004	2.0000e-005	1.8400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.8800e-003	3.8800e-003	1.0000e-005		4.1000e-003
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	1.2719	3.4503	13.5304	0.0317	2.1656	0.0481	2.2137	0.5791	0.0443	0.6234		2,709.8078	2,709.8078	0.1131		2,712.1823
Total	**1.2721**	**3.4503**	**13.5322**	**0.0317**	**2.1656**	**0.0481**	**2.2137**	**0.5791**	**0.0443**	**0.6234**		**2,709.8116**	**2,709.8116**	**0.1131**	**0.0000**	**2,712.1864**

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	1.8000e-004	2.0000e-005	1.8400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.8800e-003	3.8800e-003	1.0000e-005		4.1000e-003
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	1.2719	3.4503	13.5304	0.0317	2.1656	0.0481	2.2137	0.5791	0.0443	0.6234		2,709.8078	2,709.8078	0.1131		2,712.1823
Total	**1.2721**	**3.4503**	**13.5322**	**0.0317**	**2.1656**	**0.0481**	**2.2137**	**0.5791**	**0.0443**	**0.6234**		**2,709.8116**	**2,709.8116**	**0.1131**	**0.0000**	**2,712.1864**

	ROG	NOx	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	5/5/2017	5/18/2017	5	10	
2	Site Preparation	Site Preparation	5/19/2017	5/19/2017	5	1	
3	Grading	Grading	5/20/2017	5/23/2017	5	2	
4	Paving & Site Finishes	Paving	5/24/2017	5/25/2017	5	2	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 1

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	1	8.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Graders	1	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Excavators	0	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	0	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Paving & Site Finishes	Cement and Mortar Mixers	4	8.00	9	0.56
Paving & Site Finishes	Pavers	1	8.00	125	0.42
Paving & Site Finishes	Paving Equipment	0	8.00	130	0.36
Paving & Site Finishes	Rollers	1	8.00	80	0.38
Paving & Site Finishes	Tractors/Loaders/Backhoes	1	8.00	97	0.37

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	4	10.00	0.00	4.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving & Site Finishes	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

Clean Paved Roads

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0788	0.0000	0.0788	0.0119	0.0000	0.0119			0.0000			0.0000
Off-Road	2.4048	23.5416	18.4774	0.0214		1.3773	1.3773		1.2916	1.2916		2,139.2032	2,139.2032	0.5260		2,150.2492
Total	**2.4048**	**23.5416**	**18.4774**	**0.0214**	**0.0788**	**1.3773**	**1.4560**	**0.0119**	**1.2916**	**1.3036**		**2,139.2032**	**2,139.2032**	**0.5260**		**2,150.2492**

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	7.0200e-003	0.1066	0.0890	3.0000e-004	6.9700e-003	1.5200e-003	8.4900e-003	1.9100e-003	1.4000e-003	3.3100e-003		29.5489	29.5489	2.2000e-004		29.5536
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	0.0416	0.0562	0.5878	1.3700e-003	0.1118	1.0100e-003	0.1128	0.0296	9.3000e-004	0.0306		111.6535	111.6535	6.1800e-003		111.7834
Total	**0.0486**	**0.1628**	**0.6768**	**1.6700e-003**	**0.1188**	**2.5300e-003**	**0.1213**	**0.0316**	**2.3300e-003**	**0.0339**		**141.2025**	**141.2025**	**6.4000e-003**		**141.3370**

3.2 Demolition - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0307	0.0000	0.0307	4.6500e-003	0.0000	4.6500e-003			0.0000			0.0000
Off-Road	2.4048	23.5416	18.4774	0.0214		1.3773	1.3773		1.2916	1.2916	0.0000	2,139.2032	2,139.2032	0.5260		2,150.2492
Total	**2.4048**	**23.5416**	**18.4774**	**0.0214**	**0.0307**	**1.3773**	**1.4080**	**4.6500e-003**	**1.2916**	**1.2963**	**0.0000**	**2,139.2032**	**2,139.2032**	**0.5260**		**2,150.2492**

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	7.0200e-003	0.1066	0.0890	3.0000e-004	6.9700e-003	1.5200e-003	8.4900e-003	1.9100e-003	1.4000e-003	3.3100e-003		29.5489	29.5489	2.2000e-004		29.5536
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	0.0416	0.0562	0.5878	1.3700e-003	0.1118	1.0100e-003	0.1128	0.0296	9.3000e-004	0.0306		111.6535	111.6535	6.1800e-003		111.7834
Total	**0.0486**	**0.1628**	**0.6768**	**1.6700e-003**	**0.1188**	**2.5300e-003**	**0.1213**	**0.0316**	**2.3300e-003**	**0.0339**		**141.2025**	**141.2025**	**6.4000e-003**		**141.3370**

3.3 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.0539	8.8619	5.4388	6.1700e-003		0.7090	0.7090		0.6523	0.6523		632.1771	632.1771	0.1937		636.2448
Total	**1.0539**	**8.8619**	**5.4388**	**6.1700e-003**	**0.5303**	**0.7090**	**1.2393**	**0.0573**	**0.6523**	**0.7096**		**632.1771**	**632.1771**	**0.1937**		**636.2448**

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	0.0208	0.0281	0.2939	6.9000e-004	0.0559	5.1000e-004	0.0564	0.0148	4.7000e-004	0.0153		55.8268	55.8268	3.0900e-003		55.8917
Total	**0.0208**	**0.0281**	**0.2939**	**6.9000e-004**	**0.0559**	**5.1000e-004**	**0.0564**	**0.0148**	**4.7000e-004**	**0.0153**		**55.8268**	**55.8268**	**3.0900e-003**		**55.8917**

3.3 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2068	0.0000	0.2068	0.0223	0.0000	0.0223			0.0000			0.0000
Off-Road	1.0539	8.8619	5.4388	6.1700e-003		0.7090	0.7090		0.6523	0.6523	0.0000	632.1771	632.1771	0.1937		636.2448
Total	**1.0539**	**8.8619**	**5.4388**	**6.1700e-003**	**0.2068**	**0.7090**	**0.9158**	**0.0223**	**0.6523**	**0.6747**	**0.0000**	**632.1771**	**632.1771**	**0.1937**		**636.2448**

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	0.0208	0.0281	0.2939	6.9000e-004	0.0559	5.1000e-004	0.0564	0.0148	4.7000e-004	0.0153		55.8268	55.8268	3.0900e-003		55.8917
Total	**0.0208**	**0.0281**	**0.2939**	**6.9000e-004**	**0.0559**	**5.1000e-004**	**0.0564**	**0.0148**	**4.7000e-004**	**0.0153**		**55.8268**	**55.8268**	**3.0900e-003**		**55.8917**

3.4 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.4597	25.8779	17.1725	0.0182		1.3833	1.3833		1.2727	1.2727		1,865.8750	1,865.8750	0.5717		1,877.8807
Total	**2.4597**	**25.8779**	**17.1725**	**0.0182**	**6.5523**	**1.3833**	**7.9357**	**3.3675**	**1.2727**	**4.6402**		**1,865.8750**	**1,865.8750**	**0.5717**		**1,877.8807**

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	0.0332	0.0450	0.4702	1.1000e-003	0.0894	8.1000e-004	0.0902	0.0237	7.5000e-004	0.0245		89.3228	89.3228	4.9500e-003		89.4267
Total	**0.0332**	**0.0450**	**0.4702**	**1.1000e-003**	**0.0894**	**8.1000e-004**	**0.0902**	**0.0237**	**7.5000e-004**	**0.0245**		**89.3228**	**89.3228**	**4.9500e-003**		**89.4267**

3.4 Grading - 2017

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					2.5554	0.0000	2.5554	1.3133	0.0000	1.3133			0.0000			0.0000
Off-Road	2.4597	25.8779	17.1725	0.0182		1.3833	1.3833		1.2727	1.2727	0.0000	1,865.8750	1,865.8750	0.5717		1,877.8807
Total	**2.4597**	**25.8779**	**17.1725**	**0.0182**	**2.5554**	**1.3833**	**3.9388**	**1.3133**	**1.2727**	**2.5860**	**0.0000**	**1,865.8750**	**1,865.8750**	**0.5717**		**1,877.8807**

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	0.0332	0.0450	0.4702	1.1000e-003	0.0894	8.1000e-004	0.0902	0.0237	7.5000e-004	0.0245		89.3228	89.3228	4.9500e-003		89.4267
Total	**0.0332**	**0.0450**	**0.4702**	**1.1000e-003**	**0.0894**	**8.1000e-004**	**0.0902**	**0.0237**	**7.5000e-004**	**0.0245**		**89.3228**	**89.3228**	**4.9500e-003**		**89.4267**

3.5 Paving & Site Finishes - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2228	11.4498	8.4541	0.0131		0.6961	0.6961		0.6451	0.6451		1,250.5083	1,250.5083	0.3422		1,257.6949
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2228**	**11.4498**	**8.4541**	**0.0131**		**0.6961**	**0.6961**		**0.6451**	**0.6451**		**1,250.5083**	**1,250.5083**	**0.3422**		**1,257.6949**

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	0.0748	0.1012	1.0580	2.4700e-003	0.2012	1.8200e-003	0.2030	0.0534	1.6800e-003	0.0550		200.9764	200.9764	0.0111		201.2101
Total	**0.0748**	**0.1012**	**1.0580**	**2.4700e-003**	**0.2012**	**1.8200e-003**	**0.2030**	**0.0534**	**1.6800e-003**	**0.0550**		**200.9764**	**200.9764**	**0.0111**		**201.2101**

3.5 Paving & Site Finishes - 2017

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	1.2228	11.4498	8.4541	0.0131		0.6961	0.6961		0.6451	0.6451	0.0000	1,250.5083	1,250.5083	0.3422		1,257.6949
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2228**	**11.4498**	**8.4541**	**0.0131**		**0.6961**	**0.6961**		**0.6451**	**0.6451**	**0.0000**	**1,250.5083**	**1,250.5083**	**0.3422**		**1,257.6949**

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	0.0748	0.1012	1.0580	2.4700e-003	0.2012	1.8200e-003	0.2030	0.0534	1.6800e-003	0.0550		200.9764	200.9764	0.0111		201.2101
Total	**0.0748**	**0.1012**	**1.0580**	**2.4700e-003**	**0.2012**	**1.8200e-003**	**0.2030**	**0.0534**	**1.6800e-003**	**0.0550**		**200.9764**	**200.9764**	**0.0111**		**201.2101**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.2719	3.4503	13.5304	0.0317	2.1656	0.0481	2.2137	0.5791	0.0443	0.6234		2,709.8078	2,709.8078	0.1131		2,712.1823
Unmitigated	1.2719	3.4503	13.5304	0.0317	2.1656	0.0481	2.2137	0.5791	0.0443	0.6234		2,709.8078	2,709.8078	0.1131		2,712.1823

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	354.40	354.40	354.40	1,019,800	1,019,800
Total	354.40	354.40	354.40	1,019,800	1,019,800

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.532559	0.058242	0.178229	0.125155	0.038934	0.006273	0.016761	0.032323	0.002478	0.003154	0.003685	0.000544	0.001663

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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	1.8000e-004	2.0000e-005	1.8400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.8800e-003	3.8800e-003	1.0000e-005		4.1000e-003
Unmitigated	1.8000e-004	2.0000e-005	1.8400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.8800e-003	3.8800e-003	1.0000e-005		4.1000e-003

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.8000e-004	2.0000e-005	1.8400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.8800e-003	3.8800e-003	1.0000e-005		4.1000e-003
Total	**1.8000e-004**	**2.0000e-005**	**1.8400e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**3.8800e-003**	**3.8800e-003**	**1.0000e-005**		**4.1000e-003**

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					
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.8000e-004	2.0000e-005	1.8400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.8800e-003	3.8800e-003	1.0000e-005		4.1000e-003
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.8000e-004**	**2.0000e-005**	**1.8400e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**3.8800e-003**	**3.8800e-003**	**1.0000e-005**		**4.1000e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Vegetation

Emerald Acres: Group C

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	4.53	Acre	4.53	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2017
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	515.47	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Modeled after Group C: Project # 3, 6, 13, 14, 15; Group C does not contain construction of buildings/structures, as such, the Project is modeled with no building square feet.

Construction Phase - Based on the SCAQMD's Summary of a 1 Acre Site.

Off-road Equipment - Based on the SCAQMD's Summary of a 1 Acre Site

Off-road Equipment - Based on the SCAQMD's Summary of a 1 Acre Site

Off-road Equipment - Based on the SCAQMD's Summary of a 1 Acre Site

Off-road Equipment - Based on the SCAQMD's Summary of a 1 Acre Site

Off-road Equipment - Based on the SCAQMD's Summary of a 1 Acre Site

Demolition -

Grading -

Vehicle Trips - Trip rates based on Traffic Study and SANDAG's Not So Brief Guide of Vehicular Traffic Generation Rates

Area Coating -

Energy Use - .

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	8.00	2.00
tblConstructionPhase	NumDays	18.00	2.00
tblConstructionPhase	NumDays	5.00	1.00
tblLandUse	LandUseSquareFeet	197,326.80	0.00
tblOffRoadEquipment	HorsePower	174.00	97.00
tblOffRoadEquipment	LoadFactor	0.41	0.37
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	515.47
tblProjectCharacteristics	OperationalYear	2014	2017
tblVehicleTrips	ST_TR	1.59	20.00
tblVehicleTrips	SU_TR	1.59	20.00
tblVehicleTrips	WD_TR	1.59	20.00

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					
2017	2.4917	25.9184	19.1821	0.0231	6.6418	1.3842	8.0259	3.3912	1.2940	4.6646	0.0000	2,287.1245	2,287.1245	0.5767	0.0000	2,299.2341
Total	**2.4917**	**25.9184**	**19.1821**	**0.0231**	**6.6418**	**1.3842**	**8.0259**	**3.3912**	**1.2940**	**4.6646**	**0.0000**	**2,287.1245**	**2,287.1245**	**0.5767**	**0.0000**	**2,299.2341**

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					
2017	2.4917	25.9184	19.1821	0.0231	2.6448	1.3842	4.0290	1.3370	1.2940	2.6105	0.0000	2,287.1245	2,287.1245	0.5767	0.0000	2,299.2341
Total	**2.4917**	**25.9184**	**19.1821**	**0.0231**	**2.6448**	**1.3842**	**4.0290**	**1.3370**	**1.2940**	**2.6105**	**0.0000**	**2,287.1245**	**2,287.1245**	**0.5767**	**0.0000**	**2,299.2341**

	ROG	NOx	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**	**60.18**	**0.00**	**49.80**	**60.57**	**0.00**	**44.04**	**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	5.0000e-005	0.0000	4.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.9000e-004	9.9000e-004	0.0000		1.0500e-003
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	0.3092	0.8376	3.4306	8.4800e-003	0.5536	0.0123	0.5659	0.1480	0.0113	0.1593		724.2655	724.2655	0.0289		724.8720
Total	**0.3093**	**0.8376**	**3.4311**	**8.4800e-003**	**0.5536**	**0.0123**	**0.5659**	**0.1480**	**0.0113**	**0.1593**		**724.2664**	**724.2664**	**0.0289**	**0.0000**	**724.8730**

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	5.0000e-005	0.0000	4.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.9000e-004	9.9000e-004	0.0000		1.0500e-003
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	0.3092	0.8376	3.4306	8.4800e-003	0.5536	0.0123	0.5659	0.1480	0.0113	0.1593		724.2655	724.2655	0.0289		724.8720
Total	**0.3093**	**0.8376**	**3.4311**	**8.4800e-003**	**0.5536**	**0.0123**	**0.5659**	**0.1480**	**0.0113**	**0.1593**		**724.2664**	**724.2664**	**0.0289**	**0.0000**	**724.8730**

	ROG	NOx	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	5/26/2017	6/8/2017	5	10	
2	Site Preparation	Site Preparation	6/9/2017	6/9/2017	5	1	
3	Grading	Grading	6/10/2017	6/13/2017	5	2	
4	Paving & Site Finishes	Paving	6/14/2017	6/15/2017	5	2	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 1

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	1	8.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Graders	1	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Excavators	0	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	0	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Paving & Site Finishes	Cement and Mortar Mixers	4	8.00	9	0.56
Paving & Site Finishes	Pavers	1	8.00	125	0.42
Paving & Site Finishes	Paving Equipment	0	8.00	130	0.36
Paving & Site Finishes	Rollers	1	8.00	80	0.38
Paving & Site Finishes	Tractors/Loaders/Backhoes	1	8.00	97	0.37

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	4	10.00	0.00	4.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving & Site Finishes	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

Clean Paved Roads

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0788	0.0000	0.0788	0.0119	0.0000	0.0119			0.0000			0.0000
Off-Road	2.4048	23.5416	18.4774	0.0214		1.3773	1.3773		1.2916	1.2916		2,139.2032	2,139.2032	0.5260		2,150.2492
Total	**2.4048**	**23.5416**	**18.4774**	**0.0214**	**0.0788**	**1.3773**	**1.4560**	**0.0119**	**1.2916**	**1.3036**		**2,139.2032**	**2,139.2032**	**0.5260**		**2,150.2492**

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	6.6600e-003	0.1030	0.0762	3.0000e-004	6.9700e-003	1.5200e-003	8.4800e-003	1.9100e-003	1.4000e-003	3.3000e-003		29.6185	29.6185	2.2000e-004		29.6231
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	0.0400	0.0507	0.6285	1.4500e-003	0.1118	1.0100e-003	0.1128	0.0296	9.3000e-004	0.0306		118.3028	118.3028	6.1800e-003		118.4326
Total	**0.0467**	**0.1537**	**0.7048**	**1.7500e-003**	**0.1188**	**2.5300e-003**	**0.1213**	**0.0316**	**2.3300e-003**	**0.0339**		**147.9213**	**147.9213**	**6.4000e-003**		**148.0557**

3.2 Demolition - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0307	0.0000	0.0307	4.6500e-003	0.0000	4.6500e-003			0.0000			0.0000
Off-Road	2.4048	23.5416	18.4774	0.0214		1.3773	1.3773		1.2916	1.2916	0.0000	2,139.2032	2,139.2032	0.5260		2,150.2492
Total	**2.4048**	**23.5416**	**18.4774**	**0.0214**	**0.0307**	**1.3773**	**1.4080**	**4.6500e-003**	**1.2916**	**1.2963**	**0.0000**	**2,139.2032**	**2,139.2032**	**0.5260**		**2,150.2492**

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	6.6600e-003	0.1030	0.0762	3.0000e-004	6.9700e-003	1.5200e-003	8.4800e-003	1.9100e-003	1.4000e-003	3.3000e-003		29.6185	29.6185	2.2000e-004		29.6231
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	0.0400	0.0507	0.6285	1.4500e-003	0.1118	1.0100e-003	0.1128	0.0296	9.3000e-004	0.0306		118.3028	118.3028	6.1800e-003		118.4326
Total	**0.0467**	**0.1537**	**0.7048**	**1.7500e-003**	**0.1188**	**2.5300e-003**	**0.1213**	**0.0316**	**2.3300e-003**	**0.0339**		**147.9213**	**147.9213**	**6.4000e-003**		**148.0557**

3.3 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.0539	8.8619	5.4388	6.1700e-003		0.7090	0.7090		0.6523	0.6523		632.1771	632.1771	0.1937		636.2448
Total	**1.0539**	**8.8619**	**5.4388**	**6.1700e-003**	**0.5303**	**0.7090**	**1.2393**	**0.0573**	**0.6523**	**0.7096**		**632.1771**	**632.1771**	**0.1937**		**636.2448**

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	0.0200	0.0254	0.3143	7.3000e-004	0.0559	5.1000e-004	0.0564	0.0148	4.7000e-004	0.0153		59.1514	59.1514	3.0900e-003		59.2163
Total	**0.0200**	**0.0254**	**0.3143**	**7.3000e-004**	**0.0559**	**5.1000e-004**	**0.0564**	**0.0148**	**4.7000e-004**	**0.0153**		**59.1514**	**59.1514**	**3.0900e-003**		**59.2163**

3.3 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2068	0.0000	0.2068	0.0223	0.0000	0.0223			0.0000			0.0000
Off-Road	1.0539	8.8619	5.4388	6.1700e-003		0.7090	0.7090		0.6523	0.6523	0.0000	632.1771	632.1771	0.1937		636.2448
Total	**1.0539**	**8.8619**	**5.4388**	**6.1700e-003**	**0.2068**	**0.7090**	**0.9158**	**0.0223**	**0.6523**	**0.6747**	**0.0000**	**632.1771**	**632.1771**	**0.1937**		**636.2448**

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	0.0200	0.0254	0.3143	7.3000e-004	0.0559	5.1000e-004	0.0564	0.0148	4.7000e-004	0.0153		59.1514	59.1514	3.0900e-003		59.2163
Total	**0.0200**	**0.0254**	**0.3143**	**7.3000e-004**	**0.0559**	**5.1000e-004**	**0.0564**	**0.0148**	**4.7000e-004**	**0.0153**		**59.1514**	**59.1514**	**3.0900e-003**		**59.2163**

3.4 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.4597	25.8779	17.1725	0.0182		1.3833	1.3833		1.2727	1.2727		1,865.8750	1,865.8750	0.5717		1,877.8807
Total	**2.4597**	**25.8779**	**17.1725**	**0.0182**	**6.5523**	**1.3833**	**7.9357**	**3.3675**	**1.2727**	**4.6402**		**1,865.8750**	**1,865.8750**	**0.5717**		**1,877.8807**

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	0.0320	0.0406	0.5028	1.1600e-003	0.0894	8.1000e-004	0.0902	0.0237	7.5000e-004	0.0245		94.6422	94.6422	4.9500e-003		94.7461
Total	**0.0320**	**0.0406**	**0.5028**	**1.1600e-003**	**0.0894**	**8.1000e-004**	**0.0902**	**0.0237**	**7.5000e-004**	**0.0245**		**94.6422**	**94.6422**	**4.9500e-003**		**94.7461**

3.4 Grading - 2017

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					2.5554	0.0000	2.5554	1.3133	0.0000	1.3133			0.0000			0.0000
Off-Road	2.4597	25.8779	17.1725	0.0182		1.3833	1.3833		1.2727	1.2727	0.0000	1,865.8750	1,865.8750	0.5717		1,877.8807
Total	**2.4597**	**25.8779**	**17.1725**	**0.0182**	**2.5554**	**1.3833**	**3.9388**	**1.3133**	**1.2727**	**2.5860**	**0.0000**	**1,865.8750**	**1,865.8750**	**0.5717**		**1,877.8807**

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	0.0320	0.0406	0.5028	1.1600e-003	0.0894	8.1000e-004	0.0902	0.0237	7.5000e-004	0.0245		94.6422	94.6422	4.9500e-003		94.7461
Total	**0.0320**	**0.0406**	**0.5028**	**1.1600e-003**	**0.0894**	**8.1000e-004**	**0.0902**	**0.0237**	**7.5000e-004**	**0.0245**		**94.6422**	**94.6422**	**4.9500e-003**		**94.7461**

3.5 Paving & Site Finishes - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2228	11.4498	8.4541	0.0131		0.6961	0.6961		0.6451	0.6451		1,250.5083	1,250.5083	0.3422		1,257.6949
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2228**	**11.4498**	**8.4541**	**0.0131**		**0.6961**	**0.6961**		**0.6451**	**0.6451**		**1,250.5083**	**1,250.5083**	**0.3422**		**1,257.6949**

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	0.0720	0.0913	1.1313	2.6200e-003	0.2012	1.8200e-003	0.2030	0.0534	1.6800e-003	0.0550		212.9450	212.9450	0.0111		213.1787
Total	**0.0720**	**0.0913**	**1.1313**	**2.6200e-003**	**0.2012**	**1.8200e-003**	**0.2030**	**0.0534**	**1.6800e-003**	**0.0550**		**212.9450**	**212.9450**	**0.0111**		**213.1787**

3.5 Paving & Site Finishes - 2017

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	1.2228	11.4498	8.4541	0.0131		0.6961	0.6961		0.6451	0.6451	0.0000	1,250.5083	1,250.5083	0.3422		1,257.6949
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2228**	**11.4498**	**8.4541**	**0.0131**		**0.6961**	**0.6961**		**0.6451**	**0.6451**	**0.0000**	**1,250.5083**	**1,250.5083**	**0.3422**		**1,257.6949**

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	0.0720	0.0913	1.1313	2.6200e-003	0.2012	1.8200e-003	0.2030	0.0534	1.6800e-003	0.0550		212.9450	212.9450	0.0111		213.1787
Total	**0.0720**	**0.0913**	**1.1313**	**2.6200e-003**	**0.2012**	**1.8200e-003**	**0.2030**	**0.0534**	**1.6800e-003**	**0.0550**		**212.9450**	**212.9450**	**0.0111**		**213.1787**

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	0.3092	0.8376	3.4306	8.4800e-003	0.5536	0.0123	0.5659	0.1480	0.0113	0.1593		724.2655	724.2655	0.0289		724.8720
Unmitigated	0.3092	0.8376	3.4306	8.4800e-003	0.5536	0.0123	0.5659	0.1480	0.0113	0.1593		724.2655	724.2655	0.0289		724.8720

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	90.60	90.60	90.60	260,705	260,705
Total	90.60	90.60	90.60	260,705	260,705

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.532559	0.058242	0.178229	0.125155	0.038934	0.006273	0.016761	0.032323	0.002478	0.003154	0.003685	0.000544	0.001663

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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	5.0000e-005	0.0000	4.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.9000e-004	9.9000e-004	0.0000		1.0500e-003
Unmitigated	5.0000e-005	0.0000	4.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.9000e-004	9.9000e-004	0.0000		1.0500e-003

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					
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.0000e-005	0.0000	4.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.9000e-004	9.9000e-004	0.0000		1.0500e-003
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**5.0000e-005**	**0.0000**	**4.7000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**9.9000e-004**	**9.9000e-004**	**0.0000**		**1.0500e-003**

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					
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.0000e-005	0.0000	4.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.9000e-004	9.9000e-004	0.0000		1.0500e-003
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**5.0000e-005**	**0.0000**	**4.7000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**9.9000e-004**	**9.9000e-004**	**0.0000**		**1.0500e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Vegetation

Emerald Acres: Group C

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	4.53	Acre	4.53	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2017
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	515.47	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Modeled after Group C: Project # 3, 6, 13, 14, 15; Group C does not contain construction of buildings/structures, as such, the Project is modeled with no building square feet.

Construction Phase - Based on the SCAQMD's Summary of a 1 Acre Site.

Off-road Equipment - Based on the SCAQMD's Summary of a 1 Acre Site

Off-road Equipment - Based on the SCAQMD's Summary of a 1 Acre Site

Off-road Equipment - Based on the SCAQMD's Summary of a 1 Acre Site

Off-road Equipment - Based on the SCAQMD's Summary of a 1 Acre Site

Off-road Equipment - Based on the SCAQMD's Summary of a 1 Acre Site

Demolition -

Grading -

Vehicle Trips - Trip rates based on Traffic Study and SANDAG's Not So Brief Guide of Vehicular Traffic Generation Rates

Area Coating -

Energy Use - .

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	8.00	2.00
tblConstructionPhase	NumDays	18.00	2.00
tblConstructionPhase	NumDays	5.00	1.00
tblLandUse	LandUseSquareFeet	197,326.80	0.00
tblOffRoadEquipment	HorsePower	174.00	97.00
tblOffRoadEquipment	LoadFactor	0.41	0.37
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	515.47
tblProjectCharacteristics	OperationalYear	2014	2017
tblVehicleTrips	ST_TR	1.59	20.00
tblVehicleTrips	SU_TR	1.59	20.00
tblVehicleTrips	WD_TR	1.59	20.00

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					
2017	2.4930	25.9228	19.1541	0.0230	6.6418	1.3842	8.0259	3.3912	1.2940	4.6646	0.0000	2,280.4057	2,280.4057	0.5767	0.0000	2,292.5153
Total	**2.4930**	**25.9228**	**19.1541**	**0.0230**	**6.6418**	**1.3842**	**8.0259**	**3.3912**	**1.2940**	**4.6646**	**0.0000**	**2,280.4057**	**2,280.4057**	**0.5767**	**0.0000**	**2,292.5153**

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					
2017	2.4930	25.9228	19.1541	0.0230	2.6448	1.3842	4.0290	1.3370	1.2940	2.6105	0.0000	2,280.4057	2,280.4057	0.5767	0.0000	2,292.5153
Total	**2.4930**	**25.9228**	**19.1541**	**0.0230**	**2.6448**	**1.3842**	**4.0290**	**1.3370**	**1.2940**	**2.6105**	**0.0000**	**2,280.4057**	**2,280.4057**	**0.5767**	**0.0000**	**2,292.5153**

	ROG	NOx	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**	**60.18**	**0.00**	**49.80**	**60.57**	**0.00**	**44.04**	**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	5.0000e-005	0.0000	4.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.9000e-004	9.9000e-004	0.0000		1.0500e-003
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	0.3252	0.8820	3.4590	8.1000e-003	0.5536	0.0123	0.5659	0.1480	0.0113	0.1594		692.7443	692.7443	0.0289		693.3514
Total	**0.3252**	**0.8820**	**3.4594**	**8.1000e-003**	**0.5536**	**0.0123**	**0.5659**	**0.1480**	**0.0113**	**0.1594**		**692.7453**	**692.7453**	**0.0289**	**0.0000**	**693.3524**

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	5.0000e-005	0.0000	4.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.9000e-004	9.9000e-004	0.0000		1.0500e-003
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	0.3252	0.8820	3.4590	8.1000e-003	0.5536	0.0123	0.5659	0.1480	0.0113	0.1594		692.7443	692.7443	0.0289		693.3514
Total	**0.3252**	**0.8820**	**3.4594**	**8.1000e-003**	**0.5536**	**0.0123**	**0.5659**	**0.1480**	**0.0113**	**0.1594**		**692.7453**	**692.7453**	**0.0289**	**0.0000**	**693.3524**

	ROG	NOx	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	5/26/2017	6/8/2017	5	10	
2	Site Preparation	Site Preparation	6/9/2017	6/9/2017	5	1	
3	Grading	Grading	6/10/2017	6/13/2017	5	2	
4	Paving & Site Finishes	Paving	6/14/2017	6/15/2017	5	2	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 1

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	1	8.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Graders	1	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Excavators	0	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	0	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Paving & Site Finishes	Cement and Mortar Mixers	4	8.00	9	0.56
Paving & Site Finishes	Pavers	1	8.00	125	0.42
Paving & Site Finishes	Paving Equipment	0	8.00	130	0.36
Paving & Site Finishes	Rollers	1	8.00	80	0.38
Paving & Site Finishes	Tractors/Loaders/Backhoes	1	8.00	97	0.37

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	4	10.00	0.00	4.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving & Site Finishes	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

Clean Paved Roads

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0788	0.0000	0.0788	0.0119	0.0000	0.0119			0.0000			0.0000
Off-Road	2.4048	23.5416	18.4774	0.0214		1.3773	1.3773		1.2916	1.2916		2,139.2032	2,139.2032	0.5260		2,150.2492
Total	**2.4048**	**23.5416**	**18.4774**	**0.0214**	**0.0788**	**1.3773**	**1.4560**	**0.0119**	**1.2916**	**1.3036**		**2,139.2032**	**2,139.2032**	**0.5260**		**2,150.2492**

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	7.0200e-003	0.1066	0.0890	3.0000e-004	6.9700e-003	1.5200e-003	8.4900e-003	1.9100e-003	1.4000e-003	3.3100e-003		29.5489	29.5489	2.2000e-004		29.5536
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	0.0416	0.0562	0.5878	1.3700e-003	0.1118	1.0100e-003	0.1128	0.0296	9.3000e-004	0.0306		111.6535	111.6535	6.1800e-003		111.7834
Total	**0.0486**	**0.1628**	**0.6768**	**1.6700e-003**	**0.1188**	**2.5300e-003**	**0.1213**	**0.0316**	**2.3300e-003**	**0.0339**		**141.2025**	**141.2025**	**6.4000e-003**		**141.3370**

3.2 Demolition - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0307	0.0000	0.0307	4.6500e-003	0.0000	4.6500e-003			0.0000			0.0000
Off-Road	2.4048	23.5416	18.4774	0.0214		1.3773	1.3773		1.2916	1.2916	0.0000	2,139.2032	2,139.2032	0.5260		2,150.2492
Total	**2.4048**	**23.5416**	**18.4774**	**0.0214**	**0.0307**	**1.3773**	**1.4080**	**4.6500e-003**	**1.2916**	**1.2963**	**0.0000**	**2,139.2032**	**2,139.2032**	**0.5260**		**2,150.2492**

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	7.0200e-003	0.1066	0.0890	3.0000e-004	6.9700e-003	1.5200e-003	8.4900e-003	1.9100e-003	1.4000e-003	3.3100e-003		29.5489	29.5489	2.2000e-004		29.5536
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	0.0416	0.0562	0.5878	1.3700e-003	0.1118	1.0100e-003	0.1128	0.0296	9.3000e-004	0.0306		111.6535	111.6535	6.1800e-003		111.7834
Total	**0.0486**	**0.1628**	**0.6768**	**1.6700e-003**	**0.1188**	**2.5300e-003**	**0.1213**	**0.0316**	**2.3300e-003**	**0.0339**		**141.2025**	**141.2025**	**6.4000e-003**		**141.3370**

3.3 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.0539	8.8619	5.4388	6.1700e-003		0.7090	0.7090		0.6523	0.6523		632.1771	632.1771	0.1937		636.2448
Total	**1.0539**	**8.8619**	**5.4388**	**6.1700e-003**	**0.5303**	**0.7090**	**1.2393**	**0.0573**	**0.6523**	**0.7096**		**632.1771**	**632.1771**	**0.1937**		**636.2448**

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	0.0208	0.0281	0.2939	6.9000e-004	0.0559	5.1000e-004	0.0564	0.0148	4.7000e-004	0.0153		55.8268	55.8268	3.0900e-003		55.8917
Total	**0.0208**	**0.0281**	**0.2939**	**6.9000e-004**	**0.0559**	**5.1000e-004**	**0.0564**	**0.0148**	**4.7000e-004**	**0.0153**		**55.8268**	**55.8268**	**3.0900e-003**		**55.8917**

3.3 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2068	0.0000	0.2068	0.0223	0.0000	0.0223			0.0000			0.0000
Off-Road	1.0539	8.8619	5.4388	6.1700e-003		0.7090	0.7090		0.6523	0.6523	0.0000	632.1771	632.1771	0.1937		636.2448
Total	**1.0539**	**8.8619**	**5.4388**	**6.1700e-003**	**0.2068**	**0.7090**	**0.9158**	**0.0223**	**0.6523**	**0.6747**	**0.0000**	**632.1771**	**632.1771**	**0.1937**		**636.2448**

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	0.0208	0.0281	0.2939	6.9000e-004	0.0559	5.1000e-004	0.0564	0.0148	4.7000e-004	0.0153		55.8268	55.8268	3.0900e-003		55.8917
Total	**0.0208**	**0.0281**	**0.2939**	**6.9000e-004**	**0.0559**	**5.1000e-004**	**0.0564**	**0.0148**	**4.7000e-004**	**0.0153**		**55.8268**	**55.8268**	**3.0900e-003**		**55.8917**

3.4 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.4597	25.8779	17.1725	0.0182		1.3833	1.3833		1.2727	1.2727		1,865.8750	1,865.8750	0.5717		1,877.8807
Total	**2.4597**	**25.8779**	**17.1725**	**0.0182**	**6.5523**	**1.3833**	**7.9357**	**3.3675**	**1.2727**	**4.6402**		**1,865.8750**	**1,865.8750**	**0.5717**		**1,877.8807**

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	0.0332	0.0450	0.4702	1.1000e-003	0.0894	8.1000e-004	0.0902	0.0237	7.5000e-004	0.0245		89.3228	89.3228	4.9500e-003		89.4267
Total	**0.0332**	**0.0450**	**0.4702**	**1.1000e-003**	**0.0894**	**8.1000e-004**	**0.0902**	**0.0237**	**7.5000e-004**	**0.0245**		**89.3228**	**89.3228**	**4.9500e-003**		**89.4267**

3.4 Grading - 2017

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					2.5554	0.0000	2.5554	1.3133	0.0000	1.3133			0.0000			0.0000
Off-Road	2.4597	25.8779	17.1725	0.0182		1.3833	1.3833		1.2727	1.2727	0.0000	1,865.8750	1,865.8750	0.5717		1,877.8807
Total	**2.4597**	**25.8779**	**17.1725**	**0.0182**	**2.5554**	**1.3833**	**3.9388**	**1.3133**	**1.2727**	**2.5860**	**0.0000**	**1,865.8750**	**1,865.8750**	**0.5717**		**1,877.8807**

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	0.0332	0.0450	0.4702	1.1000e-003	0.0894	8.1000e-004	0.0902	0.0237	7.5000e-004	0.0245		89.3228	89.3228	4.9500e-003		89.4267
Total	**0.0332**	**0.0450**	**0.4702**	**1.1000e-003**	**0.0894**	**8.1000e-004**	**0.0902**	**0.0237**	**7.5000e-004**	**0.0245**		**89.3228**	**89.3228**	**4.9500e-003**		**89.4267**

3.5 Paving & Site Finishes - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2228	11.4498	8.4541	0.0131		0.6961	0.6961		0.6451	0.6451		1,250.5083	1,250.5083	0.3422		1,257.6949
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2228**	**11.4498**	**8.4541**	**0.0131**		**0.6961**	**0.6961**		**0.6451**	**0.6451**		**1,250.5083**	**1,250.5083**	**0.3422**		**1,257.6949**

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	0.0748	0.1012	1.0580	2.4700e-003	0.2012	1.8200e-003	0.2030	0.0534	1.6800e-003	0.0550		200.9764	200.9764	0.0111		201.2101
Total	**0.0748**	**0.1012**	**1.0580**	**2.4700e-003**	**0.2012**	**1.8200e-003**	**0.2030**	**0.0534**	**1.6800e-003**	**0.0550**		**200.9764**	**200.9764**	**0.0111**		**201.2101**

3.5 Paving & Site Finishes - 2017

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	1.2228	11.4498	8.4541	0.0131		0.6961	0.6961		0.6451	0.6451	0.0000	1,250.5083	1,250.5083	0.3422		1,257.6949
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2228**	**11.4498**	**8.4541**	**0.0131**		**0.6961**	**0.6961**		**0.6451**	**0.6451**	**0.0000**	**1,250.5083**	**1,250.5083**	**0.3422**		**1,257.6949**

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	0.0748	0.1012	1.0580	2.4700e-003	0.2012	1.8200e-003	0.2030	0.0534	1.6800e-003	0.0550		200.9764	200.9764	0.0111		201.2101
Total	**0.0748**	**0.1012**	**1.0580**	**2.4700e-003**	**0.2012**	**1.8200e-003**	**0.2030**	**0.0534**	**1.6800e-003**	**0.0550**		**200.9764**	**200.9764**	**0.0111**		**201.2101**

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	0.3252	0.8820	3.4590	8.1000e-003	0.5536	0.0123	0.5659	0.1480	0.0113	0.1594		692.7443	692.7443	0.0289		693.3514
Unmitigated	0.3252	0.8820	3.4590	8.1000e-003	0.5536	0.0123	0.5659	0.1480	0.0113	0.1594		692.7443	692.7443	0.0289		693.3514

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	90.60	90.60	90.60	260,705	260,705
Total	90.60	90.60	90.60	260,705	260,705

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.532559	0.058242	0.178229	0.125155	0.038934	0.006273	0.016761	0.032323	0.002478	0.003154	0.003685	0.000544	0.001663

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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	5.0000e-005	0.0000	4.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.9000e-004	9.9000e-004	0.0000		1.0500e-003
Unmitigated	5.0000e-005	0.0000	4.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.9000e-004	9.9000e-004	0.0000		1.0500e-003

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.0000e-005	0.0000	4.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.9000e-004	9.9000e-004	0.0000		1.0500e-003
Total	**5.0000e-005**	**0.0000**	**4.7000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**9.9000e-004**	**9.9000e-004**	**0.0000**		**1.0500e-003**

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					
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.0000e-005	0.0000	4.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.9000e-004	9.9000e-004	0.0000		1.0500e-003
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**5.0000e-005**	**0.0000**	**4.7000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**9.9000e-004**	**9.9000e-004**	**0.0000**		**1.0500e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Vegetation

Emerald Acres: Group D

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	1.60	Acre	1.60	9,900.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2017
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	515.47	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Modeled after Group D: Project 9, 10; "Square Feet" accounts for construction of bridges

Construction Phase - Based on the SCAQMD's Summary of a 1 Acre Site. Building Construction phase based on defaults. Since the Group includes the construction of bridges, not building structures, the number of days are halved

Off-road Equipment - Based on the SCAQMD's Summary of a 1 Acre Site

Off-road Equipment - Based on the SCAQMD's Summary of a 1 Acre Site

Off-road Equipment - Based on the SCAQMD's Summary of a 1 Acre Site

Off-road Equipment - Based on the SCAQMD's Summary of a 1 Acre Site

Off-road Equipment - Based on the SCAQMD's Summary of a 1 Acre Site

Trips and VMT -

Demolition -

Grading -

Vehicle Trips - Trip rates based on Traffic Study and SANDAG's Not So Brief Guide of Vehicular Traffic Generation Rates

Area Coating -

Energy Use - .

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	200.00	115.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	4.00	2.00
tblConstructionPhase	NumDays	10.00	2.00
tblConstructionPhase	NumDays	2.00	1.00
tblGrading	MaterialImported	0.00	3,000.00
tblLandUse	LandUseSquareFeet	69,696.00	9,900.00
tblOffRoadEquipment	HorsePower	174.00	97.00

tblOffRoadEquipment	LoadFactor	0.41	0.37
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	515.47
tblProjectCharacteristics	OperationalYear	2014	2017
tblVehicleTrips	ST_TR	1.59	20.00
tblVehicleTrips	SU_TR	1.59	20.00
tblVehicleTrips	WD_TR	1.59	20.00

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					
2017	5.6147	74.1942	53.4146	0.1593	10.0772	2.0951	12.1723	4.3111	1.9275	6.2386	0.0000	15,844.1877	15,844.1877	0.6790	0.0000	15,858.4461
Total	**5.6147**	**74.1942**	**53.4146**	**0.1593**	**10.0772**	**2.0951**	**12.1723**	**4.3111**	**1.9275**	**6.2386**	**0.0000**	**15,844.1877**	**15,844.1877**	**0.6790**	**0.0000**	**15,858.4461**

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					
2017	5.6147	74.1942	53.4146	0.1593	5.9768	2.0951	8.0719	2.2413	1.9275	4.1687	0.0000	15,844.1877	15,844.1877	0.6790	0.0000	15,858.4461
Total	**5.6147**	**74.1942**	**53.4146**	**0.1593**	**5.9768**	**2.0951**	**8.0719**	**2.2413**	**1.9275**	**4.1687**	**0.0000**	**15,844.1877**	**15,844.1877**	**0.6790**	**0.0000**	**15,858.4461**

	ROG	NOx	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**	**40.69**	**0.00**	**33.69**	**48.01**	**0.00**	**33.18**	**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	0.2589	0.0000	1.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.5000e-004	3.5000e-004	0.0000		3.7000e-004
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	0.1092	0.2958	1.2117	3.0000e-003	0.1955	4.3300e-003	0.1999	0.0523	3.9800e-003	0.0563		255.8112	255.8112	0.0102		256.0254
Total	**0.3681**	**0.2958**	**1.2119**	**3.0000e-003**	**0.1955**	**4.3300e-003**	**0.1999**	**0.0523**	**3.9800e-003**	**0.0563**		**255.8116**	**255.8116**	**0.0102**	**0.0000**	**256.0258**

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	0.2589	0.0000	1.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.5000e-004	3.5000e-004	0.0000		3.7000e-004
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	0.1092	0.2958	1.2117	3.0000e-003	0.1955	4.3300e-003	0.1999	0.0523	3.9800e-003	0.0563		255.8112	255.8112	0.0102		256.0254
Total	**0.3681**	**0.2958**	**1.2119**	**3.0000e-003**	**0.1955**	**4.3300e-003**	**0.1999**	**0.0523**	**3.9800e-003**	**0.0563**		**255.8116**	**255.8116**	**0.0102**	**0.0000**	**256.0258**

	ROG	NOx	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	6/16/2017	6/29/2017	5	10	
2	Site Preparation	Site Preparation	6/30/2017	6/30/2017	5	1	
3	Grading	Grading	7/1/2017	7/4/2017	5	2	
4	Building Construction	Building Construction	7/5/2017	12/12/2017	5	115	
5	Paving	Paving	12/13/2017	12/14/2017	5	2	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 1

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	1	8.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Graders	1	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Excavators	0	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	1	8.00	226	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	4	8.00	9	0.56
Paving	Pavers	1	8.00	125	0.42
Paving	Paving Equipment	0	8.00	130	0.36
Paving	Rollers	1	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

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	4	10.00	0.00	4.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	375.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	4.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	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

Clean Paved Roads

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0788	0.0000	0.0788	0.0119	0.0000	0.0119			0.0000			0.0000
Off-Road	2.4048	23.5416	18.4774	0.0214		1.3773	1.3773		1.2916	1.2916		2,139.2032	2,139.2032	0.5260		2,150.2492
Total	**2.4048**	**23.5416**	**18.4774**	**0.0214**	**0.0788**	**1.3773**	**1.4560**	**0.0119**	**1.2916**	**1.3036**		**2,139.2032**	**2,139.2032**	**0.5260**		**2,150.2492**

3.2 Demolition - 2017

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	6.6600e-003	0.1030	0.0762	3.0000e-004	6.9700e-003	1.5200e-003	8.4800e-003	1.9100e-003	1.4000e-003	3.3000e-003		29.6185	29.6185	2.2000e-004		29.6231
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	0.0400	0.0507	0.6285	1.4500e-003	0.1118	1.0100e-003	0.1128	0.0296	9.3000e-004	0.0306		118.3028	118.3028	6.1800e-003		118.4326
Total	**0.0467**	**0.1537**	**0.7048**	**1.7500e-003**	**0.1188**	**2.5300e-003**	**0.1213**	**0.0316**	**2.3300e-003**	**0.0339**		**147.9213**	**147.9213**	**6.4000e-003**		**148.0557**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0307	0.0000	0.0307	4.6500e-003	0.0000	4.6500e-003			0.0000			0.0000
Off-Road	2.4048	23.5416	18.4774	0.0214		1.3773	1.3773		1.2916	1.2916	0.0000	2,139.2032	2,139.2032	0.5260		2,150.2492
Total	**2.4048**	**23.5416**	**18.4774**	**0.0214**	**0.0307**	**1.3773**	**1.4080**	**4.6500e-003**	**1.2916**	**1.2963**	**0.0000**	**2,139.2032**	**2,139.2032**	**0.5260**		**2,150.2492**

3.2 Demolition - 2017

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	6.6600e-003	0.1030	0.0762	3.0000e-004	6.9700e-003	1.5200e-003	8.4800e-003	1.9100e-003	1.4000e-003	3.3000e-003		29.6185	29.6185	2.2000e-004		29.6231
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	0.0400	0.0507	0.6285	1.4500e-003	0.1118	1.0100e-003	0.1128	0.0296	9.3000e-004	0.0306		118.3028	118.3028	6.1800e-003		118.4326
Total	**0.0467**	**0.1537**	**0.7048**	**1.7500e-003**	**0.1188**	**2.5300e-003**	**0.1213**	**0.0316**	**2.3300e-003**	**0.0339**		**147.9213**	**147.9213**	**6.4000e-003**		**148.0557**

3.3 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.0539	8.8619	5.4388	6.1700e-003		0.7090	0.7090		0.6523	0.6523		632.1771	632.1771	0.1937		636.2448
Total	**1.0539**	**8.8619**	**5.4388**	**6.1700e-003**	**0.5303**	**0.7090**	**1.2393**	**0.0573**	**0.6523**	**0.7096**		**632.1771**	**632.1771**	**0.1937**		**636.2448**

3.3 Site Preparation - 2017

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	0.0200	0.0254	0.3143	7.3000e-004	0.0559	5.1000e-004	0.0564	0.0148	4.7000e-004	0.0153		59.1514	59.1514	3.0900e-003		59.2163
Total	**0.0200**	**0.0254**	**0.3143**	**7.3000e-004**	**0.0559**	**5.1000e-004**	**0.0564**	**0.0148**	**4.7000e-004**	**0.0153**		**59.1514**	**59.1514**	**3.0900e-003**		**59.2163**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2068	0.0000	0.2068	0.0223	0.0000	0.0223			0.0000			0.0000
Off-Road	1.0539	8.8619	5.4388	6.1700e-003		0.7090	0.7090		0.6523	0.6523	0.0000	632.1771	632.1771	0.1937		636.2448
Total	**1.0539**	**8.8619**	**5.4388**	**6.1700e-003**	**0.2068**	**0.7090**	**0.9158**	**0.0223**	**0.6523**	**0.6747**	**0.0000**	**632.1771**	**632.1771**	**0.1937**		**636.2448**

3.3 Site Preparation - 2017

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	0.0200	0.0254	0.3143	7.3000e-004	0.0559	5.1000e-004	0.0564	0.0148	4.7000e-004	0.0153		59.1514	59.1514	3.0900e-003		59.2163
Total	**0.0200**	**0.0254**	**0.3143**	**7.3000e-004**	**0.0559**	**5.1000e-004**	**0.0564**	**0.0148**	**4.7000e-004**	**0.0153**		**59.1514**	**59.1514**	**3.0900e-003**		**59.2163**

3.4 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.7220	0.0000	6.7220	3.3932	0.0000	3.3932			0.0000			0.0000
Off-Road	2.4597	25.8779	17.1725	0.0182		1.3833	1.3833		1.2727	1.2727		1,865.8750	1,865.8750	0.5717		1,877.8807
Total	**2.4597**	**25.8779**	**17.1725**	**0.0182**	**6.7220**	**1.3833**	**8.1053**	**3.3932**	**1.2727**	**4.6658**		**1,865.8750**	**1,865.8750**	**0.5717**		**1,877.8807**

3.4 Grading - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.1229	48.2758	35.7393	0.1399	3.2658	0.7110	3.9768	0.8942	0.6540	1.5483		13,883.6705	13,883.6705	0.1023		13,885.8193
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	0.0320	0.0406	0.5028	1.1600e-003	0.0894	8.1000e-004	0.0902	0.0237	7.5000e-004	0.0245		94.6422	94.6422	4.9500e-003		94.7461
Total	**3.1549**	**48.3163**	**36.2422**	**0.1411**	**3.3553**	**0.7118**	**4.0670**	**0.9179**	**0.6548**	**1.5727**		**13,978.3127**	**13,978.3127**	**0.1073**		**13,980.5654**

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					2.6216	0.0000	2.6216	1.3233	0.0000	1.3233			0.0000			0.0000
Off-Road	2.4597	25.8779	17.1725	0.0182		1.3833	1.3833		1.2727	1.2727	0.0000	1,865.8750	1,865.8750	0.5717		1,877.8807
Total	**2.4597**	**25.8779**	**17.1725**	**0.0182**	**2.6216**	**1.3833**	**4.0049**	**1.3233**	**1.2727**	**2.5960**	**0.0000**	**1,865.8750**	**1,865.8750**	**0.5717**		**1,877.8807**

3.4 Grading - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.1229	48.2758	35.7393	0.1399	3.2658	0.7110	3.9768	0.8942	0.6540	1.5483		13,883.6705	13,883.6705	0.1023		13,885.8193
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	0.0320	0.0406	0.5028	1.1600e-003	0.0894	8.1000e-004	0.0902	0.0237	7.5000e-004	0.0245		94.6422	94.6422	4.9500e-003		94.7461
Total	**3.1549**	**48.3163**	**36.2422**	**0.1411**	**3.3553**	**0.7118**	**4.0670**	**0.9179**	**0.6548**	**1.5727**		**13,978.3127**	**13,978.3127**	**0.1073**		**13,980.5654**

3.5 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.2061	22.6557	15.7803	0.0226		1.4855	1.4855		1.3973	1.3973		2,148.7106	2,148.7106	0.6024		2,161.3603
Total	**3.2061**	**22.6557**	**15.7803**	**0.0226**		**1.4855**	**1.4855**		**1.3973**	**1.3973**		**2,148.7106**	**2,148.7106**	**0.6024**		**2,161.3603**

3.5 Building Construction - 2017

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	0.0154	0.1596	0.1909	4.4000e-004	0.0125	2.4400e-003	0.0149	3.5500e-003	2.2400e-003	5.7900e-003		43.3408	43.3408	3.1000e-004		43.3474
Worker	0.0160	0.0203	0.2514	5.8000e-004	0.0447	4.1000e-004	0.0451	0.0119	3.7000e-004	0.0122		47.3211	47.3211	2.4700e-003		47.3730
Total	**0.0314**	**0.1798**	**0.4423**	**1.0200e-003**	**0.0572**	**2.8500e-003**	**0.0600**	**0.0154**	**2.6100e-003**	**0.0180**		**90.6619**	**90.6619**	**2.7800e-003**		**90.7204**

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	3.2061	22.6557	15.7803	0.0226		1.4855	1.4855		1.3973	1.3973	0.0000	2,148.7106	2,148.7106	0.6024		2,161.3603
Total	**3.2061**	**22.6557**	**15.7803**	**0.0226**		**1.4855**	**1.4855**		**1.3973**	**1.3973**	**0.0000**	**2,148.7106**	**2,148.7106**	**0.6024**		**2,161.3603**

3.5 Building Construction - 2017

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	0.0154	0.1596	0.1909	4.4000e-004	0.0125	2.4400e-003	0.0149	3.5500e-003	2.2400e-003	5.7900e-003		43.3408	43.3408	3.1000e-004		43.3474
Worker	0.0160	0.0203	0.2514	5.8000e-004	0.0447	4.1000e-004	0.0451	0.0119	3.7000e-004	0.0122		47.3211	47.3211	2.4700e-003		47.3730
Total	**0.0314**	**0.1798**	**0.4423**	**1.0200e-003**	**0.0572**	**2.8500e-003**	**0.0600**	**0.0154**	**2.6100e-003**	**0.0180**		**90.6619**	**90.6619**	**2.7800e-003**		**90.7204**

3.6 Paving - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2228	11.4498	8.4541	0.0131		0.6961	0.6961		0.6451	0.6451		1,250.5083	1,250.5083	0.3422		1,257.6949
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2228**	**11.4498**	**8.4541**	**0.0131**		**0.6961**	**0.6961**		**0.6451**	**0.6451**		**1,250.5083**	**1,250.5083**	**0.3422**		**1,257.6949**

3.6 Paving - 2017

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	0.0720	0.0913	1.1313	2.6200e-003	0.2012	1.8200e-003	0.2030	0.0534	1.6800e-003	0.0550		212.9450	212.9450	0.0111		213.1787
Total	**0.0720**	**0.0913**	**1.1313**	**2.6200e-003**	**0.2012**	**1.8200e-003**	**0.2030**	**0.0534**	**1.6800e-003**	**0.0550**		**212.9450**	**212.9450**	**0.0111**		**213.1787**

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	1.2228	11.4498	8.4541	0.0131		0.6961	0.6961		0.6451	0.6451	0.0000	1,250.5083	1,250.5083	0.3422		1,257.6949
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2228**	**11.4498**	**8.4541**	**0.0131**		**0.6961**	**0.6961**		**0.6451**	**0.6451**	**0.0000**	**1,250.5083**	**1,250.5083**	**0.3422**		**1,257.6949**

3.6 Paving - 2017

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	0.0720	0.0913	1.1313	2.6200e-003	0.2012	1.8200e-003	0.2030	0.0534	1.6800e-003	0.0550		212.9450	212.9450	0.0111		213.1787
Total	**0.0720**	**0.0913**	**1.1313**	**2.6200e-003**	**0.2012**	**1.8200e-003**	**0.2030**	**0.0534**	**1.6800e-003**	**0.0550**		**212.9450**	**212.9450**	**0.0111**		**213.1787**

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	0.1092	0.2958	1.2117	3.0000e-003	0.1955	4.3300e-003	0.1999	0.0523	3.9800e-003	0.0563		255.8112	255.8112	0.0102		256.0254
Unmitigated	0.1092	0.2958	1.2117	3.0000e-003	0.1955	4.3300e-003	0.1999	0.0523	3.9800e-003	0.0563		255.8112	255.8112	0.0102		256.0254

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	32.00	32.00	32.00	92,081	92,081
Total	32.00	32.00	32.00	92,081	92,081

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.532559	0.058242	0.178229	0.125155	0.038934	0.006273	0.016761	0.032323	0.002478	0.003154	0.003685	0.000544	0.001663

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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	0.2589	0.0000	1.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.5000e-004	3.5000e-004	0.0000		3.7000e-004
Unmitigated	0.2589	0.0000	1.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.5000e-004	3.5000e-004	0.0000		3.7000e-004

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	0.0629					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1960					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	1.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.5000e-004	3.5000e-004	0.0000		3.7000e-004
Total	**0.2589**	**0.0000**	**1.7000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**3.5000e-004**	**3.5000e-004**	**0.0000**		**3.7000e-004**

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	0.0629					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1960					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	1.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.5000e-004	3.5000e-004	0.0000		3.7000e-004
Total	**0.2589**	**0.0000**	**1.7000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**3.5000e-004**	**3.5000e-004**	**0.0000**		**3.7000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Vegetation

Emerald Acres: Group D

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	1.60	Acre	1.60	9,900.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2017
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	515.47	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Modeled after Group D: Project 9, 10; "Square Feet" accounts for construction of bridges

Construction Phase - Based on the SCAQMD's Summary of a 1 Acre Site. Building Construction phase based on defaults. Since the Group includes the construction of bridges, not building structures, the number of days are halved

Off-road Equipment - Based on the SCAQMD's Summary of a 1 Acre Site

Off-road Equipment - Based on the SCAQMD's Summary of a 1 Acre Site

Off-road Equipment - Based on the SCAQMD's Summary of a 1 Acre Site

Off-road Equipment - Based on the SCAQMD's Summary of a 1 Acre Site

Off-road Equipment - Based on the SCAQMD's Summary of a 1 Acre Site

Trips and VMT -

Demolition -

Grading -

Vehicle Trips - Trip rates based on Traffic Study and SANDAG's Not So Brief Guide of Vehicular Traffic Generation Rates

Area Coating -

Energy Use - .

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	200.00	115.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	4.00	2.00
tblConstructionPhase	NumDays	10.00	2.00
tblConstructionPhase	NumDays	2.00	1.00
tblGrading	MaterialImported	0.00	3,000.00
tblLandUse	LandUseSquareFeet	69,696.00	9,900.00
tblOffRoadEquipment	HorsePower	174.00	97.00

tblOffRoadEquipment	LoadFactor	0.41	0.37
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	515.47
tblProjectCharacteristics	OperationalYear	2014	2017
tblVehicleTrips	ST_TR	1.59	20.00
tblVehicleTrips	SU_TR	1.59	20.00
tblVehicleTrips	WD_TR	1.59	20.00

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					
2017	5.7844	75.8938	59.3522	0.1590	10.0772	2.0967	12.1740	4.3111	1.9289	6.2401	0.0000	15,806.2531	15,806.2531	0.6803	0.0000	15,820.5399
Total	**5.7844**	**75.8938**	**59.3522**	**0.1590**	**10.0772**	**2.0967**	**12.1740**	**4.3111**	**1.9289**	**6.2401**	**0.0000**	**15,806.2531**	**15,806.2531**	**0.6803**	**0.0000**	**15,820.5399**

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					
2017	5.7844	75.8938	59.3522	0.1590	5.9768	2.0967	8.0736	2.2413	1.9289	4.1702	0.0000	15,806.2531	15,806.2531	0.6803	0.0000	15,820.5399
Total	**5.7844**	**75.8938**	**59.3522**	**0.1590**	**5.9768**	**2.0967**	**8.0736**	**2.2413**	**1.9289**	**4.1702**	**0.0000**	**15,806.2531**	**15,806.2531**	**0.6803**	**0.0000**	**15,820.5399**

	ROG	NOx	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**	**40.69**	**0.00**	**33.68**	**48.01**	**0.00**	**33.17**	**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	0.2589	0.0000	1.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.5000e-004	3.5000e-004	0.0000		3.7000e-004
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	0.1148	0.3115	1.2217	2.8600e-003	0.1955	4.3400e-003	0.1999	0.0523	4.0000e-003	0.0563		244.6779	244.6779	0.0102		244.8923
Total	**0.3737**	**0.3115**	**1.2219**	**2.8600e-003**	**0.1955**	**4.3400e-003**	**0.1999**	**0.0523**	**4.0000e-003**	**0.0563**		**244.6783**	**244.6783**	**0.0102**	**0.0000**	**244.8927**

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	0.2589	0.0000	1.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.5000e-004	3.5000e-004	0.0000		3.7000e-004
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	0.1148	0.3115	1.2217	2.8600e-003	0.1955	4.3400e-003	0.1999	0.0523	4.0000e-003	0.0563		244.6779	244.6779	0.0102		244.8923
Total	**0.3737**	**0.3115**	**1.2219**	**2.8600e-003**	**0.1955**	**4.3400e-003**	**0.1999**	**0.0523**	**4.0000e-003**	**0.0563**		**244.6783**	**244.6783**	**0.0102**	**0.0000**	**244.8927**

	ROG	NOx	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	6/16/2017	6/29/2017	5	10	
2	Site Preparation	Site Preparation	6/30/2017	6/30/2017	5	1	
3	Grading	Grading	7/1/2017	7/4/2017	5	2	
4	Building Construction	Building Construction	7/5/2017	12/12/2017	5	115	
5	Paving	Paving	12/13/2017	12/14/2017	5	2	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 1

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	1	8.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Graders	1	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Excavators	0	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	1	8.00	226	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	4	8.00	9	0.56
Paving	Pavers	1	8.00	125	0.42
Paving	Paving Equipment	0	8.00	130	0.36
Paving	Rollers	1	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

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	4	10.00	0.00	4.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	375.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	4.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	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

Clean Paved Roads

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0788	0.0000	0.0788	0.0119	0.0000	0.0119			0.0000			0.0000
Off-Road	2.4048	23.5416	18.4774	0.0214		1.3773	1.3773		1.2916	1.2916		2,139.2032	2,139.2032	0.5260		2,150.2492
Total	**2.4048**	**23.5416**	**18.4774**	**0.0214**	**0.0788**	**1.3773**	**1.4560**	**0.0119**	**1.2916**	**1.3036**		**2,139.2032**	**2,139.2032**	**0.5260**		**2,150.2492**

3.2 Demolition - 2017

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	7.0200e-003	0.1066	0.0890	3.0000e-004	6.9700e-003	1.5200e-003	8.4900e-003	1.9100e-003	1.4000e-003	3.3100e-003		29.5489	29.5489	2.2000e-004		29.5536
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	0.0416	0.0562	0.5878	1.3700e-003	0.1118	1.0100e-003	0.1128	0.0296	9.3000e-004	0.0306		111.6535	111.6535	6.1800e-003		111.7834
Total	**0.0486**	**0.1628**	**0.6768**	**1.6700e-003**	**0.1188**	**2.5300e-003**	**0.1213**	**0.0316**	**2.3300e-003**	**0.0339**		**141.2025**	**141.2025**	**6.4000e-003**		**141.3370**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0307	0.0000	0.0307	4.6500e-003	0.0000	4.6500e-003			0.0000			0.0000
Off-Road	2.4048	23.5416	18.4774	0.0214		1.3773	1.3773		1.2916	1.2916	0.0000	2,139.2032	2,139.2032	0.5260		2,150.2492
Total	**2.4048**	**23.5416**	**18.4774**	**0.0214**	**0.0307**	**1.3773**	**1.4080**	**4.6500e-003**	**1.2916**	**1.2963**	**0.0000**	**2,139.2032**	**2,139.2032**	**0.5260**		**2,150.2492**

3.2 Demolition - 2017

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	7.0200e-003	0.1066	0.0890	3.0000e-004	6.9700e-003	1.5200e-003	8.4900e-003	1.9100e-003	1.4000e-003	3.3100e-003		29.5489	29.5489	2.2000e-004		29.5536
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	0.0416	0.0562	0.5878	1.3700e-003	0.1118	1.0100e-003	0.1128	0.0296	9.3000e-004	0.0306		111.6535	111.6535	6.1800e-003		111.7834
Total	**0.0486**	**0.1628**	**0.6768**	**1.6700e-003**	**0.1188**	**2.5300e-003**	**0.1213**	**0.0316**	**2.3300e-003**	**0.0339**		**141.2025**	**141.2025**	**6.4000e-003**		**141.3370**

3.3 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.0539	8.8619	5.4388	6.1700e-003		0.7090	0.7090		0.6523	0.6523		632.1771	632.1771	0.1937		636.2448
Total	**1.0539**	**8.8619**	**5.4388**	**6.1700e-003**	**0.5303**	**0.7090**	**1.2393**	**0.0573**	**0.6523**	**0.7096**		**632.1771**	**632.1771**	**0.1937**		**636.2448**

3.3 Site Preparation - 2017

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	0.0208	0.0281	0.2939	6.9000e-004	0.0559	5.1000e-004	0.0564	0.0148	4.7000e-004	0.0153		55.8268	55.8268	3.0900e-003		55.8917
Total	**0.0208**	**0.0281**	**0.2939**	**6.9000e-004**	**0.0559**	**5.1000e-004**	**0.0564**	**0.0148**	**4.7000e-004**	**0.0153**		**55.8268**	**55.8268**	**3.0900e-003**		**55.8917**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2068	0.0000	0.2068	0.0223	0.0000	0.0223			0.0000			0.0000
Off-Road	1.0539	8.8619	5.4388	6.1700e-003		0.7090	0.7090		0.6523	0.6523	0.0000	632.1771	632.1771	0.1937		636.2448
Total	**1.0539**	**8.8619**	**5.4388**	**6.1700e-003**	**0.2068**	**0.7090**	**0.9158**	**0.0223**	**0.6523**	**0.6747**	**0.0000**	**632.1771**	**632.1771**	**0.1937**		**636.2448**

3.3 Site Preparation - 2017

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	0.0208	0.0281	0.2939	6.9000e-004	0.0559	5.1000e-004	0.0564	0.0148	4.7000e-004	0.0153		55.8268	55.8268	3.0900e-003		55.8917
Total	**0.0208**	**0.0281**	**0.2939**	**6.9000e-004**	**0.0559**	**5.1000e-004**	**0.0564**	**0.0148**	**4.7000e-004**	**0.0153**		**55.8268**	**55.8268**	**3.0900e-003**		**55.8917**

3.4 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.7220	0.0000	6.7220	3.3932	0.0000	3.3932			0.0000			0.0000
Off-Road	2.4597	25.8779	17.1725	0.0182		1.3833	1.3833		1.2727	1.2727		1,865.8750	1,865.8750	0.5717		1,877.8807
Total	**2.4597**	**25.8779**	**17.1725**	**0.0182**	**6.7220**	**1.3833**	**8.1053**	**3.3932**	**1.2727**	**4.6658**		**1,865.8750**	**1,865.8750**	**0.5717**		**1,877.8807**

3.4 Grading - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.2914	49.9710	41.7095	0.1397	3.2658	0.7126	3.9784	0.8942	0.6555	1.5497		13,851.0553	13,851.0553	0.1037		13,853.2325
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	0.0332	0.0450	0.4702	1.1000e-003	0.0894	8.1000e-004	0.0902	0.0237	7.5000e-004	0.0245		89.3228	89.3228	4.9500e-003		89.4267
Total	**3.3246**	**50.0159**	**42.1797**	**0.1408**	**3.3553**	**0.7134**	**4.0686**	**0.9179**	**0.6563**	**1.5742**		**13,940.3781**	**13,940.3781**	**0.1086**		**13,942.6592**

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					2.6216	0.0000	2.6216	1.3233	0.0000	1.3233			0.0000			0.0000
Off-Road	2.4597	25.8779	17.1725	0.0182		1.3833	1.3833		1.2727	1.2727	0.0000	1,865.8750	1,865.8750	0.5717		1,877.8807
Total	**2.4597**	**25.8779**	**17.1725**	**0.0182**	**2.6216**	**1.3833**	**4.0049**	**1.3233**	**1.2727**	**2.5960**	**0.0000**	**1,865.8750**	**1,865.8750**	**0.5717**		**1,877.8807**

3.4 Grading - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.2914	49.9710	41.7095	0.1397	3.2658	0.7126	3.9784	0.8942	0.6555	1.5497		13,851.0553	13,851.0553	0.1037		13,853.2325
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	0.0332	0.0450	0.4702	1.1000e-003	0.0894	8.1000e-004	0.0902	0.0237	7.5000e-004	0.0245		89.3228	89.3228	4.9500e-003		89.4267
Total	**3.3246**	**50.0159**	**42.1797**	**0.1408**	**3.3553**	**0.7134**	**4.0686**	**0.9179**	**0.6563**	**1.5742**		**13,940.3781**	**13,940.3781**	**0.1086**		**13,942.6592**

3.5 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.2061	22.6557	15.7803	0.0226		1.4855	1.4855		1.3973	1.3973		2,148.7106	2,148.7106	0.6024		2,161.3603
Total	**3.2061**	**22.6557**	**15.7803**	**0.0226**		**1.4855**	**1.4855**		**1.3973**	**1.3973**		**2,148.7106**	**2,148.7106**	**0.6024**		**2,161.3603**

3.5 Building Construction - 2017

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	0.0169	0.1635	0.2348	4.4000e-004	0.0125	2.4600e-003	0.0149	3.5500e-003	2.2600e-003	5.8200e-003		42.9801	42.9801	3.2000e-004		42.9869
Worker	0.0166	0.0225	0.2351	5.5000e-004	0.0447	4.1000e-004	0.0451	0.0119	3.7000e-004	0.0122		44.6614	44.6614	2.4700e-003		44.7134
Total	**0.0335**	**0.1860**	**0.4699**	**9.9000e-004**	**0.0572**	**2.8700e-003**	**0.0601**	**0.0154**	**2.6300e-003**	**0.0181**		**87.6416**	**87.6416**	**2.7900e-003**		**87.7003**

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	3.2061	22.6557	15.7803	0.0226		1.4855	1.4855		1.3973	1.3973	0.0000	2,148.7106	2,148.7106	0.6024		2,161.3603
Total	**3.2061**	**22.6557**	**15.7803**	**0.0226**		**1.4855**	**1.4855**		**1.3973**	**1.3973**	**0.0000**	**2,148.7106**	**2,148.7106**	**0.6024**		**2,161.3603**

3.5 Building Construction - 2017

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	0.0169	0.1635	0.2348	4.4000e-004	0.0125	2.4600e-003	0.0149	3.5500e-003	2.2600e-003	5.8200e-003		42.9801	42.9801	3.2000e-004		42.9869
Worker	0.0166	0.0225	0.2351	5.5000e-004	0.0447	4.1000e-004	0.0451	0.0119	3.7000e-004	0.0122		44.6614	44.6614	2.4700e-003		44.7134
Total	**0.0335**	**0.1860**	**0.4699**	**9.9000e-004**	**0.0572**	**2.8700e-003**	**0.0601**	**0.0154**	**2.6300e-003**	**0.0181**		**87.6416**	**87.6416**	**2.7900e-003**		**87.7003**

3.6 Paving - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2228	11.4498	8.4541	0.0131		0.6961	0.6961		0.6451	0.6451		1,250.5083	1,250.5083	0.3422		1,257.6949
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2228**	**11.4498**	**8.4541**	**0.0131**		**0.6961**	**0.6961**		**0.6451**	**0.6451**		**1,250.5083**	**1,250.5083**	**0.3422**		**1,257.6949**

3.6 Paving - 2017

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	0.0748	0.1012	1.0580	2.4700e-003	0.2012	1.8200e-003	0.2030	0.0534	1.6800e-003	0.0550		200.9764	200.9764	0.0111		201.2101
Total	**0.0748**	**0.1012**	**1.0580**	**2.4700e-003**	**0.2012**	**1.8200e-003**	**0.2030**	**0.0534**	**1.6800e-003**	**0.0550**		**200.9764**	**200.9764**	**0.0111**		**201.2101**

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	1.2228	11.4498	8.4541	0.0131		0.6961	0.6961		0.6451	0.6451	0.0000	1,250.5083	1,250.5083	0.3422		1,257.6949
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2228**	**11.4498**	**8.4541**	**0.0131**		**0.6961**	**0.6961**		**0.6451**	**0.6451**	**0.0000**	**1,250.5083**	**1,250.5083**	**0.3422**		**1,257.6949**

3.6 Paving - 2017

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	0.0748	0.1012	1.0580	2.4700e-003	0.2012	1.8200e-003	0.2030	0.0534	1.6800e-003	0.0550		200.9764	200.9764	0.0111		201.2101
Total	**0.0748**	**0.1012**	**1.0580**	**2.4700e-003**	**0.2012**	**1.8200e-003**	**0.2030**	**0.0534**	**1.6800e-003**	**0.0550**		**200.9764**	**200.9764**	**0.0111**		**201.2101**

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	0.1148	0.3115	1.2217	2.8600e-003	0.1955	4.3400e-003	0.1999	0.0523	4.0000e-003	0.0563		244.6779	244.6779	0.0102		244.8923
Unmitigated	0.1148	0.3115	1.2217	2.8600e-003	0.1955	4.3400e-003	0.1999	0.0523	4.0000e-003	0.0563		244.6779	244.6779	0.0102		244.8923

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	32.00	32.00	32.00	92,081	92,081
Total	32.00	32.00	32.00	92,081	92,081

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.532559	0.058242	0.178229	0.125155	0.038934	0.006273	0.016761	0.032323	0.002478	0.003154	0.003685	0.000544	0.001663

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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	0.2589	0.0000	1.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.5000e-004	3.5000e-004	0.0000		3.7000e-004
Unmitigated	0.2589	0.0000	1.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.5000e-004	3.5000e-004	0.0000		3.7000e-004

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	0.0629					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1960					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	1.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.5000e-004	3.5000e-004	0.0000		3.7000e-004
Total	**0.2589**	**0.0000**	**1.7000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**3.5000e-004**	**3.5000e-004**	**0.0000**		**3.7000e-004**

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	0.0629					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1960					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	1.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.5000e-004	3.5000e-004	0.0000		3.7000e-004
Total	**0.2589**	**0.0000**	**1.7000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**3.5000e-004**	**3.5000e-004**	**0.0000**		**3.7000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Vegetation