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# AIR QUALITY IMPACT ANALYSIS PROPOSED EBB TIDE RESIDENTIAL PROJECT



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## List of Acronyms

AQIA	Air Quality Impact Analysis
AQMD	Air Quality Management District
AQMP	Air Quality Management Plan
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
CAAQS	California Ambient Air Quality Standards
CARB	California Air Resources Board
CCAA	California Clean Air Act of 1988
CEQA	California Environmental Quality Act
CO	carbon monoxide
EPA	U.S. Environmental Protection Agency
°F	degrees Fahrenheit
lbs./day	pounds per day
µg/m <sup>3</sup>	micrograms per cubic meter
MPO	Metropolitan Planning Organization
SoCAB	South Coast Air Basin
SCAQMD	South Coast Air Quality Management District
NAAQS	National Ambient Air Quality Standards
NO <sub>2</sub>	nitrogen dioxide
NO <sub>x</sub>	oxides of nitrogen
O <sub>3</sub>	ozone
Pb	lead
PM	particulate matter
PM <sub>10</sub>	particulate matter less than or equal to 10 microns in diameter
PM <sub>2.5</sub>	particulate matter less than or equal to 2.5 microns in diameter
ppm	parts per million
ROC	reactive organic compound
SANBAG	San Bernardino Association of Governments
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SIP	State Implementation Plan
SO <sub>2</sub>	sulfur dioxide
SO <sub>x</sub>	oxides of sulfur
ton/yr.	tons per year
CalEEMod	California Emissions Estimator Model
VOC	Volatile Organic Compound

# Executive Summary

## Background

AECOM was retained to conduct an Air Quality Impact Analysis (AQIA) for the proposed Ebb Tide Residential Project (“project”), located in the City of Newport Beach, Orange County. The applicant, Ebb Tide LLC. (“Applicant”), proposes to subdivide and redevelop a 4.65 acre site at 1560 Placentia Avenue for 83 residential lots leading to construction of 83 single-unit residences. The project site is currently in use as a mobile home park, with closure of the park and review of the relocation impact report being processed as a separate application.

The proposed project involves the following primary components:

- Tentative Tract Map application to subdivide the 4.7 acre site for 83 residential lots;
- Site Development Review application for construction of 83 single-unit residences, private streets, common open space, and landscaping;
- Planned Community Development Plan establishing guidelines for development consistent with the General Plan;
- Code Amendment to amend the Zoning Map to change the Zoning District from Multiple-Unit
- Residential (RM) to Planned Community (PC);
- Construction of 83 for sale, single-family homes with units ranging from 1,600 square feet to 2,150 square feet; 6,380 square feet of open space, including 2,480 square feet of Community Open space; and
- Unit structure heights of approximately 36'6" plus stairwells leading to individual unit roof decks.

## Results

Criteria and GHG pollutants generated by the project’s construction and operations phases were quantified using the SCAQMD’s California Emissions Estimator Model. To determine the finding of significance for project related emissions, these emissions were evaluated against the SCAQMD’s CEQA significance thresholds. The project was found to result in less than significant impacts to local and regional air quality.

## Mitigation Measures

Mitigation Measures are required under CEQA if significant project related impacts would occur. The proposed project would not result in significant impacts to air quality. As such, no mitigation measures related to air quality are required. The following are regulatory requirements required by the SCAQMD for all construction activities occurring within its jurisdiction.

All construction contractors shall comply with South Coast Air Quality Management District (SCAQMD) regulations, including Rule 403, Fugitive Dust. All grading (regardless of acreage) shall apply best available control measures for fugitive dust in accordance with Rule 403. To ensure that the project is in full compliance with applicable SCAQMD dust regulations and that there is no nuisance impact offsite, the contractor would implement each of the following:

- Moisten soil not more than 15 minutes prior to moving soil or conduct whatever watering is necessary to prevent visible dust emissions from exceeding 100 feet in any direction.
- Water excavated soil piles hourly or covered with temporary coverings.
- Water exposed surfaces at least twice a day under calm conditions. Water as often as needed on windy days when winds are less than 25 miles per hour or during very dry weather in order to maintain a surface crust and prevent the release of visible emissions from the construction site.
- Minimize dirt track-out from the project site by employing either vehicle wash stations, rumble plates or graveling as per specifications in Rule 403.

- Provide for street sweeping, as needed, on adjacent roadways to remove dirt dropped by construction vehicles or mud, which would otherwise be carried off by trucks departing project sites.
- Securely cover loads with a tight fitting tarp on any truck leaving the construction sites to dispose of debris.
- Cease grading during period when winds exceed 25 miles per hour.

### **Conclusion**

The proposed project would not result in emissions from construction and operation of the project which would exceed the significance thresholds established by SCAQMD. Therefore, air quality impacts attributable from the project are considered less than significant.

# 1 Introduction

AECOM was retained to conduct an Air Quality Impact Analysis (AQIA) for the Ebb Tide Residential Project. The proposed Project consists of demolition of 73 existing mobile home spaces, three fixed structures (a central business office with laundry room, a resident club room with adjacent swimming pool, and a small residence), and related surface improvements to accommodate the development of 83 single-family condominium dwelling units. The Project site is located at 1560 Placentia Avenue within the West Newport Mesa area of Newport Beach.

The Project site is comprised of one rectangular parcel (APN: 374-431-09) of land developed with the Ebb Tide Mobile Home Park. The surface is paved with asphalt with small landscaped areas around the perimeter of the individual mobile homes. Concrete parking areas adjoining individual mobile homes were observed throughout the mobile home park. A pool with an activities building is located in the northwest portion of the property along the west property boundary and an office, laundry room and mailboxes are located near the entrance to the mobile home park. The property totals approximately 4.65 acres. Access to the property is from Placentia Avenue to the west.

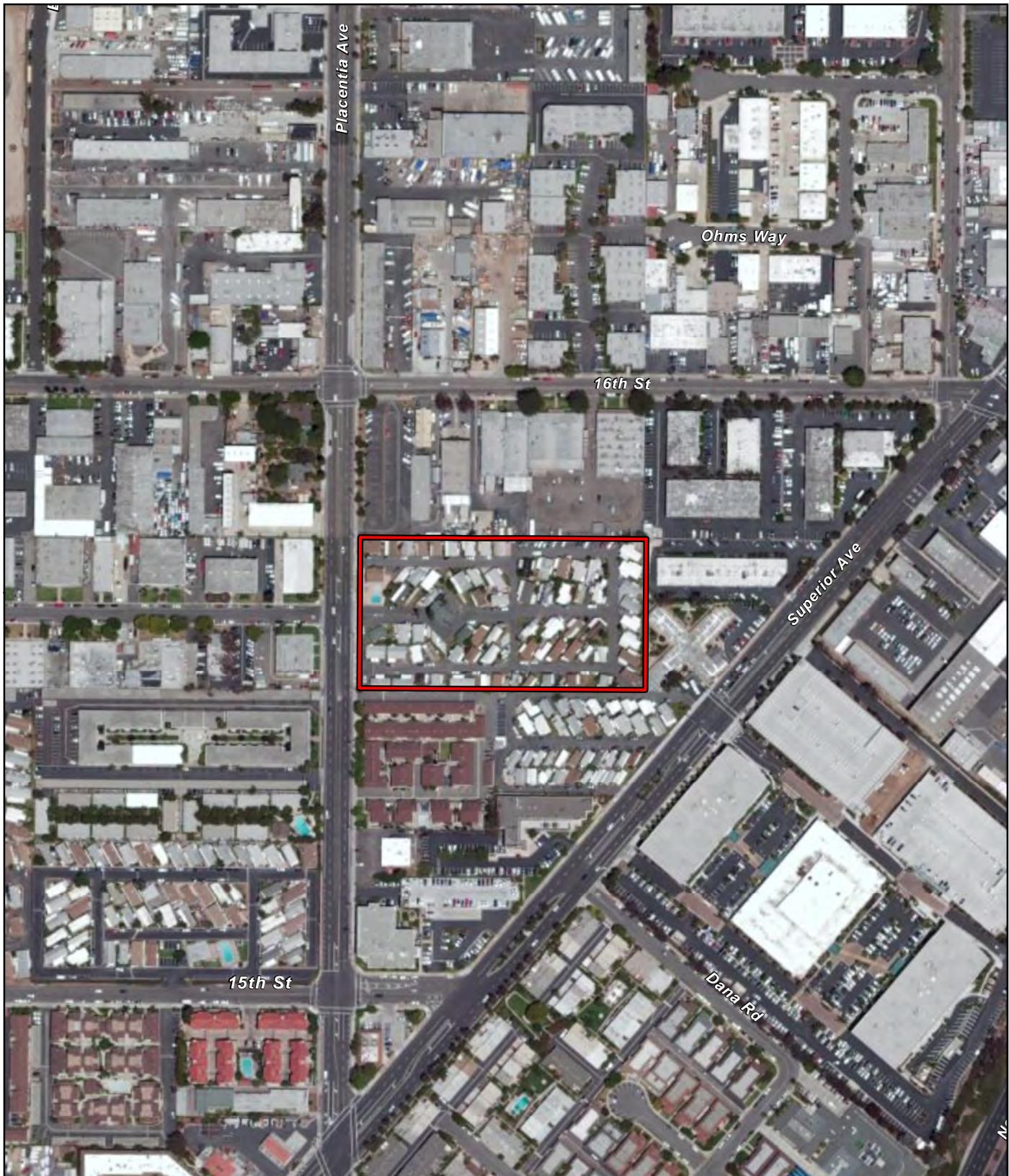
The site is located approximately 0.75 miles north of the Newport Bay and 1 mile north of the Pacific Ocean. The Project site is generally bound by 15th Street and 16th Street to the north and south, and Placentia Avenue and Superior Avenue to the west and east. The Project site is located on the east side of Placentia Avenue less than 100 feet south of the City's boundary with the City of Costa Mesa, at 1560 Placentia Avenue. The project site is in the South Coast Air Basin (SoCAB), which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD).

## 1.1 Purpose of AQIA

The purpose of the AQIA is to provide information about the potential air quality impacts of the proposed project. The analysis evaluates:

- The potential air quality impacts associated with the construction of the proposed project, and
- The potential air quality impacts associated with the operation of the proposed project.

The analysis is based on a review of a variety of information sources such as applicable local air quality assessment guidelines and other pertinent documents.



 Site Location

0 300  
Feet

**Exhibit 1  
Project Location**

**Ebb Tide Residential Project**

**AECOM**

## 2 Background

### 2.1 Project Setting

The proposed Ebb Tide Residential Project site is located east of Placentia Avenue and Production Place in the City of Newport Beach, California (Figure 1). The property is currently developed as a 73 unit mobile home park. The properties to the north and west are comprised of industrial uses. To the east is a nursing and rehabilitative center as well as light industrial.

### 2.2 Regional Air Quality

The proposed Project site is located completely within the South Coast Air Basin (SoCAB), within the jurisdiction of SCAQMD that includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties. The SCAQMD administers air quality regulation in the Basin.

The Basin is noted as containing the largest urban area in the western United States with more than 15 million people. The basin forms a low plain, bounded on the west by the Pacific Ocean and surrounded on all other sides by mountains. Geographic locations coupled with relatively high temperature during summer months and stagnant winds, presents ideal conditions for smog to reside. Furthermore, it should be noted that the Basin both transports to and receives air pollutants from the coastal portions of Ventura and Santa Barbara counties. The Basin also receives air pollutants from oil and gas development operations on the outer continental shelf in Santa Monica Bay and the San Pedro Channel.

The following paragraphs briefly describe the adverse health effects of the six criteria pollutants monitored in the SoCAB.

#### Ozone

$O_3$  (smog) is formed by photochemical reactions between  $NO_x$  and reactive organic gases, rather than being directly emitted.  $O_3$  is a pungent, colorless gas typical of southern California smog. Elevated  $O_3$  concentrations result in reduced lung function, particularly during vigorous physical activity. This health problem is particularly acute in sensitive receptors such as the sick, elderly, and young children.  $O_3$  levels peak during the summer and early fall months.

#### Carbon Monoxide

CO is formed by the incomplete combustion of fossil fuels, almost entirely from automobiles. It is a colorless, odorless gas that can cause dizziness, fatigue, and impairments to central nervous system functions. CO passes through the lungs into the bloodstream, where it interferes with the transfer of oxygen to body tissues.

#### Oxides of Nitrogen

Oxides of Nitrogen ( $NO_x$ ) contributes to other pollution problems, including a high concentration of fine particulate matter, poor visibility, and acid deposition. The primary chemical constituents of  $NO_x$  is Nitrogen dioxide ( $NO_2$ ) and Nitric oxide (NO).  $NO_2$ , a reddish-brown gas, and nitric oxide, a colorless, odorless gas, are formed from fuel combustion under high temperature or pressure. These compounds are referred to as  $NO_x$ .  $NO_x$  is a primary component of the photochemical smog reaction.  $NO_2$  decreases lung function and may reduce resistance to infection.

#### Sulfur Dioxide

$SO_2$  is a colorless, irritating gas formed primarily from incomplete combustion of fuels containing sulfur. Industrial facilities also contribute to gaseous  $SO_2$  levels in the Basin.  $SO_2$  irritates the respiratory tract, can injure lung tissue when combined with fine particulate matter, and reduces visibility and the level of sunlight.

### *Volatile Organic Compounds*

Volatile Organic Compounds (VOC) are formed from combustion of fuels and evaporation of organic solvents. VOC is a prime component of the photochemical smog reaction. Consequently, VOC accumulates in the atmosphere more quickly during the winter when sunlight is limited and photochemical reactions are slower. VOC is also commonly referred to as Reactive Organic Gas (ROG).

### *Particulate Matter*

Particulate matter is the term used for a mixture of solid particles and liquid droplets found in the air. Coarse particles (larger than 2.5 microns, or PM<sub>10</sub>) come from a variety of sources, including windblown dust and grinding operations. Fine particles (less than 2.5 microns, or PM<sub>2.5</sub>) often come from fuel combustion, power plants, and diesel buses and trucks. Fine particles can also be formed in the atmosphere through chemical reactions.

Coarse particles (PM<sub>10</sub>) can accumulate in the respiratory system and aggravate health problems such as asthma. The EPA's scientific review concluded that fine particles (PM<sub>2.5</sub>) at concentrations that extend well below those allowed by the current PM<sub>10</sub> standards, which penetrate deeply into the lungs, are more likely than coarse particles to contribute to the health effects listed in a number of recently published community epidemiological studies. These health effects include premature death, increased hospital admissions, and emergency room visits (primarily the elderly and individuals with cardiopulmonary disease); increased respiratory symptoms and disease (children and individuals with cardiopulmonary disease such as asthma); decreased lung functions (particularly in children and individuals with asthma); and alterations in lung tissue and structure and in respiratory tract defense mechanisms.

## **2.3 Local Air Quality**

Ambient air quality in Orange County is monitored at air monitoring stations that are operated by SCAQMD in the proposed Project vicinity. The nearest monitoring station to the Study Area is the Newport Beach Harbor Station. The data from the Newport Beach Harbor Station are the most representative of conditions in the Study Area. Air quality measurements taken at this station are presented in Table 2-1.

Temperatures for the area are markedly higher during the summer months. Using the 94-year (i.e., 1921 to 2015) monthly climate summary from the nearest meteorological station, the Western Regional Climate Center (WRCC) #046175 at Newport Beach Harbor Station, the average maximum temperature was 73.4° Fahrenheit [F] in August, with an average minimum temperature of 46.9°F in January. The average annual temperature is 67.8°F (WRCC 2015).

During the winter months, a semi-permanent, subtropical high-pressure system over the eastern Pacific Ocean moves south, allowing frontal systems that normally are blocked and forced to the north of the area to pass through the region. This results in most of the area's annual precipitation, which totals about 14 inches. Average maximum rainfall occurs in February (11 inches), with minimum rainfall in July (0.01 inches) (WRCC 2015).

On occasion during fall and winter months, a high-pressure system develops over Nevada and Utah and pushes air south- and southwestward over the San Gabriel and San Bernardino Mountains. The resulting wind is known as a Santa Ana wind. Santa Ana winds can be very strong, with wind speeds through mountain passes sometimes exceeding 62 miles per hour, are usually warm and dry, and tend to clear the Basin of accumulated air pollutants, although they can also cause dust storms and high particulate levels.

The topographical features in the region around the Study Area restrict air movement through and out of the valley (especially in the northern portion). The San Gabriel and Santa Ana Mountains hinder wind access into the valley from the northwest, north, west, and southwest; the Agua Tibia range hinders winds from the south; and the San Bernardino and San Jacinto Mountains are significant barriers to the northeast, east, and southeast, causing a weak air flow through the valley. This weak air flow is also frequently blocked vertically by temperature inversions.

**Table 2-1. Ambient Air Quality**

	Carbon Monoxide (CO) <sup>1</sup>				Ozone (O <sub>3</sub> ) <sup>2</sup>				Respirable Particulate Matter (PM <sub>10</sub> ) <sup>2</sup>		Fine Particulate Matter (PM <sub>2.5</sub> ) <sup>1</sup>		Nitrogen Dioxide (NO <sub>2</sub> ) <sup>1</sup>	
	Max 1-hour Conc. (ppm)	Number of Days Exceeded	Max 8-hour Conc. (ppm)	Number of Days Exceeded	Max 1-hour Conc. (ppm)	Number of Days Exceeded	Max 8-hour Conc. (ppm)	Number of Days Exceeded	Max 24-hour Conc. (µg/m <sup>3</sup> )	Number of Days Exceeded	Max 24-hour Conc. (ppm)	Number of Days Exceeded	Max 1-hour Conc. (ppm)	Number of Days Exceeded
<b>State Standards</b>	> 20 ppm/ 1 hour		> = 9 ppm/ 8 hour		> 0.09 ppm/ 1 hour		> 0.070 ppm/ 8 hour <sup>3</sup>		> 50 µg/m <sup>3</sup> / 24 hour		> 65 µg/m <sup>3</sup> / 24 hour		> 0.25 ppm/ 1 hour	
2013	--	--	2.0	0	0.095	1	0.083	2	77	6	37.8	0	0.0757	0
2012	--	--	1.7	0	0.090	2	0.076	1	48	0	50.1	0	0.0744	0
2011	--	--	2.2	0	0.093	0	0.077	2	53	12	39.2	0	0.0605	0
2010	2	0	2.1	0	0.097	1	0.076	2	43	0	31.7	0	0.07	0
2009	3	0	2.2	0	0.087	0	0.075	3	63	1	64.6	0	0.07	0
<b>Federal Standards</b>	> 35 ppm/ 1 hour		> = 9 ppm/ 8 hour		> 0.12 ppm/ 1 hour		> 0.08 ppm/ 8 hour		> 150 µg/m <sup>3</sup> / 24 hour		> 65 µg/m <sup>3</sup> / 24 hour		Annual Average > 0.053 ppm/ annual avg.	
2013	--	--	2.0	0	0.095	0	0.083	1	77	0	37.8	0	0.0116	0
2012	--	--	1.7	0	0.090	0	0.076	1	48	0	50.1	0	0.0744	0
2011	--	--	2.2	0	0.093	0	0.077	1	53	0	39.2	0	0.0605	0
2010	2	0	2.1	0	0.097	0	0.076	1	43	0	31.7	0	0.07	0
2009	3	0	2.2	0	0.087	0	0.075	0	63	0	64.6	0	0.07	0

Notes: <sup>1</sup>CO, PM<sub>2.5</sub>, and NO<sub>2</sub> data are from the North Coastal Orange County monitoring station.

<sup>2</sup>O<sub>3</sub> and PM<sub>10</sub> data are from the Newport Beach monitoring station.

ppm – parts per million.

µg/m<sup>3</sup> – micrograms per cubic meter.

For PM<sub>10</sub> and PM<sub>2.5</sub>, no concentration data was available for the Source/Receptor No.18 (North Costal Orange County). As such, the next closest air monitoring station data from Source/Receptor No.17 (Central Orange County) was included for PM<sub>10</sub> and PM<sub>2.5</sub> concentrations.

-- There was insufficient (or no) data available from California Air Resources Board to determine the value.

## 2.4 Regulatory Background

### 2.4.1 Federal Ambient Air Quality Standards

Pursuant to the federal Clean Air Act (CAA) of 1970, the U.S. Environmental Protection Agency (EPA) established National Ambient Air Quality Standards (NAAQS) for six major pollutants, termed "criteria" pollutants. Criteria pollutants are defined as those pollutants for which the federal and state governments have established ambient air quality standards for outdoor concentrations in order to protect public health. The NAAQS are two-tiered: primary, to protect public health; and secondary, to prevent degradation of the environment (e.g., impairment of visibility, damage to vegetation and property, etc.). The six criteria pollutants are O<sub>3</sub>, CO, PM<sub>10</sub>, NO<sub>2</sub>, SO<sub>2</sub>, and Pb. The primary standards for these pollutants are shown in Table 2-2.

To determine whether a particular region complies with the NAAQS, permanent air monitoring stations are placed in strategic locations to collect ambient criteria pollutant ambient concentration data. These data are used by the CARB and EPA to classify regions as "attainment" or "non-attainment" depending on whether the regions met the requirements stated in the primary NAAQS. Non-attainment areas are subject to additional restrictions as required by the EPA. The federal Clean Air Act Amendments (CAAA) of 1977 requires each state to develop a SIP to attain the NAAQS for the non-attainment areas within the state. The SIP outlines pollution control measures which, when implemented, would enable the non-attainment areas to attain the NAAQS. The SIP has to be approved by the EPA and serves as the state's guide to actions that will reduce or eliminate air quality problems. An important aspect of the SIP is to designate a planning organization that will promulgate rules and implement strategies to achieve the NAAQS. The EPA has designated the southern California Association of Governments (SCAG) and San Bernardino Associated Governments (SANBAG) as the Metropolitan Planning Organizations (MPOs) responsible for assisting with compliance with the transportation requirements of the CAA within the SCAB and San Bernardino County, respectively. The SCAQMD is a member of these planning organizations.

**Table 2-2. Federal and State Ambient Air Quality Standards**

Pollutant	Averaging Time	CAAQS <sup>1,3</sup>	NAAQS <sup>2</sup>	
			Primary <sup>3,4</sup>	Secondary <sup>3,5</sup>
O <sub>3</sub>	1 hour	0.09 ppm (180 µg/m <sup>3</sup> )	---	Same as primary
	8 hours	0.070 ppm (137 µg/m <sup>3</sup> )*	0.075 ppm (147 µg/m <sup>3</sup> ) <sup>6</sup>	Same as primary
CO	8 hours	9 ppm (10 mg/m <sup>3</sup> )	9 ppm (10 mg/m <sup>3</sup> )	---
	1 hour	20 ppm (23 mg/m <sup>3</sup> )	35 ppm (40 mg/m <sup>3</sup> )	---
NO <sub>2</sub>	Annual Arithmetic Mean	0.030 ppm (57 µg/m <sup>3</sup> )	53 ppb (100 µg/m <sup>3</sup> )	Same as primary
	1 hour	0.18 ppm (339 µg/m <sup>3</sup> )	100 ppb (188 µg/m <sup>3</sup> )	None
SO <sub>2</sub>	24 hours	0.04 ppm (105 µg/m <sup>3</sup> )	---	---
	3 hours	---	---	0.5 ppm (1,300 µg/m <sup>3</sup> )
	1 hour	0.25 ppm (655 µg/m <sup>3</sup> )	75 ppb (196 µg/m <sup>3</sup> )	---
Respirable PM <sub>10</sub>	Annual Arithmetic Mean	20 µg/m <sup>3</sup>	---	Same as primary
	24 hours	50 µg/m <sup>3</sup>	150 µg/m <sup>3</sup>	Same as primary
PM <sub>2.5</sub> <sup>6</sup>	Annual Arithmetic Mean	12 µg/m <sup>3</sup>	12 µg/m <sup>3</sup>	Same as primary
	24 hours	---	35 µg/m <sup>3</sup>	Same as primary
Sulfates	24 hours	25 µg/m <sup>3</sup>	---	---
Lead	30 day Average	1.5 µg/m <sup>3</sup>	---	---
	Calendar Quarter	---	1.5 µg/m <sup>3</sup>	Same as primary

Pollutant	Averaging Time	CAAQS <sup>1,3</sup>	NAAQS <sup>2</sup>	
			Primary <sup>3,4</sup>	Secondary <sup>3,5</sup>
Hydrogen sulfide	1 hour	0.03 ppm (42 µg/m3)	---	---
Vinyl chloride <sup>7</sup>	24 hours	0.01 ppm (26 µg/m3)	---	---
Visibility reducing particles	8 hours	Extinction coefficient of 0.23 per km - visibility of 10 miles or more – due to particles when the relative humidity is less than 70 percent.	---	---

Source: CARB, 6/4/13.

#### Notes:

1. California standards for O<sub>3</sub>, CO, SO<sub>2</sub> (1-hour and 24-hour), NO<sub>2</sub>, suspended particulate matter – PM<sub>10</sub>, PM<sub>2.5</sub>, and visibility reducing articles 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 O<sub>3</sub>, particulate matter, and those based on annual averages (or annual arithmetic mean), are not to be exceeded more than once a year. The O<sub>3</sub> standard is attained when the fourth-highest 8-hour concentration, averaged over three years is equal to or less than the standard. For PM<sub>10</sub>, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m<sup>3</sup> is equal to or less than one. For PM<sub>2.5</sub>, the 24-hour standard is attained when 98% of the daily concentrations, averaged over three years, are equal to or less than the standard.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based on a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
5. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
6. New Federal 8-hour O<sub>3</sub> and fine PM<sub>2.5</sub> standards were promulgated by EPA on July 18, 1997.
7. The California Air Resources Board (CARB) has identified Pb 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.

#### 2.4.2 State and Federal Ambient Air Quality Standards

The state of California began to set CAAQS in 1969 under the mandate of the Mulford-Carrell Act. The CAAQS are generally more stringent than the NAAQS. In addition to the six criteria pollutants covered by the NAAQS, there are CAAQS for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are also listed in Table 2-3.

**Table 2-3. State and Federal Attainment/Non-attainment Designations for SoCAB**

Pollutant	Federal	State
Ozone (O <sub>3</sub> 1-hr)	Not Applicable	Nonattainment
Ozone (O <sub>3</sub> 8-hr)	Nonattainment	Nonattainment
Nitrogen dioxide (NO <sub>2</sub> )	Attainment	Attainment
Carbon monoxide (CO)	Attainment	Attainment
Particulate less than 10 microns (PM <sub>10</sub> )	Attainment	Nonattainment
Particulate less than 2.5 microns (PM <sub>2.5</sub> )	Nonattainment	Nonattainment
Lead (Pb)	Nonattainment <sup>1</sup>	Attainment
Sulfur dioxide (SO <sub>2</sub> )	Attainment	Attainment
Sulfates	Not Applicable	Attainment
Visibility Reducing Particles	Not Applicable	Attainment

Source: CARB, 2015. <http://www.arb.ca.gov/design/adm/adm.htm>. Accessed May 3, 2015.

#### Notes

<sup>1</sup> Only Los Angeles County is in a state of nonattainment for ambient air quality standards for lead.

The California Clean Air Act (CCAA) of 1988 required non-attainment areas in the state to prepare air quality attainment plans. The attainment plans are required to achieve a minimum 5 percent annual reduction in the emissions of non-attainment pollutants unless all feasible measures have been implemented. The SoCAB is currently classified as a federal non-attainment area for O<sub>3</sub>, PM<sub>2.5</sub> and Pb.

## 2.5 Regional Air Quality Planning Framework

The 1976 Lewis Air Quality Management Act established the air pollution control districts and air quality management districts throughout the state. The California Clean Air Act (CCAA) of 1988 required non-attainment areas in the state to prepare air quality attainment plans. The attainment plans are required to achieve a minimum 5% annual reduction in the emissions of non-attainment pollutants unless all feasible measures have been implemented.

CARB coordinates and oversees both state and federal air pollution control programs in California. CARB oversees activities of local air quality management agencies, and is responsible for incorporating Air Quality Management Plans (AQMPs) from local air basins into a SIP for federal EPA approval. The CARB also maintains Air Quality Monitoring Stations throughout the state in conjunction with local air districts. Data collected at these stations are used by CARB to classify air basins as "attainment" or "non-attainment" with respect to each pollutant and to monitor progress in attaining air quality standards. CARB has divided the state into 15 air basins. Significant authority for air quality control within these basins has been given to local Air Pollution Control Districts or AQMDs, which regulate stationary source emissions and develop local attainment plans. The CCAA provides the SCAQMD with the authority to manage indirect sources and regulate stationary source emissions. Indirect sources of pollution are generated when minor sources collectively emit a greater amount of pollution (e.g., the motor vehicles at an intersection, a mall, and highways). CARB regulates motor vehicles and fuels.

The final 2012 Air Quality Management Plan (AQMP) was adopted by the SCAQMD Governing Board on December 7, 2012 and provides the framework for meeting the PM<sub>2.5</sub> standard through adoption of all feasible measures. The 2012 AQMP builds upon the approaches detailed in the 2007 AQMP for federal attainment of PM and ozone standards. The 2016 AQMP is currently in development and will include the latest scientific information and planning assumptions.

## 2.6 Global Warming / Greenhouse Gases

The Earth's global climate has continuously evolving, as evidenced by extremes in global climate over the last 500,000 years. Global climate change refers to changes in climatological characteristics which occur across the Earth as a whole, such as temperature, wind patterns, precipitation, and storms. Global temperatures are affected by naturally occurring atmospheric gases – such as water vapor, carbon dioxide, methane, and nitrous oxide. These gases allow sunlight into the Earth's atmosphere, but inhibit radiative heat from escaping into outer space, thus altering the Earth's energy balance by retaining that heat. This phenomenon is often referred to as the "greenhouse effect".

### 2.6.1 Climate Change

The repeated episodes of warming and cooling of the earth's climate have been documented in geologic records. The rate of change has been incremental with warming or cooling trends occurring over thousands of years. Although the past 10,000 years have shown a warming trend, scientists have observed an unprecedented increase in the rate of warming in the last 150 years, which coincides with the industrialization of many countries throughout the world.

The most recent report by the Intergovernmental Panel on Climate Change (IPCC) released on 2014 (Fifth Assessment Report) concludes that the widespread warming of the atmosphere and ocean, together with ice-mass loss, support the conclusion that it is extremely unlikely that global climate change of the past 50 years can be explained without external forcing, and very likely that it is not due to known natural causes alone. The report addresses observed changes and their causes; Future climate change, risks and impacts; Future pathways for adaptation, mitigation and sustainable development; adaptation and mitigation.

### 2.6.2 Regulatory Context for Global Warming

Global climate change resulting from the greenhouse gas emissions is an environmental concern being raised and discussed at the international, national, and statewide level. At each level, agencies are considering strategies to control emissions of gases that contribute to global warming. The State of California has undertaken legislative actions to reduce the generation of greenhouse gases (GHGs) within the State.

### *Assembly Bill 1493*

In 2002, then-Governor Gray Davis signed Assembly Bill (AB) 1493. AB 1493 requires that the California Air Resources Board (ARB) develop and adopt, by January 1, 2005, regulations that achieve “the maximum feasible reduction of greenhouse gases emitted by passenger vehicles and light-duty trucks and other vehicles determined by the ARB to be vehicles whose primary use is noncommercial personal transportation in the state.”

### *Executive Order S-3-05*

Executive Order S-3-05, which was signed by Governor Schwarzenegger in 2005, proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce the Sierra’s snowpack, further exacerbate California’s air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the Executive Order established total greenhouse gas emission targets. Specifically, emissions are to be reduced to the 2000 level by 2010, and the 1990 level by 2020, and to 80% below the 1990 level by 2050.

The Executive Order directed the Secretary of the California Environmental Protection Agency (CalEPA) to coordinate a multi-agency effort to reduce greenhouse gas emissions to the target levels. The Secretary will also submit biannual reports to the governor and state legislature describing:

- the progress made toward reaching the emission targets;
- impacts of global warming on California’s resources;
- mitigation and adaptation plans to combat these impacts.

To comply with the Executive Order, the Secretary of the CalEPA created a Climate released its first report in March 2006. The report proposed to achieve the targets by building on voluntary actions of California businesses, local government and community actions, as well as through state incentive and regulatory programs.

### *Assembly Bill 32*

In September 2006, Governor Arnold Schwarzenegger signed AB 32, the California Climate Solutions Act of 2006. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by the year 2020. This reduction will be accomplished through an enforceable statewide cap on GHG emission that will be phased in starting in 2012. To effectively implement the cap, AB 32 directs ARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then ARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

AB 32 requires that ARB adopt a quantified cap on GHG emissions representing 1990 emissions levels and disclose how it arrives at the cap; institute a schedule to meet the emissions cap; and develop tracking, reporting, and enforcement mechanisms to ensure that the state achieves reductions in GHG emissions necessary to meet the cap. AB 32 also includes guidance to institute emissions reductions in an economically efficient manner and conditions to ensure that business and consumers are not unfairly affected by the reductions.

### *Senate Bill 1368*

SB 1368 is the companion bill of AB 32 and was signed by Governor Schwarzenegger in September 2006. SB 1368 requires the California Public Utilities Commission (PUC) to establish a greenhouse gas emission performance standard for baseload generation from investor owned utilities by February 1, 2007. The California Energy Commission (CEC) must establish a similar standard for local publicly owned utilities by June 30, 2007. These standards cannot exceed the greenhouse gas emission rate from a baseload combined-cycle natural gas fired plant. The legislation further requires that all electricity provided to California, including imported electricity, must be generated from plants that meet the standards set by the PUC and CEC.

## 3 METHODOLOGY

### 3.1 Thresholds of Significance for Emissions

This AQIA evaluates the potential air quality impacts associated with the proposed project, including whether emissions from project implementation would be below the thresholds of significance identified by the SCAQMD.

According to Appendix G of the CEQA Guidelines, potential significant impacts would occur if the proposed project would:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation; or,
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).

CEQA allows for the significance criteria established by the applicable air quality management or air pollution control district to be used to assess impacts of a project on air quality. The analysis of the proposed project's air quality impacts follows the guidance and methodologies recommended in SCAQMD's *Air Quality Analysis Guidance Handbook*. SCAQMD has established thresholds of significance for regional air quality emissions for construction activities and project operation. In addition to the daily thresholds listed above, projects are also subject to the CAAQS. These are addressed through an analysis of localized CO impacts and localized significance thresholds (LSTs).

The SCAQMD has adopted regional construction and operational emissions thresholds to determine a project's cumulative impact on air quality in the Basin, or whether the project would result in a cumulatively considerable net increase of a criteria pollutant for which the project region is in a state of nonattainment. Table 3-1 lists SCAQMD's regional significance thresholds. Exceedance of these thresholds would constitute a significant air quality impact.

**Table 3-1. SCAQMD Significance Thresholds**

Air Pollutant	Construction Phase	Operational Phase
Volatile Organic Compounds (VOCs)	75 lbs./day	55 lbs./day
Carbon Monoxide (CO)	550 lbs./day	550 lbs./day
Nitrogen Oxides (NO <sub>x</sub> )	100 lbs./day	55 lbs./day
Sulfur Oxides (SO <sub>x</sub> )	150 lbs./day	150 lbs./day
Coarse Inhalable Particulates (PM <sub>10</sub> )	150 lbs./day	150 lbs./day
Fine Inhalable Particulates (PM <sub>2.5</sub> )	55 lbs./day	55 lbs./day
Greenhouse gases	3,000 metric tons/year CO <sub>2</sub> eq for residential uses	

**Source:** SCAQMD, 2015. <http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2>. Accessed May 4, 2015.

The SCAQMD has also established localized significance thresholds for NO<sub>x</sub>, CO, PM<sub>10</sub> and PM<sub>2.5</sub>. These significance thresholds are dependent on the size of the project area, distance of the emission source from the nearest sensitive receptor as well as the location of the project site within the air basin.

This air quality analysis evaluates the potential construction and operational air quality impacts associated with the proposed project by comparing emissions from project implementation to the applicable thresholds of significance identified by the SCAQMD. Potential air-quality impacts were assessed for both regional as well as localized air pollutant emissions related to the proposed Project.

### 3.2 Estimation of Construction and Operation Emissions

Criteria air pollutant emissions from construction activities are primarily from fugitive dust and exhaust emissions from construction equipment such as site grading equipment, vehicles used to deliver construction material, and worker vehicles.

Fugitive dust is generated from construction equipment traveling on unpaved roads (i.e., dirt roads). To determine accurately the significance of air quality impacts from construction activities, construction emissions have to be quantified and compared to the significance thresholds set by the SCAQMD. The CALEEMOD Version 2013.2.2 computer program was used to estimate the construction emissions. Where project-specific data was not available, the default values within CALEEMOD were used. Criteria air pollutant emissions from operational activities are primarily from mobile source emissions from project-generated vehicles. To determine the significance of air quality impacts from operational activities, operations phase emissions have to be quantified through the use of the CalEEMod model and compared to the significance thresholds set by the SCAQMD.

## 4 IMPACT ANALYSIS

Air pollutant emissions associated with the project would occur over the short- and the long-term. Short-term emissions are from construction activities such as fugitive dust from site preparation, grading, and emissions from construction equipment exhaust. Long-term emissions are from vehicle exhausts traveling to and from the proposed project and the increase in use of electricity and natural gas. To determine whether the proposed project would have a significant impact on air quality, the AQIA has to show that the implementation of the proposed project would generate an increase in emissions that would exceed the SCAQMD construction and operational significance thresholds.

### 4.1 Unmitigated Project Impacts

Air pollutant emissions associated with the project would be generated over the short-term and the long-term. Short-term emissions are from construction activities such as fugitive dust from site preparation, grading, project construction, and emissions from construction equipment exhaust. Long-term emissions are associated with the operation of the proposed project. The significance of these emissions is evaluated by comparing them to the construction and operational significance thresholds set by the SCAQMD.

### 4.2 Construction Impacts

The pollutant-generating activities associated with construction of the proposed Project would involve demolition of the utilities and mobile home lots on 4.65 acres of the project site. Specific sources of emissions associated with construction would include exhaust from diesel construction equipment at the site and dust generated by the mechanical disturbance of the soil due to equipment and truck travel within the site. In addition, there will be commuter trips to and from the site for construction employees.

Worst-case daily equipment exhaust emissions of criteria pollutants during the initial phase of construction were calculated using the SCAQMD's CalEEMod emissions inventory model. A construction schedule of 8 hours per day, five days per week. Construction equipment quantities assumed for the site were based on the equipment fleet within the CalEEMod model. The estimated construction daily emissions occurring in each year of construction are shown in Table 4-1 and compared against the daily SCAQMD CEQA significance thresholds.

**Table 4-1. Construction Emissions**

Category	ROG (lbs./day)	NO <sub>x</sub> (lbs./day)	CO (lbs./day)	SO <sub>2</sub> (lbs./day)	PM <sub>10</sub> (lbs./day)	PM <sub>2.5</sub> (lbs./day)	CO <sub>2</sub> (tons/yr.)
<b>2016</b>	5	55	42	0.06	11	7	407
<b>2017</b>	8	46	36	0.06	4	3	652
<b>2018</b>	7	40	35	0.06	3	3	650
<b>2019</b>	6	36	34	0.06	3	2	28
<b>Maximum</b>	8	55	42	0.06	11	7	652
<b>SCAQMD Daily Thresholds</b>	75	100	550	150	150	55	N/A
<b>Exceeds Threshold?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>N/A</b>

Source: SCAQMD CalEEMod, May 2015.

The project's emissions from construction will not exceed any of the SCAQMD thresholds. These emissions may contribute to air quality violations, and may result in the exposure of sensitive receptors to diesel emissions. Therefore, the impact is considered to be less than significant.

#### 4.2.1 Localized Significance Analysis

The SCAQMD Governing Board adopted a methodology for calculating localized air quality impacts through localized significance thresholds (also referred to as a LST analysis). Localized significance thresholds represent the maximum emissions from a project that would not cause or contribute to an exceedance of the most stringent applicable state or federal ambient air quality standard. Localized significance thresholds were developed in recognition of the fact that criteria pollutants such as CO, NO<sub>x</sub>, PM<sub>10</sub> and PM<sub>2.5</sub> in particular, can have local impacts at nearby sensitive receptors as well as regional impacts. The localized significance thresholds are developed for each source receptor area and are applicable to NO<sub>x</sub>, CO, PM<sub>10</sub>, and PM<sub>2.5</sub>.

The Project is located within Source Receptor Area (SRA) 18, North Coastal Orange County. The Project would disturb approximately 4.65 acres. Therefore, based on the SCAQMD guidance on applying CalEEMod to LSTs, the LST thresholds for 5 acre were utilized for the construction LST analysis. The closest sensitive receptors to the Project site are residential uses located to the east and south, immediately adjacent to the project; and a commercial/retail complex to the northeast as well. LST thresholds are provided for distances to sensitive receptors of 25, 50, 100, 200, and 500 meters. As the nearest sensitive uses are directly adjacent to the east and west of the project site, the 25 meter construction LST values were used.

The localized assessment methodology limits the emissions in the analysis to those generated from onsite activities. The onsite emissions during construction and operation are compared with the localized significance thresholds and summarized in Table 4-2. As shown in this Table, emissions during construction do not exceed the localized significance thresholds.

**Table 4-2. Localized Significance Analysis**

<b>Activity</b>	<b>Onsite Emissions (pounds per day)</b>			
	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>
Demolition	7	6	<1	<1
Site Preparation	55	41	11	7
Building Construction	29	19	2	2
Paving	17	13	1	1
Localized Significance Threshold	190	1,636	13	9
Threshold Exceeded?	No	No	No	No

Source: SCAQMD Localized Significance Threshold Methodology and CalEEMod, May 2015.

The localized construction analysis uses thresholds that represent the maximum project emissions that would not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard. If the project results in emissions that do not exceed the localized significance thresholds, these emissions would likewise not cause or contribute to a local exceedance of the appropriate ambient air quality standard. The localized construction phase analyses demonstrates that the project would not exceed the localized significance thresholds for CO, NO<sub>x</sub>, PM<sub>10</sub>, or PM<sub>2.5</sub>. Therefore, the project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation during construction.

#### 4.3 Operational Impacts

The SCAQMD requires that projects occurring within its jurisdiction evaluate air pollutant impacts on both a regional and localized scale. These project related air pollutants must consider both emissions generated directly from the proposed land use development and emissions generated by vehicle traffic traveling to and from the project site as well as indirect impacts which consider changes in traffic flow and development caused by the proposed project.

##### 4.3.1 Regional Impacts

Long-term emissions were evaluated at build-out for the completed project at the end of construction (2019). Operational emissions refer to on-road motor vehicle emissions from project build-out and area source emissions, which include stationary combustion emissions of natural gas used for space and water heating, and yard and landscape maintenance. The estimated annual operational emissions are shown in Table 4-3 below.

**Table 4-3. Operations Phase Regional Emissions**

Category	VOC (lbs./day)	NO <sub>x</sub> (lbs./day)	CO (lbs./day)	SO <sub>2</sub> (lbs./day)	PM <sub>10</sub> (lbs./day)	PM <sub>2.5</sub> (lbs./day)	CO <sub>2</sub> (metric tons/year)
<b>Existing Mobile Homes</b>	3	1	17	0	3	1	635
<b>Proposed Project</b>	8	3	52	0	9	5	1348 <sup>1</sup>
<b>Net Emissions (Project minus Existing Conditions)</b>	5	2	35	0	6	4	713
<b>SCAQMD Thresholds</b>	75	100	550	150	150	55	3,000
<b>Exceeds Threshold?</b>	No	No	No	No	No	No	No

1Proposed project CO<sub>2</sub>e emissions includes both construction and operations phase GHG emissions. Total GHG emissions from construction activities were amortized over a 30-year time frame and added to the annual operations phase emissions as per SCAQMD's *Interim CEQA Greenhouse Gas Significance Threshold*.

Source: SCAQMD CalEEMod, May 2015.

Operational emissions from the project will not exceed the daily thresholds of significance established by the SCAQMD for the analyzed pollutants. Therefore, this impact is considered to result in a less than significant impact to regional air quality as well as climate change.

#### **4.3.1.1 Carbon Monoxide Hot Spot Analysis**

Carbon monoxide (CO) "hot spot" thresholds ensure that emissions of CO associated with traffic impacts from a project in combination with CO emissions from existing and forecasted regional traffic do not exceed state or federal standards for CO at any traffic intersection impacted by the project. Project concentrations may be considered significant if a CO hot spot intersection analysis determines that project generated CO concentrations cause a localized violation of the state CO 1-hour standard of 20 ppm, state CO 8-hour standard of 9 ppm, federal CO 1-hour standard of 35 ppm, or federal CO 8-hour standard of 9 ppm.

As previously stated, the Project proposes 83-unit single-family detached residential units in place of the existing 73-unit mobile home park. The Traffic Study, prepared April 2015, states that the project would generate 426 additional daily trips as well as an additional 29 AM peak hour trips and 40 PM Peak hour trips. The potential for CO hotspots are determined based on increases in peak hour traffic volumes associated with the proposed project. An increase of 40 PM Peak hour trips would not result in levels of congestion and CO concentrations that would exceed the SCAQMD's significance threshold for 1-hour or 8-hour CO concentrations. In addition, no project related traffic impacts were identified in the Traffic Study. Therefore, the Project would not require a quantitative CO hotspot analysis since the Project would not significantly worsen the level of service nearby intersections nor result in CO concentrations with the potential to exceed the SCAQMD's CO hotspot thresholds. Impacts from localized traffic would result in less than significant impacts to air quality.

#### **4.3.1.2 Consistency Analysis**

The Air Quality Management Plan's (AQMP) emission inventory is based on the population, housing, and employment growth projections developed within the General Plans for each of the cities and counties under the jurisdiction of the SCAQMD. The General Plan's estimates of future population, housing, and employment growth are derived from the land use designations described in the General Plan. Since the AQMP's emissions inventory is based on the land use designations of the General Plan, if a project's land use is consistent with the General Plan it is likewise consistent with the AQMP.

The proposed project will require a General Plan amendment due to the redesignation of land uses from Multiple-Unit Residential to Planned Community. The change in land use designation would represent an adverse impact relative to consistency with the emissions inventory in the AQMP if the change in land use is more air pollutant intensive. However, as discussed previously project related emissions occurring in the construction and operations phases of the project are below all the respective SCAQMD significance thresholds and is not considered to result in a significant impact to regional or local air quality. Though the project would entail a change in land uses to zoning that would allow for an increased amount of pollution generation, the increase in emissions is not considered by the SCAQMD to be significant on either a regional or localized basis. As such, the project's emissions would be consistent with the emissions inventory used in the preparation of the AQMP.

#### 4.4 Cumulative Analysis

The SCAQMD has not established separate methodologies or thresholds of significance for assessment of cumulative impacts. However, if an individual development project generates operational emissions that exceed the SCAQMD recommended daily thresholds, the SCAQMD considers these project emissions to be cumulative considerable and would result in a cumulative impact.

As indicated in the regional and localized analyses above, which depict the emissions for construction and operational activity, the Project would not exceed the established SCAQMD thresholds. Therefore, the project's impacts would result in less than significant project level and cumulative impacts.

## 5 MITIGATION MEASURES

Mitigation Measures are required under CEQA if significant project related impacts would occur. The proposed project would not result in significant impacts to air quality. As such, no mitigation measures related to air quality are required. The following are regulatory requirements required by the SCAQMD for construction activities occurring within its jurisdiction.

All construction contractors shall comply with South Coast Air Quality Management District (SCAQMD) regulations, including Rule 403, Fugitive Dust. All grading (regardless of acreage) shall apply best available control measures for fugitive dust in accordance with Rule 403. To ensure that the project is in full compliance with applicable SCAQMD dust regulations and that there is no nuisance impact offsite, the contractor would implement each of the following:

- Moisten soil not more than 15 minutes prior to moving soil or conduct whatever watering is necessary to prevent visible dust emissions from exceeding 100 feet in any direction.
- Water excavated soil piles hourly or covered with temporary coverings.
- Water exposed surfaces at least twice a day under calm conditions. Water as often as needed on windy days when winds are less than 25 miles per hour or during very dry weather in order to maintain a surface crust and prevent the release of visible emissions from the construction site.
- Minimize dirt track-out from the project site by employing either vehicle wash stations, rumble plates or graveling as per specifications in Rule 403.
- Provide for street sweeping, as needed, on adjacent roadways to remove dirt dropped by construction vehicles or mud, which would otherwise be carried off by trucks departing project sites.
- Securely cover loads with a tight fitting tarp on any truck leaving the construction sites to dispose of debris.
- Cease grading during period when winds exceed 25 miles per hour.

### 5.1 Conclusion

As discussed earlier, the proposed project would not result in significant air quality impacts prior to the implementation of mitigation measures. Consequently, the application of mitigation measures is not necessary. Regional and localized emissions associated with the proposed project would result in less than significant impacts to air quality.

## 6 REFERENCES

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*Air Quality Analysis Handbook*, website <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook>, Accessed May 6, 2015.

*Final 2012 Air Quality Management Plan*, February 2013.

*Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold*, October 2008.

California Emissions Estimator Model (CalEEMod), version 13.2.2.

*Final Localized Significance Threshold Methodology*, July 2008.

Rule 403 – Fugitive Dust, Amended June 3, 2005.

## **Appendix A. CALEEMOD Model Output.**

## Ebb Tide - Existing Mobile Homes

Orange County, Annual

### 1.0 Project Characteristics

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#### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Mobile Home Park	73.00	Dwelling Unit	4.70	87,600.00	209

#### 1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	30
Climate Zone	8			Operational Year	2019
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

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

Project Characteristics -

Land Use - site acreage

Construction Phase -

Off-road Equipment - Existing conditions - no construction

Vechicle Emission Factors - Fleet mix for residential uses

Vechicle Emission Factors - Fleet mix for residential uses

Vechicle Emission Factors - Fleet mix for residential uses

Woodstoves - No fireplaces for mobile homes

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberGas	62.05	0.00

tblFireplaces	NumberNoFireplace	7.30	0.00
tblFireplaces	NumberWood	3.65	0.00
tblLandUse	LotAcreage	9.20	4.70
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblProjectCharacteristics	OperationalYear	2014	2019
tblVehicleEF	HHD	0.02	0.00
tblVehicleEF	HHD	0.02	0.00
tblVehicleEF	HHD	0.02	0.00
tblVehicleEF	LDA	0.51	0.55
tblVehicleEF	LDA	0.51	0.55
tblVehicleEF	LDA	0.51	0.55
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT2	0.19	0.21
tblVehicleEF	LDT2	0.19	0.21
tblVehicleEF	LDT2	0.19	0.21
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD2	5.9130e-003	0.00
tblVehicleEF	LHD2	5.9130e-003	0.00
tblVehicleEF	LHD2	5.9130e-003	0.00
tblVehicleEF	MCY	4.7350e-003	5.1520e-003
tblVehicleEF	MCY	4.7350e-003	5.1520e-003
tblVehicleEF	MCY	4.7350e-003	5.1520e-003

tblVehicleEF	MDV	0.15	0.16
tblVehicleEF	MDV	0.15	0.16
tblVehicleEF	MDV	0.15	0.16
tblVehicleEF	MH	2.2690e-003	2.4690e-003
tblVehicleEF	MH	2.2690e-003	2.4690e-003
tblVehicleEF	MH	2.2690e-003	2.4690e-003
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	OBUS	1.4470e-003	0.00
tblVehicleEF	OBUS	1.4470e-003	0.00
tblVehicleEF	OBUS	1.4470e-003	0.00
tblVehicleEF	SBUS	5.0200e-004	0.00
tblVehicleEF	SBUS	5.0200e-004	0.00
tblVehicleEF	SBUS	5.0200e-004	0.00
tblVehicleEF	UBUS	2.1550e-003	2.3450e-003
tblVehicleEF	UBUS	2.1550e-003	2.3450e-003
tblVehicleEF	UBUS	2.1550e-003	2.3450e-003
tblWoodstoves	NumberCatalytic	3.65	0.00
tblWoodstoves	NumberNoncatalytic	3.65	0.00

## 2.0 Emissions Summary

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## 2.1 Overall Construction

## **Unmitigated Construction**

## **Mitigated Construction**

## 2.2 Overall Operational

### Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3740	8.7600e-003	0.7566	4.0000e-005		4.1500e-003	4.1500e-003		4.1500e-003	4.1500e-003	0.0000	1.2297	1.2297	1.2100e-003	0.0000	1.2551
Energy	7.5800e-003	0.0648	0.0276	4.1000e-004		5.2400e-003	5.2400e-003		5.2400e-003	5.2400e-003	0.0000	178.6532	178.6532	6.2000e-003	2.3600e-003	179.5153
Mobile	0.1627	0.2129	1.9031	5.8700e-003	0.4581	3.4900e-003	0.4616	0.1219	3.2300e-003	0.1251	0.0000	405.6441	405.6441	0.0171	0.0000	406.0037
Waste						0.0000	0.0000		0.0000	0.0000	6.8164	0.0000	6.8164	0.4028	0.0000	15.2761
Water						0.0000	0.0000		0.0000	0.0000	1.5089	27.2558	28.7647	0.1562	3.9200e-003	33.2605
<b>Total</b>	<b>0.5442</b>	<b>0.2864</b>	<b>2.6872</b>	<b>6.3200e-003</b>	<b>0.4581</b>	<b>0.0129</b>	<b>0.4710</b>	<b>0.1219</b>	<b>0.0126</b>	<b>0.1345</b>	<b>8.3254</b>	<b>612.7828</b>	<b>621.1082</b>	<b>0.5836</b>	<b>6.2800e-003</b>	<b>635.3106</b>

## 2.2 Overall Operational

### Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3740	8.7600e-003	0.7566	4.0000e-005		4.1500e-003	4.1500e-003		4.1500e-003	4.1500e-003	0.0000	1.2297	1.2297	1.2100e-003	0.0000	1.2551
Energy	7.5800e-003	0.0648	0.0276	4.1000e-004		5.2400e-003	5.2400e-003		5.2400e-003	5.2400e-003	0.0000	178.6532	178.6532	6.2000e-003	2.3600e-003	179.5153
Mobile	0.1627	0.2129	1.9031	5.8700e-003	0.4581	3.4900e-003	0.4616	0.1219	3.2300e-003	0.1251	0.0000	405.6441	405.6441	0.0171	0.0000	406.0037
Waste						0.0000	0.0000		0.0000	0.0000	6.8164	0.0000	6.8164	0.4028	0.0000	15.2761
Water						0.0000	0.0000		0.0000	0.0000	1.5089	27.2558	28.7647	0.1562	3.9100e-003	33.2581
Total	0.5442	0.2864	2.6872	6.3200e-003	0.4581	0.0129	0.4710	0.1219	0.0126	0.1345	8.3254	612.7828	621.1082	0.5836	6.2700e-003	635.3082

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.16	0.00

## 3.0 Construction Detail

### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/28/2016	5	20	

Acres of Grading (Site Preparation Phase): 0

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

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

### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

### Trips and VMT

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

### **3.1 Mitigation Measures Construction**

### **3.2 Demolition - 2016**

## **Unmitigated Construction On-Site**

## **Unmitigated Construction Off-Site**

### 3.2 Demolition - 2016

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Off-Road	0.0000	0.0000	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 Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0000	0.0000	0.0000	0.0000	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	0.0000	0.0000	

### 4.0 Operational Detail - Mobile

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## 4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Mitigated	0.1627	0.2129	1.9031	5.8700e-003	0.4581	3.4900e-003	0.4616	0.1219	3.2300e-003	0.1251	0.0000	405.6441	405.6441	0.0171	0.0000	406.0037	
Unmitigated	0.1627	0.2129	1.9031	5.8700e-003	0.4581	3.4900e-003	0.4616	0.1219	3.2300e-003	0.1251	0.0000	405.6441	405.6441	0.0171	0.0000	406.0037	

## 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated		Mitigated	
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT	Annual VMT	Annual VMT
Mobile Home Park	364.27	365.00	318.28	1,222,672	1,222,672	1,222,672	1,222,672
Total	364.27	365.00	318.28	1,222,672	1,222,672	1,222,672	1,222,672

## 4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Mobile Home Park	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.554336	0.061602	0.209697	0.164401	0.000000	0.000000	0.000000	0.000000	0.000000	0.002345	0.005152	0.000000	0.002469

## 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	tons/yr										MT/yr						
Electricity Mitigated							0.0000	0.0000		0.0000	0.0000	103.6510	103.6510	4.7600e-003	9.9000e-004	104.0567	
Electricity Unmitigated							0.0000	0.0000		0.0000	0.0000	103.6510	103.6510	4.7600e-003	9.9000e-004	104.0567	
NaturalGas Mitigated	7.5800e-003	0.0648	0.0276	4.1000e-004			5.2400e-003	5.2400e-003		5.2400e-003	5.2400e-003	0.0000	75.0022	75.0022	1.4400e-003	1.3800e-003	75.4586
NaturalGas Unmitigated	7.5800e-003	0.0648	0.0276	4.1000e-004			5.2400e-003	5.2400e-003		5.2400e-003	5.2400e-003	0.0000	75.0022	75.0022	1.4400e-003	1.3800e-003	75.4586

## 5.2 Energy by Land Use - NaturalGas

### Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Land Use	kBTU/yr	tons/yr										MT/yr						
Mobile Home Park	1.40549e+006	7.5800e-003	0.0648	0.0276	4.1000e-004			5.2400e-003	5.2400e-003		5.2400e-003	5.2400e-003	0.0000	75.0022	75.0022	1.4400e-003	1.3800e-003	75.4586
Total		7.5800e-003	0.0648	0.0276	4.1000e-004			5.2400e-003	5.2400e-003		5.2400e-003	5.2400e-003	0.0000	75.0022	75.0022	1.4400e-003	1.3800e-003	75.4586

## 5.2 Energy by Land Use - NaturalGas

### Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Land Use	kBTU/yr	tons/yr											MT/yr					
Mobile Home Park	1.40549e+006	7.5800e-003	0.0648	0.0276	4.1000e-004		5.2400e-003	5.2400e-003		5.2400e-003	5.2400e-003	0.0000	75.0022	75.0022	1.4400e-003	1.3800e-003	75.4586	
Total		7.5800e-003	0.0648	0.0276	4.1000e-004		5.2400e-003	5.2400e-003		5.2400e-003	5.2400e-003	0.0000	75.0022	75.0022	1.4400e-003	1.3800e-003	75.4586	

## 5.3 Energy by Land Use - Electricity

### Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Mobile Home Park	362205	103.6510	4.7600e-003	9.9000e-004	104.0567
Total		103.6510	4.7600e-003	9.9000e-004	104.0567

## 5.3 Energy by Land Use - Electricity

### Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Mobile Home Park	362205	103.6510	4.7600e-003	9.9000e-004	104.0567
<b>Total</b>		<b>103.6510</b>	<b>4.7600e-003</b>	<b>9.9000e-004</b>	<b>104.0567</b>

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3740	8.7600e-003	0.7566	4.0000e-005		4.1500e-003	4.1500e-003		4.1500e-003	4.1500e-003	0.0000	1.2297	1.2297	1.2100e-003	0.0000	1.2551
Unmitigated	0.3740	8.7600e-003	0.7566	4.0000e-005		4.1500e-003	4.1500e-003		4.1500e-003	4.1500e-003	0.0000	1.2297	1.2297	1.2100e-003	0.0000	1.2551

## 6.2 Area by SubCategory

### Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0343					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3165					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0232	8.7600e-003	0.7566	4.0000e-005		4.1500e-003	4.1500e-003		4.1500e-003	4.1500e-003	0.0000	1.2297	1.2297	1.2100e-003	0.0000	1.2551
<b>Total</b>	<b>0.3740</b>	<b>8.7600e-003</b>	<b>0.7566</b>	<b>4.0000e-005</b>		<b>4.1500e-003</b>	<b>4.1500e-003</b>		<b>4.1500e-003</b>	<b>4.1500e-003</b>	<b>0.0000</b>	<b>1.2297</b>	<b>1.2297</b>	<b>1.2100e-003</b>	<b>0.0000</b>	<b>1.2551</b>

## 6.2 Area by SubCategory

### Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Consumer Products	0.3165						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0232	8.7600e-003	0.7566	4.0000e-005			4.1500e-003	4.1500e-003		4.1500e-003	4.1500e-003	0.0000	1.2297	1.2297	1.2100e-003	0.0000
Architectural Coating	0.0343						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.3740	8.7600e-003	0.7566	4.0000e-005			4.1500e-003	4.1500e-003		4.1500e-003	4.1500e-003	0.0000	1.2297	1.2297	1.2100e-003	0.0000
																1.2551

## 7.0 Water Detail

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### 7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	28.7647	0.1562	3.9100e-003	33.2581
Unmitigated	28.7647	0.1562	3.9200e-003	33.2605

## 7.2 Water by Land Use

### Unmitigated

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Mobile Home Park	4.75624 / 2.9985	28.7647	0.1562	3.9200e-003	33.2605
<b>Total</b>		<b>28.7647</b>	<b>0.1562</b>	<b>3.9200e-003</b>	<b>33.2605</b>

### Mitigated

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Mobile Home Park	4.75624 / 2.9985	28.7647	0.1562	3.9100e-003	33.2581
<b>Total</b>		<b>28.7647</b>	<b>0.1562</b>	<b>3.9100e-003</b>	<b>33.2581</b>

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Unmitigated	6.8164	0.4028	0.0000	15.2761
Mitigated	6.8164	0.4028	0.0000	15.2761

**8.2 Waste by Land Use****Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Mobile Home Park	33.58	6.8164	0.4028	0.0000	15.2761
<b>Total</b>		<b>6.8164</b>	<b>0.4028</b>	<b>0.0000</b>	<b>15.2761</b>

## 8.2 Waste by Land Use

### Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Mobile Home Park	33.58	6.8164	0.4028	0.0000	15.2761
<b>Total</b>		<b>6.8164</b>	<b>0.4028</b>	<b>0.0000</b>	<b>15.2761</b>

## 9.0 Operational Offroad

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

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## Ebb Tide - Existing Mobile Homes

Orange County, Summer

### 1.0 Project Characteristics

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#### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Mobile Home Park	73.00	Dwelling Unit	4.70	87,600.00	209

#### 1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	30
Climate Zone	8			Operational Year	2019
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

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

Project Characteristics -

Land Use - site acreage

Construction Phase -

Off-road Equipment - Existing conditions - no construction

Vechicle Emission Factors - Fleet mix for residential uses

Vechicle Emission Factors - Fleet mix for residential uses

Vechicle Emission Factors - Fleet mix for residential uses

Woodstoves - No fireplaces for mobile homes

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberGas	62.05	0.00

tblFireplaces	NumberNoFireplace	7.30	0.00
tblFireplaces	NumberWood	3.65	0.00
tblLandUse	LotAcreage	9.20	4.70
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblProjectCharacteristics	OperationalYear	2014	2019
tblVehicleEF	HHD	0.02	0.00
tblVehicleEF	HHD	0.02	0.00
tblVehicleEF	HHD	0.02	0.00
tblVehicleEF	LDA	0.51	0.55
tblVehicleEF	LDA	0.51	0.55
tblVehicleEF	LDA	0.51	0.55
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT2	0.19	0.21
tblVehicleEF	LDT2	0.19	0.21
tblVehicleEF	LDT2	0.19	0.21
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD2	5.9130e-003	0.00
tblVehicleEF	LHD2	5.9130e-003	0.00
tblVehicleEF	LHD2	5.9130e-003	0.00
tblVehicleEF	MCY	4.7350e-003	5.1520e-003
tblVehicleEF	MCY	4.7350e-003	5.1520e-003
tblVehicleEF	MCY	4.7350e-003	5.1520e-003

tblVehicleEF	MDV	0.15	0.16
tblVehicleEF	MDV	0.15	0.16
tblVehicleEF	MDV	0.15	0.16
tblVehicleEF	MH	2.2690e-003	2.4690e-003
tblVehicleEF	MH	2.2690e-003	2.4690e-003
tblVehicleEF	MH	2.2690e-003	2.4690e-003
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	OBUS	1.4470e-003	0.00
tblVehicleEF	OBUS	1.4470e-003	0.00
tblVehicleEF	OBUS	1.4470e-003	0.00
tblVehicleEF	SBUS	5.0200e-004	0.00
tblVehicleEF	SBUS	5.0200e-004	0.00
tblVehicleEF	SBUS	5.0200e-004	0.00
tblVehicleEF	UBUS	2.1550e-003	2.3450e-003
tblVehicleEF	UBUS	2.1550e-003	2.3450e-003
tblVehicleEF	UBUS	2.1550e-003	2.3450e-003
tblWoodstoves	NumberCatalytic	3.65	0.00
tblWoodstoves	NumberNoncatalytic	3.65	0.00

## 2.0 Emissions Summary

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

## Unmitigated Construction

## **Mitigated Construction**

## 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	2.1075	0.0701	6.0524	3.2000e-004			0.0332	0.0332		0.0332	0.0000	10.8443	10.8443	0.0106	0.0000	11.0679
Energy	0.0415	0.3549	0.1510	2.2700e-003			0.0287	0.0287		0.0287	0.0287	453.0177	453.0177	8.6800e-003	8.3100e-003	455.7746
Mobile	0.9238	1.0714	10.9490	0.0342	2.6141	0.0196	2.6337	0.6947	0.0181	0.7129	2,607.9997	2,607.9997	0.1059		2,610.2243	
Total	3.0728	1.4964	17.1524	0.0368	2.6141	0.0814	2.6955	0.6947	0.0800	0.7747	0.0000	3,071.8617	3,071.8617	0.1253	8.3100e-003	3,077.0668

### 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	2.1075	0.0701	6.0524	3.2000e-004			0.0332	0.0332		0.0332	0.0000	10.8443	10.8443	0.0106	0.0000	11.0679
Energy	0.0415	0.3549	0.1510	2.2700e-003			0.0287	0.0287		0.0287	0.0287	453.0177	453.0177	8.6800e-003	8.3100e-003	455.7746
Mobile	0.9238	1.0714	10.9490	0.0342	2.6141	0.0196	2.6337	0.6947	0.0181	0.7129	2,607.9997	2,607.9997	0.1059		2,610.2243	
Total	3.0728	1.4964	17.1524	0.0368	2.6141	0.0814	2.6955	0.6947	0.0800	0.7747	0.0000	3,071.8617	3,071.8617	0.1253	8.3100e-003	3,077.0668

	ROG	NOx	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

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#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/28/2016	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

#### Trips and VMT

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

#### 3.1 Mitigation Measures Construction

### 3.2 Demolition - 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	0.0000	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

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day												lb/day			
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	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	0.0000

### 3.2 Demolition - 2016

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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 Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0000	0.0000	0.0000	0.0000	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	0.0000	0.0000	

### 4.0 Operational Detail - Mobile

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## 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	0.9238	1.0714	10.9490	0.0342	2.6141	0.0196	2.6337	0.6947	0.0181	0.7129	2,607.999	2,607.999	0.1059			2,610.224	
Unmitigated	0.9238	1.0714	10.9490	0.0342	2.6141	0.0196	2.6337	0.6947	0.0181	0.7129	2,607.999	2,607.999	0.1059			2,610.224	

## 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated		Mitigated	
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT	Annual VMT	Annual VMT
Mobile Home Park	364.27	365.00	318.28	1,222,672	1,222,672	1,222,672	1,222,672
Total	364.27	365.00	318.28	1,222,672	1,222,672	1,222,672	1,222,672

## 4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Mobile Home Park	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.554336	0.061602	0.209697	0.164401	0.000000	0.000000	0.000000	0.000000	0.000000	0.002345	0.005152	0.000000	0.002469

## 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	0.0415	0.3549	0.1510	2.2700e-003			0.0287	0.0287		0.0287	0.0287	453.0177	453.0177	8.6800e-003	8.3100e-003	455.7746	
NaturalGas Unmitigated	0.0415	0.3549	0.1510	2.2700e-003			0.0287	0.0287		0.0287	0.0287	453.0177	453.0177	8.6800e-003	8.3100e-003	455.7746	

## 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					
Mobile Home Park	3850.65	0.0415	0.3549	0.1510	2.2700e-003			0.0287	0.0287		0.0287	0.0287	453.0177	453.0177	8.6800e-003	8.3100e-003	455.7746	
Total		0.0415	0.3549	0.1510	2.2700e-003			0.0287	0.0287		0.0287	0.0287	453.0177	453.0177	8.6800e-003	8.3100e-003	455.7746	

## 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					
Mobile Home Park	3.85065	0.0415	0.3549	0.1510	2.2700e-003		0.0287	0.0287		0.0287	0.0287		453.0177	453.0177	8.6800e-003	8.3100e-003	455.7746	
Total		0.0415	0.3549	0.1510	2.2700e-003		0.0287	0.0287		0.0287	0.0287		453.0177	453.0177	8.6800e-003	8.3100e-003	455.7746	

## 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	2.1075	0.0701	6.0524	3.2000e-004		0.0332	0.0332		0.0332	0.0332	0.0000	10.8443	10.8443	0.0106	0.0000	11.0679
Unmitigated	2.1075	0.0701	6.0524	3.2000e-004		0.0332	0.0332		0.0332	0.0332	0.0000	10.8443	10.8443	0.0106	0.0000	11.0679

## 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	1.7345						0.0000	0.0000		0.0000	0.0000		0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1853	0.0701	6.0524	3.2000e-004			0.0332	0.0332		0.0332	0.0332	10.8443	10.8443	0.0106		11.0679
Architectural Coating	0.1877						0.0000	0.0000		0.0000	0.0000		0.0000			0.0000
<b>Total</b>	<b>2.1075</b>	<b>0.0701</b>	<b>6.0524</b>	<b>3.2000e-004</b>			<b>0.0332</b>	<b>0.0332</b>		<b>0.0332</b>	<b>0.0000</b>	<b>10.8443</b>	<b>10.8443</b>	<b>0.0106</b>	<b>0.0000</b>	<b>11.0679</b>

## 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	1.7345						0.0000	0.0000		0.0000	0.0000		0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1853	0.0701	6.0524	3.2000e-004			0.0332	0.0332		0.0332	0.0332	10.8443	10.8443	0.0106		11.0679
Architectural Coating	0.1877						0.0000	0.0000		0.0000	0.0000		0.0000			0.0000
Total	2.1075	0.0701	6.0524	3.2000e-004			0.0332	0.0332		0.0332	0.0000	10.8443	10.8443	0.0106	0.0000	11.0679

## 7.0 Water Detail

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### 7.1 Mitigation Measures Water

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

## 9.0 Operational Offroad

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

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## Ebb Tide - Existing Mobile Homes

Orange County, Winter

### 1.0 Project Characteristics

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#### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Mobile Home Park	73.00	Dwelling Unit	4.70	87,600.00	209

#### 1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	30
Climate Zone	8			Operational Year	2019
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

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

Project Characteristics -

Land Use - site acreage

Construction Phase -

Off-road Equipment - Existing conditions - no construction

Vechicle Emission Factors - Fleet mix for residential uses

Vechicle Emission Factors - Fleet mix for residential uses

Vechicle Emission Factors - Fleet mix for residential uses

Woodstoves - No fireplaces for mobile homes

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberGas	62.05	0.00

tblFireplaces	NumberNoFireplace	7.30	0.00
tblFireplaces	NumberWood	3.65	0.00
tblLandUse	LotAcreage	9.20	4.70
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblProjectCharacteristics	OperationalYear	2014	2019
tblVehicleEF	HHD	0.02	0.00
tblVehicleEF	HHD	0.02	0.00
tblVehicleEF	HHD	0.02	0.00
tblVehicleEF	LDA	0.51	0.55
tblVehicleEF	LDA	0.51	0.55
tblVehicleEF	LDA	0.51	0.55
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT2	0.19	0.21
tblVehicleEF	LDT2	0.19	0.21
tblVehicleEF	LDT2	0.19	0.21
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD2	5.9130e-003	0.00
tblVehicleEF	LHD2	5.9130e-003	0.00
tblVehicleEF	LHD2	5.9130e-003	0.00
tblVehicleEF	MCY	4.7350e-003	5.1520e-003
tblVehicleEF	MCY	4.7350e-003	5.1520e-003
tblVehicleEF	MCY	4.7350e-003	5.1520e-003

tblVehicleEF	MDV	0.15	0.16
tblVehicleEF	MDV	0.15	0.16
tblVehicleEF	MDV	0.15	0.16
tblVehicleEF	MH	2.2690e-003	2.4690e-003
tblVehicleEF	MH	2.2690e-003	2.4690e-003
tblVehicleEF	MH	2.2690e-003	2.4690e-003
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	OBUS	1.4470e-003	0.00
tblVehicleEF	OBUS	1.4470e-003	0.00
tblVehicleEF	OBUS	1.4470e-003	0.00
tblVehicleEF	SBUS	5.0200e-004	0.00
tblVehicleEF	SBUS	5.0200e-004	0.00
tblVehicleEF	SBUS	5.0200e-004	0.00
tblVehicleEF	UBUS	2.1550e-003	2.3450e-003
tblVehicleEF	UBUS	2.1550e-003	2.3450e-003
tblVehicleEF	UBUS	2.1550e-003	2.3450e-003
tblWoodstoves	NumberCatalytic	3.65	0.00
tblWoodstoves	NumberNoncatalytic	3.65	0.00

## 2.0 Emissions Summary

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## 2.1 Overall Construction (Maximum Daily Emission)

## Unmitigated Construction

## **Mitigated Construction**

## 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	2.1075	0.0701	6.0524	3.2000e-004			0.0332	0.0332		0.0332	0.0000	10.8443	10.8443	0.0106	0.0000	11.0679
Energy	0.0415	0.3549	0.1510	2.2700e-003			0.0287	0.0287		0.0287	0.0287	453.0177	453.0177	8.6800e-003	8.3100e-003	455.7746
Mobile	0.9680	1.1668	10.5080	0.0324	2.6141	0.0196	2.6337	0.6947	0.0181	0.7129	2,472.7852	2,472.7852	0.1059		2,475.0097	
Total	3.1170	1.5918	16.7115	0.0350	2.6141	0.0814	2.6955	0.6947	0.0800	0.7747	0.0000	2,936.6471	2,936.6471	0.1253	8.3100e-003	2,941.8522

### 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	2.1075	0.0701	6.0524	3.2000e-004			0.0332	0.0332		0.0332	0.0000	10.8443	10.8443	0.0106	0.0000	11.0679
Energy	0.0415	0.3549	0.1510	2.2700e-003			0.0287	0.0287		0.0287	0.0287	453.0177	453.0177	8.6800e-003	8.3100e-003	455.7746
Mobile	0.9680	1.1668	10.5080	0.0324	2.6141	0.0196	2.6337	0.6947	0.0181	0.7129	2,472.7852	2,472.7852	0.1059		2,475.0097	
Total	3.1170	1.5918	16.7115	0.0350	2.6141	0.0814	2.6955	0.6947	0.0800	0.7747	0.0000	2,936.6471	2,936.6471	0.1253	8.3100e-003	2,941.8522

	ROG	NOx	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

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#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/28/2016	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

#### Trips and VMT

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

#### 3.1 Mitigation Measures Construction

### 3.2 Demolition - 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	0.0000	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

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day												lb/day			
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	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	0.0000

### 3.2 Demolition - 2016

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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 Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0000	0.0000	0.0000	0.0000	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	0.0000	0.0000	

### 4.0 Operational Detail - Mobile

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## 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	0.9680	1.1668	10.5080	0.0324	2.6141	0.0196	2.6337	0.6947	0.0181	0.7129	2,472.785	2,472.785	0.1059			2,475.009	
Unmitigated	0.9680	1.1668	10.5080	0.0324	2.6141	0.0196	2.6337	0.6947	0.0181	0.7129	2,472.785	2,472.785	0.1059			2,475.009	

## 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated		Mitigated	
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT	Annual VMT	Annual VMT
Mobile Home Park	364.27	365.00	318.28	1,222,672	1,222,672	1,222,672	1,222,672
Total	364.27	365.00	318.28	1,222,672	1,222,672	1,222,672	1,222,672

## 4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Mobile Home Park	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.554336	0.061602	0.209697	0.164401	0.000000	0.000000	0.000000	0.000000	0.000000	0.002345	0.005152	0.000000	0.002469

## 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	0.0415	0.3549	0.1510	2.2700e-003			0.0287	0.0287		0.0287	0.0287	453.0177	453.0177	8.6800e-003	8.3100e-003	455.7746	
NaturalGas Unmitigated	0.0415	0.3549	0.1510	2.2700e-003			0.0287	0.0287		0.0287	0.0287	453.0177	453.0177	8.6800e-003	8.3100e-003	455.7746	

## 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					
Mobile Home Park	3850.65	0.0415	0.3549	0.1510	2.2700e-003			0.0287	0.0287		0.0287	0.0287	453.0177	453.0177	8.6800e-003	8.3100e-003	455.7746	
Total		0.0415	0.3549	0.1510	2.2700e-003			0.0287	0.0287		0.0287	0.0287	453.0177	453.0177	8.6800e-003	8.3100e-003	455.7746	

## 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					
Mobile Home Park	3.85065	0.0415	0.3549	0.1510	2.2700e-003		0.0287	0.0287		0.0287	0.0287		453.0177	453.0177	8.6800e-003	8.3100e-003	455.7746	
Total		0.0415	0.3549	0.1510	2.2700e-003		0.0287	0.0287		0.0287	0.0287		453.0177	453.0177	8.6800e-003	8.3100e-003	455.7746	

## 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	2.1075	0.0701	6.0524	3.2000e-004		0.0332	0.0332		0.0332	0.0332	0.0000	10.8443	10.8443	0.0106	0.0000	11.0679
Unmitigated	2.1075	0.0701	6.0524	3.2000e-004		0.0332	0.0332		0.0332	0.0332	0.0000	10.8443	10.8443	0.0106	0.0000	11.0679

## 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	0.1877					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7345					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1853	0.0701	6.0524	3.2000e-004		0.0332	0.0332		0.0332	0.0332		10.8443	10.8443	0.0106		11.0679
<b>Total</b>	<b>2.1075</b>	<b>0.0701</b>	<b>6.0524</b>	<b>3.2000e-004</b>		<b>0.0332</b>	<b>0.0332</b>		<b>0.0332</b>	<b>0.0332</b>	<b>0.0000</b>	<b>10.8443</b>	<b>10.8443</b>	<b>0.0106</b>	<b>0.0000</b>	<b>11.0679</b>

## 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	1.7345						0.0000	0.0000		0.0000	0.0000		0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1853	0.0701	6.0524	3.2000e-004			0.0332	0.0332		0.0332	0.0332	10.8443	10.8443	0.0106		11.0679
Architectural Coating	0.1877						0.0000	0.0000		0.0000	0.0000		0.0000			0.0000
Total	2.1075	0.0701	6.0524	3.2000e-004			0.0332	0.0332		0.0332	0.0000	10.8443	10.8443	0.0106	0.0000	11.0679

## 7.0 Water Detail

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### 7.1 Mitigation Measures Water

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

## 9.0 Operational Offroad

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

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## Ebb Tide

### Orange County, Annual

## **1.0 Project Characteristics**

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### **1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	83.00	Dwelling Unit	4.70	149,400.00	237

### **1.2 Other Project Characteristics**

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	30
Climate Zone	8			Operational Year	2019
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

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

## Project Characteristics -

Land Use - Specific site acreage

Construction Phase - Based on project build-out year

Off-road Equipment -

Demolition -

Vehicle Trips - From traffic study

Vechicle Emission Factors - Specific to residential uses

Vechicle Emission Factors - Specific to residential uses

Vechicle Emission Factors - Specific to residential uses

Woodstoves - Wood fireplaces prohibited

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	18.00	540.00
tblConstructionPhase	NumDays	230.00	752.00
tblConstructionPhase	NumDays	18.00	538.00
tblConstructionPhase	PhaseEndDate	2/19/2021	2/22/2019
tblConstructionPhase	PhaseEndDate	1/26/2021	1/27/2019
tblConstructionPhase	PhaseStartDate	1/28/2019	1/28/2017
tblConstructionPhase	PhaseStartDate	1/4/2019	1/4/2017
tblFireplaces	NumberGas	70.55	75.00
tblFireplaces	NumberWood	4.15	0.00
tblLandUse	LotAcreage	26.95	4.70
tblProjectCharacteristics	OperationalYear	2014	2019
tblVehicleEF	HHD	0.02	0.00
tblVehicleEF	HHD	0.02	0.00
tblVehicleEF	HHD	0.02	0.00
tblVehicleEF	LDA	0.51	0.56

tblVehicleEF	LDA	0.51	0.56
tblVehicleEF	LDA	0.51	0.56
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT2	0.19	0.21
tblVehicleEF	LDT2	0.19	0.21
tblVehicleEF	LDT2	0.19	0.21
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD2	5.9130e-003	0.00
tblVehicleEF	LHD2	5.9130e-003	0.00
tblVehicleEF	LHD2	5.9130e-003	0.00
tblVehicleEF	MCY	4.7350e-003	5.1640e-003
tblVehicleEF	MCY	4.7350e-003	5.1640e-003
tblVehicleEF	MCY	4.7350e-003	5.1640e-003
tblVehicleEF	MDV	0.15	0.16
tblVehicleEF	MDV	0.15	0.16
tblVehicleEF	MDV	0.15	0.16
tblVehicleEF	MH	2.2690e-003	2.4750e-003
tblVehicleEF	MH	2.2690e-003	2.4750e-003
tblVehicleEF	MH	2.2690e-003	2.4750e-003
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	OBUS	1.4470e-003	0.00
tblVehicleEF	OBUS	1.4470e-003	0.00

tblVehicleEF	OBUS	1.4470e-003	0.00
tblVehicleEF	SBUS	5.0200e-004	0.00
tblVehicleEF	SBUS	5.0200e-004	0.00
tblVehicleEF	SBUS	5.0200e-004	0.00
tblVehicleEF	UBUS	2.1550e-003	0.00
tblVehicleEF	UBUS	2.1550e-003	0.00
tblVehicleEF	UBUS	2.1550e-003	0.00
tblVehicleTrips	WD_TR	9.57	9.52

## 2.0 Emissions Summary

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### 2.1 Overall Construction

#### Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.4854	4.1788	3.0366	4.5500e-003	0.1752	0.2661	0.4412	0.0600	0.2494	0.3094	0.0000	406.5030	406.5030	0.0868	0.0000	408.3250
2017	0.9488	5.9917	4.6678	7.4400e-003	0.0863	0.3841	0.4703	0.0231	0.3597	0.3827	0.0000	652.3003	652.3003	0.1486	0.0000	655.4218
2018	0.8832	5.2851	4.5762	7.5200e-003	0.0875	0.3245	0.4120	0.0234	0.3043	0.3277	0.0000	649.9070	649.9070	0.1481	0.0000	653.0180
2019	0.0639	0.1891	0.1927	3.2000e-004	3.9500e-003	0.0112	0.0152	1.0500e-003	0.0106	0.0116	0.0000	27.5181	27.5181	6.2300e-003	0.0000	27.6490
Total	2.3812	15.6447	12.4732	0.0198	0.3528	0.9859	1.3387	0.1075	0.9240	1.0314	0.0000	1,736.2284	1,736.2284	0.3898	0.0000	1,744.4138

## 2.1 Overall Construction

### Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.4854	4.1788	3.0366	4.5500e-003	0.1068	0.2661	0.3729	0.0345	0.2494	0.2839	0.0000	406.5026	406.5026	0.0868	0.0000	408.3246
2017	0.9488	5.9917	4.6678	7.4400e-003	0.0863	0.3841	0.4703	0.0231	0.3597	0.3827	0.0000	652.2996	652.2996	0.1486	0.0000	655.4211
2018	0.8832	5.2851	4.5762	7.5200e-003	0.0875	0.3245	0.4120	0.0234	0.3043	0.3277	0.0000	649.9063	649.9063	0.1481	0.0000	653.0173
2019	0.0639	0.1891	0.1927	3.2000e-004	3.9500e-003	0.0112	0.0152	1.0500e-003	0.0106	0.0116	0.0000	27.5181	27.5181	6.2300e-003	0.0000	27.6490
Total	2.3812	15.6447	12.4732	0.0198	0.2845	0.9859	1.2703	0.0820	0.9240	1.0060	0.0000	1,736.2266	1,736.2266	0.3898	0.0000	1,744.4120

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	19.38	0.00	5.11	23.70	0.00	2.47	0.00	0.00	0.00	0.00	0.00	0.00

## 2.2 Overall Operational

### Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Area	0.6544	0.0141	1.1146	8.7000e-004		0.0475	0.0475		0.0474	0.0474	5.5547	19.4085	24.9631	0.0277	3.3000e-004	25.6468	
Energy	0.0129	0.1105	0.0470	7.1000e-004		8.9300e-003	8.9300e-003		8.9300e-003	8.9300e-003	0.0000	296.3235	296.3235	0.0102	3.9500e-003	297.7611	
Mobile	0.3529	0.4093	4.1543	0.0128	1.0046	6.7300e-003	1.0113	0.2667	6.2300e-003	0.2729	0.0000	883.8144	883.8144	0.0378	0.0000	884.6082	
Waste						0.0000	0.0000		0.0000	0.0000	19.7246	0.0000	19.7246	1.1657	0.0000	44.2042	
Water						0.0000	0.0000		0.0000	0.0000	1.7156	30.9895	32.7051	0.1776	4.4600e-003	37.8167	
<b>Total</b>	<b>1.0203</b>	<b>0.5339</b>	<b>5.3159</b>	<b>0.0144</b>	<b>1.0046</b>	<b>0.0631</b>	<b>1.0677</b>	<b>0.2667</b>	<b>0.0626</b>	<b>0.3293</b>	<b>26.9949</b>	<b>1,230.5358</b>	<b>1,257.5307</b>	<b>1.4190</b>	<b>8.7400e-003</b>	<b>1,290.0369</b>	

## 2.2 Overall Operational

### Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Area	0.6544	0.0141	1.1146	8.7000e-004		0.0475	0.0475		0.0474	0.0474	5.5547	19.4085	24.9631	0.0277	3.3000e-004	25.6468	
Energy	0.0129	0.1105	0.0470	7.1000e-004		8.9300e-003	8.9300e-003		8.9300e-003	8.9300e-003	0.0000	296.3235	296.3235	0.0102	3.9500e-003	297.7611	
Mobile	0.3529	0.4093	4.1543	0.0128	1.0046	6.7300e-003	1.0113	0.2667	6.2300e-003	0.2729	0.0000	883.8144	883.8144	0.0378	0.0000	884.6082	
Waste						0.0000	0.0000		0.0000	0.0000	19.7246	0.0000	19.7246	1.1657	0.0000	44.2042	
Water						0.0000	0.0000		0.0000	0.0000	1.7156	30.9895	32.7051	0.1776	4.4500e-003	37.8140	
<b>Total</b>	<b>1.0203</b>	<b>0.5339</b>	<b>5.3159</b>	<b>0.0144</b>	<b>1.0046</b>	<b>0.0631</b>	<b>1.0677</b>	<b>0.2667</b>	<b>0.0626</b>	<b>0.3293</b>	<b>26.9949</b>	<b>1,230.5358</b>	<b>1,257.5307</b>	<b>1.4190</b>	<b>8.7300e-003</b>	<b>1,290.0342</b>	

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.00

## 3.0 Construction Detail

### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/28/2016	5	20	
2	Site Preparation	Site Preparation	1/29/2016	2/4/2016	5	5	
3	Grading	Grading	2/5/2016	2/16/2016	5	8	
4	Building Construction	Building Construction	2/17/2016	1/3/2019	5	752	
5	Paving	Paving	1/4/2017	1/27/2019	5	538	
6	Architectural Coating	Architectural Coating	1/28/2017	2/22/2019	5	540	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 4**

**Acres of Paving: 0**

**Residential Indoor: 302,535; Residential Outdoor: 100,845; 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	3	8.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	125	0.42
Paving	Paving Equipment	2	6.00	130	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

### Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	489.00	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	30.00	9.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	6.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

### 3.1 Mitigation Measures Construction

Water Exposed Area

### 3.2 Demolition - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0529	0.0000	0.0529	8.0200e-003	0.0000	8.0200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0429	0.4566	0.3503	4.0000e-004		0.0229	0.0229		0.0214	0.0214	0.0000	37.0974	37.0974	0.0101	0.0000	37.3092
Total	0.0429	0.4566	0.3503	4.0000e-004	0.0529	0.0229	0.0759	8.0200e-003	0.0214	0.0294	0.0000	37.0974	37.0974	0.0101	0.0000	37.3092

### 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	tons/yr											MT/yr					
Hauling	4.6700e-003	0.0709	0.0545	1.8000e-004	4.1900e-003	1.0100e-003	5.2100e-003	1.1500e-003	9.3000e-004	2.0800e-003	0.0000	16.4269	16.4269	1.2000e-004	0.0000	16.4294	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	5.1000e-004	7.6000e-004	7.9200e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.4843	1.4843	7.0000e-005	0.0000	1.4858	
Total	5.1800e-003	0.0717	0.0624	2.0000e-004	5.8400e-003	1.0200e-003	6.8700e-003	1.5900e-003	9.4000e-004	2.5300e-003	0.0000	17.9112	17.9112	1.9000e-004	0.0000	17.9152	

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0238	0.0000	0.0238	3.6100e-003	0.0000	3.6100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0429	0.4566	0.3503	4.0000e-004	0.0229	0.0229	0.0467	3.6100e-003	0.0214	0.0214	0.0000	37.0973	37.0973	0.0101	0.0000	37.3092
Total	0.0429	0.4566	0.3503	4.0000e-004	0.0238	0.0229	0.0467	3.6100e-003	0.0214	0.0250	0.0000	37.0973	37.0973	0.0101	0.0000	37.3092

### 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	tons/yr											MT/yr					
Hauling	4.6700e-003	0.0709	0.0545	1.8000e-004	4.1900e-003	1.0100e-003	5.2100e-003	1.1500e-003	9.3000e-004	2.0800e-003	0.0000	16.4269	16.4269	1.2000e-004	0.0000	16.4294	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	5.1000e-004	7.6000e-004	7.9200e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.4843	1.4843	7.0000e-005	0.0000	1.4858	
Total	5.1800e-003	0.0717	0.0624	2.0000e-004	5.8400e-003	1.0200e-003	6.8700e-003	1.5900e-003	9.4000e-004	2.5300e-003	0.0000	17.9112	17.9112	1.9000e-004	0.0000	17.9152	

### 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	tons/yr										MT/yr					
Fugitive Dust					0.0452	0.0000	0.0452	0.0248	0.0000	0.0248	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1366	0.1028	1.0000e-004		7.3500e-003	7.3500e-003		6.7600e-003	6.7600e-003	0.0000	9.2193	9.2193	2.7800e-003	0.0000	9.2777
Total	0.0127	0.1366	0.1028	1.0000e-004	0.0452	7.3500e-003	0.0525	0.0248	6.7600e-003	0.0316	0.0000	9.2193	9.2193	2.7800e-003	0.0000	9.2777

### 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	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	1.5000e-004	2.3000e-004	2.3800e-003	1.0000e-005	4.9000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4453	0.4453	2.0000e-005	0.0000	0.4457	
Total	1.5000e-004	2.3000e-004	2.3800e-003	1.0000e-005	4.9000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4453	0.4453	2.0000e-005	0.0000	0.4457	

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Fugitive Dust					0.0203	0.0000	0.0203	0.0112	0.0000	0.0112	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	0.0127	0.1366	0.1028	1.0000e-004		7.3500e-003	7.3500e-003		6.7600e-003	6.7600e-003	0.0000	9.2193	9.2193	2.7800e-003	0.0000	9.2777	
Total	0.0127	0.1366	0.1028	1.0000e-004	0.0203	7.3500e-003	0.0277	0.0112	6.7600e-003	0.0179	0.0000	9.2193	9.2193	2.7800e-003	0.0000	9.2777	

### 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	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	1.5000e-004	2.3000e-004	2.3800e-003	1.0000e-005	4.9000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4453	0.4453	2.0000e-005	0.0000	0.4457	
Total	1.5000e-004	2.3000e-004	2.3800e-003	1.0000e-005	4.9000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4453	0.4453	2.0000e-005	0.0000	0.4457	

### 3.4 Grading - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0262	0.0000	0.0262	0.0135	0.0000	0.0135	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0147	0.1538	0.1043	1.2000e-004		8.7900e-003	8.7900e-003		8.0900e-003	8.0900e-003	0.0000	11.2266	11.2266	3.3900e-003	0.0000	11.2977
Total	0.0147	0.1538	0.1043	1.2000e-004	0.0262	8.7900e-003	0.0350	0.0135	8.0900e-003	0.0216	0.0000	11.2266	11.2266	3.3900e-003	0.0000	11.2977

### 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	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	2.1000e-004	3.0000e-004	3.1700e-003	1.0000e-005	6.6000e-004	0.0000	6.6000e-004	1.7000e-004	0.0000	1.8000e-004	0.0000	0.5937	0.5937	3.0000e-005	0.0000	0.5943	
Total	2.1000e-004	3.0000e-004	3.1700e-003	1.0000e-005	6.6000e-004	0.0000	6.6000e-004	1.7000e-004	0.0000	1.8000e-004	0.0000	0.5937	0.5937	3.0000e-005	0.0000	0.5943	

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0118	0.0000	0.0118	6.0600e-003	0.0000	6.0600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0147	0.1538	0.1043	1.2000e-004		8.7900e-003	8.7900e-003		8.0900e-003	8.0900e-003	0.0000	11.2265	11.2265	3.3900e-003	0.0000	11.2977
Total	0.0147	0.1538	0.1043	1.2000e-004	0.0118	8.7900e-003	0.0206	6.0600e-003	8.0900e-003	0.0142	0.0000	11.2265	11.2265	3.3900e-003	0.0000	11.2977

### 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	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	2.1000e-004	3.0000e-004	3.1700e-003	1.0000e-005	6.6000e-004	0.0000	6.6000e-004	1.7000e-004	0.0000	1.8000e-004	0.0000	0.5937	0.5937	3.0000e-005	0.0000	0.5943	
Total	2.1000e-004	3.0000e-004	3.1700e-003	1.0000e-005	6.6000e-004	0.0000	6.6000e-004	1.7000e-004	0.0000	1.8000e-004	0.0000	0.5937	0.5937	3.0000e-005	0.0000	0.5943	

### 3.5 Building Construction - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Off-Road	0.3883	3.2497	2.1098	3.0600e-003		0.2243	0.2243		0.2107	0.2107	0.0000	276.0551	276.0551	0.0685	0.0000	277.4929	
Total	0.3883	3.2497	2.1098	3.0600e-003		0.2243	0.2243		0.2107	0.2107	0.0000	276.0551	276.0551	0.0685	0.0000	277.4929	

### 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	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	9.5800e-003	0.0926	0.1210	2.2000e-004	6.3200e-003	1.4100e-003	7.7300e-003	1.8000e-003	1.3000e-003	3.1000e-003	0.0000	20.1131	20.1131	1.5000e-004	0.0000	20.1162	
Worker	0.0117	0.0173	0.1805	4.5000e-004	0.0375	2.7000e-004	0.0378	9.9700e-003	2.5000e-004	0.0102	0.0000	33.8414	33.8414	1.6600e-003	0.0000	33.8761	
Total	0.0213	0.1099	0.3015	6.7000e-004	0.0439	1.6800e-003	0.0455	0.0118	1.5500e-003	0.0133	0.0000	53.9545	53.9545	1.8100e-003	0.0000	53.9923	

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Off-Road	0.3883	3.2497	2.1098	3.0600e-003		0.2243	0.2243		0.2107	0.2107	0.0000	276.0548	276.0548	0.0685	0.0000	277.4926	
Total	0.3883	3.2497	2.1098	3.0600e-003		0.2243	0.2243		0.2107	0.2107	0.0000	276.0548	276.0548	0.0685	0.0000	277.4926	

### 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	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	9.5800e-003	0.0926	0.1210	2.2000e-004	6.3200e-003	1.4100e-003	7.7300e-003	1.8000e-003	1.3000e-003	3.1000e-003	0.0000	20.1131	20.1131	1.5000e-004	0.0000	20.1162	
Worker	0.0117	0.0173	0.1805	4.5000e-004	0.0375	2.7000e-004	0.0378	9.9700e-003	2.5000e-004	0.0102	0.0000	33.8414	33.8414	1.6600e-003	0.0000	33.8761	
Total	0.0213	0.1099	0.3015	6.7000e-004	0.0439	1.6800e-003	0.0455	0.0118	1.5500e-003	0.0133	0.0000	53.9545	53.9545	1.8100e-003	0.0000	53.9923	

### 3.5 Building Construction - 2017

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Off-Road	0.4033	3.4327	2.3568	3.4900e-003		0.2316	0.2316		0.2175	0.2175	0.0000	311.3228	311.3228	0.0766	0.0000	312.9319	
Total	0.4033	3.4327	2.3568	3.4900e-003		0.2316	0.2316		0.2175	0.2175	0.0000	311.3228	311.3228	0.0766	0.0000	312.9319	

### 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	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0101	0.0960	0.1306	2.5000e-004	7.2000e-003	1.4400e-003	8.6400e-003	2.0600e-003	1.3200e-003	3.3800e-003	0.0000	22.5625	22.5625	1.6000e-004	0.0000	22.5659	
Worker	0.0121	0.0179	0.1873	5.1000e-004	0.0428	3.0000e-004	0.0431	0.0114	2.8000e-004	0.0116	0.0000	37.0976	37.0976	1.7500e-003	0.0000	37.1344	
Total	0.0222	0.1140	0.3179	7.6000e-004	0.0500	1.7400e-003	0.0518	0.0134	1.6000e-003	0.0150	0.0000	59.6601	59.6601	1.9100e-003	0.0000	59.7003	

#### 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	tons/yr											MT/yr					
Off-Road	0.4033	3.4327	2.3568	3.4900e-003		0.2316	0.2316		0.2175	0.2175	0.0000	311.3225	311.3225	0.0766	0.0000	312.9315	
Total	0.4033	3.4327	2.3568	3.4900e-003		0.2316	0.2316		0.2175	0.2175	0.0000	311.3225	311.3225	0.0766	0.0000	312.9315	

### 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	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0101	0.0960	0.1306	2.5000e-004	7.2000e-003	1.4400e-003	8.6400e-003	2.0600e-003	1.3200e-003	3.3800e-003	0.0000	22.5625	22.5625	1.6000e-004	0.0000	22.5659	
Worker	0.0121	0.0179	0.1873	5.1000e-004	0.0428	3.0000e-004	0.0431	0.0114	2.8000e-004	0.0116	0.0000	37.0976	37.0976	1.7500e-003	0.0000	37.1344	
Total	0.0222	0.1140	0.3179	7.6000e-004	0.0500	1.7400e-003	0.0518	0.0134	1.6000e-003	0.0150	0.0000	59.6601	59.6601	1.9100e-003	0.0000	59.7003	

### 3.5 Building Construction - 2018

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Off-Road	0.3483	3.0355	2.2880	3.5000e-003		0.1950	0.1950		0.1833	0.1833	0.0000	308.9844	308.9844	0.0756	0.0000	310.5723	
Total	0.3483	3.0355	2.2880	3.5000e-003		0.1950	0.1950		0.1833	0.1833	0.0000	308.9844	308.9844	0.0756	0.0000	310.5723	

### 3.5 Building Construction - 2018

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	9.4300e-003	0.0885	0.1252	2.5000e-004	7.2300e-003	1.3600e-003	8.5900e-003	2.0600e-003	1.2500e-003	3.3100e-003	0.0000	22.2646	22.2646	1.6000e-004	0.0000	22.2679	
Worker	0.0111	0.0164	0.1718	5.1000e-004	0.0430	3.0000e-004	0.0433	0.0114	2.7000e-004	0.0117	0.0000	35.8440	35.8440	1.6400e-003	0.0000	35.8784	
Total	0.0205	0.1049	0.2970	7.6000e-004	0.0502	1.6600e-003	0.0519	0.0135	1.5200e-003	0.0150	0.0000	58.1085	58.1085	1.8000e-003	0.0000	58.1463	

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Off-Road	0.3483	3.0355	2.2880	3.5000e-003		0.1950	0.1950		0.1833	0.1833	0.0000	308.9841	308.9841	0.0756	0.0000	310.5720	
Total	0.3483	3.0355	2.2880	3.5000e-003		0.1950	0.1950		0.1833	0.1833	0.0000	308.9841	308.9841	0.0756	0.0000	310.5720	

### 3.5 Building Construction - 2018

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	9.4300e-003	0.0885	0.1252	2.5000e-004	7.2300e-003	1.3600e-003	8.5900e-003	2.0600e-003	1.2500e-003	3.3100e-003	0.0000	22.2646	22.2646	1.6000e-004	0.0000	22.2679	
Worker	0.0111	0.0164	0.1718	5.1000e-004	0.0430	3.0000e-004	0.0433	0.0114	2.7000e-004	0.0117	0.0000	35.8440	35.8440	1.6400e-003	0.0000	35.8784	
Total	0.0205	0.1049	0.2970	7.6000e-004	0.0502	1.6600e-003	0.0519	0.0135	1.5200e-003	0.0150	0.0000	58.1085	58.1085	1.8000e-003	0.0000	58.1463	

### 3.5 Building Construction - 2019

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.5300e-003	0.0315	0.0257	4.0000e-005		1.9300e-003	1.9300e-003		1.8100e-003	1.8100e-003	0.0000	3.5118	3.5118	8.5000e-004	0.0000	3.5298
Total	3.5300e-003	0.0315	0.0257	4.0000e-005		1.9300e-003	1.9300e-003		1.8100e-003	1.8100e-003	0.0000	3.5118	3.5118	8.5000e-004	0.0000	3.5298

### 3.5 Building Construction - 2019

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e		
Category	tons/yr												MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
Vendor	1.0000e-004	9.4000e-004	1.3700e-003	0.0000	8.0000e-005	1.0000e-005	1.0000e-004	2.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.2524	0.2524	0.0000	0.0000	0.2524		
Worker	1.2000e-004	1.7000e-004	1.8400e-003	1.0000e-005	4.9000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.3991	0.3991	2.0000e-005	0.0000	0.3995		
Total	2.2000e-004	1.1100e-003	3.2100e-003	1.0000e-005	5.7000e-004	1.0000e-005	6.0000e-004	1.5000e-004	1.0000e-005	1.7000e-004	0.0000	0.6515	0.6515	2.0000e-005	0.0000	0.6519		

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e		
Category	tons/yr												MT/yr					
Off-Road	3.5300e-003	0.0315	0.0257	4.0000e-005		1.9300e-003	1.9300e-003		1.8100e-003	1.8100e-003	0.0000	3.5118	3.5118	8.5000e-004	0.0000	3.5298		
Total	3.5300e-003	0.0315	0.0257	4.0000e-005		1.9300e-003	1.9300e-003		1.8100e-003	1.8100e-003	0.0000	3.5118	3.5118	8.5000e-004	0.0000	3.5298		

### 3.5 Building Construction - 2019

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	1.0000e-004	9.4000e-004	1.3700e-003	0.0000	8.0000e-005	1.0000e-005	1.0000e-004	2.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.2524	0.2524	0.0000	0.0000	0.2524	
Worker	1.2000e-004	1.7000e-004	1.8400e-003	1.0000e-005	4.9000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.3991	0.3991	2.0000e-005	0.0000	0.3995	
Total	2.2000e-004	1.1100e-003	3.2100e-003	1.0000e-005	5.7000e-004	1.0000e-005	6.0000e-004	1.5000e-004	1.0000e-005	1.7000e-004	0.0000	0.6515	0.6515	2.0000e-005	0.0000	0.6519	

### 3.6 Paving - 2017

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2136	2.1677	1.6104	2.4100e-003		0.1297	0.1297		0.1196	0.1196	0.0000	219.2880	219.2880	0.0654	0.0000	220.6612
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.2136	2.1677	1.6104	2.4100e-003		0.1297	0.1297		0.1196	0.1196	0.0000	219.2880	219.2880	0.0654	0.0000	220.6612

### 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	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	8.0100e-003	0.0119	0.1239	3.4000e-004	0.0283	2.0000e-004	0.0285	7.5200e-003	1.8000e-004	7.7000e-003	0.0000	24.5415	24.5415	1.1600e-003	0.0000	24.5658	
Total	8.0100e-003	0.0119	0.1239	3.4000e-004	0.0283	2.0000e-004	0.0285	7.5200e-003	1.8000e-004	7.7000e-003	0.0000	24.5415	24.5415	1.1600e-003	0.0000	24.5658	

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Off-Road	0.2136	2.1677	1.6104	2.4100e-003		0.1297	0.1297		0.1196	0.1196	0.0000	219.2877	219.2877	0.0654	0.0000	220.6610	
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Total	0.2136	2.1677	1.6104	2.4100e-003		0.1297	0.1297		0.1196	0.1196	0.0000	219.2877	219.2877	0.0654	0.0000	220.6610	

### 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	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	8.0100e-003	0.0119	0.1239	3.4000e-004	0.0283	2.0000e-004	0.0285	7.5200e-003	1.8000e-004	7.7000e-003	0.0000	24.5415	24.5415	1.1600e-003	0.0000	24.5658	
Total	8.0100e-003	0.0119	0.1239	3.4000e-004	0.0283	2.0000e-004	0.0285	7.5200e-003	1.8000e-004	7.7000e-003	0.0000	24.5415	24.5415	1.1600e-003	0.0000	24.5658	

### 3.6 Paving - 2018

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Off-Road	0.1835	1.8687	1.6003	2.4300e-003		0.1080	0.1080		0.0996	0.0996	0.0000	218.4293	218.4293	0.0661	0.0000	219.8182	
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Total	0.1835	1.8687	1.6003	2.4300e-003		0.1080	0.1080		0.0996	0.0996	0.0000	218.4293	218.4293	0.0661	0.0000	219.8182	

### 3.6 Paving - 2018

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	7.3800e-003	0.0110	0.1145	3.4000e-004	0.0287	2.0000e-004	0.0289	7.6100e-003	1.8000e-004	7.7900e-003	0.0000	23.8960	23.8960	1.0900e-003	0.0000	23.9189	
Total	7.3800e-003	0.0110	0.1145	3.4000e-004	0.0287	2.0000e-004	0.0289	7.6100e-003	1.8000e-004	7.7900e-003	0.0000	23.8960	23.8960	1.0900e-003	0.0000	23.9189	

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Off-Road	0.1835	1.8687	1.6003	2.4300e-003		0.1080	0.1080		0.0996	0.0996	0.0000	218.4290	218.4290	0.0661	0.0000	219.8179	
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Total	0.1835	1.8687	1.6003	2.4300e-003		0.1080	0.1080		0.0996	0.0996	0.0000	218.4290	218.4290	0.0661	0.0000	219.8179	

### 3.6 Paving - 2018

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	7.3800e-003	0.0110	0.1145	3.4000e-004	0.0287	2.0000e-004	0.0289	7.6100e-003	1.8000e-004	7.7900e-003	0.0000	23.8960	23.8960	1.0900e-003	0.0000	23.9189	
Total	7.3800e-003	0.0110	0.1145	3.4000e-004	0.0287	2.0000e-004	0.0289	7.6100e-003	1.8000e-004	7.7900e-003	0.0000	23.8960	23.8960	1.0900e-003	0.0000	23.9189	

### 3.6 Paving - 2019

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Off-Road	0.0119	0.1196	0.1154	1.8000e-004		6.7600e-003	6.7600e-003		6.2300e-003	6.2300e-003	0.0000	15.6529	15.6529	4.8100e-003	0.0000	15.7540	
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Total	0.0119	0.1196	0.1154	1.8000e-004		6.7600e-003	6.7600e-003		6.2300e-003	6.2300e-003	0.0000	15.6529	15.6529	4.8100e-003	0.0000	15.7540	

### 3.6 Paving - 2019

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	5.0000e-004	7.4000e-004	7.7700e-003	2.0000e-005	2.0900e-003	1.0000e-005	2.1000e-003	5.5000e-004	1.0000e-005	5.7000e-004	0.0000	1.6853	1.6853	8.0000e-005	0.0000	1.6869	
Total	5.0000e-004	7.4000e-004	7.7700e-003	2.0000e-005	2.0900e-003	1.0000e-005	2.1000e-003	5.5000e-004	1.0000e-005	5.7000e-004	0.0000	1.6853	1.6853	8.0000e-005	0.0000	1.6869	

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Off-Road	0.0119	0.1196	0.1154	1.8000e-004		6.7600e-003	6.7600e-003		6.2300e-003	6.2300e-003	0.0000	15.6529	15.6529	4.8100e-003	0.0000	15.7540	
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Total	0.0119	0.1196	0.1154	1.8000e-004		6.7600e-003	6.7600e-003		6.2300e-003	6.2300e-003	0.0000	15.6529	15.6529	4.8100e-003	0.0000	15.7540	

### 3.6 Paving - 2019

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	5.0000e-004	7.4000e-004	7.7700e-003	2.0000e-005	2.0900e-005	1.0000e-003	2.1000e-003	5.5000e-004	1.0000e-005	5.7000e-004	0.0000	1.6853	1.6853	8.0000e-005	0.0000	1.6869	
Total	5.0000e-004	7.4000e-004	7.7700e-003	2.0000e-005	2.0900e-003	1.0000e-005	2.1000e-003	5.5000e-004	1.0000e-005	5.7000e-004	0.0000	1.6853	1.6853	8.0000e-005	0.0000	1.6869	

### 3.7 Architectural Coating - 2017

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2597						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0399	0.2622	0.2242	3.6000e-004		0.0208	0.0208		0.0208	0.0208	0.0000	30.6390	30.6390	3.2300e-003	0.0000	30.7070
Total	0.2996	0.2622	0.2242	3.6000e-004		0.0208	0.0208		0.0208	0.0208	0.0000	30.6390	30.6390	3.2300e-003	0.0000	30.7070

### 3.7 Architectural Coating - 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	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	2.2400e-003	3.3100e-003	0.0346	9.0000e-005	7.9000e-005	5.0000e-005	7.9600e-003	2.1000e-003	5.0000e-005	2.1500e-003	0.0000	6.8488	6.8488	3.2000e-004	0.0000	6.8556	
Total	2.2400e-003	3.3100e-003	0.0346	9.0000e-005	7.9000e-003	5.0000e-005	7.9600e-003	2.1000e-003	5.0000e-005	2.1500e-003	0.0000	6.8488	6.8488	3.2000e-004	0.0000	6.8556	

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Archit. Coating	0.2597						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	0.0399	0.2622	0.2242	3.6000e-004			0.0208	0.0208		0.0208	0.0208	0.0000	30.6390	30.6390	3.2300e-003	0.0000	30.7069
Total	0.2996	0.2622	0.2242	3.6000e-004			0.0208	0.0208		0.0208	0.0208	0.0000	30.6390	30.6390	3.2300e-003	0.0000	30.7069

### 3.7 Architectural Coating - 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	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	2.2400e-003	3.3100e-003	0.0346	9.0000e-005	7.9000e-005	5.0000e-005	7.9600e-003	2.1000e-003	5.0000e-005	2.1500e-003	0.0000	6.8488	6.8488	3.2000e-004	0.0000	6.8556	
Total	2.2400e-003	3.3100e-003	0.0346	9.0000e-005	7.9000e-003	5.0000e-005	7.9600e-003	2.1000e-003	5.0000e-005	2.1500e-003	0.0000	6.8488	6.8488	3.2000e-004	0.0000	6.8556	

### 3.7 Architectural Coating - 2018

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr										MT/yr						
Archit. Coating	0.2824						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	0.0390	0.2618	0.2420	3.9000e-004			0.0197	0.0197		0.0197	0.0197	0.0000	33.3200	33.3200	3.1700e-003	0.0000	33.3865
Total	0.3214	0.2618	0.2420	3.9000e-004			0.0197	0.0197		0.0197	0.0197	0.0000	33.3200	33.3200	3.1700e-003	0.0000	33.3865

### 3.7 Architectural Coating - 2018

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	2.2100e-003	3.2800e-003	0.0344	1.0000e-004	8.6000e-003	6.0000e-005	8.6500e-003	2.2800e-003	5.0000e-005	2.3400e-003	0.0000	7.1688	7.1688	3.3000e-004	0.0000	7.1757	
Total	2.2100e-003	3.2800e-003	0.0344	1.0000e-004	8.6000e-003	6.0000e-005	8.6500e-003	2.2800e-003	5.0000e-005	2.3400e-003	0.0000	7.1688	7.1688	3.3000e-004	0.0000	7.1757	

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Archit. Coating	0.2824						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	0.0390	0.2618	0.2420	3.9000e-004			0.0197	0.0197		0.0197	0.0197	0.0000	33.3200	33.3200	3.1700e-003	0.0000	33.3865
Total	0.3214	0.2618	0.2420	3.9000e-004			0.0197	0.0197		0.0197	0.0197	0.0000	33.3200	33.3200	3.1700e-003	0.0000	33.3865

### 3.7 Architectural Coating - 2018

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	2.2100e-003	3.2800e-003	0.0344	1.0000e-004	8.6000e-003	6.0000e-005	8.6500e-003	2.2800e-003	5.0000e-005	2.3400e-003	0.0000	7.1688	7.1688	3.3000e-004	0.0000	7.1757	
Total	2.2100e-003	3.2800e-003	0.0344	1.0000e-004	8.6000e-003	6.0000e-005	8.6500e-003	2.2800e-003	5.0000e-005	2.3400e-003	0.0000	7.1688	7.1688	3.3000e-004	0.0000	7.1757	

### 3.7 Architectural Coating - 2019

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0422						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.2000e-003	0.0358	0.0359	6.0000e-005		2.5100e-003	2.5100e-003		2.5100e-003	2.5100e-003	0.0000	4.9788	4.9788	4.2000e-004	0.0000	4.9877
Total	0.0474	0.0358	0.0359	6.0000e-005		2.5100e-003	2.5100e-003		2.5100e-003	2.5100e-003	0.0000	4.9788	4.9788	4.2000e-004	0.0000	4.9877

### 3.7 Architectural Coating - 2019

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	3.1000e-004	4.5000e-004	4.7800e-003	2.0000e-005	1.2800e-005	1.0000e-005	1.2900e-003	3.4000e-004	1.0000e-005	3.5000e-004	0.0000	1.0378	1.0378	5.0000e-005	0.0000	1.0388	
Total	3.1000e-004	4.5000e-004	4.7800e-003	2.0000e-005	1.2800e-005	1.0000e-005	1.2900e-003	3.4000e-004	1.0000e-005	3.5000e-004	0.0000	1.0378	1.0378	5.0000e-005	0.0000	1.0388	

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Archit. Coating	0.0422						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	5.2000e-003	0.0358	0.0359	6.0000e-005		2.5100e-003	2.5100e-003		2.5100e-003	2.5100e-003	0.0000	4.9788	4.9788	4.2000e-004	0.0000	4.9877	
Total	0.0474	0.0358	0.0359	6.0000e-005		2.5100e-003	2.5100e-003		2.5100e-003	2.5100e-003	0.0000	4.9788	4.9788	4.2000e-004	0.0000	4.9877	

### 3.7 Architectural Coating - 2019

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr												MT/yr				
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	3.1000e-004	4.5000e-004	4.7800e-003	2.0000e-005	1.2800e-005	1.0000e-003	1.2900e-003	3.4000e-004	1.0000e-005	3.5000e-004	0.0000	1.0378	1.0378	5.0000e-005	0.0000	1.0388	
Total	3.1000e-004	4.5000e-004	4.7800e-003	2.0000e-005	1.2800e-005	1.0000e-003	1.2900e-003	3.4000e-004	1.0000e-005	3.5000e-004	0.0000	1.0378	1.0378	5.0000e-005	0.0000	1.0388	

### 4.0 Operational Detail - Mobile

#### 4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3529	0.4093	4.1543	0.0128	1.0046	6.7300e-003	1.0113	0.2667	6.2300e-003	0.2729	0.0000	883.8144	883.8144	0.0378	0.0000	884.6082
Unmitigated	0.3529	0.4093	4.1543	0.0128	1.0046	6.7300e-003	1.0113	0.2667	6.2300e-003	0.2729	0.0000	883.8144	883.8144	0.0378	0.0000	884.6082

## 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	790.16	836.64	727.91	2,692,398	2,692,398
Total	790.16	836.64	727.91	2,692,398	2,692,398

## 4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.555680	0.061746	0.210189	0.164787	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.005164	0.000000	0.002475

## 5.0 Energy Detail

### 5.1 Fleet Mix

Historical Energy Use: N

### 5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Electricity Mitigated							0.0000	0.0000		0.0000	0.0000	168.3928	168.3928	7.7400e-003	1.6000e-003	169.0518	
Electricity Unmitigated							0.0000	0.0000		0.0000	0.0000	168.3928	168.3928	7.7400e-003	1.6000e-003	169.0518	
NaturalGas Mitigated	0.0129	0.1105	0.0470	7.1000e-004			8.9300e-003	8.9300e-003		8.9300e-003	8.9300e-003	0.0000	127.9307	127.9307	2.4500e-003	2.3500e-003	128.7093
NaturalGas Unmitigated	0.0129	0.1105	0.0470	7.1000e-004			8.9300e-003	8.9300e-003		8.9300e-003	8.9300e-003	0.0000	127.9307	127.9307	2.4500e-003	2.3500e-003	128.7093

## 5.2 Energy by Land Use - NaturalGas

### Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Land Use	kBTU/yr	tons/yr											MT/yr					
Single Family Housing	2.39733e+006	0.0129	0.1105	0.0470	7.1000e-004			8.9300e-003	8.9300e-003		8.9300e-003	8.9300e-003	0.0000	127.9307	127.9307	2.4500e-003	2.3500e-003	128.7093
Total		0.0129	0.1105	0.0470	7.1000e-004			8.9300e-003	8.9300e-003		8.9300e-003	8.9300e-003	0.0000	127.9307	127.9307	2.4500e-003	2.3500e-003	128.7093

## 5.2 Energy by Land Use - NaturalGas

### Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr											MT/yr				
Single Family Housing	2.39733e+006	0.0129	0.1105	0.0470	7.1000e-004		8.9300e-003	8.9300e-003		8.9300e-003	8.9300e-003	0.0000	127.9307	127.9307	2.4500e-003	2.3500e-003	128.7093
Total		0.0129	0.1105	0.0470	7.1000e-004		8.9300e-003	8.9300e-003		8.9300e-003	8.9300e-003	0.0000	127.9307	127.9307	2.4500e-003	2.3500e-003	128.7093

## 5.3 Energy by Land Use - Electricity

### Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	588443	168.3928	7.7400e-003	1.6000e-003	169.0518
Total		168.3928	7.7400e-003	1.6000e-003	169.0518

## 5.3 Energy by Land Use - Electricity

### Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	588443	168.3928	7.7400e-003	1.6000e-003	169.0518
<b>Total</b>		<b>168.3928</b>	<b>7.7400e-003</b>	<b>1.6000e-003</b>	<b>169.0518</b>

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.6544	0.0141	1.1146	8.7000e-004		0.0475	0.0475		0.0474	0.0474	5.5547	19.4085	24.9631	0.0277	3.3000e-004	25.6468
Unmitigated	0.6544	0.0141	1.1146	8.7000e-004		0.0475	0.0475		0.0474	0.0474	5.5547	19.4085	24.9631	0.0277	3.3000e-004	25.6468

## 6.2 Area by SubCategory

### Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0584					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5399					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0298	4.1500e-003	0.2544	8.3000e-004		0.0427	0.0427		0.0427	0.0427	5.5547	18.0103	23.5649	0.0263	3.3000e-004	24.2198
Landscaping	0.0263	9.9600e-003	0.8602	5.0000e-005		4.7100e-003	4.7100e-003		4.7100e-003	4.7100e-003	0.0000	1.3982	1.3982	1.3700e-003	0.0000	1.4270
<b>Total</b>	<b>0.6544</b>	<b>0.0141</b>	<b>1.1146</b>	<b>8.8000e-004</b>		<b>0.0475</b>	<b>0.0475</b>		<b>0.0474</b>	<b>0.0474</b>	<b>5.5547</b>	<b>19.4085</b>	<b>24.9631</b>	<b>0.0277</b>	<b>3.3000e-004</b>	<b>25.6468</b>

## 6.2 Area by SubCategory

### Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0584						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5399						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0298	4.1500e-003	0.2544	8.3000e-004		0.0427	0.0427		0.0427	0.0427	5.5547	18.0103	23.5649	0.0263	3.3000e-004	24.2198
Landscaping	0.0263	9.9600e-003	0.8602	5.0000e-005		4.7100e-003	4.7100e-003		4.7100e-003	4.7100e-003	0.0000	1.3982	1.3982	1.3700e-003	0.0000	1.4270
<b>Total</b>	<b>0.6544</b>	<b>0.0141</b>	<b>1.1146</b>	<b>8.8000e-004</b>		<b>0.0475</b>	<b>0.0475</b>		<b>0.0474</b>	<b>0.0474</b>	<b>5.5547</b>	<b>19.4085</b>	<b>24.9631</b>	<b>0.0277</b>	<b>3.3000e-004</b>	<b>25.6468</b>

## 7.0 Water Detail

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### 7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	32.7051	0.1776	4.4500e-003	37.8140
Unmitigated	32.7051	0.1776	4.4600e-003	37.8167

## 7.2 Water by Land Use

### Unmitigated

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	5.40778 / 3.40926	32.7051	0.1776	4.4600e- 003	37.8167
<b>Total</b>		<b>32.7051</b>	<b>0.1776</b>	<b>4.4600e- 003</b>	<b>37.8167</b>

### Mitigated

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	5.40778 / 3.40926	32.7051	0.1776	4.4500e- 003	37.8140
<b>Total</b>		<b>32.7051</b>	<b>0.1776</b>	<b>4.4500e- 003</b>	<b>37.8140</b>

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	19.7246	1.1657	0.0000	44.2042
Unmitigated	19.7246	1.1657	0.0000	44.2042

**8.2 Waste by Land Use****Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	97.17	19.7246	1.1657	0.0000	44.2042
Total		19.7246	1.1657	0.0000	44.2042

## 8.2 Waste by Land Use

### Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	97.17	19.7246	1.1657	0.0000	44.2042
<b>Total</b>		<b>19.7246</b>	<b>1.1657</b>	<b>0.0000</b>	<b>44.2042</b>

## 9.0 Operational Offroad

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

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## Ebb Tide

### Orange County, Summer

## **1.0 Project Characteristics**

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### **1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	83.00	Dwelling Unit	4.70	149,400.00	237

### **1.2 Other Project Characteristics**

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	30
Climate Zone	8			Operational Year	2019
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

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

## Project Characteristics -

Land Use - Specific site acreage

Construction Phase - Based on project build-out year

Off-road Equipment -

Demolition -

Vehicle Trips - From traffic study

Vechicle Emission Factors - Specific to residential uses

Vechicle Emission Factors - Specific to residential uses

Vechicle Emission Factors - Specific to residential uses

Woodstoves - Wood fireplaces prohibited

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	18.00	540.00
tblConstructionPhase	NumDays	230.00	752.00
tblConstructionPhase	NumDays	18.00	538.00
tblConstructionPhase	PhaseEndDate	2/19/2021	2/22/2019
tblConstructionPhase	PhaseEndDate	1/26/2021	1/27/2019
tblConstructionPhase	PhaseStartDate	1/28/2019	1/28/2017
tblConstructionPhase	PhaseStartDate	1/4/2019	1/4/2017
tblFireplaces	NumberGas	70.55	75.00
tblFireplaces	NumberWood	4.15	0.00
tblLandUse	LotAcreage	26.95	4.70
tblProjectCharacteristics	OperationalYear	2014	2019
tblVehicleEF	HHD	0.02	0.00
tblVehicleEF	HHD	0.02	0.00
tblVehicleEF	HHD	0.02	0.00
tblVehicleEF	LDA	0.51	0.56

tblVehicleEF	LDA	0.51	0.56
tblVehicleEF	LDA	0.51	0.56
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT2	0.19	0.21
tblVehicleEF	LDT2	0.19	0.21
tblVehicleEF	LDT2	0.19	0.21
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD2	5.9130e-003	0.00
tblVehicleEF	LHD2	5.9130e-003	0.00
tblVehicleEF	LHD2	5.9130e-003	0.00
tblVehicleEF	MCY	4.7350e-003	5.1640e-003
tblVehicleEF	MCY	4.7350e-003	5.1640e-003
tblVehicleEF	MCY	4.7350e-003	5.1640e-003
tblVehicleEF	MDV	0.15	0.16
tblVehicleEF	MDV	0.15	0.16
tblVehicleEF	MDV	0.15	0.16
tblVehicleEF	MH	2.2690e-003	2.4750e-003
tblVehicleEF	MH	2.2690e-003	2.4750e-003
tblVehicleEF	MH	2.2690e-003	2.4750e-003
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	OBUS	1.4470e-003	0.00
tblVehicleEF	OBUS	1.4470e-003	0.00

tblVehicleEF	OBUS	1.4470e-003	0.00
tblVehicleEF	SBUS	5.0200e-004	0.00
tblVehicleEF	SBUS	5.0200e-004	0.00
tblVehicleEF	SBUS	5.0200e-004	0.00
tblVehicleEF	UBUS	2.1550e-003	0.00
tblVehicleEF	UBUS	2.1550e-003	0.00
tblVehicleEF	UBUS	2.1550e-003	0.00
tblVehicleTrips	WD_TR	9.57	9.52

## 2.0 Emissions Summary

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### 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	5.1395	54.7130	42.0934	0.0599	18.2675	2.9401	21.2075	9.9840	2.7049	12.6889	0.0000	6,072.049 5	6,072.049 5	1.2358	0.0000	6,098.000 3
2017	7.5035	46.3304	36.1505	0.0580	0.6822	2.9754	3.6576	0.1820	2.7873	2.9693	0.0000	5,597.884 4	5,597.884 4	1.2673	0.0000	5,624.497 1
2018	6.7667	40.4440	35.0396	0.0580	0.6822	2.4867	3.1689	0.1820	2.3316	2.5136	0.0000	5,513.083 8	5,513.083 8	1.2513	0.0000	5,539.361 5
2019	6.2489	36.1851	34.2812	0.0580	0.6822	2.1389	2.8211	0.1820	2.0059	2.1879	0.0000	5,434.196 8	5,434.196 8	1.2363	0.0000	5,460.158 3
Total	25.6586	177.6725	147.5647	0.2338	20.3141	10.5410	30.8551	10.5301	9.8296	20.3597	0.0000	22,617.21 45	22,617.21 45	4.9906	0.0000	22,722.01 72

## 2.1 Overall Construction (Maximum Daily Emission)

### 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	5.1395	54.7130	42.0934	0.0599	8.3310	2.9401	11.2711	4.5222	2.7049	7.2270	0.0000	6,072.049	6,072.049	1.2358	0.0000	6,098.000	
2017	7.5035	46.3304	36.1505	0.0580	0.6822	2.9754	3.6576	0.1820	2.7873	2.9693	0.0000	5,597.884	5,597.884	1.2673	0.0000	5,624.497	
2018	6.7667	40.4440	35.0396	0.0580	0.6822	2.4867	3.1689	0.1820	2.3316	2.5136	0.0000	5,513.083	5,513.083	1.2513	0.0000	5,539.361	
2019	6.2489	36.1851	34.2812	0.0580	0.6822	2.1389	2.8211	0.1820	2.0059	2.1879	0.0000	5,434.196	5,434.196	1.2363	0.0000	5,460.158	
Total	25.6586	177.6725	147.5647	0.2338	10.3776	10.5410	20.9187	5.0683	9.8296	14.8978	0.0000	22,617.21	22,617.21	4.9906	0.0000	22,722.01	
Percent Reduction	0.00	0.00	0.00	0.00	48.91	0.00	32.20	51.87	0.00	26.83	0.00	0.00	0.00	0.00	0.00	0.00	

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	48.91	0.00	32.20	51.87	0.00	26.83	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	5.8746	0.4116	27.2329	0.0667		3.4570	3.4570		3.4559	3.4559	489.8360	1,600.565	2,090.401	2.3324	0.0291	2,148.408	
Energy	0.0708	0.6053	0.2576	3.8600e-003		0.0489	0.0489		0.0489	0.0489		772.7093	772.7093	0.0148	0.0142	777.4119	
Mobile	2.0874	2.1280	24.8934	0.0779	5.9677	0.0393	6.0070	1.5821	0.0364	1.6185		5,917.726	5,917.726	0.2434		5,922.837	
Total	8.0329	3.1449	52.3839	0.1485	5.9677	3.5452	9.5129	1.5821	3.5413	5.1234	489.8360	8,291.000	8,780.836	2.5906	0.0433	8,848.657	
												6	5			7	

### 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	5.8746	0.4116	27.2329	0.0667		3.4570	3.4570		3.4559	3.4559	489.8360	1,600.565	2,090.401	2.3324	0.0291	2,148.408	
Energy	0.0708	0.6053	0.2576	3.8600e-003		0.0489	0.0489		0.0489	0.0489		772.7093	772.7093	0.0148	0.0142	777.4119	
Mobile	2.0874	2.1280	24.8934	0.0779	5.9677	0.0393	6.0070	1.5821	0.0364	1.6185		5,917.726	5,917.726	0.2434		5,922.837	
Total	8.0329	3.1449	52.3839	0.1485	5.9677	3.5452	9.5129	1.5821	3.5413	5.1234	489.8360	8,291.000	8,780.836	2.5906	0.0433	8,848.657	
												6	5			7	

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

### 3.0 Construction Detail

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#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/28/2016	5	20	
2	Site Preparation	Site Preparation	1/29/2016	2/4/2016	5	5	
3	Grading	Grading	2/5/2016	2/16/2016	5	8	
4	Building Construction	Building Construction	2/17/2016	1/3/2019	5	752	
5	Paving	Paving	1/4/2017	1/27/2019	5	538	
6	Architectural Coating	Architectural Coating	1/28/2017	2/22/2019	5	540	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 302,535; Residential Outdoor: 100,845; 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	3	8.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	125	0.42
Paving	Paving Equipment	2	6.00	130	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

### Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	489.00	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	30.00	9.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	6.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

### 3.1 Mitigation Measures Construction

Water Exposed Area

### 3.2 Demolition - 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					5.2941	0.0000	5.2941	0.8016	0.0000	0.8016			0.0000			0.0000
Off-Road	4.2876	45.6559	35.0303	0.0399		2.2921	2.2921		2.1365	2.1365	4,089.284 1	4,089.284 1	1.1121			4,112.637 4
Total	4.2876	45.6559	35.0303	0.0399	5.2941	2.2921	7.5862	0.8016	2.1365	2.9381	4,089.284 1	4,089.284 1	1.1121			4,112.637 4

### 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	0.4467	6.7372	4.8895	0.0180	0.4259	0.1013	0.5272	0.1166	0.0932	0.2098	1,812.575 2	1,812.575 2	0.0129			1,812.845 7	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0520	0.0672	0.8235	2.0400e-003	0.1677	1.1700e-003	0.1688	0.0445	1.0800e-003	0.0455	170.1902	170.1902	8.0000e-003			170.3583	
Total	0.4988	6.8045	5.7130	0.0200	0.5936	0.1025	0.6961	0.1611	0.0943	0.2553	1,982.765 4	1,982.765 4	0.0209			1,983.204 0	

#### 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					2.3824	0.0000	2.3824	0.3607	0.0000	0.3607			0.0000			0.0000	
Off-Road	4.2876	45.6559	35.0303	0.0399		2.2921	2.2921		2.1365	2.1365	0.0000	4,089.284 1	4,089.284 1	1.1121		4,112.637 4	
Total	4.2876	45.6559	35.0303	0.0399	2.3824	2.2921	4.6745	0.3607	2.1365	2.4973	0.0000	4,089.284 1	4,089.284 1	1.1121		4,112.637 4	

### 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	0.4467	6.7372	4.8895	0.0180	0.4259	0.1013	0.5272	0.1166	0.0932	0.2098	1,812.575 2	1,812.575 2	0.0129			1,812.845 7	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0520	0.0672	0.8235	2.0400e-003	0.1677	1.1700e-003	0.1688	0.0445	1.0800e-003	0.0455	170.1902	170.1902	8.0000e-003			170.3583	
Total	0.4988	6.8045	5.7130	0.0200	0.5936	0.1025	0.6961	0.1611	0.0943	0.2553	1,982.765 4	1,982.765 4	0.0209			1,983.204 0	

### 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	4,065.005 3	4,065.005 3	1.2262			4,090.754 4	
Total	5.0771	54.6323	41.1053	0.0391	18.0663	2.9387	21.0049	9.9307	2.7036	12.6343	4,065.005 3	4,065.005 3	1.2262			4,090.754 4	

### 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	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0625	0.0807	0.9882	2.4400e-003	0.2012	1.4100e-003	0.2026	0.0534	1.3000e-003	0.0547	204.2283	204.2283	9.6000e-003	204.4300			
Total	0.0625	0.0807	0.9882	2.4400e-003	0.2012	1.4100e-003	0.2026	0.0534	1.3000e-003	0.0547	204.2283	204.2283	9.6000e-003	204.4300			

#### 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					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			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	8.1298	2.9387	11.0685	4.4688	2.7036	7.1724	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	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0625	0.0807	0.9882	2.4400e-003	0.2012	1.4100e-003	0.2026	0.0534	1.3000e-003	0.0547	204.2283	204.2283	9.6000e-003	204.4300			
Total	0.0625	0.0807	0.9882	2.4400e-003	0.2012	1.4100e-003	0.2026	0.0534	1.3000e-003	0.0547		204.2283	204.2283	9.6000e-003		204.4300	

### 3.4 Grading - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	3.6669	38.4466	26.0787	0.0298		2.1984	2.1984		2.0225	2.0225	3,093.788 9	3,093.788 9	0.9332			3,113.386 0
Total	3.6669	38.4466	26.0787	0.0298	6.5523	2.1984	8.7507	3.3675	2.0225	5.3900		3,093.788 9	3,093.788 9	0.9332		3,113.386 0

### 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	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0520	0.0672	0.8235	2.0400e-003	0.1677	1.1700e-003	0.1688	0.0445	1.0800e-003	0.0455	170.1902	170.1902	8.0000e-003	170.3583			
Total	0.0520	0.0672	0.8235	2.0400e-003	0.1677	1.1700e-003	0.1688	0.0445	1.0800e-003	0.0455		170.1902	170.1902	8.0000e-003		170.3583	

#### 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					2.9486	0.0000	2.9486	1.5154	0.0000	1.5154			0.0000			0.0000	
Off-Road	3.6669	38.4466	26.0787	0.0298		2.1984	2.1984		2.0225	2.0225	0.0000	3,093.7889	3,093.7889	0.9332		3,113.3860	
Total	3.6669	38.4466	26.0787	0.0298	2.9486	2.1984	5.1470	1.5154	2.0225	3.5379	0.0000	3,093.7889	3,093.7889	0.9332		3,113.3860	

### 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	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0520	0.0672	0.8235	2.0400e-003	0.1677	1.1700e-003	0.1688	0.0445	1.0800e-003	0.0455	170.1902	170.1902	8.0000e-003	170.3583			
Total	0.0520	0.0672	0.8235	2.0400e-003	0.1677	1.1700e-003	0.1688	0.0445	1.0800e-003	0.0455		170.1902	170.1902	8.0000e-003		170.3583	

### 3.5 Building Construction - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Off-Road	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485	2,669.286 4	2,669.286 4	0.6620		2,683.189 0		
Total	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485	2,669.286 4	2,669.286 4	0.6620		2,683.189 0		

### 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	0.0000	0.0000	
Vendor	0.0787	0.7785	0.9199	1.9500e-003	0.0562	0.0123	0.0686	0.0160	0.0113	0.0274	195.1730	195.1730	1.3900e-003	195.2021			
Worker	0.1041	0.1345	1.6469	4.0700e-003	0.3353	2.3400e-003	0.3377	0.0889	2.1600e-003	0.0911	340.3805	340.3805	0.0160		340.7166		
Total	0.1828	0.9130	2.5668	6.0200e-003	0.3916	0.0147	0.4063	0.1050	0.0135	0.1185	535.5534	535.5534	0.0174		535.9187		

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day												lb/day				
Off-Road	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485	0.0000	2,669.2864	2,669.2864	0.6620		2,683.1890	
Total	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485	0.0000	2,669.2864	2,669.2864	0.6620		2,683.1890	

### 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	0.0000	0.0000	
Vendor	0.0787	0.7785	0.9199	1.9500e-003	0.0562	0.0123	0.0686	0.0160	0.0113	0.0274	195.1730	195.1730	1.3900e-003	195.2021			
Worker	0.1041	0.1345	1.6469	4.0700e-003	0.3353	2.3400e-003	0.3377	0.0889	2.1600e-003	0.0911	340.3805	340.3805	0.0160		340.7166		
Total	0.1828	0.9130	2.5668	6.0200e-003	0.3916	0.0147	0.4063	0.1050	0.0135	0.1185	535.5534	535.5534	0.0174		535.9187		

### 3.5 Building Construction - 2017

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day												lb/day				
Off-Road	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730	2,639.805 3	2,639.805 3	0.6497		2,653.449 0		
Total	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730	2,639.805 3	2,639.805 3	0.6497		2,653.449 0		

### 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	0.0000	0.0000	
Vendor	0.0726	0.7083	0.8654	1.9400e-003	0.0563	0.0110	0.0673	0.0160	0.0101	0.0262	191.9963	191.9963	1.3400e-003	192.0245			
Worker	0.0948	0.1221	1.5022	4.0700e-003	0.3353	2.2900e-003	0.3376	0.0889	2.1200e-003	0.0911	327.2187	327.2187	0.0149		327.5307		
Total	0.1674	0.8304	2.3677	6.0100e-003	0.3916	0.0133	0.4049	0.1050	0.0123	0.1172	519.2150	519.2150	0.0162		519.5551		

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day												lb/day				
Off-Road	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730	0.0000	2,639.8053	2,639.8053	0.6497		2,653.4490	
Total	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730	0.0000	2,639.8053	2,639.8053	0.6497		2,653.4490	

### 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	0.0000	0.0000	
Vendor	0.0726	0.7083	0.8654	1.9400e-003	0.0563	0.0110	0.0673	0.0160	0.0101	0.0262	191.9963	191.9963	1.3400e-003	192.0245			
Worker	0.0948	0.1221	1.5022	4.0700e-003	0.3353	2.2900e-003	0.3376	0.0889	2.1200e-003	0.0911	327.2187	327.2187	0.0149		327.5307		
Total	0.1674	0.8304	2.3677	6.0100e-003	0.3916	0.0133	0.4049	0.1050	0.0123	0.1172	519.2150	519.2150	0.0162		519.5551		

### 3.5 Building Construction - 2018

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day												lb/day				
Off-Road	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048	2,609.9390	2,609.9390	0.6387		2,623.3517		
Total	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048	2,609.9390	2,609.9390	0.6387		2,623.3517		

### 3.5 Building Construction - 2018

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day												lb/day				
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0680	0.6502	0.8215	1.9400e-003	0.0563	0.0104	0.0666	0.0160	9.5400e-003	0.0256	188.7367	188.7367	1.3300e-003	188.7647			
Worker	0.0865	0.1114	1.3758	4.0700e-003	0.3353	2.2600e-003	0.3376	0.0889	2.1000e-003	0.0910	314.9598	314.9598	0.0139		315.2509		
Total	0.1545	0.7616	2.1973	6.0100e-003	0.3916	0.0126	0.4042	0.1050	0.0116	0.1166		503.6964	503.6964	0.0152		504.0155	

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day												lb/day				
Off-Road	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048	0.0000	2,609.9389	2,609.9389	0.6387		2,623.3517	
Total	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048	0.0000	2,609.9389	2,609.9389	0.6387		2,623.3517	

### 3.5 Building Construction - 2018

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day												lb/day				
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0680	0.6502	0.8215	1.9400e-003	0.0563	0.0104	0.0666	0.0160	9.5400e-003	0.0256	188.7367	188.7367	1.3300e-003	188.7647			
Worker	0.0865	0.1114	1.3758	4.0700e-003	0.3353	2.2600e-003	0.3376	0.0889	2.1000e-003	0.0910	314.9598	314.9598	0.0139		315.2509		
Total	0.1545	0.7616	2.1973	6.0100e-003	0.3916	0.0126	0.4042	0.1050	0.0116	0.1166	503.6964	503.6964	0.0152			504.0155	

### 3.5 Building Construction - 2019

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day												lb/day				
Off-Road	2.3516	20.9650	17.1204	0.0268		1.2850	1.2850		1.2083	1.2083	2,580.7618	2,580.7618	0.6279			2,593.9479	
Total	2.3516	20.9650	17.1204	0.0268		1.2850	1.2850		1.2083	1.2083	2,580.7618	2,580.7618	0.6279			2,593.9479	

### 3.5 Building Construction - 2019

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day												lb/day				
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0638	0.6030	0.7780	1.9400e-003	0.0563	9.6800e-003	0.0659	0.0160	8.9000e-003	0.0249	186.1129	186.1129	1.3400e-003	186.1411			
Worker	0.0809	0.1033	1.2844	4.0900e-003	0.3353	2.2800e-003	0.3376	0.0889	2.1200e-003	0.0911	305.1564	305.1564	0.0132		305.4342		
Total	0.1447	0.7063	2.0624	6.0300e-003	0.3916	0.0120	0.4036	0.1050	0.0110	0.1160	491.2692	491.2692	0.0146		491.5753		

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day												lb/day				
Off-Road	2.3516	20.9650	17.1204	0.0268		1.2850	1.2850		1.2083	1.2083	0.0000	2,580.7618	2,580.7618	0.6279		2,593.9479	
Total	2.3516	20.9650	17.1204	0.0268		1.2850	1.2850		1.2083	1.2083	0.0000	2,580.7618	2,580.7618	0.6279		2,593.9479	

### 3.5 Building Construction - 2019

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day												lb/day				
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0638	0.6030	0.7780	1.9400e-003	0.0563	9.6800e-003	0.0659	0.0160	8.9000e-003	0.0249	186.1129	186.1129	1.3400e-003	186.1411			
Worker	0.0809	0.1033	1.2844	4.0900e-003	0.3353	2.2800e-003	0.3376	0.0889	2.1200e-003	0.0911	305.1564	305.1564	0.0132		305.4342		
Total	0.1447	0.7063	2.0624	6.0300e-003	0.3916	0.0120	0.4036	0.1050	0.0110	0.1160	491.2692	491.2692	0.0146		491.5753		

### 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	1.6554	16.8035	12.4837	0.0186		1.0056	1.0056		0.9269	0.9269	1,873.8264	1,873.8264	0.5588		1,885.5609		
Paving	0.0000					0.0000	0.0000		0.0000	0.0000		0.0000			0.0000		
Total	1.6554	16.8035	12.4837	0.0186		1.0056	1.0056		0.9269	0.9269		1,873.8264	1,873.8264	0.5588		1,885.5609	

### 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	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0632	0.0814	1.0015	2.7100e-003	0.2236	1.5300e-003	0.2251	0.0593	1.4100e-003	0.0607	218.1458	218.1458	9.9000e-003	218.3538			
Total	0.0632	0.0814	1.0015	2.7100e-003	0.2236	1.5300e-003	0.2251	0.0593	1.4100e-003	0.0607	218.1458	218.1458	9.9000e-003	218.3538			

#### 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	1.6554	16.8035	12.4837	0.0186		1.0056	1.0056		0.9269	0.9269	0.0000	1,873.8264	1,873.8264	0.5588		1,885.5609	
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000	
Total	1.6554	16.8035	12.4837	0.0186		1.0056	1.0056		0.9269	0.9269	0.0000	1,873.8264	1,873.8264	0.5588		1,885.5609	

### 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	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0632	0.0814	1.0015	2.7100e-003	0.2236	1.5300e-003	0.2251	0.0593	1.4100e-003	0.0607	218.1458	218.1458	9.9000e-003	218.3538			
Total	0.0632	0.0814	1.0015	2.7100e-003	0.2236	1.5300e-003	0.2251	0.0593	1.4100e-003	0.0607	218.1458	218.1458	9.9000e-003	218.3538			

### 3.6 Paving - 2018

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4060	14.3192	12.2631	0.0187		0.8272	0.8272		0.7628	0.7628	1,845.0348	1,845.0348	0.5587		1,856.7667	
Paving	0.0000					0.0000	0.0000		0.0000	0.0000		0.0000			0.0000	
Total	1.4060	14.3192	12.2631	0.0187		0.8272	0.8272		0.7628	0.7628	1,845.0348	1,845.0348	0.5587		1,856.7667	

### 3.6 Paving - 2018

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0577	0.0743	0.9172	2.7100e-003	0.2236	1.5100e-003	0.2251	0.0593	1.4000e-003	0.0607	209.9732	209.9732	9.2400e-003	210.1672			
Total	0.0577	0.0743	0.9172	2.7100e-003	0.2236	1.5100e-003	0.2251	0.0593	1.4000e-003	0.0607	209.9732	209.9732	9.2400e-003	210.1672			

#### 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	1.4060	14.3192	12.2631	0.0187		0.8272	0.8272		0.7628	0.7628	0.0000	1,845.0348	1,845.0348	0.5587		1,856.7667	
Paving	0.0000					0.0000	0.0000		0.0000	0.0000		0.0000				0.0000	
Total	1.4060	14.3192	12.2631	0.0187		0.8272	0.8272		0.7628	0.7628	0.0000	1,845.0348	1,845.0348	0.5587		1,856.7667	

### 3.6 Paving - 2018

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0577	0.0743	0.9172	2.7100e-003	0.2236	1.5100e-003	0.2251	0.0593	1.4000e-003	0.0607	209.9732	209.9732	9.2400e-003	210.1672			
Total	0.0577	0.0743	0.9172	2.7100e-003	0.2236	1.5100e-003	0.2251	0.0593	1.4000e-003	0.0607	209.9732	209.9732	9.2400e-003	210.1672			

### 3.6 Paving - 2019

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Off-Road	1.2520	12.5889	12.1441	0.0187		0.7111	0.7111		0.6560	0.6560	1,816.2490	1,816.2490	0.5585		1,827.9782		
Paving	0.0000					0.0000	0.0000		0.0000	0.0000		0.0000			0.0000		
Total	1.2520	12.5889	12.1441	0.0187		0.7111	0.7111		0.6560	0.6560		1,816.2490	1,816.2490	0.5585		1,827.9782	

### 3.6 Paving - 2019

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0540	0.0688	0.8563	2.7300e-003	0.2236	1.5200e-003	0.2251	0.0593	1.4100e-003	0.0607	203.4376	203.4376	8.8200e-003	203.6228			
Total	0.0540	0.0688	0.8563	2.7300e-003	0.2236	1.5200e-003	0.2251	0.0593	1.4100e-003	0.0607		203.4376	203.4376	8.8200e-003		203.6228	

#### 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	1.2520	12.5889	12.1441	0.0187		0.7111	0.7111		0.6560	0.6560	0.0000	1,816.2490	1,816.2490	0.5585		1,827.9782	
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000	
Total	1.2520	12.5889	12.1441	0.0187		0.7111	0.7111		0.6560	0.6560	0.0000	1,816.2490	1,816.2490	0.5585		1,827.9782	

### 3.6 Paving - 2019

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0540	0.0688	0.8563	2.7300e-003	0.2236	1.5200e-003	0.2251	0.0593	1.4100e-003	0.0607	203.4376	203.4376	8.8200e-003		203.6228		
Total	0.0540	0.0688	0.8563	2.7300e-003	0.2236	1.5200e-003	0.2251	0.0593	1.4100e-003	0.0607		203.4376	203.4376	8.8200e-003		203.6228	

### 3.7 Architectural Coating - 2017

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Archit. Coating	2.1640						0.0000	0.0000		0.0000	0.0000		0.0000			0.0000	
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.0721	
Total	2.4963	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.0721	

### 3.7 Architectural Coating - 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	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0190	0.0244	0.3005	8.1000e-004	0.0671	4.6000e-004	0.0675	0.0178	4.2000e-004	0.0182	65.4438	65.4438	2.9700e-003			65.5061	
Total	0.0190	0.0244	0.3005	8.1000e-004	0.0671	4.6000e-004	0.0675	0.0178	4.2000e-004	0.0182	65.4438	65.4438	2.9700e-003			65.5061	

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Archit. Coating	2.1640						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	0.3323	2.1850	1.8681	2.9700e-003			0.1733	0.1733		0.1733	0.1733	0.0000	281.4481	281.4481	0.0297		282.0721
Total	2.4963	2.1850	1.8681	2.9700e-003			0.1733	0.1733		0.1733	0.1733	0.0000	281.4481	281.4481	0.0297		282.0721

### 3.7 Architectural Coating - 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	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0190	0.0244	0.3005	8.1000e-004	0.0671	4.6000e-004	0.0675	0.0178	4.2000e-004	0.0182	65.4438	65.4438	2.9700e-003			65.5061	
Total	0.0190	0.0244	0.3005	8.1000e-004	0.0671	4.6000e-004	0.0675	0.0178	4.2000e-004	0.0182	65.4438	65.4438	2.9700e-003			65.5061	

### 3.7 Architectural Coating - 2018

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Archit. Coating	2.1640						0.0000	0.0000		0.0000	0.0000		0.0000			0.0000	
Off-Road	0.2986	2.0058	1.8542	2.9700e-003			0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.0102
Total	2.4626	2.0058	1.8542	2.9700e-003			0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.0102

### 3.7 Architectural Coating - 2018

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0173	0.0223	0.2752	8.1000e-004	0.0671	4.5000e-004	0.0675	0.0178	4.2000e-004	0.0182	62.9920	62.9920	2.7700e-003	63.0502			
Total	0.0173	0.0223	0.2752	8.1000e-004	0.0671	4.5000e-004	0.0675	0.0178	4.2000e-004	0.0182	62.9920	62.9920	2.7700e-003	63.0502			

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Archit. Coating	2.1640						0.0000	0.0000		0.0000	0.0000		0.0000			0.0000	
Off-Road	0.2986	2.0058	1.8542	2.9700e-003			0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267	282.0102	
Total	2.4626	2.0058	1.8542	2.9700e-003			0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267	282.0102	

### 3.7 Architectural Coating - 2018

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0173	0.0223	0.2752	8.1000e-004	0.0671	4.5000e-004	0.0675	0.0178	4.2000e-004	0.0182	62.9920	62.9920	2.7700e-003	63.0502			
Total	0.0173	0.0223	0.2752	8.1000e-004	0.0671	4.5000e-004	0.0675	0.0178	4.2000e-004	0.0182	62.9920	62.9920	2.7700e-003	63.0502			

### 3.7 Architectural Coating - 2019

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Archit. Coating	2.1640						0.0000	0.0000		0.0000	0.0000		0.0000			0.0000	
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	281.4481	281.4481	0.0238			281.9473	
Total	2.4304	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	281.4481	281.4481	0.0238			281.9473	

### 3.7 Architectural Coating - 2019

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0162	0.0207	0.2569	8.2000e-004	0.0671	4.6000e-004	0.0675	0.0178	4.2000e-004	0.0182	61.0313	61.0313	2.6500e-003	61.0869			
Total	0.0162	0.0207	0.2569	8.2000e-004	0.0671	4.6000e-004	0.0675	0.0178	4.2000e-004	0.0182	61.0313	61.0313	2.6500e-003	61.0869			

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Archit. Coating	2.1640						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		281.9473	
Total	2.4304	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		281.9473	

### 3.7 Architectural Coating - 2019

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0162	0.0207	0.2569	8.2000e-004	0.0671	4.6000e-004	0.0675	0.0178	4.2000e-004	0.0182	61.0313	61.0313	2.6500e-003			61.0869	
Total	0.0162	0.0207	0.2569	8.2000e-004	0.0671	4.6000e-004	0.0675	0.0178	4.2000e-004	0.0182	61.0313	61.0313	2.6500e-003			61.0869	

### 4.0 Operational Detail - Mobile

#### 4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.0874	2.1280	24.8934	0.0779	5.9677	0.0393	6.0070	1.5821	0.0364	1.6185	5,917.726 2	5,917.726 2	0.2434			5,922.837 3
Unmitigated	2.0874	2.1280	24.8934	0.0779	5.9677	0.0393	6.0070	1.5821	0.0364	1.6185	5,917.726 2	5,917.726 2	0.2434			5,922.837 3

## 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated		Mitigated	
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT	Annual VMT	Annual VMT
Single Family Housing	790.16	836.64	727.91	2,692,398	2,692,398	2,692,398	2,692,398
Total	790.16	836.64	727.91	2,692,398	2,692,398	2,692,398	2,692,398

## 4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.555680	0.061746	0.210189	0.164787	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.005164	0.000000	0.002475

## 5.0 Energy Detail

### 5.1 Fleet Mix

Historical Energy Use: N

## 5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0708	0.6053	0.2576	3.8600e-003		0.0489	0.0489		0.0489	0.0489	772.7093	772.7093	0.0148	0.0142	777.4119	
NaturalGas Unmitigated	0.0708	0.6053	0.2576	3.8600e-003		0.0489	0.0489		0.0489	0.0489	772.7093	772.7093	0.0148	0.0142	777.4119	

## 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					
Single Family Housing	6568.03	0.0708	0.6053	0.2576	3.8600e-003		0.0489	0.0489		0.0489	0.0489		772.7093	772.7093	0.0148	0.0142	777.4119	
<b>Total</b>		<b>0.0708</b>	<b>0.6053</b>	<b>0.2576</b>	<b>3.8600e-003</b>		<b>0.0489</b>	<b>0.0489</b>		<b>0.0489</b>	<b>0.0489</b>		<b>772.7093</b>	<b>772.7093</b>	<b>0.0148</b>	<b>0.0142</b>	<b>777.4119</b>	

### Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Land Use	kBTU/yr	lb/day											lb/day					
Single Family Housing	6.56803	0.0708	0.6053	0.2576	3.8600e-003		0.0489	0.0489		0.0489	0.0489		772.7093	772.7093	0.0148	0.0142	777.4119	
<b>Total</b>		<b>0.0708</b>	<b>0.6053</b>	<b>0.2576</b>	<b>3.8600e-003</b>		<b>0.0489</b>	<b>0.0489</b>		<b>0.0489</b>	<b>0.0489</b>		<b>772.7093</b>	<b>772.7093</b>	<b>0.0148</b>	<b>0.0142</b>	<b>777.4119</b>	

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Mitigated	5.8746	0.4116	27.2329	0.0667		3.4570	3.4570		3.4559	3.4559	489.8360	1,600.565 1	2,090.401 1	2.3324	0.0291	2,148.408 6	
Unmitigated	5.8746	0.4116	27.2329	0.0667		3.4570	3.4570		3.4559	3.4559	489.8360	1,600.565 1	2,090.401 1	2.3324	0.0291	2,148.408 6	

## 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	0.3202					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.9581					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	2.3857	0.3319	20.3514	0.0664		3.4193	3.4193		3.4182	3.4182	489.8360	1,588.235 3	2,078.071 3	2.3203	0.0291	2,135.824 6
Landscaping	0.2107	0.0797	6.8815	3.6000e-004		0.0377	0.0377		0.0377	0.0377		12.3298	12.3298	0.0121		12.5840
<b>Total</b>	<b>5.8746</b>	<b>0.4116</b>	<b>27.2329</b>	<b>0.0667</b>		<b>3.4570</b>	<b>3.4570</b>		<b>3.4559</b>	<b>3.4559</b>	<b>489.8360</b>	<b>1,600.565 1</b>	<b>2,090.401 1</b>	<b>2.3324</b>	<b>0.0291</b>	<b>2,148.408 6</b>

## 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	0.3202					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.9581					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	2.3857	0.3319	20.3514	0.0664		3.4193	3.4193		3.4182	3.4182	489.8360	1,588.235 3	2,078.071 3	2.3203	0.0291	2,135.824 6
Landscaping	0.2107	0.0797	6.8815	3.6000e-004		0.0377	0.0377		0.0377	0.0377		12.3298	12.3298	0.0121		12.5840
Total	5.8746	0.4116	27.2329	0.0667		3.4570	3.4570		3.4559	3.4559	489.8360	1,600.565 1	2,090.401 1	2.3324	0.0291	2,148.408 6

## 7.0 Water Detail

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### 7.1 Mitigation Measures Water

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

## 9.0 Operational Offroad

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

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## Ebb Tide

### Orange County, Winter

## **1.0 Project Characteristics**

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### **1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	83.00	Dwelling Unit	4.70	149,400.00	237

### **1.2 Other Project Characteristics**

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	30
Climate Zone	8			Operational Year	2019
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

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

## Project Characteristics -

Land Use - Specific site acreage

Construction Phase - Based on project build-out year

Off-road Equipment -

Demolition -

Vehicle Trips - From traffic study

Vechicle Emission Factors - Specific to residential uses

Vechicle Emission Factors - Specific to residential uses

Vechicle Emission Factors - Specific to residential uses

Woodstoves - Wood fireplaces prohibited

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	18.00	540.00
tblConstructionPhase	NumDays	230.00	752.00
tblConstructionPhase	NumDays	18.00	538.00
tblConstructionPhase	PhaseEndDate	2/19/2021	2/22/2019
tblConstructionPhase	PhaseEndDate	1/26/2021	1/27/2019
tblConstructionPhase	PhaseStartDate	1/28/2019	1/28/2017
tblConstructionPhase	PhaseStartDate	1/4/2019	1/4/2017
tblFireplaces	NumberGas	70.55	75.00
tblFireplaces	NumberWood	4.15	0.00
tblLandUse	LotAcreage	26.95	4.70
tblProjectCharacteristics	OperationalYear	2014	2019
tblVehicleEF	HHD	0.02	0.00
tblVehicleEF	HHD	0.02	0.00
tblVehicleEF	HHD	0.02	0.00
tblVehicleEF	LDA	0.51	0.56

tblVehicleEF	LDA	0.51	0.56
tblVehicleEF	LDA	0.51	0.56
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT2	0.19	0.21
tblVehicleEF	LDT2	0.19	0.21
tblVehicleEF	LDT2	0.19	0.21
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD2	5.9130e-003	0.00
tblVehicleEF	LHD2	5.9130e-003	0.00
tblVehicleEF	LHD2	5.9130e-003	0.00
tblVehicleEF	MCY	4.7350e-003	5.1640e-003
tblVehicleEF	MCY	4.7350e-003	5.1640e-003
tblVehicleEF	MCY	4.7350e-003	5.1640e-003
tblVehicleEF	MDV	0.15	0.16
tblVehicleEF	MDV	0.15	0.16
tblVehicleEF	MDV	0.15	0.16
tblVehicleEF	MH	2.2690e-003	2.4750e-003
tblVehicleEF	MH	2.2690e-003	2.4750e-003
tblVehicleEF	MH	2.2690e-003	2.4750e-003
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	OBUS	1.4470e-003	0.00
tblVehicleEF	OBUS	1.4470e-003	0.00

tblVehicleEF	OBUS	1.4470e-003	0.00
tblVehicleEF	SBUS	5.0200e-004	0.00
tblVehicleEF	SBUS	5.0200e-004	0.00
tblVehicleEF	SBUS	5.0200e-004	0.00
tblVehicleEF	UBUS	2.1550e-003	0.00
tblVehicleEF	UBUS	2.1550e-003	0.00
tblVehicleEF	UBUS	2.1550e-003	0.00
tblVehicleTrips	WD_TR	9.57	9.52

## 2.0 Emissions Summary

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### 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	5.1428	54.7211	42.0361	0.0598	18.2675	2.9401	21.2075	9.9840	2.7049	12.6889	0.0000	6,058.724 1	6,058.724 1	1.2358	0.0000	6,084.674 9
2017	7.5202	46.3694	36.1634	0.0576	0.6822	2.9755	3.6577	0.1820	2.7874	2.9694	0.0000	5,563.916 5	5,563.916 5	1.2673	0.0000	5,590.530 1
2018	6.7816	40.4793	35.0579	0.0575	0.6822	2.4868	3.1690	0.1820	2.3317	2.5137	0.0000	5,480.326 2	5,480.326 2	1.2514	0.0000	5,506.604 8
2019	6.2622	36.2176	34.3035	0.0576	0.6822	2.1390	2.8212	0.1820	2.0060	2.1880	0.0000	5,402.369 3	5,402.369 3	1.2363	0.0000	5,428.331 7
Total	25.7068	177.7873	147.5607	0.2324	20.3141	10.5413	30.8554	10.5301	9.8299	20.3600	0.0000	22,505.33 60	22,505.33 60	4.9907	0.0000	22,610.14 15

## 2.1 Overall Construction (Maximum Daily Emission)

### 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	5.1428	54.7211	42.0361	0.0598	8.3310	2.9401	11.2711	4.5222	2.7049	7.2270	0.0000	6,058.724 1	6,058.724 1	1.2358	0.0000	6,084.674 9
2017	7.5202	46.3694	36.1634	0.0576	0.6822	2.9755	3.6577	0.1820	2.7874	2.9694	0.0000	5,563.916 5	5,563.916 5	1.2673	0.0000	5,590.530 1
2018	6.7816	40.4793	35.0579	0.0575	0.6822	2.4868	3.1690	0.1820	2.3317	2.5137	0.0000	5,480.326 2	5,480.326 2	1.2514	0.0000	5,506.604 8
2019	6.2622	36.2176	34.3035	0.0576	0.6822	2.1390	2.8212	0.1820	2.0060	2.1880	0.0000	5,402.369 3	5,402.369 3	1.2363	0.0000	5,428.331 7
Total	25.7068	177.7873	147.5607	0.2324	10.3776	10.5413	20.9190	5.0683	9.8299	14.8981	0.0000	22,505.33 60	22,505.33 60	4.9907	0.0000	22,610.14 14

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	48.91	0.00	32.20	51.87	0.00	26.83	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	5.8746	0.4116	27.2329	0.0667		3.4570	3.4570		3.4559	3.4559	489.8360	1,600.565	2,090.401	2.3324	0.0291	2,148.408	
Energy	0.0708	0.6053	0.2576	3.8600e-003		0.0489	0.0489		0.0489	0.0489		772.7093	772.7093	0.0148	0.0142	777.4119	
Mobile	2.1878	2.3334	23.8708	0.0737	5.9677	0.0393	6.0070	1.5821	0.0364	1.6185		5,607.054	5,607.054	0.2434		5,612.165	
Total	8.1332	3.3502	51.3613	0.1443	5.9677	3.5452	9.5129	1.5821	3.5413	5.1234	489.8360	7,980.328	8,470.164	2.5906	0.0433	8,537.985	
												6	5			7	

### 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	5.8746	0.4116	27.2329	0.0667		3.4570	3.4570		3.4559	3.4559	489.8360	1,600.565	2,090.401	2.3324	0.0291	2,148.408	
Energy	0.0708	0.6053	0.2576	3.8600e-003		0.0489	0.0489		0.0489	0.0489		772.7093	772.7093	0.0148	0.0142	777.4119	
Mobile	2.1878	2.3334	23.8708	0.0737	5.9677	0.0393	6.0070	1.5821	0.0364	1.6185		5,607.054	5,607.054	0.2434		5,612.165	
Total	8.1332	3.3502	51.3613	0.1443	5.9677	3.5452	9.5129	1.5821	3.5413	5.1234	489.8360	7,980.328	8,470.164	2.5906	0.0433	8,537.985	
												6	5			7	

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

### 3.0 Construction Detail

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#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/28/2016	5	20	
2	Site Preparation	Site Preparation	1/29/2016	2/4/2016	5	5	
3	Grading	Grading	2/5/2016	2/16/2016	5	8	
4	Building Construction	Building Construction	2/17/2016	1/3/2019	5	752	
5	Paving	Paving	1/4/2017	1/27/2019	5	538	
6	Architectural Coating	Architectural Coating	1/28/2017	2/22/2019	5	540	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 302,535; Residential Outdoor: 100,845; 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	3	8.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	125	0.42
Paving	Paving Equipment	2	6.00	130	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

### Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	489.00	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	30.00	9.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	6.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

### 3.1 Mitigation Measures Construction

Water Exposed Area

### 3.2 Demolition - 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					5.2941	0.0000	5.2941	0.8016	0.0000	0.8016			0.0000			0.0000
Off-Road	4.2876	45.6559	35.0303	0.0399		2.2921	2.2921		2.1365	2.1365	4,089.284 1	4,089.284 1	1.1121			4,112.637 4
Total	4.2876	45.6559	35.0303	0.0399	5.2941	2.2921	7.5862	0.8016	2.1365	2.9381	4,089.284 1	4,089.284 1	1.1121			4,112.637 4

### 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	0.4778	6.9682	5.6119	0.0180	0.4259	0.1016	0.5275	0.1166	0.0934	0.2100	1,808.254 9	1,808.254 9	0.0131			1,808.529 0	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	
Worker	0.0548	0.0739	0.7757	1.9300e-003	0.1677	1.1700e-003	0.1688	0.0445	1.0800e-003	0.0455	161.1852	161.1852	8.0000e-003			161.3532	
Total	0.5326	7.0421	6.3876	0.0199	0.5936	0.1027	0.6963	0.1611	0.0945	0.2556	1,969.440 0	1,969.440 0	0.0211			1,969.882 2	

#### 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					2.3824	0.0000	2.3824	0.3607	0.0000	0.3607			0.0000			0.0000	
Off-Road	4.2876	45.6559	35.0303	0.0399		2.2921	2.2921		2.1365	2.1365	0.0000	4,089.284 1	4,089.284 1	1.1121		4,112.637 4	
Total	4.2876	45.6559	35.0303	0.0399	2.3824	2.2921	4.6745	0.3607	2.1365	2.4973	0.0000	4,089.284 1	4,089.284 1	1.1121		4,112.637 4	

### 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	0.4778	6.9682	5.6119	0.0180	0.4259	0.1016	0.5275	0.1166	0.0934	0.2100	1,808.254 9	1,808.254 9	0.0131			1,808.529 0	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0548	0.0739	0.7757	1.9300e-003	0.1677	1.1700e-003	0.1688	0.0445	1.0800e-003	0.0455	161.1852	161.1852	8.0000e-003			161.3532	
Total	0.5326	7.0421	6.3876	0.0199	0.5936	0.1027	0.6963	0.1611	0.0945	0.2556	1,969.440 0	1,969.440 0	0.0211			1,969.882 2	

### 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	4,065.005 3	4,065.005 3	1.2262			4,090.754 4	
Total	5.0771	54.6323	41.1053	0.0391	18.0663	2.9387	21.0049	9.9307	2.7036	12.6343	4,065.005 3	4,065.005 3	1.2262			4,090.754 4	

### 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	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0657	0.0887	0.9308	2.3100e-003	0.2012	1.4100e-003	0.2026	0.0534	1.3000e-003	0.0547	193.4222	193.4222	9.6000e-003	193.6239			
Total	0.0657	0.0887	0.9308	2.3100e-003	0.2012	1.4100e-003	0.2026	0.0534	1.3000e-003	0.0547	193.4222	193.4222	9.6000e-003	193.6239			

#### 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					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			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	8.1298	2.9387	11.0685	4.4688	2.7036	7.1724	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	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0657	0.0887	0.9308	2.3100e-003	0.2012	1.4100e-003	0.2026	0.0534	1.3000e-003	0.0547	193.4222	193.4222	9.6000e-003	193.6239			
Total	0.0657	0.0887	0.9308	2.3100e-003	0.2012	1.4100e-003	0.2026	0.0534	1.3000e-003	0.0547	193.4222	193.4222	9.6000e-003	193.6239			

### 3.4 Grading - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	3.6669	38.4466	26.0787	0.0298		2.1984	2.1984		2.0225	2.0225	3,093.7889	3,093.7889	0.9332			3,113.3860
Total	3.6669	38.4466	26.0787	0.0298	6.5523	2.1984	8.7507	3.3675	2.0225	5.3900		3,093.7889	3,093.7889	0.9332		3,113.3860

### 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	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0548	0.0739	0.7757	1.9300e-003	0.1677	1.1700e-003	0.1688	0.0445	1.0800e-003	0.0455	161.1852	161.1852	8.0000e-003			161.3532	
Total	0.0548	0.0739	0.7757	1.9300e-003	0.1677	1.1700e-003	0.1688	0.0445	1.0800e-003	0.0455		161.1852	161.1852	8.0000e-003		161.3532	

#### 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					2.9486	0.0000	2.9486	1.5154	0.0000	1.5154			0.0000			0.0000	
Off-Road	3.6669	38.4466	26.0787	0.0298		2.1984	2.1984		2.0225	2.0225	0.0000	3,093.7889	3,093.7889	0.9332		3,113.3860	
Total	3.6669	38.4466	26.0787	0.0298	2.9486	2.1984	5.1470	1.5154	2.0225	3.5379	0.0000	3,093.7889	3,093.7889	0.9332		3,113.3860	

### 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	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0548	0.0739	0.7757	1.9300e-003	0.1677	1.1700e-003	0.1688	0.0445	1.0800e-003	0.0455	161.1852	161.1852	8.0000e-003			161.3532	
Total	0.0548	0.0739	0.7757	1.9300e-003	0.1677	1.1700e-003	0.1688	0.0445	1.0800e-003	0.0455		161.1852	161.1852	8.0000e-003		161.3532	

### 3.5 Building Construction - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Off-Road	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485	2,669.2864	2,669.2864	0.6620			2,683.1890	
Total	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485	2,669.2864	2,669.2864	0.6620			2,683.1890	

### 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	0.0000	0.0000	
Vendor	0.0872	0.7969	1.1055	1.9300e-003	0.0562	0.0125	0.0687	0.0160	0.0115	0.0275	193.5273	193.5273	1.4300e-003	193.5573			
Worker	0.1096	0.1479	1.5513	3.8500e-003	0.3353	2.3400e-003	0.3377	0.0889	2.1600e-003	0.0911	322.3703	322.3703	0.0160			322.7065	
<b>Total</b>	<b>0.1968</b>	<b>0.9447</b>	<b>2.6569</b>	<b>5.7800e-003</b>	<b>0.3916</b>	<b>0.0148</b>	<b>0.4064</b>	<b>0.1050</b>	<b>0.0136</b>	<b>0.1186</b>	<b>515.8977</b>	<b>515.8977</b>	<b>0.0174</b>			<b>516.2638</b>	

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day												lb/day				
Off-Road	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485	0.0000	2,669.2864	2,669.2864	0.6620		2,683.1890	
<b>Total</b>	<b>3.4062</b>	<b>28.5063</b>	<b>18.5066</b>	<b>0.0268</b>		<b>1.9674</b>	<b>1.9674</b>		<b>1.8485</b>	<b>1.8485</b>	<b>0.0000</b>	<b>2,669.2864</b>	<b>2,669.2864</b>	<b>0.6620</b>		<b>2,683.1890</b>	

### 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	0.0000	0.0000	
Vendor	0.0872	0.7969	1.1055	1.9300e-003	0.0562	0.0125	0.0687	0.0160	0.0115	0.0275	193.5273	193.5273	1.4300e-003	193.5573			
Worker	0.1096	0.1479	1.5513	3.8500e-003	0.3353	2.3400e-003	0.3377	0.0889	2.1600e-003	0.0911	322.3703	322.3703	0.0160			322.7065	
Total	0.1968	0.9447	2.6569	5.7800e-003	0.3916	0.0148	0.4064	0.1050	0.0136	0.1186	515.8977	515.8977	0.0174			516.2638	

### 3.5 Building Construction - 2017

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day												lb/day				
Off-Road	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730	2,639.805 3	2,639.805 3	0.6497			2,653.449 0	
Total	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730	2,639.805 3	2,639.805 3	0.6497			2,653.449 0	

### 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	0.0000	0.0000	
Vendor	0.0802	0.7246	1.0489	1.9300e-003	0.0563	0.0111	0.0674	0.0160	0.0102	0.0263	190.3733	190.3733	1.3800e-003	190.4024			
Worker	0.0996	0.1343	1.4109	3.8500e-003	0.3353	2.2900e-003	0.3376	0.0889	2.1200e-003	0.0911	309.8911	309.8911	0.0149		310.2030		
Total	0.1798	0.8588	2.4597	5.7800e-003	0.3916	0.0134	0.4050	0.1050	0.0124	0.1173	500.2644	500.2644	0.0162			500.6054	

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day												lb/day				
Off-Road	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730	0.0000	2,639.8053	2,639.8053	0.6497		2,653.4490	
Total	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730	0.0000	2,639.8053	2,639.8053	0.6497		2,653.4490	

### 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	0.0000	0.0000	
Vendor	0.0802	0.7246	1.0489	1.9300e-003	0.0563	0.0111	0.0674	0.0160	0.0102	0.0263	190.3733	190.3733	1.3800e-003	190.4024			
Worker	0.0996	0.1343	1.4109	3.8500e-003	0.3353	2.2900e-003	0.3376	0.0889	2.1200e-003	0.0911	309.8911	309.8911	0.0149		310.2030		
Total	0.1798	0.8588	2.4597	5.7800e-003	0.3916	0.0134	0.4050	0.1050	0.0124	0.1173	500.2644	500.2644	0.0162			500.6054	

### 3.5 Building Construction - 2018

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Off-Road	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048	2,609.9390	2,609.9390	0.6387			2,623.3517	
Total	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048	2,609.9390	2,609.9390	0.6387			2,623.3517	

### 3.5 Building Construction - 2018

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0748	0.6648	1.0036	1.9300e-003	0.0563	0.0105	0.0667	0.0160	9.6400e-003	0.0257	187.1375	187.1375	1.3800e-003	187.1665			
Worker	0.0908	0.1225	1.2880	3.8500e-003	0.3353	2.2600e-003	0.3376	0.0889	2.1000e-003	0.0910	298.2677	298.2677	0.0139	298.5588			
Total	0.1656	0.7873	2.2917	5.7800e-003	0.3916	0.0127	0.4043	0.1050	0.0117	0.1167	485.4052	485.4052	0.0152			485.7253	

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Off-Road	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048	0.0000	2,609.9389	2,609.9389	0.6387		2,623.3517	
Total	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048	0.0000	2,609.9389	2,609.9389	0.6387		2,623.3517	

### 3.5 Building Construction - 2018

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0748	0.6648	1.0036	1.9300e-003	0.0563	0.0105	0.0667	0.0160	9.6400e-003	0.0257	187.1375	187.1375	1.3800e-003	187.1665			
Worker	0.0908	0.1225	1.2880	3.8500e-003	0.3353	2.2600e-003	0.3376	0.0889	2.1000e-003	0.0910	298.2677	298.2677	0.0139	298.5588			
Total	0.1656	0.7873	2.2917	5.7800e-003	0.3916	0.0127	0.4043	0.1050	0.0117	0.1167	485.4052	485.4052	0.0152			485.7253	

### 3.5 Building Construction - 2019

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Off-Road	2.3516	20.9650	17.1204	0.0268		1.2850	1.2850		1.2083	1.2083	2,580.7618	2,580.7618	0.6279			2,593.9479	
Total	2.3516	20.9650	17.1204	0.0268		1.2850	1.2850		1.2083	1.2083	2,580.7618	2,580.7618	0.6279			2,593.9479	

### 3.5 Building Construction - 2019

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e		
Category	lb/day												lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
Vendor	0.0698	0.6163	0.9590	1.9300e-003	0.0563	9.7700e-003	0.0660	0.0160	8.9900e-003	0.0250	184.5377	184.5377	1.3900e-003	184.5668				
Worker	0.0849	0.1135	1.1993	3.8700e-003	0.3353	2.2800e-003	0.3376	0.0889	2.1200e-003	0.0911	288.9497	288.9497	0.0132	289.2276				
Total	0.1547	0.7299	2.1583	5.8000e-003	0.3916	0.0121	0.4036	0.1050	0.0111	0.1161	473.4874	473.4874	0.0146		473.7944			

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e		
Category	lb/day												lb/day					
Off-Road	2.3516	20.9650	17.1204	0.0268		1.2850	1.2850		1.2083	1.2083	0.0000	2,580.7618	2,580.7618	0.6279		2,593.9479		
Total	2.3516	20.9650	17.1204	0.0268		1.2850	1.2850		1.2083	1.2083	0.0000	2,580.7618	2,580.7618	0.6279		2,593.9479		

### 3.5 Building Construction - 2019

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day												lb/day				
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0698	0.6163	0.9590	1.9300e-003	0.0563	9.7700e-003	0.0660	0.0160	8.9900e-003	0.0250	184.5377	184.5377	1.3900e-003	184.5668			
Worker	0.0849	0.1135	1.1993	3.8700e-003	0.3353	2.2800e-003	0.3376	0.0889	2.1200e-003	0.0911	288.9497	288.9497	0.0132	289.2276			
Total	0.1547	0.7299	2.1583	5.8000e-003	0.3916	0.0121	0.4036	0.1050	0.0111	0.1161	473.4874	473.4874	0.0146		473.7944		

### 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	1.6554	16.8035	12.4837	0.0186		1.0056	1.0056		0.9269	0.9269	1,873.8264	1,873.8264	0.5588		1,885.5609		
Paving	0.0000					0.0000	0.0000		0.0000	0.0000		0.0000			0.0000		
Total	1.6554	16.8035	12.4837	0.0186		1.0056	1.0056		0.9269	0.9269		1,873.8264	1,873.8264	0.5588		1,885.5609	

### 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	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0664	0.0895	0.9406	2.5700e-003	0.2236	1.5300e-003	0.2251	0.0593	1.4100e-003	0.0607	206.5941	206.5941	9.9000e-003	206.8020			
Total	0.0664	0.0895	0.9406	2.5700e-003	0.2236	1.5300e-003	0.2251	0.0593	1.4100e-003	0.0607		206.5941	206.5941	9.9000e-003		206.8020	

#### 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	1.6554	16.8035	12.4837	0.0186		1.0056	1.0056		0.9269	0.9269	0.0000	1,873.8264	1,873.8264	0.5588		1,885.5609	
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000	
Total	1.6554	16.8035	12.4837	0.0186		1.0056	1.0056		0.9269	0.9269	0.0000	1,873.8264	1,873.8264	0.5588		1,885.5609	

### 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	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0664	0.0895	0.9406	2.5700e-003	0.2236	1.5300e-003	0.2251	0.0593	1.4100e-003	0.0607	206.5941	206.5941	9.9000e-003	206.8020			
Total	0.0664	0.0895	0.9406	2.5700e-003	0.2236	1.5300e-003	0.2251	0.0593	1.4100e-003	0.0607	206.5941	206.5941	9.9000e-003	206.8020			

### 3.6 Paving - 2018

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Off-Road	1.4060	14.3192	12.2631	0.0187		0.8272	0.8272		0.7628	0.7628	1,845.0348	1,845.0348	0.5587		1,856.7667		
Paving	0.0000					0.0000	0.0000		0.0000	0.0000		0.0000			0.0000		
Total	1.4060	14.3192	12.2631	0.0187		0.8272	0.8272		0.7628	0.7628		1,845.0348	1,845.0348	0.5587		1,856.7667	

### 3.6 Paving - 2018

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0605	0.0817	0.8587	2.5700e-003	0.2236	1.5100e-003	0.2251	0.0593	1.4000e-003	0.0607	198.8451	198.8451	9.2400e-003	199.0392			
Total	0.0605	0.0817	0.8587	2.5700e-003	0.2236	1.5100e-003	0.2251	0.0593	1.4000e-003	0.0607	198.8451	198.8451	9.2400e-003	199.0392			

#### 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	1.4060	14.3192	12.2631	0.0187		0.8272	0.8272		0.7628	0.7628	0.0000	1,845.0348	1,845.0348	0.5587		1,856.7667	
Paving	0.0000					0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	
Total	1.4060	14.3192	12.2631	0.0187		0.8272	0.8272		0.7628	0.7628	0.0000	1,845.0348	1,845.0348	0.5587		1,856.7667	

### 3.6 Paving - 2018

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0605	0.0817	0.8587	2.5700e-003	0.2236	1.5100e-003	0.2251	0.0593	1.4000e-003	0.0607	198.8451	198.8451	9.2400e-003			199.0392	
Total	0.0605	0.0817	0.8587	2.5700e-003	0.2236	1.5100e-003	0.2251	0.0593	1.4000e-003	0.0607		198.8451	198.8451	9.2400e-003		199.0392	

### 3.6 Paving - 2019

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Off-Road	1.2520	12.5889	12.1441	0.0187		0.7111	0.7111		0.6560	0.6560		1,816.2490	1,816.2490	0.5585			1,827.9782
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000	
Total	1.2520	12.5889	12.1441	0.0187		0.7111	0.7111		0.6560	0.6560		1,816.2490	1,816.2490	0.5585			1,827.9782

### 3.6 Paving - 2019

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0566	0.0757	0.7995	2.5800e-003	0.2236	1.5200e-003	0.2251	0.0593	1.4100e-003	0.0607	192.6332	192.6332	8.8200e-003	192.8184			
Total	0.0566	0.0757	0.7995	2.5800e-003	0.2236	1.5200e-003	0.2251	0.0593	1.4100e-003	0.0607	192.6332	192.6332	8.8200e-003			192.8184	

#### 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	1.2520	12.5889	12.1441	0.0187		0.7111	0.7111		0.6560	0.6560	0.0000	1,816.2490	1,816.2490	0.5585		1,827.9782	
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000	
Total	1.2520	12.5889	12.1441	0.0187		0.7111	0.7111		0.6560	0.6560	0.0000	1,816.2490	1,816.2490	0.5585		1,827.9782	

### 3.6 Paving - 2019

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0566	0.0757	0.7995	2.5800e-003	0.2236	1.5200e-003	0.2251	0.0593	1.4100e-003	0.0607	192.6332	192.6332	8.8200e-003			192.8184	
Total	0.0566	0.0757	0.7995	2.5800e-003	0.2236	1.5200e-003	0.2251	0.0593	1.4100e-003	0.0607		192.6332	192.6332	8.8200e-003		192.8184	

### 3.7 Architectural Coating - 2017

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Archit. Coating	2.1640						0.0000	0.0000		0.0000	0.0000		0.0000			0.0000	
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.0721	
Total	2.4963	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.0721	

### 3.7 Architectural Coating - 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	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0199	0.0269	0.2822	7.7000e-004	0.0671	4.6000e-004	0.0675	0.0178	4.2000e-004	0.0182	61.9782	61.9782	2.9700e-003	62.0406			
Total	0.0199	0.0269	0.2822	7.7000e-004	0.0671	4.6000e-004	0.0675	0.0178	4.2000e-004	0.0182	61.9782	61.9782	2.9700e-003	62.0406			

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Archit. Coating	2.1640						0.0000	0.0000		0.0000	0.0000		0.0000			0.0000	
Off-Road	0.3323	2.1850	1.8681	2.9700e-003			0.1733	0.1733		0.1733	0.1733	0.0000	281.4481	281.4481	0.0297	282.0721	
Total	2.4963	2.1850	1.8681	2.9700e-003			0.1733	0.1733		0.1733	0.1733	0.0000	281.4481	281.4481	0.0297	282.0721	

### 3.7 Architectural Coating - 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	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0199	0.0269	0.2822	7.7000e-004	0.0671	4.6000e-004	0.0675	0.0178	4.2000e-004	0.0182	61.9782	61.9782	2.9700e-003			62.0406	
Total	0.0199	0.0269	0.2822	7.7000e-004	0.0671	4.6000e-004	0.0675	0.0178	4.2000e-004	0.0182	61.9782	61.9782	2.9700e-003			62.0406	

### 3.7 Architectural Coating - 2018

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Archit. Coating	2.1640						0.0000	0.0000		0.0000	0.0000		0.0000			0.0000	
Off-Road	0.2986	2.0058	1.8542	2.9700e-003			0.1506	0.1506		0.1506	0.1506	281.4485	281.4485	0.0267		282.0102	
Total	2.4626	2.0058	1.8542	2.9700e-003			0.1506	0.1506		0.1506	0.1506	281.4485	281.4485	0.0267		282.0102	

### 3.7 Architectural Coating - 2018

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0182	0.0245	0.2576	7.7000e-004	0.0671	4.5000e-004	0.0675	0.0178	4.2000e-004	0.0182	59.6535	59.6535	2.7700e-003			59.7118	
Total	0.0182	0.0245	0.2576	7.7000e-004	0.0671	4.5000e-004	0.0675	0.0178	4.2000e-004	0.0182	59.6535	59.6535	2.7700e-003			59.7118	

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Archit. Coating	2.1640						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	0.2986	2.0058	1.8542	2.9700e-003			0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.0102
Total	2.4626	2.0058	1.8542	2.9700e-003			0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.0102

### 3.7 Architectural Coating - 2018

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0182	0.0245	0.2576	7.7000e-004	0.0671	4.5000e-004	0.0675	0.0178	4.2000e-004	0.0182	59.6535	59.6535	2.7700e-003			59.7118	
Total	0.0182	0.0245	0.2576	7.7000e-004	0.0671	4.5000e-004	0.0675	0.0178	4.2000e-004	0.0182	59.6535	59.6535	2.7700e-003			59.7118	

### 3.7 Architectural Coating - 2019

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Archit. Coating	2.1640						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	281.4481	281.4481	0.0238			281.9473	
Total	2.4304	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	281.4481	281.4481	0.0238			281.9473	

### 3.7 Architectural Coating - 2019

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0170	0.0227	0.2399	7.7000e-004	0.0671	4.6000e-004	0.0675	0.0178	4.2000e-004	0.0182	57.7899	57.7899	2.6500e-003	57.8455			
Total	0.0170	0.0227	0.2399	7.7000e-004	0.0671	4.6000e-004	0.0675	0.0178	4.2000e-004	0.0182	57.7899	57.7899	2.6500e-003	57.8455			

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Archit. Coating	2.1640						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		281.9473	
Total	2.4304	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		281.9473	

### 3.7 Architectural Coating - 2019

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0170	0.0227	0.2399	7.7000e-004	0.0671	4.6000e-004	0.0675	0.0178	4.2000e-004	0.0182	57.7899	57.7899	2.6500e-003			57.8455	
Total	0.0170	0.0227	0.2399	7.7000e-004	0.0671	4.6000e-004	0.0675	0.0178	4.2000e-004	0.0182	57.7899	57.7899	2.6500e-003			57.8455	

### 4.0 Operational Detail - Mobile

#### 4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.1878	2.3334	23.8708	0.0737	5.9677	0.0393	6.0070	1.5821	0.0364	1.6185	5,607.054 1	5,607.054 1	0.2434			5,612.165 3
Unmitigated	2.1878	2.3334	23.8708	0.0737	5.9677	0.0393	6.0070	1.5821	0.0364	1.6185	5,607.054 1	5,607.054 1	0.2434			5,612.165 3

## 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated		Mitigated	
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT	Annual VMT	Annual VMT
Single Family Housing	790.16	836.64	727.91	2,692,398	2,692,398	2,692,398	2,692,398
Total	790.16	836.64	727.91	2,692,398	2,692,398	2,692,398	2,692,398

## 4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.555680	0.061746	0.210189	0.164787	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.005164	0.000000	0.002475

## 5.0 Energy Detail

### 5.1 Fleet Mix

Historical Energy Use: N

## 5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0708	0.6053	0.2576	3.8600e-003		0.0489	0.0489		0.0489	0.0489	772.7093	772.7093	0.0148	0.0142	777.4119	
NaturalGas Unmitigated	0.0708	0.6053	0.2576	3.8600e-003		0.0489	0.0489		0.0489	0.0489	772.7093	772.7093	0.0148	0.0142	777.4119	

## 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					
Single Family Housing	6568.03	0.0708	0.6053	0.2576	3.8600e-003		0.0489	0.0489		0.0489	0.0489		772.7093	772.7093	0.0148	0.0142	777.4119	
<b>Total</b>		<b>0.0708</b>	<b>0.6053</b>	<b>0.2576</b>	<b>3.8600e-003</b>		<b>0.0489</b>	<b>0.0489</b>		<b>0.0489</b>	<b>0.0489</b>		<b>772.7093</b>	<b>772.7093</b>	<b>0.0148</b>	<b>0.0142</b>	<b>777.4119</b>	

### Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Land Use	kBTU/yr	lb/day											lb/day					
Single Family Housing	6.56803	0.0708	0.6053	0.2576	3.8600e-003		0.0489	0.0489		0.0489	0.0489		772.7093	772.7093	0.0148	0.0142	777.4119	
<b>Total</b>		<b>0.0708</b>	<b>0.6053</b>	<b>0.2576</b>	<b>3.8600e-003</b>		<b>0.0489</b>	<b>0.0489</b>		<b>0.0489</b>	<b>0.0489</b>		<b>772.7093</b>	<b>772.7093</b>	<b>0.0148</b>	<b>0.0142</b>	<b>777.4119</b>	

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Mitigated	5.8746	0.4116	27.2329	0.0667		3.4570	3.4570		3.4559	3.4559	489.8360	1,600.565 1	2,090.401 1	2.3324	0.0291	2,148.408 6	
Unmitigated	5.8746	0.4116	27.2329	0.0667		3.4570	3.4570		3.4559	3.4559	489.8360	1,600.565 1	2,090.401 1	2.3324	0.0291	2,148.408 6	

## 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	0.3202					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.9581					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	2.3857	0.3319	20.3514	0.0664		3.4193	3.4193		3.4182	3.4182	489.8360	1,588.235 3	2,078.071 3	2.3203	0.0291	2,135.824 6
Landscaping	0.2107	0.0797	6.8815	3.6000e-004		0.0377	0.0377		0.0377	0.0377		12.3298	12.3298	0.0121		12.5840
<b>Total</b>	<b>5.8746</b>	<b>0.4116</b>	<b>27.2329</b>	<b>0.0667</b>		<b>3.4570</b>	<b>3.4570</b>		<b>3.4559</b>	<b>3.4559</b>	<b>489.8360</b>	<b>1,600.565 1</b>	<b>2,090.401 1</b>	<b>2.3324</b>	<b>0.0291</b>	<b>2,148.408 6</b>

## 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	0.3202					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.9581					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	2.3857	0.3319	20.3514	0.0664		3.4193	3.4193		3.4182	3.4182	489.8360	1,588.235 3	2,078.071 3	2.3203	0.0291	2,135.824 6
Landscaping	0.2107	0.0797	6.8815	3.6000e-004		0.0377	0.0377		0.0377	0.0377		12.3298	12.3298	0.0121		12.5840
Total	5.8746	0.4116	27.2329	0.0667		3.4570	3.4570		3.4559	3.4559	489.8360	1,600.565 1	2,090.401 1	2.3324	0.0291	2,148.408 6

## 7.0 Water Detail

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### 7.1 Mitigation Measures Water

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

## 9.0 Operational Offroad

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

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#### About AECOM

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