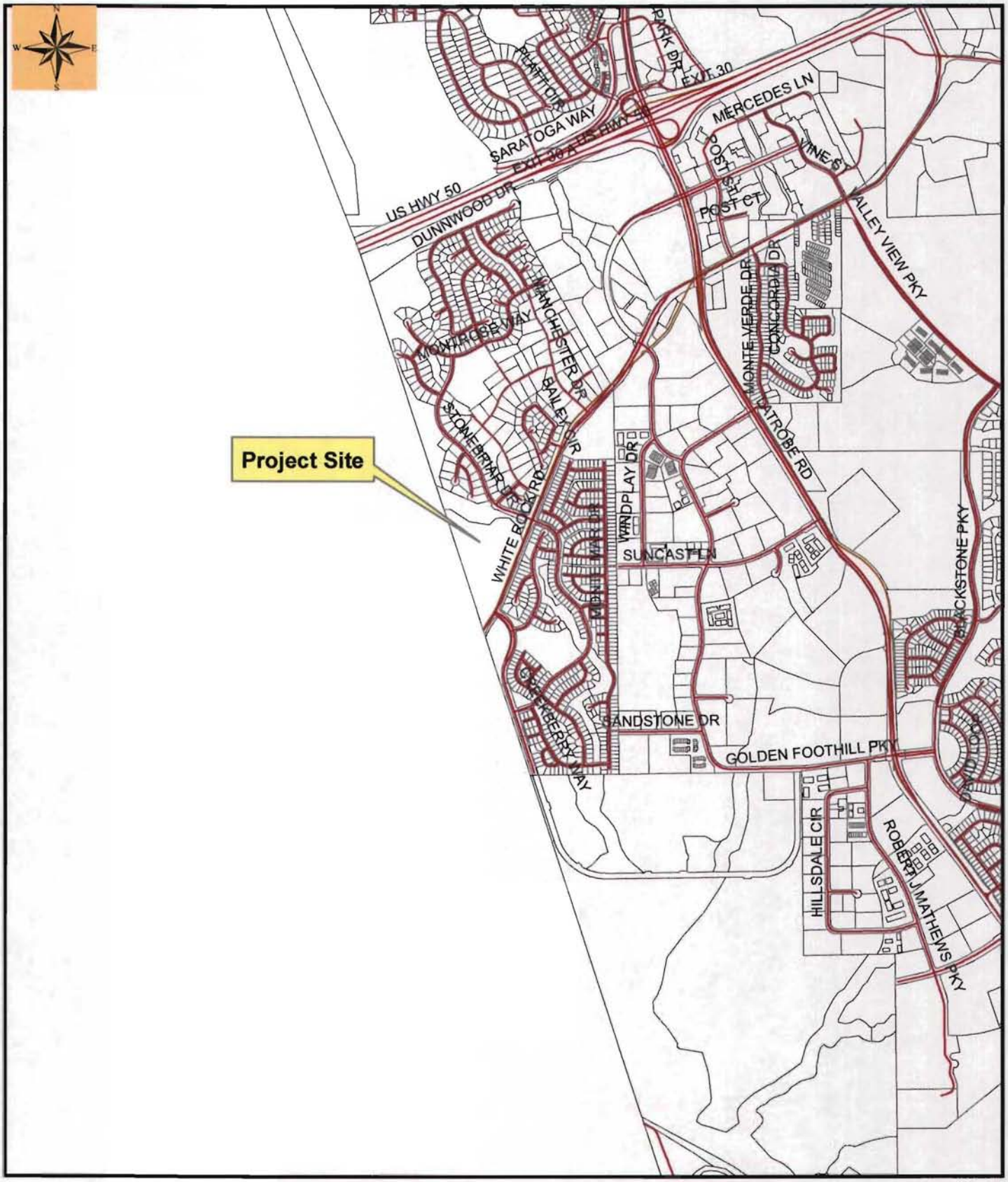
El Dorado Springs 23 Tentative Subdvision Map
File No. TM14-1514

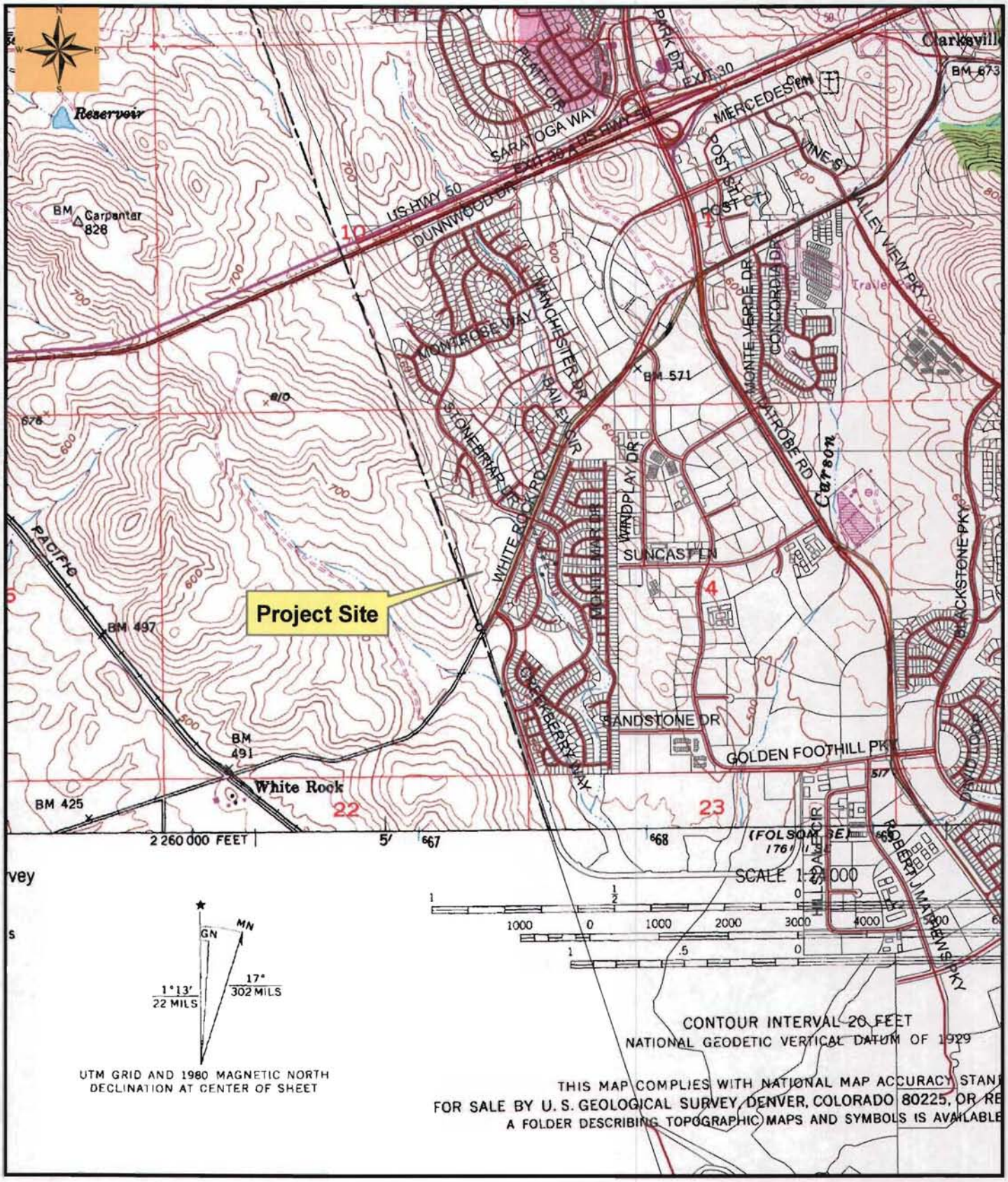


Map prepared by
Mel Pabalinas
El Dorado County
Development Services-Planning

ATTACHMENT 1 - Location Map

0 312.5 625 1,250 Feet

El Dorado Springs 23 Tentative Subdvision Map
File No. TM14-1514



Attachment 2- U.S.G.S 7.5 Minute Quadrangle

0 312.5 625 1,250 Feet

TENTATIVE MAP

EL DORADO SPRINGS 23

COUNTY OF EL DORADO OCTOBER, 2014 STATE OF CALIFORNIA

OWNER OF RECORD & APPLICANT

STANDARD PACIFIC
3050 INDUSTRIAL BLVD., SUITE140
WEST SACRAMENTO, CA 95691

ENGINEER

cta Engineering & Surveying
Civil Engineering • Land Surveying • Land Planning

MAP SCALE

1" = 100'

CONTOUR INTERVAL

CONTOUR INTERVAL = 1 FEET

SOURCE OF TOPOGRAPHY

TOPOGRAPHIC SURVEY

SECTION, TOWNSHIP and RANGE

PORTION OF SECTIONS 14 & 15., T.9N., R.8E., M.D.M.

ASSESSOR'S PARCEL NUMBERS

A.P.N. 117-010-05

TOTAL AREA

21.65 ACRES

MINIMUM LOT AREA

10,031 SQUARE FEET

PROPOSED LAND USE & ZONING

HIGH DENSITY RESIDENTIAL (HDR) / R1

EXISTING LAND USE & ZONING

MULTIFAMILY RESIDENTIAL (MFR) / RM-DC

TOTAL NUMBER OF PARCELS

49 - RESIDENTIAL LOTS.....(13.80 AC)
1 - ROAD LOT (R-1).....(2.74 AC)
1 - FUTURE ROW LOT FOR WHITE ROCK ROAD (R-2).....(1.03 AC)
7 - LETTERED LOTS (OPEN SPACE/LANDSCAPE LOTS) (A-G)..(4.08 AC)

58 LOTS TOTAL (21.65 AC)

WATER SUPPLY and SEWAGE DISPOSAL

EL DORADO IRRIGATION DISTRICT

PROPOSED STRUCTURAL FIRE PROTECTION

EL DORADO HILLS COUNTY WATER DISTRICT
(FIRE DEPARTMENT)

DATE OF PREPARATION

OCTOBER, 2014

PHASING PLAN NOTICE

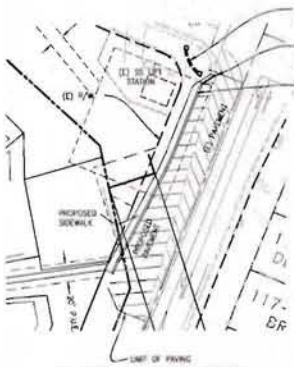
THE SUBDIVIDER MAY FILE MULTIPLE FINAL MAPS FOR THIS PROJECT. THE SUBDIVIDER SHALL NOT BE REQUIRED TO DEFINE THE NUMBER OR CONFIGURATION OF THE PROPOSED MULTIPLE FINAL MAPS. (PER THE SUBDIVISION MAP ACT, SECTION 66456.1)

ENGINEER'S CERTIFICATE

I HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE THE LAND DEVELOPMENT KNOWN AS "EL DORADO SPRINGS 23" HAS BEEN DESIGNED IN ACCORDANCE WITH THE SPECIFICATIONS AND GUIDELINES ESTABLISHED BY EL DORADO COUNTY

OLGA SCIORELLI P.E. 71204 DATE

VICINITY MAP
NOT TO SCALE

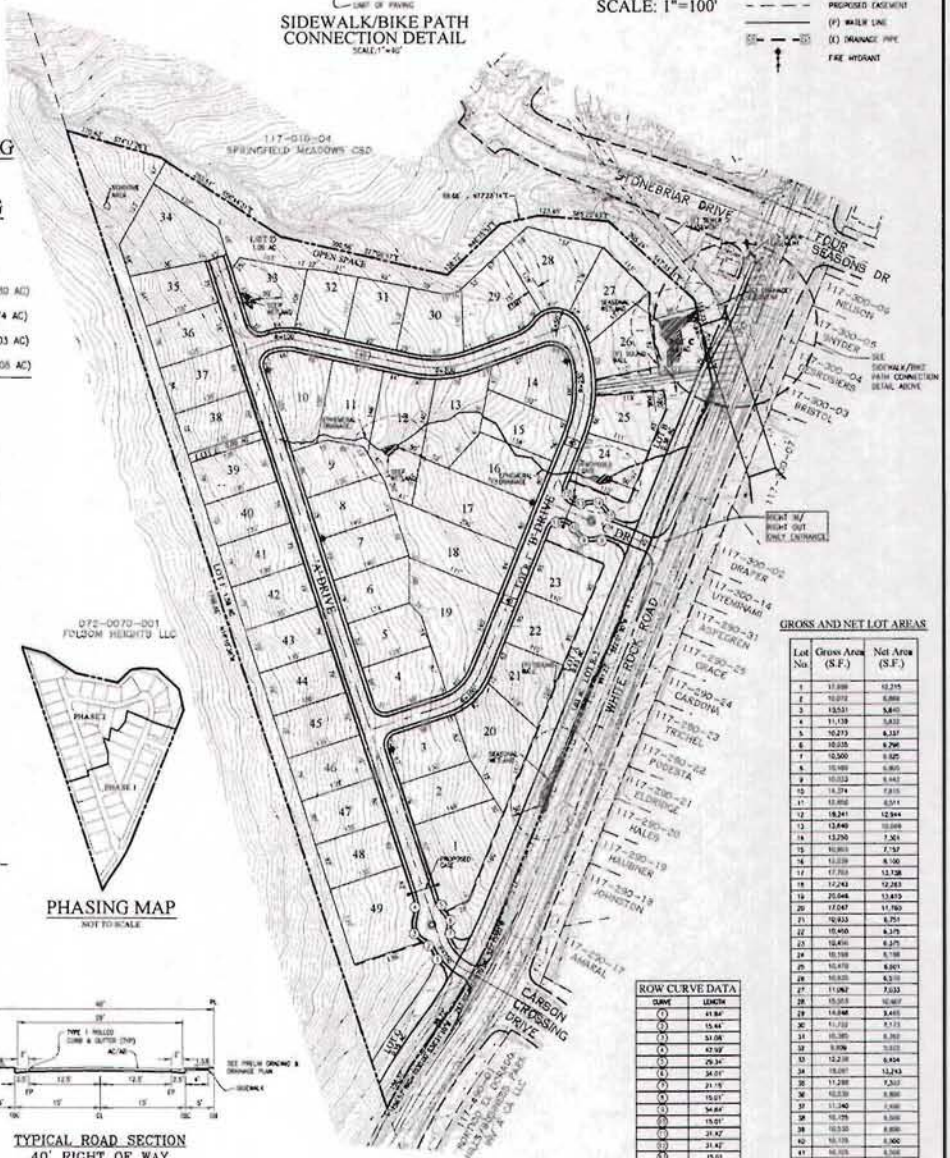


SIDEWALK/BIKE PATH CONNECTION DETAIL
SCALE: 1"=80'

SCALE: 1"=100'

LEGEND

- BOUNDARY
- (E) LOT LINES
- (E) R/W
- LOT LINE
- SETBACK LINE
- PROPOSED EASEMENT
- (P) WATER LINE
- (E) DRAINAGE PIPE
- FIRE HYDRANT



075-0070-001
FOLSOM HEIGHTS LLC

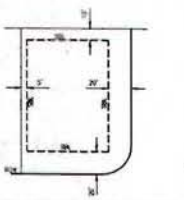
PHASING MAP
NOT TO SCALE

GROSS AND NET LOT AREAS

Lot No.	Gross Area (S.F.)	Net Area (S.F.)
1	17,898	10,215
2	10,072	6,888
3	13,531	5,840
4	11,138	5,832
5	10,213	6,337
6	10,035	6,796
7	10,500	6,925
8	10,480	6,805
9	10,032	6,642
10	14,374	7,815
11	12,856	8,511
12	18,341	12,944
13	12,840	10,068
14	13,290	7,301
15	10,865	7,157
16	10,039	8,100
17	17,753	13,738
18	17,243	12,283
19	21,046	13,813
20	17,047	11,760
21	10,933	6,751
22	10,450	6,375
23	10,434	6,375
24	10,769	6,188
25	10,470	6,001
26	10,825	6,310
27	11,967	7,033
28	15,305	10,407
29	14,048	3,455
30	11,732	5,173
31	10,385	6,362
32	9,806	5,922
33	12,218	6,454
34	19,097	13,243
35	11,288	7,303
36	10,230	6,800
37	11,040	7,400
38	10,175	6,500
39	10,530	6,800
40	10,175	6,300
41	10,105	6,300
42	10,065	6,300
43	10,065	6,300
44	10,065	6,300
45	10,065	6,300
46	10,065	6,300
47	10,065	7,000
48	11,570	7,250
49	17,654	11,929

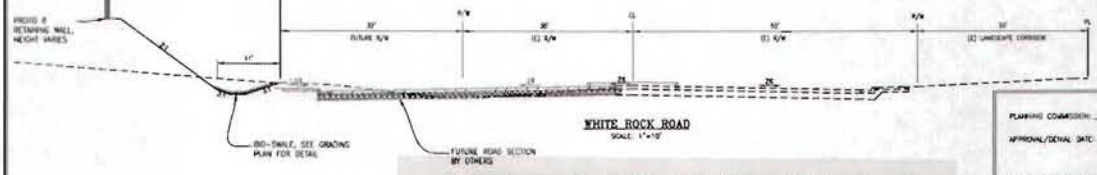
ROW CURVE DATA

CURVE	LENGTH
1	41.84'
2	15.44'
3	51.08'
4	42.98'
5	29.34'
6	34.01'
7	21.15'
8	15.01'
9	54.84'
10	15.01'
11	21.42'
12	21.42'
13	15.01'
14	54.64'
15	15.01'



BUILDING SETBACKS
NOT TO SCALE

TYPICAL ROAD SECTION
40' RIGHT OF WAY
SCALE: 1"=10'



WHITE ROCK ROAD
SCALE: 1"=10'

PLANNING COMMISSION: _____
APPROVAL/DENIAL DATE: _____
BOARD OF SUPERVISORS: _____
APPROVAL/DENIAL DATE: _____

ATTACHMENT 3

PRELIMINARY GRADING PLAN

EL DORADO SPRINGS 23

COUNTY OF EL DORADO OCTOBER, 2014 STATE OF CALIFORNIA

LEGEND

PROPOSED CONTOUR

EXISTING CONTOUR

PROPOSED PAD ELEVATION

PROPOSED ROADWAY GRADE (APPROX)

PROPOSED LOW POINT (LP) OR PROPOSED HIGH POINT (HP)

PROPOSED SLOPE BANK

PROPOSED DAYLIGHT LINE

PROPOSED RETAINING WALL

PROPOSED DITCH

PROPOSED DRAINAGE SYSTEM

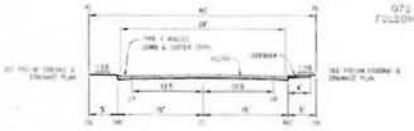
CLASS C LOT (REAR DRAINAGE) NOTE THAT AS ULTIMATE CONDITIONS DICTATE, LOT MAY BECOME CLASS A (FRONT DRAINAGE)

EXISTING TREES TO BE REMOVED

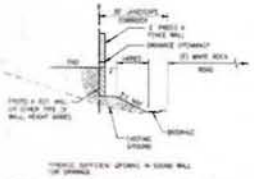
SCALE: 1"=100'

EARTHWORK

APPROXIMATE CUT: 73,000 CY
APPROXIMATE FILL: 91,000 CY



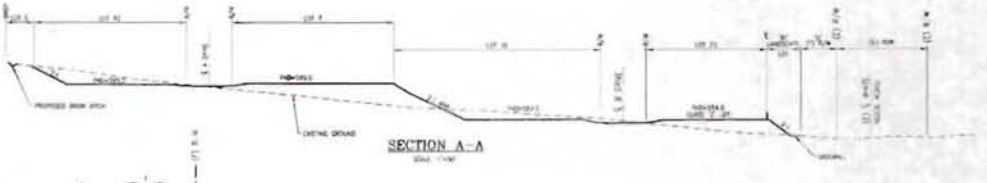
TYPICAL ROAD SECTION
40' RIGHT OF WAY



TYP. RETAINING/SOUND WALL DETAIL

NOTE

SECTION B-B



SECTION A-A

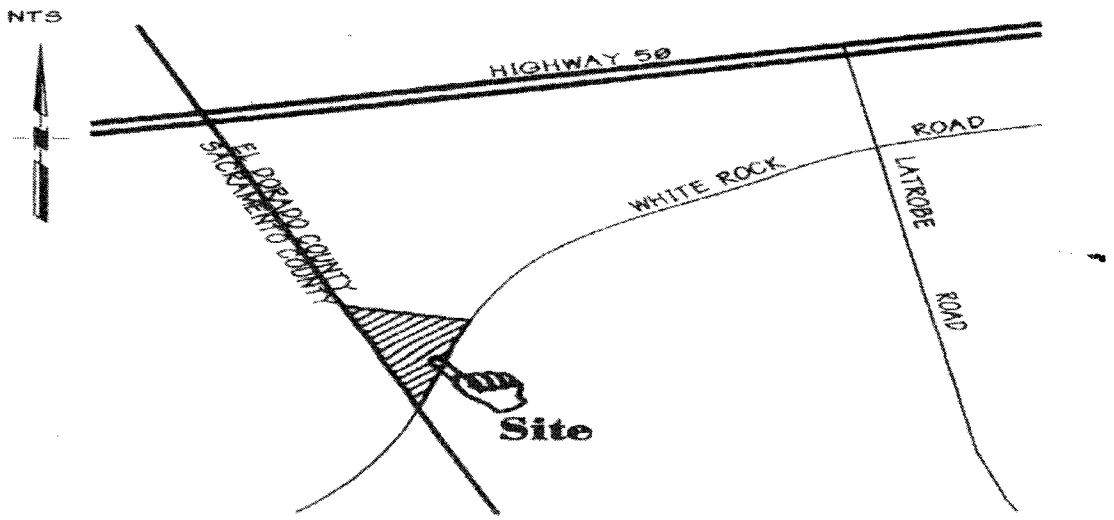
BIOSWALE

cta Engineering & Surveying
Civil Engineering · Land Surveying · Land Planning

ATTACHMENT 4

EL DORADO SPRINGS 23 PROJECT

AIR QUALITY AND GREENHOUSE GAS IMPACT ANALYSIS



PREPARED BY

PMC

FEBRUARY 2014

ATTACHMENT 5

This report documents the results of both an air quality impact analysis and a greenhouse gas (GHG) impact analysis completed for the proposed El Dorado Springs 23 project, a 21.6-acre, 49-unit single-family residential development proposed to be located at the southwest corner of the El Dorado Hills community. The purpose of this impact analysis is to identify potential environmental impacts associated with air quality pollutants and GHG emissions as required by the California Environmental Quality Act (CEQA).

The air quality impact analysis was prepared using methodologies and assumptions recommended in the rules and regulations of the El Dorado County Air Quality Management District (EDCAQMD). Regional and local air quality conditions are presented, along with pertinent air quality standards and regulations. The GHG impact analysis was prepared with consideration of the El Dorado County Board of Supervisors Environmental Vision for El Dorado County Resolution No. 29-2008 as well as GHG impact significance thresholds developed by the San Luis Obispo Air Pollution Control District (SLOAPCD).[1]

1.1 PROJECT LOCATION

The proposed project site is located approximately 0.8 mile south of US Highway 50 at the southwest corner of the El Dorado Hills community. Lying just over 1 mile east of the proposed project site is the existing El Dorado Hills Wastewater Treatment Plant operated by the El Dorado Irrigation District. The project site is located in unincorporated El Dorado County.

The project site is approximately 21.6 acres and is bounded by White Rock Road to the south and to the west with residential development beyond, the Sacramento-El Dorado county line to the west with vacant lands beyond, and a combination of vacant lands and residential development to the north.

1.2 PROJECT DESCRIPTION

The project site is 21.6 acres and currently designated Multi-Family Residential (MFR) 5-24 DU/Acre by the El Dorado County General Plan and zoned Multi Family Residential (RM). The General Plan's traffic demand model had projected 225 apartments on the project site. The El Dorado Springs 23 project proposes to re-designate the property to High Density Residential (HDR) and rezone the property One-Family Residential (R1), allowing for the development of 49 single-family residential dwelling units. Access to the project will occur via Latrobe Road to White Rock Road from the east. The average lot size will be 10,400 square feet.

[1] Use of SLOAPCD greenhouse gas thresholds is considered appropriate by the El Dorado County Air Quality Management District, the emission control officer with jurisdiction over El Dorado County and thus the project site (Baughman 2012).

2.1 AIR QUALITY SETTING

Air quality in a region is determined by its topography, meteorology, and existing air pollutant sources. These factors are discussed below, together with the current regulatory structure that applies to the Mountain Counties Air Basin (MCAB), in which the project site is located, pursuant to the regulatory authority of the EDCAQMD. The EDCAQMD is responsible for establishing and enforcing local air quality rules and regulations that address the requirements of federal and state air quality laws. Currently, the portion of the MCAB in which the project site is located (western El Dorado County) is designated as nonattainment for the state ozone and PM_{10} (particulate matter less than 10 microns in diameter) standards as well as for the federal ozone and $PM_{2.5}$ (particulate matter less than 2.5 microns in diameter) standards (CARB 2013a). These designations will be described in greater detail later in this analysis.

TOPOGRAPHIC AND METEOROLOGICAL INFLUENCES ON AIR QUALITY

Ambient air quality is commonly characterized by climatological conditions, the meteorological influences on air quality, and the quantity and type of pollutants released. The air basin is subject to a combination of topographical and climatic factors that influence the potential for regional and local air pollutants. The following section describes pertinent characteristics of the air basin and provides an overview of the physical conditions affecting pollutant dispersion in the project area.

The MCAB lies along the northern Sierra Nevada range, close to or contiguous with the Nevada border, and covers an area of roughly 11,000 square miles. The western slope of El Dorado County, from Lake Tahoe on the east to the Sacramento County boundary on the west, lies within the MCAB. Elevations range from over 10,000 feet at the Sierra crest down to several hundred feet above sea level at the Sacramento County boundary. Throughout El Dorado County, the topography is highly variable and includes rugged mountain peaks and valleys with extreme slopes and differences in altitude in the Sierras, as well as rolling foothills to the west.

The general climate of the MCAB varies considerably with elevation and proximity to the Sierra ridge. The terrain features of the basin make it possible for various climates to exist in relatively close proximity. The pattern of mountains and hills causes a wide variation in rainfall, temperature, and localized winds throughout the basin. Temperature variations have an important influence on basin wind flow, dispersion along mountain ridges, vertical mixing, and photochemistry. In the western foothills of the county, where the project site is located, winter temperatures usually dip below freezing only at night, and precipitation is mixed as rain or light snow. In the summer, temperatures can routinely exceed 100 degrees Fahrenheit at the project site.

From an air quality perspective, the topography and meteorology of the MCAB combine such that local conditions predominate in determining the effect of emissions in the basin. Regional airflows are affected by the mountains and hills, which direct surface airflows, cause shallow vertical mixing, and create areas of high pollutant concentrations by hindering dispersion. Inversion layers, where warm air overlays cooler air, frequently occur and trap pollutants close to the ground. During summer's longer daylight hours, stagnant air, high temperatures, and plentiful sunshine provide the conditions and energy for the photochemical reaction between reactive organic compounds and oxides of nitrogen that results in the formation of ozone. Because of its long formation time, ozone is a regional pollutant rather than a local hot-spot problem.

In the summer, the strong upwind valley air flowing into the basin from the Central Valley to the west is an effective transport medium for ozone precursors and ozone generated in the Bay

Area and the Sacramento and San Joaquin valleys. These transported pollutants predominate as the cause of ozone in the MCAB and are largely responsible for the exceedances of the state and federal ozone ambient air quality standards in the MCAB (EDCAQMD 2002, Chapter 2, p. 2).

CRITERIA AIR POLLUTANTS

The air pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and state law. These regulated air pollutants are known as "criteria air pollutants" and are categorized into primary and secondary pollutants. Primary air pollutants are those that are emitted directly from sources. Carbon monoxide (CO), reactive organic gases (ROG), nitrogen oxides (NO_X), sulfur dioxide (SO_2), most particulate matter (PM_{10} and $PM_{2.5}$), lead, and fugitive dust are primary air pollutants. Of these, CO, SO_2, PM_{10}, and $PM_{2.5}$ are criteria pollutants. ROG and NO_X are criteria pollutant precursors and go on to form secondary criteria pollutants through chemical and photochemical reactions in the atmosphere. Ozone (O_3) and nitrogen dioxide (NO_2) are the principal secondary criteria pollutants. Presented below is a description of each of the primary and secondary criteria air pollutants and their known health effects.

Carbon monoxide (CO) is a colorless, odorless, toxic gas produced by incomplete combustion of carbon substances, such as gasoline or diesel fuel. The primary adverse health effect associated with CO is interference with normal oxygen transfer to the blood, which may result in tissue oxygen deprivation.

Reactive organic gases (ROG) are compounds comprising primarily atoms of hydrogen and carbon. Internal combustion associated with motor vehicle usage is the major source of hydrocarbons. Other sources of ROG include evaporative emissions associated with the use of paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols. Adverse effects on human health are not caused directly by ROG, but rather by reactions of ROG to form secondary pollutants such as ozone.

Nitrogen oxides (NO_X) serve as integral participants in the process of photochemical smog production. The two major forms of NO_X are nitric oxide (NO) and nitrogen dioxide (NO_2). NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. NO_2 is a reddish-brown irritating gas formed by the combination of NO and oxygen. NO_X acts as an acute respiratory irritant and increases susceptibility to respiratory pathogens.

Nitrogen dioxide (NO_2) is a byproduct of fuel combustion, produced by combustion of NO and oxygen. NO_2 acts as an acute irritant and, in equal concentrations, is more injurious than NO. At atmospheric concentrations, however, NO_2 is only potentially irritating. There is some indication of a relationship between NO_2 and chronic pulmonary fibrosis. Some increase in bronchitis in children has also been observed at concentrations below 0.3 parts per million (ppm). NO_2 absorbs blue light; the result is a brownish-red cast to the atmosphere and reduced visibility. NO_2 also contributes to the formation of PM_{10} (particulates having an aerodynamic diameter of 10 microns—or 0.0004 inch—or less in diameter) and ozone.

Sulfur dioxide (SO_2) belongs to the family of sulfur oxide gases (SO_X). SO_2 is a colorless, pungent, irritating gas formed by the combustion of sulfurous fossil fuels. Fuel combustion is the primary source of SO_2. At sufficiently high concentrations, SO_2 may irritate the upper respiratory tract. At lower concentrations and when combined with particulates, SO_2 may do greater harm by injuring lung tissue. A primary source of SO_2 emissions is high sulfur content coal. Gasoline and natural gas have very low sulfur content and hence do not release significant quantities of SO_2. Sulfur dioxide is a precursor to sulfate (SO_4), which is a component of particulate matter. In

addition, SO_2 and NO_2 can react with other substances in the air to form acids, which fall to the earth as rain, fog, snow, or dry particles.

Particulate matter (PM) is a mixture of pollutants in liquid and solid forms. Particulate matter may be classified as primary or secondary. Primary particulates are emitted directly by emission sources, whereas secondary particulates are formed through atmospheric reaction of gases. Particulates are usually classified according to size. The particle diameter can vary from approximately 0.005 micron to 100 microns. Particulate matter less than 10 microns in diameter is referred to as PM_{10} (coarse particulates) and less than 2.5 microns is referred to as $PM_{2.5}$ (fine particulates).

WESTERN EL DORADO COUNTY AMBIENT AIR QUALITY

Ambient air quality in the project area can be inferred from ambient air quality measurements conducted at nearby air quality monitoring stations. The California Air Resources Board (CARB) maintains over 60 air quality monitoring stations throughout California.

The Folsom–Natoma Street air quality monitoring station, located approximately 5 miles west of the project site, is the closest station to the project site. The Folsom–Natoma Street air quality monitoring station monitors ambient concentrations of ozone. Concentrations of PM_{10} and $PM_{2.5}$ were obtained from the next closest monitoring station located in the City of Sacramento (Del Paso Manor air monitoring station located approximately 15 miles from the project site). Ambient emission concentrations will vary due to localized variations in emission sources and climate and should be considered "generally" representative of ambient concentrations within the project area.

Table 2.0-1 summarizes the published data concerning ozone since 2010 from the Folsom–Natoma Street air quality monitoring station for each year that the monitoring data is provided. **Table 2.0-1** also shows the published data concerning PM_{10} and $PM_{2.5}$ since 2010 from the Del Paso Manor air quality monitoring station.

TABLE 2.0-1
SUMMARY OF AMBIENT AIR QUALITY DATA

Pollutant Standards	2010	2011	2012
Ozone (Folsom–Natoma Street Air Quality Monitoring Station)			
Max 1-hour concentration (ppm)	0.124	0.119	0.122
Max 8-hour concentration (ppm) (state/federal)	0.122 / 0.122	0.098 / 0.098	0.106 / 0.105
Number of days above state 1-hr standard	12	16	19
Number of days above state/federal 8-hour standard	26 / 19	46 / 33	57 / 38
Coarse Particulate Matter (PM_{10}) (Sacramento–Del Paso Manor Air Quality Monitoring Station)			
Max 24-hour concentration (µg/m3) (state/federal)	44.0 / 44.0	66.0 / 62.0	43.0 / 41.0
Number of days above state/federal standard	0 / 0	12.2 / 0	0 / 0
Fine Particulate Matter ($PM_{2.5}$) (Sacramento–Del Paso Manor Air Quality Monitoring Station)			
Max 24-hour concentration (µg/m3) (state/federal)	41.6 / 33.9	62.2 / 54.3	45.7 / 35.3
Number of days above federal standard	0	9.5	0

Source: CARB 2013b
µg/m3 = micrograms per cubic meter; ppm – parts per million
– Insufficient or no data currently available to determine the value

TOXIC AIR CONTAMINANTS

In addition to the criteria pollutants discussed above, toxic air contaminants (TACs) are another group of pollutants of concern. TACs are considered either carcinogenic or noncarcinogenic based on the nature of the health effects associated with exposure to the pollutant. For regulatory purposes, carcinogenic TACs are assumed to have no safe threshold below which health impacts would not occur, and cancer risk is expressed as excess cancer cases per one million exposed individuals. Noncarcinogenic TACs differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis.

There are many different types of TACs with varying degrees of toxicity. Sources of TACs include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Public exposure to TACs can result from emissions from normal operations, as well as from accidental releases of hazardous materials during upset conditions. The health effects of TACs include cancer, birth defects, neurological damage, and death.

To date, CARB has designated nearly 200 compounds as toxic air contaminants. Additionally, CARB has implemented control measures for a number of compounds that pose high risks and show potential for effective control. The majority of the estimated health risks from TACs can be attributed to a relatively few compounds, one of the most important being particulate matter from diesel-fueled engines. In 1998, CARB identified particulate emissions from diesel-fueled engines (diesel PM) as a toxic air contaminant. Previously, the individual chemical compounds in diesel exhaust were considered as TACs. Almost all diesel exhaust particle mass is 10 microns or less in diameter. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lungs.

2.2 AIR QUALITY LAWS AND REGULATIONS

FEDERAL AND STATE

Subsequent development allowed with implementation of the El Dorado Springs 23 project has the ability to release gaseous emissions of criteria pollutants and dust into the ambient air; therefore, future development activities under the proposed project entitlements fall under the ambient air quality standards promulgated on the local, state, and federal levels. The federal Clean Air Act of 1971 and the Clean Air Act Amendments (1977) established the national ambient air quality standards (NAAQS), which are promulgated by the US Environmental Protection Agency (EPA). The State of California has also adopted its own California ambient air quality standards (CAAQS), which are promulgated by CARB. The project would occur in the portion of the Mountain Counties Air Basin under the air quality regulatory jurisdiction of the EDCAQMD and is subject to the rules and regulations adopted by the EDCAQMD to achieve attainment with the national and California ambient air quality standards. Federal, state, regional, and local laws, regulations, plans, and guidelines are summarized below.

Ambient Air Quality Standards

The Clean Air Act of 1971 established NAAQS, with states retaining the option to adopt more stringent standards or to include other pollution species. These standards are the levels of air quality considered to provide a margin of safety in the protection of the public health and welfare. They are designed to protect those "sensitive receptors" most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already

weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

Both the State of California and the federal government have established health-based ambient air quality standards for six air pollutants. As shown in **Table 2.0-2**, these pollutants include ozone, CO, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and lead. In addition, the state has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety.

TABLE 2.0-2
AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Standards	National Standards
Ozone	8 Hour	0.070 ppm (137$\mu g/m^3$)	0.075 ppm
	1 Hour	0.09 ppm (180 $\mu g/m^3$)	–
Carbon Monoxide	8 Hour	9.0 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)
	1 Hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)
Nitrogen Dioxide	1 Hour	0.18 ppm (339 $\mu g/m^3$)	100 ppb
	Annual Arithmetic Mean	0.030 ppm (57 $\mu g/m^3$)	53 ppb (100 $\mu g/m^3$)
Sulfur Dioxide	24 Hour	0.04 ppm (105 $\mu g/m^3$)	N/A
	3 Hour		N/A
	1 Hour	0.25 ppm (665 $\mu g/m^3$)	75 ppb
Particulate Matter (PM_{10})	Annual Arithmetic Mean	20 $\mu g/m^3$	N/A
	24 Hour	50 $\mu g/m^3$	150 $\mu g/m^3$
Particulate Matter – Fine ($PM_{2.5}$)	Annual Arithmetic Mean	12 $\mu g/m^3$	15 $\mu g/m^3$
	24 Hour	N/A	35 $\mu g/m^3$
Sulfates	24 Hour	25 $\mu g/m^3$	N/A
Lead	Calendar Quarter	N/A	1.5 $\mu g/m^3$
	30 Day Average	1.5 $\mu g/m^3$)	N/A
Hydrogen Sulfide	1 Hour	0.03 ppm (42 $\mu g/m^3$)	N/A
Vinyl Chloride (chloroethene)	24 Hour	0.01 ppm (26 $\mu g/m^3$)	N/A
Visibility-Reducing Particles	8 Hour (10:00 to 18:00 PST)		N/A

Source: CARB 2012

Notes: mg/m^3 = milligrams per cubic meter; ppm = parts per million; ppb = parts per billion; $\mu g/m^3$ = micrograms per cubic meter

AMBIENT AIR QUALITY ATTAINMENT STATUS

Table 2.0-3 shows the federal and state attainment status for the county. The region is nonattainment for the state ozone and PM_{10} standards as well as for the federal ozone and $PM_{2.5}$ standards.

Areas with air quality that exceed adopted air quality standards are designated as nonattainment areas for the relevant air pollutants. Areas that comply with air quality standards are designated as attainment areas for the relevant air pollutants. Unclassified areas are those with insufficient air quality monitoring data to support a designation of attainment or nonattainment, but are generally presumed to comply with the ambient air quality standard. State Implementation Plans must be prepared by states for areas designated as federal nonattainment areas to demonstrate how the area will come into attainment of the exceeded federal ambient air quality standard.

As detailed further below, both CARB and the EPA have established air pollution standards in an effort to protect human health and welfare. Geographic areas are designated attainment if these standards are met and nonattainment if they are not met.

TABLE 2.0-3
FEDERAL AND STATE AMBIENT AIR QUALITY ATTAINMENT STATUS FOR WESTERN EL DORADO COUNTY

Pollutant	Federal	State
8-Hour Ozone (O_3)	Nonattainment	Nonattainment
Coarse Particulate Matter (PM_{10})	Unclassified	Nonattainment
Fine Particulate Matter ($PM_{2.5}$)	Nonattainment	Unclassified
Carbon Monoxide (CO)	Unclassifiable/Attainment	Unclassified
Nitrogen Dioxide (NO_2)	Unclassified/Attainment	Attainment
Sulfur Dioxide (SO_2)	Unclassified	Attainment

Source: CARB 2013a

LOCAL

El Dorado County Air Quality Management District

EDCAQMD has also adopted various rules and regulations pertaining to the control of emissions from area and stationary sources. All projects are subject to EDCAQMD rules and regulations in effect at the time of construction. Specific rules applicable to the proposed project may include, but are not limited to:

- Rule 101 – General Provisions
- Rule 205 – Nuisances
- Rule 207 – Particulate Matter
- Rule 223 – Fugitive Dust General Requirements
- Rule 223-1 – Fugitive Dust Construction Requirements
- Rule 224 – Cutback Asphalt Paving Material

The Sacramento Regional 8-Hour Ozone Attainment Plan and PM_{10} Implementation/ Maintenance Plan and Re-Designation Request, prepared by the air districts in the greater

Sacramento region, including the EDCAQMD, in compliance with the requirements set forth in the California Clean Air Act, specifically addresses the nonattainment status for ozone and PM_{10}.

Sacramento Area Regional Ozone Attainment Plan

The federal 8-hour ozone regulations require that areas classified as serious or above submit a reasonable further progress demonstration plan that shows a minimum of 18 percent volatile organic compound (and/or NO_x) emission reductions over the first six years following the 2002 baseline year and then an average of 3 percent reductions per year for each subsequent three-year period out to the attainment year. The Sacramento Regional 8-Hour Ozone 2011 Reasonable Further Progress Plan includes the information and analyses to fulfill Clean Air Act requirements for demonstrating reasonable further progress toward attaining the 8-hour ozone national ambient air quality standards (NAAQS) for the region. In addition, this plan establishes an updated emissions inventory and maintains existing motor vehicle emission budgets for transportation conformity purposes.

Sacramento Area Regional PM_{10} Attainment Plan

The purpose of this plan is to fulfill the requirements for the EPA to redesignate the region from nonattainment to attainment of the PM_{10} national ambient air quality standards by preparing the following plan elements and tasks:

- Document the extent of the PM10 problem in Sacramento County.
- Determine the emission inventory sources contributing to the PM10 problem.
- Identify the appropriate control measures that achieve attainment of the PM10 national ambient air quality standards.
- Demonstrate maintenance of the PM10 national ambient air quality standards.
- Request formal re-designation to attainment of the PM10 national ambient air quality standards.

Toxic Air Contaminant Programs

California regulates TACs primarily through the Tanner Air Toxics Act (Assembly Bill (AB) 1807; codified Health and Safety Code Sections 39650–39675) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588 and amended with Senate Bill (SB) 1731; codified Health and Safety Code Sections 44300–44394). The Tanner Act sets forth a formal procedure for CARB to designate substances as toxic air contaminants. This includes research, public participation, and scientific peer review before CARB can designate a substance as a TAC. To date, CARB has identified more than 21 TACs and adopted the EPA's list of hazardous air pollutants (HAPs) as toxic air contaminants. Most recently, diesel exhaust particulate was added to the CARB list of TACs. Once a TAC is identified, CARB then adopts an Airborne Toxics Control Measure for sources that emit that particular TAC. If there is a safe threshold for a substance at which there is no toxic effect, the control measure must reduce exposure below that threshold. If there is no safe threshold, the measure must incorporate toxic best available control technology to minimize emissions. None of the TACs identified by CARB have a safe threshold. The Hot Spots Act requires that existing facilities that emit toxic substances above a specified level prepare a toxic emission inventory, prepare a risk assessment if emissions are significant, notify the public of significant risk levels, and prepare and implement risk reduction measures.

2.3 AIR QUALITY IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The impact analysis provided below is based on the application of the following CEQA Guidelines Appendix G thresholds of significance:

1) Violate any air quality standard or contribute substantially to an existing or projected air quality violation.

2) Conflict with or obstruct implementation of any applicable air quality plan.

3) Expose sensitive receptors to substantial pollutant concentrations.

4) Create objectionable odors affecting a substantial number of people.

5) 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).

METHODOLOGY

The resultant air pollutant emissions of the proposed project were calculated by PMC using the California Emissions Estimator Model (CalEEMod), version 2013.2.2, computer program (see **Appendix A**). CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for the use of government agencies, land use planners, and environmental professionals. This model is the most current emissions model approved for use in California by various other air districts.

Project Impacts and Mitigation Measures

Impact 2.0.1 Violate any air quality standard or contribute substantially to an existing or projected air quality violation.

Subsequent land use activities associated with implementation of the proposed project would introduce additional construction, mobile, and stationary sources of emissions, which would adversely affect regional air quality.

Short- and long-term operational emissions associated with the development potential of the proposed project were quantified using the CalEEMod land use emissions model (see Appendix A for model data outputs). These quantified emission projections are then compared with EDCAQMD significance thresholds established in the EDCAQMD's *Guide to Air Quality Assessment* (2002).

CONSTRUCTION EMISSIONS

Construction-generated emissions are temporary and short term but have the potential to represent a significant air quality impact. The construction and development of the proposed project would result in the temporary generation of emissions resulting from site grading and excavation, paving, and motor vehicle exhaust associated with construction equipment and

worker trips, as well as the movement of construction equipment, especially on unpaved surfaces. Emissions of airborne PM are largely dependent on the amount of ground disturbance associated with site preparation activities.

As stated above, the EDCAQMD has adopted guidelines for determining potential adverse impacts to air quality in the region. The EDCAQMD guidelines state that construction activities are considered a potentially significant adverse impact if such activities generate total emissions in excess of EDCAQMD established thresholds. According to the *Guide to Air Quality Assessment* (EDCAQMD 2002, Chapter 4, p. 3), if identified ROG and NO_x emissions are under the construction emissions threshold of 82 pounds generated per day and thus considered less than significant, then emissions of CO and PM_{10} would also be considered less than significant.

Table 2.0-4 illustrates the construction-related criteria and precursor emissions that would result from implementation of the proposed project.

TABLE 2.0-4
CONSTRUCTION-RELATED CRITERIA POLLUTANT AND PRECURSOR EMISSIONS – UNMITIGATED (POUNDS PER DAY)

Construction Activities	Reactive Organic Gases (ROG)	Nitrogen Oxide (NO_x)	Carbon Monoxide (CO)	Sulfur Dioxide (SO_2)	Coarse Particulate Matter (PM_{10})	Fine Particulate Matter ($PM_{2.5}$)
Summer Emissions – Pounds per Day (Unmitigated)						
Year One	14.57	79.13	52.04	0.06	21.30	12.81
Year Two	14.02	53.86	38.17	0.05	3.77	3.30
Winter Emissions – Pounds per Day (Unmitigated)						
Year One	14.57	79.16	51.98	0.06	21.30	12.81
Year Two	14.03	53.94	38.48	0.05	3.77	3.30
EDCAQMD Potentially Significant Impact Threshold	82 pounds/day	82 pounds/day	–	–	–	–
Exceed EDCAQMD Threshold?	**No**	**No**	–	–	–	–

*Source: CalEEMod version 2013.2.2. See **Appendix A** for emission model outputs.*

As demonstrated in **Table 2.0-4**, the proposed project would not result in the exceedance of EDCAQMD thresholds for daily air pollutant emissions during construction activities. Therefore, construction-related air quality impacts associated with the proposed project are **less than significant**.

OPERATIONAL EMISSIONS

Implementation of the proposed project would result in increased regional emissions of PM_{10} and $PM_{2.5}$, as well as ROG, NO_x, and CO, due to increased use of motor vehicles, natural gas, maintenance equipment, and various consumer products, thereby increasing potential operational air quality impacts. Increases in operational air impacts with implementation of the proposed project would generally consist of two sources: stationary and mobile.

As stated above, the EDCAQMD has adopted guidelines for determining potential adverse impacts to air quality in the region. The EDCAQMD guidelines state that operational activities are considered a potentially significant adverse impact if such activities generate total emissions in excess of EDCAQMD established thresholds. According to the *Guide to Air Quality Assessment* (EDCAQMD 2002, Chapter 5, p. 2), if identified ROG and NO_x emissions are under the operation emissions threshold of 82 pounds generated per day and thus considered less than significant, then emissions of CO and PM_{10} would also be considered **less than significant.**

Table 2.0-5 illustrates the operations-related criteria and precursor emissions of an average year that would result from implementation of the proposed project.

TABLE 2.0-5
OPERATIONS-RELATED CRITERIA POLLUTANT AND PRECURSOR EMISSIONS – UNMITIGATED
(POUNDS PER DAY)

Operational Activities	Reactive Organic Gases (ROG)	Nitrogen Oxide (NO_x)	Carbon Monoxide (CO)	Sulfur Dioxide (SO_2)	Coarse Particulate Matter (PM_{10})	Fine Particulate Matter ($PM_{2.5}$)
Summer Emissions – Pounds per Day (Maximum)						
Proposed Project	80.03	5.35	118.02	0.08	16.06	13.86
Current Land Use Designation	*359.77*	*20.11*	*520.59*	*0.31*	*69.69*	*62.52*
Winter Emissions – Pounds per Day (Maximum)						
Proposed Project	79.91	5.91	118.31	0.07	16.06	13.86
Current Land Use Designation	*359.37*	*22.11*	*521.85*	*0.29*	*69.69*	*62.53*
EDCAQMD Potentially Significant Impact Threshold	82 pounds/day	82 pounds/day	–	–	–	–
Exceed EDCAQMD Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: CalEEMod version 2013.2.1. The General Plan's traffic demand model had projected 225 apartments on the project site.

As shown in **Table 2.0-5**, proposed project emissions would not exceed EDCAQMD significance thresholds for operational air pollutant emissions. Therefore, impacts resulting from project operations would be **less than significant.**

Impact 2.0.2 Conflict with or obstruct implementation of any applicable air quality plan.

As stated above, the western portion of El Dorado County is designated as nonattainment for the state and federal ozone standards. The Sacramento Regional 8-Hour Ozone 2011 Reasonable Further Progress Plan (OAP) was developed by the air districts in the Sacramento region to bring the region into attainment. The region addressed in the OAP includes the Mountain Counties Air Basin portion of El Dorado County, and thus the project site. The OAP is the regional component of the State Implementation Plan (SIP), which is the state's plan for attaining the federal 8-hour ozone standard as required by the California Clean Air Act and the federal Clean Air Act. The SIP has been prepared to identify a detailed comprehensive strategy for reducing emissions to the level needed for attainment and show how the region would make expeditious progress toward meeting this goal. The SIP assumes annual increases in air pollutant emissions resulting from regional growth (including construction-generated emissions) anticipated according to local land use plans (e.g., general plans, regional transportation

plans). The SIP also assumes the incremental increase in emissions will be partially offset through the implementation of stationary, area, and indirect source control measures contained in the plan.

In addition to not attaining the federal or state ozone standards, the region does not attain the federal $PM_{2.5}$ standards or state PM_{10} standards. Reduction of particulate matter by all feasible means is necessary to attain these PM standards. The purpose of the Sacramento Area Regional PM_{10} Attainment Plan (PM_{10} Plan) is to fulfill the requirements for the EPA to redesignate the region from nonattainment to attainment of the PM_{10} ambient air quality standards by preparing the plan elements as described previously.

Particulate matter directly emitted from a project is generally regarded as having regional and localized impacts; however, PM_{10} and $PM_{2.5}$ are of greatest concern during construction (e.g., the site preparation phase) of a proposed project.

According to the EDCAQMD's *Guide to Air Quality Assessment* (2002), a project is conforming to the air quality plans if:

1) The project does not require a change in the existing land use designation (e.g., a general plan amendment or rezone), or projected emissions of ROG and NOx from the proposed project are equal to or less than the emissions anticipated for the site if developed under the existing land use designation.

2) The project does not exceed the "project alone" significance criteria.

3) The lead agency for the project requires the project to implement any applicable emission reduction measures contained in and/or derived from the air quality plans.

4) The project complies with all applicable district rules and regulations.

The proposed project will not conflict with implementation of the applicable air quality plans. As demonstrated in Impact 2.0.1 above, emissions generated from proposed project construction and proposed project operations would not exceed EDCAQMD thresholds of 82 pounds per day of ROG or 82 pounds per day of NOx (see **Tables 2.0-4** and **2.0-5**). In addition, as shown in **Table 2.0-5**, operational emissions projected from land uses currently allowed under the existing land use designation of the site would be higher than those projected to result with the development of the proposed project. The project will be required to comply with all applicable EDCAQMD rules and regulations. Therefore, a **less than significant** impact would occur.

Impact 2.0.3 Expose sensitive receptors to substantial pollutant concentrations.

The proposed project could create a significant hazard to surrounding residents through exposure to substantial pollutant concentrations such as $PM_{2.5}$ during construction activities and/or other toxic air contaminants.

Sensitive land uses are generally defined as locations where people reside or where the presence of air emissions could adversely affect the use of the land. Typical sensitive receptors include residents, schoolchildren, hospital patients, and the elderly. Residential land uses currently surround the project site. Construction activities would involve the use of a variety of gasoline- or diesel-powered equipment that emits exhaust fumes. Surrounding residents would potentially be exposed to nuisance dust and heavy equipment emission odors (e.g., diesel

exhaust) during construction. However, the duration of exposure would be short and exhaust from construction equipment dissipates rapidly.

Typically, substantial pollutant concentrations of CO are associated with mobile sources (e.g., vehicle idling time). Localized concentrations of CO are associated with congested roadways or signalized intersections operating at poor levels of service (LOS E or lower). High concentrations of CO may negatively affect local sensitive receptors (e.g., residents, schoolchildren, or hospital patients). Surrounding the project site are sensitive receptors consisting of existing residential uses and an existing roadway network of two-lane roadways with vehicle traffic controlled by stop signs. Traffic volumes in the project area are not large enough to trigger CO concentration issues. As previously described, the project would not result in significant generation of CO emissions. Therefore, the operation of the proposed project is not expected to result in impacts to sensitive receptors. For those reasons, impacts to sensitive receptors are considered to be **less than significant**.

Impact 2.0.4 Create objectionable odors affecting a substantial number of people.

Residential developments are not considered to be an emission source that would result in objectionable odors. Future construction activities could result in odorous emissions from diesel exhaust associated with construction equipment. However, because of the temporary nature of these emissions and the highly diffusive properties of diesel exhaust, exposure of sensitive receptors to these emissions would be limited. In addition, the EDCAQMD has adopted a nuisance rule that addresses the exposure of nuisance discharges such as unpleasant odors. Rule 205 states that no person shall discharge from any source whatsoever such quantities of odors or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public. Therefore, this impact is **less than significant**.

Impact 2.0.5 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).

The EDCAQMD's primary criterion for determining whether a project has significant cumulative impacts is whether the project is consistent with an approved plan in place for the pollutants emitted by the project (i.e., the Sacramento Regional 8-Hour Ozone 2011 Reasonable Further Progress Plan (OAP) and the PM_{10} Implementation/Maintenance Plan and Re-Designation Request for Sacramento County (PM_{10} Plan)). This criterion is applicable to both the construction and operation phases of a project. According to the EDCAQMD's *Guide to Air Quality Assessment* (2002), a project is conforming to the air quality plans if:

1) The project does not require a change in the existing land use designation (e.g., a general plan amendment or rezone), or projected emissions of ROG and NO_x from the proposed project are equal to or less than the emissions anticipated for the site if developed under the existing land use designation.

2) The project does not exceed the "project alone" significance criteria.

3) The lead agency for the project requires the project to implement any applicable emission reduction measures contained in and/or derived from the air quality plans.

4) The project complies with all applicable district rules and regulations.

As demonstrated above, emissions generated from proposed project construction and proposed project operations would not exceed EDCAQMD thresholds of 82 pounds per day of ROG or 82 pounds per day of NOx. In addition, as shown in **Table 2.0-5**, operational emissions projected from land uses currently allowed under the existing land use designation of the site would be higher than those projected to result with the development of the proposed project. The project will be required to comply with all applicable EDCAQMD rules and regulations. Therefore, the proposed project would result in a **less than significant** cumulative impact.

3.1 CLIMATE CHANGE SETTING

Since the early 1990s, scientific consensus holds that the world's population is releasing greenhouse gases faster than the earth's natural systems can absorb them. These gases are released as byproducts of fossil fuel combustion, waste disposal, energy use, land use changes, and other human activities. This release of gases, such as carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O), creates a blanket around the earth that allows light to pass through but traps heat at the surface, preventing its escape into space. While this is a naturally occurring process known as the greenhouse effect, human activities have accelerated the generation of greenhouse gases beyond natural levels. The overabundance of greenhouse gases in the atmosphere has led to a warming of the earth and has the potential to severely impact the earth's climate system.

While often used interchangeably, there is a difference between the terms "climate change" and "global warming." According to the National Academy of Sciences, climate change refers to any significant, measurable change of climate lasting for an extended period of time that can be caused by both natural factors and human activities. Global warming, on the other hand, is an average increase in the temperature of the atmosphere caused by increased greenhouse gas emissions. The use of the term climate change is becoming more prevalent because it encompasses all changes to the climate, not just temperature.

To fully understand global climate change, it is important to recognize the naturally occurring greenhouse effect and to define the greenhouse gases that contribute to this phenomenon. Various gases in the earth's atmosphere, classified as atmospheric GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space and a portion of the radiation is absorbed by the earth's surface. The earth emits this radiation back toward space, but the properties of the radiation change from high-frequency solar radiation to lower-frequency infrared radiation. Greenhouse gases, which are transparent to solar radiation, are effective in absorbing infrared radiation. As a result, this radiation that otherwise would have escaped back into space is now retained, resulting in a warming of the atmosphere. This phenomenon is known as the greenhouse effect. Among the prominent GHGs contributing to the greenhouse effect are CO_2, CH_4, N_2O, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6).

Table 3.0-1 provides descriptions of the primary greenhouse gases attributed to global climate change, including a description of their physical properties, primary sources, and contribution to the greenhouse effect.

TABLE 3.0-1
GREENHOUSE GASES

Greenhouse Gas	Description
Carbon dioxide (CO_2)	Carbon dioxide is a colorless, odorless gas. CO_2 is emitted in a number of ways, both naturally and through human activities. The largest source of CO_2 emissions globally is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, industrial facilities, and other sources. A number of specialized industrial production processes and product uses such as mineral production, metal production, and the use of petroleum-based products can also lead to CO_2 emissions. The atmospheric lifetime of CO_2 is variable because it is so readily exchanged in the atmosphere.[1]
Methane (CH_4)	Methane is a colorless, odorless gas that is not flammable under most circumstances. CH_4 is the major component of natural gas, about 87 percent by volume. It is also formed and released to the atmosphere by biological processes occurring in anaerobic environments. Methane is emitted from a variety of both human-related and natural sources. Human-related sources include fossil fuel production, animal husbandry (intestinal fermentation in livestock and manure management), rice cultivation, biomass burning, and waste management. These activities release significant quantities of methane to the atmosphere. Natural sources of methane include wetlands, gas hydrates, permafrost, termites, oceans, freshwater bodies, non-wetland soils, and other sources such as wildfires. Methane's atmospheric lifetime is about 12 years.[2]
Nitrous oxide (N_2O)	Nitrous oxide is a clear, colorless gas with a slightly sweet odor. N_2O is produced by both natural and human-related sources. Primary human-related sources of N_2O are agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuels, adipic acid production, and nitric acid production. N_2O is also produced naturally from a wide variety of biological sources in soil and water, particularly microbial action in wet tropical forests. The atmospheric lifetime of N_2O is approximately 120 years.[3]
Hydrofluorocarbons (HFCs)	Hydrofluorocarbons are man-made chemicals, many of which have been developed as alternatives to ozone-depleting substances for industrial, commercial, and consumer products. The only significant emissions of HFCs before 1990 were of the chemical HFC-23, which is generated as a byproduct of the production of HCFC-22 (or Freon 22, used in air conditioning applications). The atmospheric lifetime for HFCs varies from just over a year for HFC-152a to 260 years for HFC-23. Most of the commercially used HFCs have atmospheric lifetimes less than 15 years (e.g., HFC-134a, which is used in automobile air conditioning and refrigeration, has an atmospheric life of 14 years).[4]
Perfluorocarbons (PFCs)	Perfluorocarbons are colorless, highly dense, chemically inert, and nontoxic. There are seven PFC gases: perfluoromethane (CF_4), perfluoroethane (C_2F_6), perfluoropropane (C_3F_8), perfluorobutane (C_4F_{10}), perfluorocyclobutane (C_4F_8), perfluoropentane (C_5F_{12}), and perfluorohexane (C_6F_{14}). Natural geological emissions have been responsible for the PFCs that have accumulated in the atmosphere in the past; however, the largest current source is aluminum production, which releases CF_4 and C_2F_6 as byproducts. The estimated atmospheric lifetimes for CF_4 and C_2F_6 are 50,000 and 10,000 years, respectively.[4,5]
Sulfur hexafluoride (SF_6)	Sulfur hexafluoride is an inorganic compound that is colorless, odorless, nontoxic, and generally nonflammable. SF_6 is primarily used as an electrical insulator in high voltage equipment. The electric power industry uses roughly 80 percent of all SF_6 produced worldwide. Significant leaks occur from aging equipment and during equipment maintenance and servicing. SF_6 has an atmospheric life of 3,200 years.[4]

Sources: [1]EPA 2011a, [2]EPA 2011b, [3]EPA 2010a, [4]EPA 2010b, [5]EFCTC 2003

Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. Gases with high global warming potential (GWP), such as HFCs, PFCs, and SF_6, are the most heat-absorbent. Methane traps over 21 times

more heat per molecule than CO_2, and N_2O absorbs 310 times more heat per molecule than CO_2. Often, estimates of GHG emissions are presented in carbon dioxide equivalents (CO_2e), which weights each gas by its GWP. Expressing GHG emissions in CO_2e takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO_2 were being emitted. **Table 3.0-2** shows the GWPs for different greenhouse gases for a 100-year time horizon.

TABLE 3.0-2
GLOBAL WARMING POTENTIAL FOR GREENHOUSE GASES

Greenhouse Gas	Global Warming Potential
Carbon dioxide (CO_2)	1
Methane (CH_4)	21
Nitrous oxide (N_2O)	310
Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs)	6,500
Sulfur hexafluoride (SF_6)	23,900

Source: California Climate Action Registry 2009

3.2 GREENHOUSE GAS LAWS AND REGULATIONS

California has adopted various administrative initiatives and also enacted a variety of legislation relating to climate change, much of which sets aggressive goals for GHG emissions reductions within the state.

The discussion below provides a brief overview of the primary legislation that relates to climate change that may affect the emissions associated with the development and operation of the El Dorado Springs 23 project. It begins with an overview of the primary regulatory acts that have driven GHG regulation and analysis in California.

ASSEMBLY BILL 32, THE CALIFORNIA GLOBAL WARMING SOLUTIONS ACT OF 2006

The California Global Warming Solutions Act of 2006 (AB 32) (Health and Safety Code Sections 38500, 38501, 28510, 38530, 38550, 38560, 38561–38565, 38570, 38571, 38574, 38580, 38590, 38592–38599) was signed into law in September 2006 after considerable study and expert testimony before the legislature. The law instructs CARB to develop and enforce regulations for the reporting and verifying of statewide GHG emissions. The act directed CARB to set a GHG emission limit based on 1990 levels, to be achieved by 2020. The bill set a timeline for adopting a scoping plan for achieving GHG reductions in a technologically and economically feasible manner.

The heart of the bill is the requirement that statewide GHG emissions be reduced to 1990 levels by 2020. Based on CARB's calculation of 1990 baseline emissions levels, California must reduce GHG emissions by approximately 29 percent below "business-as-usual" predictions of year 2020 GHG emissions to achieve this goal.[2]

2 Emissions forecasts have since been revised and the percentage below "business-as-usual" necessary to achieve AB 32 goals is now considered to be closer to 20 percent.

The bill required CARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG reductions. CARB accomplished the key milestones set forth in AB 32 including the following:

- June 30, 2007. Identification of discrete early action GHG emissions reduction measures. On June 21, 2007, CARB satisfied this requirement by approving three early action measures. These were later supplemented by adding six other discrete early action measures.

- January 1, 2008. Identification of the 1990 baseline GHG emissions level and approval of a statewide limit equivalent to that level and adoption of reporting and verification requirements concerning GHG emissions. On December 6, 2007, CARB approved a statewide limit on GHG emissions levels for the year 2020 consistent with the determined 1990 baseline.

- January 1, 2009. Adoption of a scoping plan for achieving GHG emission reductions. On December 11, 2008, CARB adopted the Climate Change Scoping Plan: A Framework for Change (Scoping Plan), discussed in more detail below.

- January 1, 2010. Adoption and enforcement of regulations to implement the "discrete" actions. Several early action measures have been adopted and became effective on January 1, 2010.

- January 1, 2011. Adoption of GHG emissions limits and reduction measures by regulation. On October 28, 2010, CARB released its proposed cap-and-trade regulations, which would cover sources of approximately 85 percent of California's GHG emissions (CARB 2010). CARB's Board ordered CARB's Executive Director to prepare a final regulatory package for cap-and-trade on December 16, 2010.

- January 1, 2012. GHG emissions limits and reduction measures adopted in 2011 become enforceable.

AB 32 Scoping Plan

As noted above, on December 11, 2008, CARB adopted the Scoping Plan to achieve the goals of AB 32. The Scoping Plan establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions. CARB determined that achieving the 1990 emission level would require a reduction of GHG emissions of approximately 29 percent below what would otherwise occur in 2020 in the absence of new laws and regulations (referred to as "business as usual"). The Scoping Plan evaluates opportunities for sector-specific reductions, integrates all CARB and Climate Action Team early actions and additional GHG reduction measures by both entities, identifies additional measures to be pursued as regulations, and outlines the role of a cap-and-trade program. Additional development of these measures and adoption of the appropriate regulations will occur through the end of year 2013. The key elements of the Scoping Plan include:

- Expanding and strengthening existing energy efficiency programs as well as building and applying standards.

- Achieving a statewide renewables energy mix of 33 percent.

- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system and caps sources contributing 85 percent of California's GHG emissions.

- Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets.

- Adopting and implementing measures pursuant to existing state laws and policies, including California's clean car standards, heavy-duty truck measures, and the Low Carbon Fuel Standard.

- Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the State of California's long-term commitment to AB 32 implementation.

In August 2012, CARB released revised estimates of the expected 2020 emission reductions. The revised analysis relies on emissions projections updated in light of current economic forecasts which account for the economic downturn since 2008 as well as reduction measures already approved and put in place. This reduced the projected 2020 emissions from 596 million metric tons (MMT) CO_2e to 545 $MMTCO_2e$. The reduction in projected 2020 emissions means that the revised business-as-usual (BAU) reduction necessary to achieve AB 32's goal of reaching 1990 levels by 2020 is now only 21 percent.

ASSEMBLY BILL 1493

Assembly Bill 1493 ("the Pavley Standard" or AB 1493) (Health and Safety Code Sections 42823 and 43018.5) required CARB to adopt regulations by January 1, 2005, to reduce GHG emissions from non-commercial passenger vehicles and light-duty trucks of model year 2009 through 2016. The bill also required the California Climate Action Registry to develop and adopt protocols for the reporting and certification of GHG emissions reductions from mobile sources for use by CARB in granting emission reduction credits. The bill authorizes CARB to grant emission reduction credits for reductions of GHG emissions prior to the date of enforcement of regulations, using model year 2000 as the baseline for reduction. On June 30, 2009, the EPA specified the provision that CARB may not hold a manufacturer liable or responsible for any noncompliance caused by emission debits generated by a manufacturer for the 2009 model year. CARB has adopted a new approach to passenger vehicles—cars and light trucks—by combining the control of smog-causing pollutants and GHG emissions into a single coordinated package of standards. The new approach also includes efforts to support and accelerate the numbers of plug-in hybrids and zero-emission vehicles in California. These standards will apply to all passenger and light-duty trucks used by customers, employees of, and deliveries to the El Dorado Springs 23 project.

LOW CARBON FUEL STANDARD

Executive Order S-01-07 (January 18, 2007) requires a 10 percent or greater reduction in the average fuel carbon intensity for transportation fuels in California regulated by CARB. CARB identified the Low Carbon Fuel Standard (LCFS) as a Discrete Early Action item under AB 32, and the final resolution (09-31) was issued on April 23, 2009. In 2009, CARB approved for adoption of the LCFS regulation, which became fully effective in April 2010 and is codified at Title 17, California Code of Regulations, Sections 95480–95490. The LCFS will reduce GHG emissions by reducing the carbon intensity of transportation fuels used in California by at least 10 percent by 2020. Carbon intensity is a measure of the GHG emissions associated with the various production, distribution, and use steps in the "life cycle" of a transportation fuel.

On December 29, 2011, the US District Court for the Eastern District of California issued several rulings in the federal lawsuits challenging the LCFS. One of the district court's rulings preliminarily enjoined CARB from enforcing the regulation. In January 2012, CARB appealed that decision to the Ninth Circuit Court of Appeals, and then moved to stay the injunction pending resolution of the appeal. On April 23, 2012, the Ninth Circuit granted the CARB's motion for a stay of the injunction while it continues to consider CARB's appeal of the lower court's decision.

CALIFORNIA BUILDING ENERGY EFFICIENCY STANDARDS

Energy conservation standards for new residential and commercial buildings were originally adopted by the California Energy Resources Conservation and Development Commission in June 1977 and most recently revised in 2008 (Title 24, Part 6 of the California Code of Regulations [CCR]). In general, Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods.

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11, Title 24) was adopted as part of the California Building Standards Code (Title 24, California Code of Regulations). Part 11 establishes voluntary standards on planning and design for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants. Some of these standards have become mandatory in the 2010 edition of the Part 11 Code. Current mandatory standards include:

- Twenty (20) percent mandatory reduction in indoor water use, with voluntary goal standards for 30, 35, and 40 percent reductions.
- Separate water meters for nonresidential buildings' indoor and outdoor water use, with a requirement for moisture-sensing irrigation systems for larger landscape projects.
- Diversion of 50 percent of construction waste from landfills, increasing voluntarily to 65 and 75 percent for new homes and 80 percent for commercial projects.
- Mandatory inspections of energy systems (i.e., heat furnace, air conditioner, mechanical equipment) for nonresidential buildings over 10,000 square feet to ensure that all are working at their maximum capacity according to their design efficiencies.
- Low-pollutant-emitting interior finish materials such as paints, carpet, vinyl flooring, and particle board.

The California Energy Commission has opened a public process and rulemaking proceeding the adoption of changes to the 2013 Building Energy Efficiency Standards contained in the CCR, Title 24, Part 6 (also known as the California Energy Code), and associated administrative regulations in Part 1 (collectively referred to here as the standards). The proposed amended standards will be adopted in 2014. The 2013 Building Energy Efficiency Standards are 25 percent more efficient than previous standards for residential construction and 30 percent better for nonresidential construction. The standards, which take effect on January 1, 2014, will offer builders better windows, insulation, lighting, ventilation systems, and other features that reduce energy consumption in homes and businesses.

3.3 CLIMATE CHANGE IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The impact analysis provided below is based on the application of the following State CEQA Guidelines Appendix G thresholds of significance:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.
- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Thresholds of significance illustrate the extent of an impact and are a basis from which to apply mitigation measures. Significance thresholds for GHG emissions resulting from land use development projects have not been established in El Dorado County (the EDCAQMD has not yet established significance thresholds for greenhouse gas emissions from project operations). In April 2012, the San Luis Obispo County Air Pollution Control District (SLOAPCD) published its GHG threshold. Utilization of SLOAPCD's GHG threshold was considered reasonable and appropriate by EDCAQMD staff (Baughman 2012).

The El Dorado Springs 23 project will construct a development of 49 single-family residential dwelling units. This assessment identifies and quantifies the GHG emissions associated with the construction and operation of 49 single-family residential dwelling units and compares them to the SLOAPCD-recommended threshold of 1,150 metric tons of CO_2e annually. The project would be considered to have a significant effect if the projected emissions generated would surpass 1,150 metric tons of CO_2e annually. If mitigation can be applied to lessen the emissions such that the project meets its share of emission reductions needed to address the cumulative effect, the project would be considered negligible. This GHG assessment also considers the goals of El Dorado County Board of Supervisors Environmental Vision for El Dorado County Resolution No. 29-2008.

METHODOLOGY

The resultant GHG emissions of the proposed project were calculated by PMC using the California Emissions Estimator Model (CalEEMod), version 2013.2.2, computer program (see **Appendix B**). CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for the use of government agencies, land use planners, and environmental professionals. This model is the most current emissions model approved for use in California by various other air districts.

Project Impacts and Mitigation Measures

Impact 3.0.1 Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

GHG emissions associated with the El Dorado Springs 23 project would occur over the short term from construction activities, consisting primarily of emissions from equipment exhaust. There would also be long-term regional emissions associated with project-related new vehicular trips and indirect source emissions, such as electricity usage for lighting. In accordance with the SLOAPCD threshold determination, projected GHGs from site preparation (i.e., tree removal, grubbing) and construction activities have be quantified and amortized over the life of the project (30 years). The amortized site preparation and construction emissions are added to the

annual average operational emissions. The project operational GHG emissions resulting from the proposed project are identified in **Table 3.0-3**.

TABLE 3.0-3
ESTIMATED PROJECT GREENHOUSE GAS EMISSIONS – PROJECT OPERATION (METRIC TONS PER YEAR)

Emissions Source	Carbon Dioxide (CO_2)	Methane (CH_4)	Nitrous Oxide (N_2O)	CO_2e
El Dorado Springs 23 Project – 49 Residential Units				
Construction Amortized over 30 Years	36	0.00	0.00	36
Area Source (landscaping, hearth)	72	0.04	0.00	75
Energy	151	0.00	0.00	151
Mobile	538	0.02	0.00	539
Waste	7	0.41	0.00	16
Water	8	0.10	0.00	11
Total	**812**	**0.57**	**0.00**	**828**

*Source: CalEEMod version 2013.2.2. See **Appendix B** for emission model outputs.*

As shown in **Table 3.0-3**, the El Dorado Springs 23 project is estimated to result in 828 metric tons of CO_2e per year. Therefore, the project would not surpass the project threshold of 1,150 metric tons of CO_2e annually and would result in a **less than significant** impact,

Impact 3.0-2 Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

California has adopted several policies and regulations for the purpose of reducing GHG emissions. On December 11, 2008, the California Air Resources Board adopted the AB 32 Scoping Plan to achieve the goals of AB 32, mentioned above. The Scoping Plan establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions. The El Dorado Springs 23 project is subject to compliance with AB 32, which is designed to reduce statewide GHG emissions to 1990 levels by 2020. As identified above, the project-generated GHG emissions would not surpass GHG significance thresholds, which were prepared with the purpose of complying with the requirements of and achieving the goals of AB 32. Therefore, the project would not conflict with the state goals listed in AB 32 or in any preceding state policies adopted to reduce GHG emissions.

In addition, El Dorado County does not have local policies or ordinances with the purpose of reducing GHG emissions, with the exception of El Dorado County Board of Supervisors Environmental Vision for El Dorado County, Resolution No. 29-2008, which sets forth broad goals to address positive environmental changes. Some of the primary goals of the resolution are to promote carpooling, reduce vehicle miles traveled, and promote recycling and utilization of recycled products. No aspects of the proposed project would inhibit these goals.

The El Dorado Springs 23 project would not be considered to conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHG emissions and therefore represents a **less than significant** impact.

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APPENDICES

APPENDIX A: CALEEMOD OUTPUT FILES – CRITERIA AIR POLLUTANTS

El Dorado Springs 23

El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	49.00	Dwelling Unit	21.60	88,200.00	140

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2016
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project site = 21.6 acres

Construction Phase - Building construction, paving, and painting assumed to occur concurrently

Grading - Project site = 21.6 acres

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	348.00
tblConstructionPhase	NumDays	20.00	370.00
tblConstructionPhase	PhaseEndDate	12/4/2017	8/3/2016
tblConstructionPhase	PhaseEndDate	1/3/2018	8/3/2016
tblConstructionPhase	PhaseStartDate	8/4/2016	4/5/2015
tblConstructionPhase	PhaseStartDate	8/4/2016	3/5/2015
tblGrading	AcresOfGrading	87.50	21.60
tblLandUse	LotAcreage	15.91	21.60
tblProjectCharacteristics	OperationalYear	2014	2016

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	14.5735	79.1392	52.0411	0.0639	18.2141	3.8036	21.3037	9.9699	3.5230	12.8123	0.0000	6,665.3275	6,665.3275	1.9460	0.0000	6,706.1925
2016	14.0273	53.8665	38.1729	0.0570	0.3363	3.4343	3.7706	0.0898	3.2137	3.3035	0.0000	5,687.0041	5,687.0041	1.4107	0.0000	5,716.6281
Total	**28.6008**	**133.0057**	**90.2140**	**0.1208**	**18.5504**	**7.2379**	**25.0742**	**10.0597**	**6.7367**	**16.1158**	**0.0000**	**12,352.3317**	**12,352.3317**	**3.3566**	**0.0000**	**12,422.8205**

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					
2015	14.5735	79.1392	52.0411	0.0639	18.2141	3.8036	21.3037	9.9699	3.5230	12.8123	0.0000	6,665.3275	6,665.3275	1.9460	0.0000	6,706.1925
2016	14.0273	53.8665	38.1729	0.0570	0.3363	3.4343	3.7706	0.0898	3.2137	3.3035	0.0000	5,687.0041	5,687.0041	1.4107	0.0000	5,716.6281
Total	**28.6008**	**133.0057**	**90.2140**	**0.1208**	**18.5504**	**7.2379**	**25.0742**	**10.0597**	**6.7367**	**16.1158**	**0.0000**	**12,352.3317**	**12,352.3317**	**3.3566**	**0.0000**	**12,422.8205**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	77.7619	1.0654	96.4777	0.0363		13.0008	13.0008		13.0004	13.0004	1,360.8148	577.9850	1,938.7998	1.2632	0.1070	1,998.5094
Energy	0.0258	0.2206	0.0939	1.4100e-003		0.0178	0.0178		0.0178	0.0178		281.6225	281.6225	5.4000e-003	5.1600e-003	283.3364
Mobile	2.2506	4.0703	21.4536	0.0432	2.9876	0.0542	3.0418	0.7972	0.0498	0.8470		3,719.7713	3,719.7713	0.1627		3,723.1876
Total	**80.0383**	**5.3562**	**118.0252**	**0.0809**	**2.9876**	**13.0729**	**16.0604**	**0.7972**	**13.0680**	**13.8653**	**1,360.8148**	**4,579.3787**	**5,940.1935**	**1.4313**	**0.1122**	**6,005.0333**

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	77.7619	1.0654	96.4777	0.0363		13.0008	13.0008		13.0004	13.0004	1,360.8148	577.9850	1,938.7998	1.2632	0.1070	1,998.5094
Energy	0.0258	0.2206	0.0939	1.4100e-003		0.0178	0.0178		0.0178	0.0178		281.6225	281.6225	5.4000e-003	5.1600e-003	283.3364
Mobile	2.2506	4.0703	21.4536	0.0432	2.9876	0.0542	3.0418	0.7972	0.0498	0.8470		3,719.7713	3,719.7713	0.1627		3,723.1876
Total	**80.0383**	**5.3562**	**118.0252**	**0.0809**	**2.9876**	**13.0729**	**16.0604**	**0.7972**	**13.0680**	**13.8653**	**1,360.8148**	**4,579.3787**	**5,940.1935**	**1.4313**	**0.1122**	**6,005.0333**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2015	1/14/2015	5	10	
2	Grading	Grading	1/15/2015	3/4/2015	5	35	
3	Building Construction	Building Construction	3/5/2015	8/3/2016	5	370	
4	Paving	Paving	3/5/2015	8/3/2016	5	370	
5	Architectural Coating	Architectural Coating	4/5/2015	8/3/2016	5	348	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 21.6

Acres of Paving: 0

Residential Indoor: 178,605; Residential Outdoor: 59,535; 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
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Excavators	2	8.00	162	0.38
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
Paving	Pavers	2	8.00	125	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	174	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	130	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Building Construction	Welders	1	8.00	46	0.45

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
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	18.00	5.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	4.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2015

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	5.2609	56.8897	42.6318	0.0391		3.0883	3.0883		2.8412	2.8412		4,111.7444	4,111.7444	1.2275		4,137.5225
Total	**5.2609**	**56.8897**	**42.6318**	**0.0391**	**18.0663**	**3.0883**	**21.1545**	**9.9307**	**2.8412**	**12.7719**		**4,111.7444**	**4,111.7444**	**1.2275**		**4,137.5225**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0913	0.0833	1.0811	1.8900e-003	0.1479	1.2600e-003	0.1491	0.0392	1.1400e-003	0.0404		161.1758	161.1758	8.5800e-003		161.3560
Total	**0.0913**	**0.0833**	**1.0811**	**1.8900e-003**	**0.1479**	**1.2600e-003**	**0.1491**	**0.0392**	**1.1400e-003**	**0.0404**		**161.1758**	**161.1758**	**8.5800e-003**		**161.3560**

3.2 Site Preparation - 2015

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	5.2609	56.8897	42.6318	0.0391		3.0883	3.0883		2.8412	2.8412	0.0000	4,111.7444	4,111.7444	1.2275		4,137.5224
Total	**5.2609**	**56.8897**	**42.6318**	**0.0391**	**18.0663**	**3.0883**	**21.1545**	**9.9307**	**2.8412**	**12.7719**	**0.0000**	**4,111.7444**	**4,111.7444**	**1.2275**		**4,137.5224**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0913	0.0833	1.0811	1.8900e-003	0.1479	1.2600e-003	0.1491	0.0392	1.1400e-003	0.0404		161.1758	161.1758	8.5800e-003		161.3560
Total	**0.0913**	**0.0833**	**1.0811**	**1.8900e-003**	**0.1479**	**1.2600e-003**	**0.1491**	**0.0392**	**1.1400e-003**	**0.0404**		**161.1758**	**161.1758**	**8.5800e-003**		**161.3560**

3.3 Grading - 2015

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					6.6766	0.0000	6.6766	3.3809	0.0000	3.3809			0.0000			0.0000
Off-Road	6.7751	79.0467	50.8400	0.0618		3.8022	3.8022		3.4980	3.4980		6,486.2433	6,486.2433	1.9364		6,526.9080
Total	**6.7751**	**79.0467**	**50.8400**	**0.0618**	**6.6766**	**3.8022**	**10.4788**	**3.3809**	**3.4980**	**6.8789**		**6,486.2433**	**6,486.2433**	**1.9364**		**6,526.9080**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1014	0.0925	1.2012	2.1000e-003	0.1643	1.4000e-003	0.1657	0.0436	1.2700e-003	0.0449		179.0842	179.0842	9.5300e-003		179.2845
Total	**0.1014**	**0.0925**	**1.2012**	**2.1000e-003**	**0.1643**	**1.4000e-003**	**0.1657**	**0.0436**	**1.2700e-003**	**0.0449**		**179.0842**	**179.0842**	**9.5300e-003**		**179.2845**

3.3 Grading - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.6766	0.0000	6.6766	3.3809	0.0000	3.3809			0.0000			0.0000
Off-Road	6.7751	79.0467	50.8400	0.0618		3.8022	3.8022		3.4980	3.4980	0.0000	6,486.2433	6,486.2433	1.9364		6,526.9080
Total	**6.7751**	**79.0467**	**50.8400**	**0.0618**	**6.6766**	**3.8022**	**10.4788**	**3.3809**	**3.4980**	**6.8789**	**0.0000**	**6,486.2433**	**6,486.2433**	**1.9364**		**6,526.9080**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1014	0.0925	1.2012	2.1000e-003	0.1643	1.4000e-003	0.1657	0.0436	1.2700e-003	0.0449		179.0842	179.0842	9.5300e-003		179.2845
Total	**0.1014**	**0.0925**	**1.2012**	**2.1000e-003**	**0.1643**	**1.4000e-003**	**0.1657**	**0.0436**	**1.2700e-003**	**0.0449**		**179.0842**	**179.0842**	**9.5300e-003**		**179.2845**

3.4 Building Construction - 2015

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	3.6591	30.0299	18.7446	0.0268		2.1167	2.1167		1.9904	1.9904		2,689.5771	2,689.5771	0.6748		2,703.7483
Total	**3.6591**	**30.0299**	**18.7446**	**0.0268**		**2.1167**	**2.1167**		**1.9904**	**1.9904**		**2,689.5771**	**2,689.5771**	**0.6748**		**2,703.7483**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0736	0.5031	1.0598	1.0100e-003	0.0323	8.3900e-003	0.0407	9.1600e-003	7.7100e-003	0.0169		100.5536	100.5536	9.2000e-004		100.5729
Worker	0.0913	0.0833	1.0811	1.8900e-003	0.1479	1.2600e-003	0.1491	0.0392	1.1400e-003	0.0404		161.1758	161.1758	8.5800e-003		161.3560
Total	**0.1648**	**0.5864**	**2.1409**	**2.9000e-003**	**0.1801**	**9.6500e-003**	**0.1898**	**0.0484**	**8.8500e-003**	**0.0572**		**261.7294**	**261.7294**	**9.5000e-003**		**261.9289**

3.4 Building Construction - 2015

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	3.6591	30.0299	18.7446	0.0268		2.1167	2.1167		1.9904	1.9904	0.0000	2,689.5771	2,689.5771	0.6748		2,703.7483
Total	**3.6591**	**30.0299**	**18.7446**	**0.0268**		**2.1167**	**2.1167**		**1.9904**	**1.9904**	**0.0000**	**2,689.5771**	**2,689.5771**	**0.6748**		**2,703.7483**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0736	0.5031	1.0598	1.0100e-003	0.0323	8.3900e-003	0.0407	9.1600e-003	7.7100e-003	0.0169		100.5536	100.5536	9.2000e-004		100.5729
Worker	0.0913	0.0833	1.0811	1.8900e-003	0.1479	1.2600e-003	0.1491	0.0392	1.1400e-003	0.0404		161.1758	161.1758	8.5800e-003		161.3560
Total	**0.1648**	**0.5864**	**2.1409**	**2.9000e-003**	**0.1801**	**9.6500e-003**	**0.1898**	**0.0484**	**8.8500e-003**	**0.0572**		**261.7294**	**261.7294**	**9.5000e-003**		**261.9289**

3.4 Building Construction - 2016

Unmitigated Construction On-Site

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0678	0.4503	0.9991	1.0200e-003	0.0323	6.9000e-003	0.0392	9.1800e-003	6.3400e-003	0.0155		100.6972	100.6972	8.2000e-004		100.7144
Worker	0.0806	0.0738	0.9563	1.8900e-003	0.1479	1.1800e-003	0.1491	0.0392	1.0800e-003	0.0403		155.2844	155.2844	7.7500e-003		155.4472
Total	**0.1483**	**0.5241**	**1.9553**	**2.9100e-003**	**0.1802**	**8.0800e-003**	**0.1883**	**0.0484**	**7.4200e-003**	**0.0558**		**255.9816**	**255.9816**	**8.5700e-003**		**256.1616**

3.4 Building Construction - 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	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485	0.0000	2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**3.4062**	**28.5063**	**18.5066**	**0.0268**		**1.9674**	**1.9674**		**1.8485**	**1.8485**	**0.0000**	**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0678	0.4503	0.9991	1.0200e-003	0.0323	6.9000e-003	0.0392	9.1800e-003	6.3400e-003	0.0155		100.6972	100.6972	8.2000e-004		100.7144
Worker	0.0806	0.0738	0.9563	1.8900e-003	0.1479	1.1800e-003	0.1491	0.0392	1.0800e-003	0.0403		155.2844	155.2844	7.7500e-003		155.4472
Total	**0.1483**	**0.5241**	**1.9553**	**2.9100e-003**	**0.1802**	**8.0800e-003**	**0.1883**	**0.0484**	**7.4200e-003**	**0.0558**		**255.9816**	**255.9816**	**8.5700e-003**		**256.1616**

3.5 Paving - 2015

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	2.3172	25.1758	14.9781	0.0223		1.4148	1.4148		1.3016	1.3016		2,339.8984	2,339.8984	0.6986		2,354.5681
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.3172**	**25.1758**	**14.9781**	**0.0223**		**1.4148**	**1.4148**		**1.3016**	**1.3016**		**2,339.8984**	**2,339.8984**	**0.6986**		**2,354.5681**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0761	0.0694	0.9009	1.5700e-003	0.1232	1.0500e-003	0.1243	0.0327	9.5000e-004	0.0336		134.3132	134.3132	7.1500e-003		134.4633
Total	**0.0761**	**0.0694**	**0.9009**	**1.5700e-003**	**0.1232**	**1.0500e-003**	**0.1243**	**0.0327**	**9.5000e-004**	**0.0336**		**134.3132**	**134.3132**	**7.1500e-003**		**134.4633**

3.5 Paving - 2015

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	2.3172	25.1758	14.9781	0.0223		1.4148	1.4148		1.3016	1.3016	0.0000	2,339.8984	2,339.8984	0.6986		2,354.5681
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.3172**	**25.1758**	**14.9781**	**0.0223**		**1.4148**	**1.4148**		**1.3016**	**1.3016**	**0.0000**	**2,339.8984**	**2,339.8984**	**0.6986**		**2,354.5681**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0761	0.0694	0.9009	1.5700e-003	0.1232	1.0500e-003	0.1243	0.0327	9.5000e-004	0.0336		134.3132	134.3132	7.1500e-003		134.4633
Total	**0.0761**	**0.0694**	**0.9009**	**1.5700e-003**	**0.1232**	**1.0500e-003**	**0.1243**	**0.0327**	**9.5000e-004**	**0.0336**		**134.3132**	**134.3132**	**7.1500e-003**		**134.4633**

3.5 Paving - 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	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601		2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.0898**	**22.3859**	**14.8176**	**0.0223**		**1.2610**	**1.2610**		**1.1601**	**1.1601**		**2,316.3767**	**2,316.3767**	**0.6987**		**2,331.0495**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0671	0.0615	0.7969	1.5700e-003	0.1232	9.9000e-004	0.1242	0.0327	9.0000e-004	0.0336		129.4037	129.4037	6.4600e-003		129.5393
Total	**0.0671**	**0.0615**	**0.7969**	**1.5700e-003**	**0.1232**	**9.9000e-004**	**0.1242**	**0.0327**	**9.0000e-004**	**0.0336**		**129.4037**	**129.4037**	**6.4600e-003**		**129.5393**

3.5 Paving - 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	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601	0.0000	2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.0898**	**22.3859**	**14.8176**	**0.0223**		**1.2610**	**1.2610**		**1.1601**	**1.1601**	**0.0000**	**2,316.3767**	**2,316.3767**	**0.6987**		**2,331.0495**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0671	0.0615	0.7969	1.5700e-003	0.1232	9.9000e-004	0.1242	0.0327	9.0000e-004	0.0336		129.4037	129.4037	6.4600e-003		129.5393
Total	**0.0671**	**0.0615**	**0.7969**	**1.5700e-003**	**0.1232**	**9.9000e-004**	**0.1242**	**0.0327**	**9.0000e-004**	**0.0336**		**129.4037**	**129.4037**	**6.4600e-003**		**129.5393**

3.6 Architectural Coating - 2015

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	7.9295					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4066	2.5703	1.9018	2.9700e-003		0.2209	0.2209		0.2209	0.2209		281.4481	281.4481	0.0367		282.2177
Total	**8.3361**	**2.5703**	**1.9018**	**2.9700e-003**		**0.2209**	**0.2209**		**0.2209**	**0.2209**		**281.4481**	**281.4481**	**0.0367**		**282.2177**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0203	0.0185	0.2402	4.2000e-004	0.0329	2.8000e-004	0.0331	8.7200e-003	2.5000e-004	8.9700e-003		35.8169	35.8169	1.9100e-003		35.8569
Total	**0.0203**	**0.0185**	**0.2402**	**4.2000e-004**	**0.0329**	**2.8000e-004**	**0.0331**	**8.7200e-003**	**2.5000e-004**	**8.9700e-003**		**35.8169**	**35.8169**	**1.9100e-003**		**35.8569**

3.6 Architectural Coating - 2015

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	7.9295					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4066	2.5703	1.9018	2.9700e-003		0.2209	0.2209		0.2209	0.2209	0.0000	281.4481	281.4481	0.0367		282.2177
Total	**8.3361**	**2.5703**	**1.9018**	**2.9700e-003**		**0.2209**	**0.2209**		**0.2209**	**0.2209**	**0.0000**	**281.4481**	**281.4481**	**0.0367**		**282.2177**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0203	0.0185	0.2402	4.2000e-004	0.0329	2.8000e-004	0.0331	8.7200e-003	2.5000e-004	8.9700e-003		35.8169	35.8169	1.9100e-003		35.8569
Total	**0.0203**	**0.0185**	**0.2402**	**4.2000e-004**	**0.0329**	**2.8000e-004**	**0.0331**	**8.7200e-003**	**2.5000e-004**	**8.9700e-003**		**35.8169**	**35.8169**	**1.9100e-003**		**35.8569**

3.6 Architectural Coating - 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					
Archit. Coating	7.9295					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332		282.1449
Total	**8.2979**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**		**281.4481**	**281.4481**	**0.0332**		**282.1449**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0179	0.0164	0.2125	4.2000e-004	0.0329	2.6000e-004	0.0331	8.7200e-003	2.4000e-004	8.9600e-003		34.5077	34.5077	1.7200e-003		34.5438
Total	**0.0179**	**0.0164**	**0.2125**	**4.2000e-004**	**0.0329**	**2.6000e-004**	**0.0331**	**8.7200e-003**	**2.4000e-004**	**8.9600e-003**		**34.5077**	**34.5077**	**1.7200e-003**		**34.5438**

3.6 Architectural Coating - 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					
Archit. Coating	7.9295					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966	0.0000	281.4481	281.4481	0.0332		282.1449
Total	**8.2979**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**	**0.0000**	**281.4481**	**281.4481**	**0.0332**		**282.1449**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0179	0.0164	0.2125	4.2000e-004	0.0329	2.6000e-004	0.0331	8.7200e-003	2.4000e-004	8.9600e-003		34.5077	34.5077	1.7200e-003		34.5438
Total	**0.0179**	**0.0164**	**0.2125**	**4.2000e-004**	**0.0329**	**2.6000e-004**	**0.0331**	**8.7200e-003**	**2.4000e-004**	**8.9600e-003**		**34.5077**	**34.5077**	**1.7200e-003**		**34.5438**

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	2.2506	4.0703	21.4536	0.0432	2.9876	0.0542	3.0418	0.7972	0.0498	0.8470		3,719.7713	3,719.7713	0.1627		3,723.1876
Unmitigated	2.2506	4.0703	21.4536	0.0432	2.9876	0.0542	3.0418	0.7972	0.0498	0.8470		3,719.7713	3,719.7713	0.1627		3,723.1876

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	468.93	493.92	429.73	1,337,455	1,337,455
Total	468.93	493.92	429.73	1,337,455	1,337,455

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.456308	0.078455	0.189443	0.162186	0.075334	0.010727	0.010063	0.001006	0.001372	0.000782	0.008662	0.000748	0.004912

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0258	0.2206	0.0939	1.4100e-003		0.0178	0.0178		0.0178	0.0178		281.6225	281.6225	5.4000e-003	5.1600e-003	283.3364
NaturalGas Unmitigated	0.0258	0.2206	0.0939	1.4100e-003		0.0178	0.0178		0.0178	0.0178		281.6225	281.6225	5.4000e-003	5.1600e-003	283.3364

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	2393.79	0.0258	0.2206	0.0939	1.4100e-003		0.0178	0.0178		0.0178	0.0178		281.6225	281.6225	5.4000e-003	5.1600e-003	283.3364
Total		**0.0258**	**0.2206**	**0.0939**	**1.4100e-003**		**0.0178**	**0.0178**		**0.0178**	**0.0178**		**281.6225**	**281.6225**	**5.4000e-003**	**5.1600e-003**	**283.3364**

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					
Single Family Housing	2.39379	0.0258	0.2206	0.0939	1.4100e-003		0.0178	0.0178		0.0178	0.0178		281.6225	281.6225	5.4000e-003	5.1600e-003	283.3364
Total		**0.0258**	**0.2206**	**0.0939**	**1.4100e-003**		**0.0178**	**0.0178**		**0.0178**	**0.0178**		**281.6225**	**281.6225**	**5.4000e-003**	**5.1600e-003**	**283.3364**

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	77.7619	1.0654	96.4777	0.0363		13.0008	13.0008		13.0004	13.0004	1,360.8148	577.9850	1,938.7998	1.2632	0.1070	1,998.5094
Unmitigated	77.7619	1.0654	96.4777	0.0363		13.0008	13.0008		13.0004	13.0004	1,360.8148	577.9850	1,938.7998	1.2632	0.1070	1,998.5094

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	0.7560					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.8875					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	74.9894	1.0174	92.3788	0.0361		12.9787	12.9787		12.9783	12.9783	1,360.8148	570.7059	1,931.5207	1.2558	0.1070	1,991.0745
Landscaping	0.1291	0.0480	4.0989	2.1000e-004		0.0221	0.0221		0.0221	0.0221		7.2791	7.2791	7.4200e-003		7.4348
Total	**77.7619**	**1.0654**	**96.4777**	**0.0363**		**13.0008**	**13.0008**		**13.0004**	**13.0004**	**1,360.8148**	**577.9849**	**1,938.7998**	**1.2632**	**0.1070**	**1,998.5094**

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	0.7560					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.8875					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	74.9894	1.0174	92.3788	0.0361		12.9787	12.9787		12.9783	12.9783	1,360.8148	570.7059	1,931.5207	1.2558	0.1070	1,991.0745
Landscaping	0.1291	0.0480	4.0989	2.1000e-004		0.0221	0.0221		0.0221	0.0221		7.2791	7.2791	7.4200e-003		7.4348
Total	**77.7619**	**1.0654**	**96.4777**	**0.0363**		**13.0008**	**13.0008**		**13.0004**	**13.0004**	**1,360.8148**	**577.9849**	**1,938.7998**	**1.2632**	**0.1070**	**1,998.5094**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Vegetation

El Dorado Springs 23

El Dorado-Mountain County County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	49.00	Dwelling Unit	21.60	88,200.00	140

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2016
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project site = 21.6 acres

Construction Phase - Building construction, paving, and painting assumed to occur concurrently

Grading - Project site = 21.6 acres

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	348.00
tblConstructionPhase	NumDays	20.00	370.00
tblConstructionPhase	PhaseEndDate	12/4/2017	8/3/2016
tblConstructionPhase	PhaseEndDate	1/3/2018	8/3/2016
tblConstructionPhase	PhaseStartDate	8/4/2016	4/5/2015
tblConstructionPhase	PhaseStartDate	8/4/2016	3/5/2015
tblGrading	AcresOfGrading	87.50	21.60
tblLandUse	LotAcreage	15.91	21.60
tblProjectCharacteristics	OperationalYear	2014	2016

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	14.5784	79.1615	51.9800	0.0636	18.2141	3.8036	21.3037	9.9699	3.5231	12.8123	0.0000	6,645.9562	6,645.9562	1.9460	0.0000	6,686.8211
2016	14.0305	53.9402	38.4881	0.0566	0.3363	3.4344	3.7707	0.0898	3.2139	3.3037	0.0000	5,651.5011	5,651.5011	1.4107	0.0000	5,681.1256
Total	**28.6089**	**133.1017**	**90.4681**	**0.1202**	**18.5504**	**7.2380**	**25.0744**	**10.0597**	**6.7370**	**16.1159**	**0.0000**	**12,297.4573**	**12,297.4573**	**3.3566**	**0.0000**	**12,367.9467**

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					
2015	14.5784	79.1615	51.9800	0.0636	18.2141	3.8036	21.3037	9.9699	3.5231	12.8123	0.0000	6,645.9562	6,645.9562	1.9460	0.0000	6,686.8211
2016	14.0305	53.9402	38.4881	0.0566	0.3363	3.4344	3.7707	0.0898	3.2139	3.3037	0.0000	5,651.5011	5,651.5011	1.4107	0.0000	5,681.1256
Total	**28.6089**	**133.1017**	**90.4681**	**0.1202**	**18.5504**	**7.2380**	**25.0744**	**10.0597**	**6.7370**	**16.1159**	**0.0000**	**12,297.4573**	**12,297.4573**	**3.3566**	**0.0000**	**12,367.9467**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	77.7619	1.0654	96.4777	0.0363		13.0008	13.0008		13.0004	13.0004	1,360.8148	577.9850	1,938.7998	1.2632	0.1070	1,998.5094
Energy	0.0258	0.2206	0.0939	1.4100e-003		0.0178	0.0178		0.0178	0.0178		281.6225	281.6225	5.4000e-003	5.1600e-003	283.3364
Mobile	2.1274	4.6300	21.7451	0.0393	2.9876	0.0545	3.0420	0.7972	0.0500	0.8472		3,391.5989	3,391.5989	0.1627		3,395.0157
Total	**79.9151**	**5.9159**	**118.3167**	**0.0770**	**2.9876**	**13.0731**	**16.0606**	**0.7972**	**13.0682**	**13.8655**	**1,360.8148**	**4,251.2063**	**5,612.0211**	**1.4313**	**0.1122**	**5,676.8614**

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	77.7619	1.0654	96.4777	0.0363		13.0008	13.0008		13.0004	13.0004	1,360.8148	577.9850	1,938.7998	1.2632	0.1070	1,998.5094
Energy	0.0258	0.2206	0.0939	1.4100e-003		0.0178	0.0178		0.0178	0.0178		281.6225	281.6225	5.4000e-003	5.1600e-003	283.3364
Mobile	2.1274	4.6300	21.7451	0.0393	2.9876	0.0545	3.0420	0.7972	0.0500	0.8472		3,391.5989	3,391.5989	0.1627		3,395.0157
Total	**79.9151**	**5.9159**	**118.3167**	**0.0770**	**2.9876**	**13.0731**	**16.0606**	**0.7972**	**13.0682**	**13.8655**	**1,360.8148**	**4,251.2063**	**5,612.0211**	**1.4313**	**0.1122**	**5,676.8614**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2015	1/14/2015	5	10	
2	Grading	Grading	1/15/2015	3/4/2015	5	35	
3	Building Construction	Building Construction	3/5/2015	8/3/2016	5	370	
4	Paving	Paving	3/5/2015	8/3/2016	5	370	
5	Architectural Coating	Architectural Coating	4/5/2015	8/3/2016	5	348	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 21.6

Acres of Paving: 0

Residential Indoor: 178,605; Residential Outdoor: 59,535; 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
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Excavators	2	8.00	162	0.38
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
Paving	Pavers	2	8.00	125	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	174	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	130	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Building Construction	Welders	1	8.00	46	0.45

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
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	18.00	5.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	4.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2015

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	5.2609	56.8897	42.6318	0.0391		3.0883	3.0883		2.8412	2.8412		4,111.7444	4,111.7444	1.2275		4,137.5225
Total	**5.2609**	**56.8897**	**42.6318**	**0.0391**	**18.0663**	**3.0883**	**21.1545**	**9.9307**	**2.8412**	**12.7719**		**4,111.7444**	**4,111.7444**	**1.2275**		**4,137.5225**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0845	0.1034	1.0261	1.6800e-003	0.1479	1.2600e-003	0.1491	0.0392	1.1400e-003	0.0404		143.7416	143.7416	8.5800e-003		143.9218
Total	**0.0845**	**0.1034**	**1.0261**	**1.6800e-003**	**0.1479**	**1.2600e-003**	**0.1491**	**0.0392**	**1.1400e-003**	**0.0404**		**143.7416**	**143.7416**	**8.5800e-003**		**143.9218**

3.2 Site Preparation - 2015

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	5.2609	56.8897	42.6318	0.0391		3.0883	3.0883		2.8412	2.8412	0.0000	4,111.7444	4,111.7444	1.2275		4,137.5224
Total	**5.2609**	**56.8897**	**42.6318**	**0.0391**	**18.0663**	**3.0883**	**21.1545**	**9.9307**	**2.8412**	**12.7719**	**0.0000**	**4,111.7444**	**4,111.7444**	**1.2275**		**4,137.5224**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0845	0.1034	1.0261	1.6800e-003	0.1479	1.2600e-003	0.1491	0.0392	1.1400e-003	0.0404		143.7416	143.7416	8.5800e-003		143.9218
Total	**0.0845**	**0.1034**	**1.0261**	**1.6800e-003**	**0.1479**	**1.2600e-003**	**0.1491**	**0.0392**	**1.1400e-003**	**0.0404**		**143.7416**	**143.7416**	**8.5800e-003**		**143.9218**

3.3 Grading - 2015

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					6.6766	0.0000	6.6766	3.3809	0.0000	3.3809			0.0000			0.0000
Off-Road	6.7751	79.0467	50.8400	0.0618		3.8022	3.8022		3.4980	3.4980		6,486.2433	6,486.2433	1.9364		6,526.9080
Total	**6.7751**	**79.0467**	**50.8400**	**0.0618**	**6.6766**	**3.8022**	**10.4788**	**3.3809**	**3.4980**	**6.8789**		**6,486.2433**	**6,486.2433**	**1.9364**		**6,526.9080**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0939	0.1149	1.1401	1.8700e-003	0.1643	1.4000e-003	0.1657	0.0436	1.2700e-003	0.0449		159.7129	159.7129	9.5300e-003		159.9131
Total	**0.0939**	**0.1149**	**1.1401**	**1.8700e-003**	**0.1643**	**1.4000e-003**	**0.1657**	**0.0436**	**1.2700e-003**	**0.0449**		**159.7129**	**159.7129**	**9.5300e-003**		**159.9131**

3.3 Grading - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.6766	0.0000	6.6766	3.3809	0.0000	3.3809			0.0000			0.0000
Off-Road	6.7751	79.0467	50.8400	0.0618		3.8022	3.8022		3.4980	3.4980	0.0000	6,486.2433	6,486.2433	1.9364		6,526.9080
Total	**6.7751**	**79.0467**	**50.8400**	**0.0618**	**6.6766**	**3.8022**	**10.4788**	**3.3809**	**3.4980**	**6.8789**	**0.0000**	**6,486.2433**	**6,486.2433**	**1.9364**		**6,526.9080**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0939	0.1149	1.1401	1.8700e-003	0.1643	1.4000e-003	0.1657	0.0436	1.2700e-003	0.0449		159.7129	159.7129	9.5300e-003		159.9131
Total	**0.0939**	**0.1149**	**1.1401**	**1.8700e-003**	**0.1643**	**1.4000e-003**	**0.1657**	**0.0436**	**1.2700e-003**	**0.0449**		**159.7129**	**159.7129**	**9.5300e-003**		**159.9131**

3.4 Building Construction - 2015

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	3.6591	30.0299	18.7446	0.0268		2.1167	2.1167		1.9904	1.9904		2,689.5771	2,689.5771	0.6748		2,703.7483
Total	**3.6591**	**30.0299**	**18.7446**	**0.0268**		**2.1167**	**2.1167**		**1.9904**	**1.9904**		**2,689.5771**	**2,689.5771**	**0.6748**		**2,703.7483**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0924	0.5445	1.5081	1.0100e-003	0.0323	8.5600e-003	0.0408	9.1600e-003	7.8700e-003	0.0170		99.6419	99.6419	9.5000e-004		99.6617
Worker	0.0845	0.1034	1.0261	1.6800e-003	0.1479	1.2600e-003	0.1491	0.0392	1.1400e-003	0.0404		143.7416	143.7416	8.5800e-003		143.9218
Total	**0.1769**	**0.6479**	**2.5342**	**2.6900e-003**	**0.1801**	**9.8200e-003**	**0.1899**	**0.0484**	**9.0100e-003**	**0.0574**		**243.3835**	**243.3835**	**9.5300e-003**		**243.5836**

3.4 Building Construction - 2015

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	3.6591	30.0299	18.7446	0.0268		2.1167	2.1167		1.9904	1.9904	0.0000	2,689.5771	2,689.5771	0.6748		2,703.7483
Total	**3.6591**	**30.0299**	**18.7446**	**0.0268**		**2.1167**	**2.1167**		**1.9904**	**1.9904**	**0.0000**	**2,689.5771**	**2,689.5771**	**0.6748**		**2,703.7483**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0924	0.5445	1.5081	1.0100e-003	0.0323	8.5600e-003	0.0408	9.1600e-003	7.8700e-003	0.0170		99.6419	99.6419	9.5000e-004		99.6617
Worker	0.0845	0.1034	1.0261	1.6800e-003	0.1479	1.2600e-003	0.1491	0.0392	1.1400e-003	0.0404		143.7416	143.7416	8.5800e-003		143.9218
Total	**0.1769**	**0.6479**	**2.5342**	**2.6900e-003**	**0.1801**	**9.8200e-003**	**0.1899**	**0.0484**	**9.0100e-003**	**0.0574**		**243.3835**	**243.3835**	**9.5300e-003**		**243.5836**

3.4 Building Construction - 2016

Unmitigated Construction On-Site

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0850	0.4875	1.4305	1.0200e-003	0.0323	7.0300e-003	0.0394	9.1800e-003	6.4600e-003	0.0157		99.7902	99.7902	8.4000e-004		99.8079
Worker	0.0737	0.0916	0.8997	1.6800e-003	0.1479	1.1800e-003	0.1491	0.0392	1.0800e-003	0.0403		138.4539	138.4539	7.7500e-003		138.6167
Total	**0.1588**	**0.5791**	**2.3302**	**2.7000e-003**	**0.1802**	**8.2100e-003**	**0.1884**	**0.0484**	**7.5400e-003**	**0.0560**		**238.2441**	**238.2441**	**8.5900e-003**		**238.4246**

3.4 Building Construction - 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	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485	0.0000	2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**3.4062**	**28.5063**	**18.5066**	**0.0268**		**1.9674**	**1.9674**		**1.8485**	**1.8485**	**0.0000**	**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0850	0.4875	1.4305	1.0200e-003	0.0323	7.0300e-003	0.0394	9.1800e-003	6.4600e-003	0.0157		99.7902	99.7902	8.4000e-004		99.8079
Worker	0.0737	0.0916	0.8997	1.6800e-003	0.1479	1.1800e-003	0.1491	0.0392	1.0800e-003	0.0403		138.4539	138.4539	7.7500e-003		138.6167
Total	**0.1588**	**0.5791**	**2.3302**	**2.7000e-003**	**0.1802**	**8.2100e-003**	**0.1884**	**0.0484**	**7.5400e-003**	**0.0560**		**238.2441**	**238.2441**	**8.5900e-003**		**238.4246**

3.5 Paving - 2015

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	2.3172	25.1758	14.9781	0.0223		1.4148	1.4148		1.3016	1.3016		2,339.8984	2,339.8984	0.6986		2,354.5681
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.3172**	**25.1758**	**14.9781**	**0.0223**		**1.4148**	**1.4148**		**1.3016**	**1.3016**		**2,339.8984**	**2,339.8984**	**0.6986**		**2,354.5681**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0704	0.0862	0.8551	1.4000e-003	0.1232	1.0500e-003	0.1243	0.0327	9.5000e-004	0.0336		119.7847	119.7847	7.1500e-003		119.9349
Total	**0.0704**	**0.0862**	**0.8551**	**1.4000e-003**	**0.1232**	**1.0500e-003**	**0.1243**	**0.0327**	**9.5000e-004**	**0.0336**		**119.7847**	**119.7847**	**7.1500e-003**		**119.9349**

3.5 Paving - 2015

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	2.3172	25.1758	14.9781	0.0223		1.4148	1.4148		1.3016	1.3016	0.0000	2,339.8984	2,339.8984	0.6986		2,354.5681
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.3172**	**25.1758**	**14.9781**	**0.0223**		**1.4148**	**1.4148**		**1.3016**	**1.3016**	**0.0000**	**2,339.8984**	**2,339.8984**	**0.6986**		**2,354.5681**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0704	0.0862	0.8551	1.4000e-003	0.1232	1.0500e-003	0.1243	0.0327	9.5000e-004	0.0336		119.7847	119.7847	7.1500e-003		119.9349
Total	**0.0704**	**0.0862**	**0.8551**	**1.4000e-003**	**0.1232**	**1.0500e-003**	**0.1243**	**0.0327**	**9.5000e-004**	**0.0336**		**119.7847**	**119.7847**	**7.1500e-003**		**119.9349**

3.5 Paving - 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	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601		2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.0898**	**22.3859**	**14.8176**	**0.0223**		**1.2610**	**1.2610**		**1.1601**	**1.1601**		**2,316.3767**	**2,316.3767**	**0.6987**		**2,331.0495**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0615	0.0763	0.7498	1.4000e-003	0.1232	9.9000e-004	0.1242	0.0327	9.0000e-004	0.0336		115.3783	115.3783	6.4600e-003		115.5139
Total	**0.0615**	**0.0763**	**0.7498**	**1.4000e-003**	**0.1232**	**9.9000e-004**	**0.1242**	**0.0327**	**9.0000e-004**	**0.0336**		**115.3783**	**115.3783**	**6.4600e-003**		**115.5139**

3.5 Paving - 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	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601	0.0000	2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.0898**	**22.3859**	**14.8176**	**0.0223**		**1.2610**	**1.2610**		**1.1601**	**1.1601**	**0.0000**	**2,316.3767**	**2,316.3767**	**0.6987**		**2,331.0495**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0615	0.0763	0.7498	1.4000e-003	0.1232	9.9000e-004	0.1242	0.0327	9.0000e-004	0.0336		115.3783	115.3783	6.4600e-003		115.5139
Total	**0.0615**	**0.0763**	**0.7498**	**1.4000e-003**	**0.1232**	**9.9000e-004**	**0.1242**	**0.0327**	**9.0000e-004**	**0.0336**		**115.3783**	**115.3783**	**6.4600e-003**		**115.5139**

3.6 Architectural Coating - 2015

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	7.9295					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4066	2.5703	1.9018	2.9700e-003		0.2209	0.2209		0.2209	0.2209		281.4481	281.4481	0.0367		282.2177
Total	**8.3361**	**2.5703**	**1.9018**	**2.9700e-003**		**0.2209**	**0.2209**		**0.2209**	**0.2209**		**281.4481**	**281.4481**	**0.0367**		**282.2177**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0188	0.0230	0.2280	3.7000e-004	0.0329	2.8000e-004	0.0331	8.7200e-003	2.5000e-004	8.9700e-003		31.9426	31.9426	1.9100e-003		31.9826
Total	**0.0188**	**0.0230**	**0.2280**	**3.7000e-004**	**0.0329**	**2.8000e-004**	**0.0331**	**8.7200e-003**	**2.5000e-004**	**8.9700e-003**		**31.9426**	**31.9426**	**1.9100e-003**		**31.9826**

3.6 Architectural Coating - 2015

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	7.9295					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4066	2.5703	1.9018	2.9700e-003		0.2209	0.2209		0.2209	0.2209	0.0000	281.4481	281.4481	0.0367		282.2177
Total	**8.3361**	**2.5703**	**1.9018**	**2.9700e-003**		**0.2209**	**0.2209**		**0.2209**	**0.2209**	**0.0000**	**281.4481**	**281.4481**	**0.0367**		**282.2177**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0188	0.0230	0.2280	3.7000e-004	0.0329	2.8000e-004	0.0331	8.7200e-003	2.5000e-004	8.9700e-003		31.9426	31.9426	1.9100e-003		31.9826
Total	**0.0188**	**0.0230**	**0.2280**	**3.7000e-004**	**0.0329**	**2.8000e-004**	**0.0331**	**8.7200e-003**	**2.5000e-004**	**8.9700e-003**		**31.9426**	**31.9426**	**1.9100e-003**		**31.9826**

3.6 Architectural Coating - 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					
Archit. Coating	7.9295					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332		282.1449
Total	**8.2979**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**		**281.4481**	**281.4481**	**0.0332**		**282.1449**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0164	0.0203	0.1999	3.7000e-004	0.0329	2.6000e-004	0.0331	8.7200e-003	2.4000e-004	8.9600e-003		30.7675	30.7675	1.7200e-003		30.8037
Total	**0.0164**	**0.0203**	**0.1999**	**3.7000e-004**	**0.0329**	**2.6000e-004**	**0.0331**	**8.7200e-003**	**2.4000e-004**	**8.9600e-003**		**30.7675**	**30.7675**	**1.7200e-003**		**30.8037**

3.6 Architectural Coating - 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					
Archit. Coating	7.9295					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966	0.0000	281.4481	281.4481	0.0332		282.1449
Total	**8.2979**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**	**0.0000**	**281.4481**	**281.4481**	**0.0332**		**282.1449**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0164	0.0203	0.1999	3.7000e-004	0.0329	2.6000e-004	0.0331	8.7200e-003	2.4000e-004	8.9600e-003		30.7675	30.7675	1.7200e-003		30.8037
Total	**0.0164**	**0.0203**	**0.1999**	**3.7000e-004**	**0.0329**	**2.6000e-004**	**0.0331**	**8.7200e-003**	**2.4000e-004**	**8.9600e-003**		**30.7675**	**30.7675**	**1.7200e-003**		**30.8037**

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	2.1274	4.6300	21.7451	0.0393	2.9876	0.0545	3.0420	0.7972	0.0500	0.8472		3,391.5989	3,391.5989	0.1627		3,395.0157
Unmitigated	2.1274	4.6300	21.7451	0.0393	2.9876	0.0545	3.0420	0.7972	0.0500	0.8472		3,391.5989	3,391.5989	0.1627		3,395.0157

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	468.93	493.92	429.73	1,337,455	1,337,455
Total	468.93	493.92	429.73	1,337,455	1,337,455

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.456308	0.078455	0.189443	0.162186	0.075334	0.010727	0.010063	0.001006	0.001372	0.000782	0.008662	0.000748	0.004912

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0258	0.2206	0.0939	1.4100e-003		0.0178	0.0178		0.0178	0.0178		281.6225	281.6225	5.4000e-003	5.1600e-003	283.3364
NaturalGas Unmitigated	0.0258	0.2206	0.0939	1.4100e-003		0.0178	0.0178		0.0178	0.0178		281.6225	281.6225	5.4000e-003	5.1600e-003	283.3364

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	2393.79	0.0258	0.2206	0.0939	1.4100e-003		0.0178	0.0178		0.0178	0.0178		281.6225	281.6225	5.4000e-003	5.1600e-003	283.3364
Total		**0.0258**	**0.2206**	**0.0939**	**1.4100e-003**		**0.0178**	**0.0178**		**0.0178**	**0.0178**		**281.6225**	**281.6225**	**5.4000e-003**	**5.1600e-003**	**283.3364**

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					
Single Family Housing	2.39379	0.0258	0.2206	0.0939	1.4100e-003		0.0178	0.0178		0.0178	0.0178		281.6225	281.6225	5.4000e-003	5.1600e-003	283.3364
Total		**0.0258**	**0.2206**	**0.0939**	**1.4100e-003**		**0.0178**	**0.0178**		**0.0178**	**0.0178**		**281.6225**	**281.6225**	**5.4000e-003**	**5.1600e-003**	**283.3364**

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	77.7619	1.0654	96.4777	0.0363		13.0008	13.0008		13.0004	13.0004	1,360.8148	577.9850	1,938.7998	1.2632	0.1070	1,998.5094
Unmitigated	77.7619	1.0654	96.4777	0.0363		13.0008	13.0008		13.0004	13.0004	1,360.8148	577.9850	1,938.7998	1.2632	0.1070	1,998.5094

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	0.7560					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.8875					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	74.9894	1.0174	92.3788	0.0361		12.9787	12.9787		12.9783	12.9783	1,360.8148	570.7059	1,931.5207	1.2558	0.1070	1,991.0745
Landscaping	0.1291	0.0480	4.0989	2.1000e-004		0.0221	0.0221		0.0221	0.0221		7.2791	7.2791	7.4200e-003		7.4348
Total	**77.7619**	**1.0654**	**96.4777**	**0.0363**		**13.0008**	**13.0008**		**13.0004**	**13.0004**	**1,360.8148**	**577.9849**	**1,938.7998**	**1.2632**	**0.1070**	**1,998.5094**

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	0.7560					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.8875					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	74.9894	1.0174	92.3788	0.0361		12.9787	12.9787		12.9783	12.9783	1,360.8148	570.7059	1,931.5207	1.2558	0.1070	1,991.0745
Landscaping	0.1291	0.0480	4.0989	2.1000e-004		0.0221	0.0221		0.0221	0.0221		7.2791	7.2791	7.4200e-003		7.4348
Total	**77.7619**	**1.0654**	**96.4777**	**0.0363**		**13.0008**	**13.0008**		**13.0004**	**13.0004**	**1,360.8148**	**577.9849**	**1,938.7998**	**1.2632**	**0.1070**	**1,998.5094**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Vegetation

APPENDIX B: CALEEMOD OUTPUT FILES – GREENHOUSE GAS EMISSIONS

El Dorado Springs 23

El Dorado-Mountain County County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	49.00	Dwelling Unit	21.60	88,200.00	140

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2016
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project site = 21.6 acres

Construction Phase - Building construction, paving, and painting assumed to occur concurrently

Grading - Project site = 21.6 acres

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	348.00
tblConstructionPhase	NumDays	20.00	370.00
tblConstructionPhase	PhaseEndDate	12/4/2017	8/3/2016
tblConstructionPhase	PhaseEndDate	1/3/2018	8/3/2016
tblConstructionPhase	PhaseStartDate	8/4/2016	4/5/2015
tblConstructionPhase	PhaseStartDate	8/4/2016	3/5/2015
tblGrading	AcresOfGrading	87.50	21.60
tblLandUse	LotAcreage	15.91	21.60
tblProjectCharacteristics	OperationalYear	2014	2016

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2015	1.6273	7.9606	5.3131	7.4000e-003	0.2451	0.4860	0.7311	0.1190	0.4535	0.5725	0.0000	681.5526	681.5526	0.1761	0.0000	685.2504
2016	1.0791	4.1518	2.9448	4.3600e-003	0.0248	0.2645	0.2893	6.6500e-003	0.2475	0.2541	0.0000	395.2895	395.2895	0.0985	0.0000	397.3589
Total	**2.7064**	**12.1124**	**8.2579**	**0.0118**	**0.2699**	**0.7505**	**1.0204**	**0.1256**	**0.7010**	**0.8266**	**0.0000**	**1,076.8422**	**1,076.8422**	**0.2746**	**0.0000**	**1,082.6093**

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					
2015	1.6273	7.9606	5.3131	7.4000e-003	0.2451	0.4860	0.7311	0.1190	0.4535	0.5725	0.0000	681.5519	681.5519	0.1761	0.0000	685.2496
2016	1.0791	4.1518	2.9448	4.3600e-003	0.0248	0.2644	0.2893	6.6500e-003	0.2475	0.2541	0.0000	395.2891	395.2891	0.0985	0.0000	397.3584
Total	**2.7064**	**12.1124**	**8.2579**	**0.0118**	**0.2699**	**0.7505**	**1.0204**	**0.1256**	**0.7010**	**0.8266**	**0.0000**	**1,076.8410**	**1,076.8410**	**0.2746**	**0.0000**	**1,082.6081**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.5686	0.0460	4.1564	1.5000e-003		0.5341	0.5341		0.5341	0.5341	50.6149	21.8215	72.4364	0.0473	3.9800e-003	74.6642
Energy	4.7100e-003	0.0403	0.0171	2.6000e-004		3.2600e-003	3.2600e-003		3.2600e-003	3.2600e-003	0.0000	149.9049	149.9049	5.5600e-003	1.8200e-003	150.5863
Mobile	0.3485	0.7658	3.5599	6.8900e-003	0.4928	9.3300e-003	0.5021	0.1320	8.5700e-003	0.1405	0.0000	538.8889	538.8889	0.0254	0.0000	539.4215
Waste						0.0000	0.0000		0.0000	0.0000	7.1047	0.0000	7.1047	0.4199	0.0000	15.9221
Water						0.0000	0.0000		0.0000	0.0000	1.0129	7.0748	8.0876	0.1044	2.5200e-003	11.0609
Total	**3.9218**	**0.8521**	**7.7335**	**8.6500e-003**	**0.4928**	**0.5467**	**1.0395**	**0.1320**	**0.5459**	**0.6779**	**58.7325**	**717.6901**	**776.4225**	**0.6025**	**8.3200e-003**	**791.6550**

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	3.5686	0.0460	4.1564	1.5000e-003		0.5341	0.5341		0.5341	0.5341	50.6149	21.8215	72.4364	0.0473	3.9800e-003	74.6642
Energy	4.7100e-003	0.0403	0.0171	2.6000e-004		3.2600e-003	3.2600e-003		3.2600e-003	3.2600e-003	0.0000	149.9049	149.9049	5.5600e-003	1.8200e-003	150.5863
Mobile	0.3485	0.7658	3.5599	6.8900e-003	0.4928	9.3300e-003	0.5021	0.1320	8.5700e-003	0.1405	0.0000	538.8889	538.8889	0.0254	0.0000	539.4215
Waste						0.0000	0.0000		0.0000	0.0000	7.1047	0.0000	7.1047	0.4199	0.0000	15.9221
Water						0.0000	0.0000		0.0000	0.0000	1.0129	7.0748	8.0876	0.1043	2.5200e-003	11.0593
Total	**3.9218**	**0.8521**	**7.7335**	**8.6500e-003**	**0.4928**	**0.5467**	**1.0395**	**0.1320**	**0.5459**	**0.6779**	**58.7325**	**717.6901**	**776.4225**	**0.6024**	**8.3200e-003**	**791.6533**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2015	1/14/2015	5	10	
2	Grading	Grading	1/15/2015	3/4/2015	5	35	
3	Building Construction	Building Construction	3/5/2015	8/3/2016	5	370	
4	Paving	Paving	3/5/2015	8/3/2016	5	370	
5	Architectural Coating	Architectural Coating	4/5/2015	8/3/2016	5	348	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 21.6

Acres of Paving: 0

Residential Indoor: 178,605; Residential Outdoor: 59,535; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

	Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
	Air Compressors	1	6.00	78	0.48
	Excavators	2	8.00	162	0.38
	Cranes	1	7.00	226	0.29
	Forklifts	3	8.00	89	0.20
	Generator Sets	1	8.00	84	0.74
	Pavers	2	8.00	125	0.42
	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	174	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	130	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Building Construction	Welders	1	8.00	46	0.45

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
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	18.00	5.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	4.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2015

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					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0263	0.2845	0.2132	2.0000e-004		0.0154	0.0154		0.0142	0.0142	0.0000	18.6506	18.6506	5.5700e-003	0.0000	18.7675
Total	**0.0263**	**0.2845**	**0.2132**	**2.0000e-004**	**0.0903**	**0.0154**	**0.1058**	**0.0497**	**0.0142**	**0.0639**	**0.0000**	**18.6506**	**18.6506**	**5.5700e-003**	**0.0000**	**18.7675**

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	4.0000e-004	4.8000e-004	4.9800e-003	1.0000e-005	7.1000e-004	1.0000e-005	7.1000e-004	1.9000e-004	1.0000e-005	1.9000e-004	0.0000	0.6676	0.6676	4.0000e-005	0.0000	0.6684
Total	**4.0000e-004**	**4.8000e-004**	**4.9800e-003**	**1.0000e-005**	**7.1000e-004**	**1.0000e-005**	**7.1000e-004**	**1.9000e-004**	**1.0000e-005**	**1.9000e-004**	**0.0000**	**0.6676**	**0.6676**	**4.0000e-005**	**0.0000**	**0.6684**

3.2 Site Preparation - 2015

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					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0263	0.2845	0.2132	2.0000e-004		0.0154	0.0154		0.0142	0.0142	0.0000	18.6505	18.6505	5.5700e-003	0.0000	18.7675
Total	**0.0263**	**0.2845**	**0.2132**	**2.0000e-004**	**0.0903**	**0.0154**	**0.1058**	**0.0497**	**0.0142**	**0.0639**	**0.0000**	**18.6505**	**18.6505**	**5.5700e-003**	**0.0000**	**18.7675**

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	4.0000e-004	4.8000e-004	4.9800e-003	1.0000e-005	7.1000e-004	1.0000e-005	7.1000e-004	1.9000e-004	1.0000e-005	1.9000e-004	0.0000	0.6676	0.6676	4.0000e-005	0.0000	0.6684
Total	**4.0000e-004**	**4.8000e-004**	**4.9800e-003**	**1.0000e-005**	**7.1000e-004**	**1.0000e-005**	**7.1000e-004**	**1.9000e-004**	**1.0000e-005**	**1.9000e-004**	**0.0000**	**0.6676**	**0.6676**	**4.0000e-005**	**0.0000**	**0.6684**

3.3 Grading - 2015

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					0.1168	0.0000	0.1168	0.0592	0.0000	0.0592	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1186	1.3833	0.8897	1.0800e-003		0.0665	0.0665		0.0612	0.0612	0.0000	102.9739	102.9739	0.0307	0.0000	103.6195
Total	**0.1186**	**1.3833**	**0.8897**	**1.0800e-003**	**0.1168**	**0.0665**	**0.1834**	**0.0592**	**0.0612**	**0.1204**	**0.0000**	**102.9739**	**102.9739**	**0.0307**	**0.0000**	**103.6195**

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	1.5500e-003	1.8600e-003	0.0194	3.0000e-005	2.7600e-003	2.0000e-005	2.7800e-003	7.3000e-004	2.0000e-005	7.6000e-004	0.0000	2.5963	2.5963	1.5000e-004	0.0000	2.5995
Total	**1.5500e-003**	**1.8600e-003**	**0.0194**	**3.0000e-005**	**2.7600e-003**	**2.0000e-005**	**2.7800e-003**	**7.3000e-004**	**2.0000e-005**	**7.6000e-004**	**0.0000**	**2.5963**	**2.5963**	**1.5000e-004**	**0.0000**	**2.5995**

3.3 Grading - 2015

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					0.1168	0.0000	0.1168	0.0592	0.0000	0.0592	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1186	1.3833	0.8897	1.0800e-003		0.0665	0.0665		0.0612	0.0612	0.0000	102.9737	102.9737	0.0307	0.0000	103.6193
Total	**0.1186**	**1.3833**	**0.8897**	**1.0800e-003**	**0.1168**	**0.0665**	**0.1834**	**0.0592**	**0.0612**	**0.1204**	**0.0000**	**102.9737**	**102.9737**	**0.0307**	**0.0000**	**103.6193**

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	1.5500e-003	1.8600e-003	0.0194	3.0000e-005	2.7600e-003	2.0000e-005	2.7800e-003	7.3000e-004	2.0000e-005	7.6000e-004	0.0000	2.5963	2.5963	1.5000e-004	0.0000	2.5995
Total	**1.5500e-003**	**1.8600e-003**	**0.0194**	**3.0000e-005**	**2.7600e-003**	**2.0000e-005**	**2.7800e-003**	**7.3000e-004**	**2.0000e-005**	**7.6000e-004**	**0.0000**	**2.5963**	**2.5963**	**1.5000e-004**	**0.0000**	**2.5995**

3.4 Building Construction - 2015

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	0.3952	3.2432	2.0244	2.9000e-003		0.2286	0.2286		0.2150	0.2150	0.0000	263.5139	263.5139	0.0661	0.0000	264.9023
Total	**0.3952**	**3.2432**	**2.0244**	**2.9000e-003**		**0.2286**	**0.2286**		**0.2150**	**0.2150**	**0.0000**	**263.5139**	**263.5139**	**0.0661**	**0.0000**	**264.9023**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.9300e-003	0.0580	0.1409	1.1000e-004	3.3600e-003	9.1000e-004	4.2700e-003	9.6000e-004	8.4000e-004	1.8000e-003	0.0000	9.8143	9.8143	9.0000e-005	0.0000	9.8162
Worker	8.6300e-003	0.0103	0.1075	1.9000e-004	0.0153	1.4000e-004	0.0154	4.0700e-003	1.2000e-004	4.2000e-003	0.0000	14.4205	14.4205	8.4000e-004	0.0000	14.4382
Total	**0.0176**	**0.0683**	**0.2484**	**3.0000e-004**	**0.0187**	**1.0500e-003**	**0.0197**	**5.0300e-003**	**9.6000e-004**	**6.0000e-003**	**0.0000**	**24.2348**	**24.2348**	**9.3000e-004**	**0.0000**	**24.2544**

3.4 Building Construction - 2015

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	0.3952	3.2432	2.0244	2.9000e-003		0.2286	0.2286		0.2150	0.2150	0.0000	263.5136	263.5136	0.0661	0.0000	264.9020
Total	**0.3952**	**3.2432**	**2.0244**	**2.9000e-003**		**0.2286**	**0.2286**		**0.2150**	**0.2150**	**0.0000**	**263.5136**	**263.5136**	**0.0661**	**0.0000**	**264.9020**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.9300e-003	0.0580	0.1409	1.1000e-004	3.3600e-003	9.1000e-004	4.2700e-003	9.6000e-004	8.4000e-004	1.8000e-003	0.0000	9.8143	9.8143	9.0000e-005	0.0000	9.8162
Worker	8.6300e-003	0.0103	0.1075	1.9000e-004	0.0153	1.4000e-004	0.0154	4.0700e-003	1.2000e-004	4.2000e-003	0.0000	14.4205	14.4205	8.4000e-004	0.0000	14.4382
Total	**0.0176**	**0.0683**	**0.2484**	**3.0000e-004**	**0.0187**	**1.0500e-003**	**0.0197**	**5.0300e-003**	**9.6000e-004**	**6.0000e-003**	**0.0000**	**24.2348**	**24.2348**	**9.3000e-004**	**0.0000**	**24.2544**

3.4 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	0.2623	2.1950	1.4250	2.0600e-003		0.1515	0.1515		0.1423	0.1423	0.0000	186.4583	186.4583	0.0462	0.0000	187.4294
Total	**0.2623**	**2.1950**	**1.4250**	**2.0600e-003**		**0.1515**	**0.1515**		**0.1423**	**0.1423**	**0.0000**	**186.4583**	**186.4583**	**0.0462**	**0.0000**	**187.4294**

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	5.8600e-003	0.0370	0.0951	8.0000e-005	2.4000e-003	5.4000e-004	2.9400e-003	6.9000e-004	4.9000e-004	1.1800e-003	0.0000	7.0074	7.0074	6.0000e-005	0.0000	7.0086
Worker	5.3800e-003	6.5300e-003	0.0675	1.3000e-004	0.0109	9.0000e-005	0.0110	2.9000e-003	8.0000e-005	2.9900e-003	0.0000	9.9036	9.9036	5.4000e-004	0.0000	9.9150
Total	**0.0112**	**0.0435**	**0.1625**	**2.1000e-004**	**0.0133**	**6.3000e-004**	**0.0139**	**3.5900e-003**	**5.7000e-004**	**4.1700e-003**	**0.0000**	**16.9110**	**16.9110**	**6.0000e-004**	**0.0000**	**16.9236**

3.4 Building Construction - 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	0.2623	2.1950	1.4250	2.0600e-003		0.1515	0.1515		0.1423	0.1423	0.0000	186.4580	186.4580	0.0462	0.0000	187.4292
Total	**0.2623**	**2.1950**	**1.4250**	**2.0600e-003**		**0.1515**	**0.1515**		**0.1423**	**0.1423**	**0.0000**	**186.4580**	**186.4580**	**0.0462**	**0.0000**	**187.4292**

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	5.8600e-003	0.0370	0.0951	8.0000e-005	2.4000e-003	5.4000e-004	2.9400e-003	6.9000e-004	4.9000e-004	1.1800e-003	0.0000	7.0074	7.0074	6.0000e-005	0.0000	7.0086
Worker	5.3800e-003	6.5300e-003	0.0675	1.3000e-004	0.0109	9.0000e-005	0.0110	2.9000e-003	8.0000e-005	2.9900e-003	0.0000	9.9036	9.9036	5.4000e-004	0.0000	9.9150
Total	**0.0112**	**0.0435**	**0.1625**	**2.1000e-004**	**0.0133**	**6.3000e-004**	**0.0139**	**3.5900e-003**	**5.7000e-004**	**4.1700e-003**	**0.0000**	**16.9110**	**16.9110**	**6.0000e-004**	**0.0000**	**16.9236**

3.5 Paving - 2015

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	0.2503	2.7190	1.6176	2.4100e-003		0.1528	0.1528		0.1406	0.1406	0.0000	229.2538	229.2538	0.0684	0.0000	230.6911
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.2503**	**2.7190**	**1.6176**	**2.4100e-003**		**0.1528**	**0.1528**		**0.1406**	**0.1406**	**0.0000**	**229.2538**	**229.2538**	**0.0684**	**0.0000**	**230.6911**

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	7.1900e-003	8.6200e-003	0.0896	1.6000e-004	0.0128	1.1000e-004	0.0129	3.3900e-003	1.0000e-004	3.5000e-003	0.0000	12.0171	12.0171	7.0000e-004	0.0000	12.0318
Total	**7.1900e-003**	**8.6200e-003**	**0.0896**	**1.6000e-004**	**0.0128**	**1.1000e-004**	**0.0129**	**3.3900e-003**	**1.0000e-004**	**3.5000e-003**	**0.0000**	**12.0171**	**12.0171**	**7.0000e-004**	**0.0000**	**12.0318**

3.5 Paving - 2015

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	0.2503	2.7190	1.6176	2.4100e-003		0.1528	0.1528		0.1406	0.1406	0.0000	229.2535	229.2535	0.0684	0.0000	230.6908
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.2503**	**2.7190**	**1.6176**	**2.4100e-003**		**0.1528**	**0.1528**		**0.1406**	**0.1406**	**0.0000**	**229.2535**	**229.2535**	**0.0684**	**0.0000**	**230.6908**

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	7.1900e-003	8.6200e-003	0.0896	1.6000e-004	0.0128	1.1000e-004	0.0129	3.3900e-003	1.0000e-004	3.5000e-003	0.0000	12.0171	12.0171	7.0000e-004	0.0000	12.0318
Total	**7.1900e-003**	**8.6200e-003**	**0.0896**	**1.6000e-004**	**0.0128**	**1.1000e-004**	**0.0129**	**3.3900e-003**	**1.0000e-004**	**3.5000e-003**	**0.0000**	**12.0171**	**12.0171**	**7.0000e-004**	**0.0000**	**12.0318**

3.5 Paving - 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	0.1609	1.7237	1.1410	1.7200e-003		0.0971	0.0971		0.0893	0.0893	0.0000	161.8064	161.8064	0.0488	0.0000	162.8313
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1609**	**1.7237**	**1.1410**	**1.7200e-003**		**0.0971**	**0.0971**		**0.0893**	**0.0893**	**0.0000**	**161.8064**	**161.8064**	**0.0488**	**0.0000**	**162.8313**

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	4.4900e-003	5.4400e-003	0.0562	1.1000e-004	9.0900e-003	8.0000e-005	9.1700e-003	2.4200e-003	7.0000e-005	2.4900e-003	0.0000	8.2530	8.2530	4.5000e-004	0.0000	8.2625
Total	**4.4900e-003**	**5.4400e-003**	**0.0562**	**1.1000e-004**	**9.0900e-003**	**8.0000e-005**	**9.1700e-003**	**2.4200e-003**	**7.0000e-005**	**2.4900e-003**	**0.0000**	**8.2530**	**8.2530**	**4.5000e-004**	**0.0000**	**8.2625**

3.5 Paving - 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	0.1609	1.7237	1.1410	1.7200e-003		0.0971	0.0971		0.0893	0.0893	0.0000	161.8062	161.8062	0.0488	0.0000	162.8311
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1609**	**1.7237**	**1.1410**	**1.7200e-003**		**0.0971**	**0.0971**		**0.0893**	**0.0893**	**0.0000**	**161.8062**	**161.8062**	**0.0488**	**0.0000**	**162.8311**

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	4.4900e-003	5.4400e-003	0.0562	1.1000e-004	9.0900e-003	8.0000e-005	9.1700e-003	2.4200e-003	7.0000e-005	2.4900e-003	0.0000	8.2530	8.2530	4.5000e-004	0.0000	8.2625
Total	**4.4900e-003**	**5.4400e-003**	**0.0562**	**1.1000e-004**	**9.0900e-003**	**8.0000e-005**	**9.1700e-003**	**2.4200e-003**	**7.0000e-005**	**2.4900e-003**	**0.0000**	**8.2530**	**8.2530**	**4.5000e-004**	**0.0000**	**8.2625**

3.6 Architectural Coating - 2015

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	0.7692					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0394	0.2493	0.1845	2.9000e-004		0.0214	0.0214		0.0214	0.0214	0.0000	24.7666	24.7666	3.2200e-003	0.0000	24.8343
Total	**0.8086**	**0.2493**	**0.1845**	**2.9000e-004**		**0.0214**	**0.0214**		**0.0214**	**0.0214**	**0.0000**	**24.7666**	**24.7666**	**3.2200e-003**	**0.0000**	**24.8343**

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	1.7200e-003	2.0600e-003	0.0215	4.0000e-005	3.0500e-003	3.0000e-005	3.0800e-003	8.1000e-004	2.0000e-005	8.4000e-004	0.0000	2.8782	2.8782	1.7000e-004	0.0000	2.8817
Total	**1.7200e-003**	**2.0600e-003**	**0.0215**	**4.0000e-005**	**3.0500e-003**	**3.0000e-005**	**3.0800e-003**	**8.1000e-004**	**2.0000e-005**	**8.4000e-004**	**0.0000**	**2.8782**	**2.8782**	**1.7000e-004**	**0.0000**	**2.8817**

3.6 Architectural Coating - 2015

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	0.7692					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0394	0.2493	0.1845	2.9000e-004		0.0214	0.0214		0.0214	0.0214	0.0000	24.7665	24.7665	3.2200e-003	0.0000	24.8343
Total	**0.8086**	**0.2493**	**0.1845**	**2.9000e-004**		**0.0214**	**0.0214**		**0.0214**	**0.0214**	**0.0000**	**24.7665**	**24.7665**	**3.2200e-003**	**0.0000**	**24.8343**

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	1.7200e-003	2.0600e-003	0.0215	4.0000e-005	3.0500e-003	3.0000e-005	3.0800e-003	8.1000e-004	2.0000e-005	8.4000e-004	0.0000	2.8782	2.8782	1.7000e-004	0.0000	2.8817
Total	**1.7200e-003**	**2.0600e-003**	**0.0215**	**4.0000e-005**	**3.0500e-003**	**3.0000e-005**	**3.0800e-003**	**8.1000e-004**	**2.0000e-005**	**8.4000e-004**	**0.0000**	**2.8782**	**2.8782**	**1.7000e-004**	**0.0000**	**2.8817**

3.6 Architectural Coating - 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					
Archit. Coating	0.6106					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0284	0.1827	0.1451	2.3000e-004		0.0151	0.0151		0.0151	0.0151	0.0000	19.6601	19.6601	2.3200e-003	0.0000	19.7087
Total	**0.6389**	**0.1827**	**0.1451**	**2.3000e-004**		**0.0151**	**0.0151**		**0.0151**	**0.0151**	**0.0000**	**19.6601**	**19.6601**	**2.3200e-003**	**0.0000**	**19.7087**

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	1.2000e-003	1.4500e-003	0.0150	3.0000e-005	2.4200e-003	2.0000e-005	2.4400e-003	6.5000e-004	2.0000e-005	6.6000e-004	0.0000	2.2008	2.2008	1.2000e-004	0.0000	2.2033
Total	**1.2000e-003**	**1.4500e-003**	**0.0150**	**3.0000e-005**	**2.4200e-003**	**2.0000e-005**	**2.4400e-003**	**6.5000e-004**	**2.0000e-005**	**6.6000e-004**	**0.0000**	**2.2008**	**2.2008**	**1.2000e-004**	**0.0000**	**2.2033**

3.6 Architectural Coating - 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					
Archit. Coating	0.6106					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0284	0.1827	0.1451	2.3000e-004		0.0151	0.0151		0.0151	0.0151	0.0000	19.6600	19.6600	2.3200e-003	0.0000	19.7087
Total	**0.6389**	**0.1827**	**0.1451**	**2.3000e-004**		**0.0151**	**0.0151**		**0.0151**	**0.0151**	**0.0000**	**19.6600**	**19.6600**	**2.3200e-003**	**0.0000**	**19.7087**

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	1.2000e-003	1.4500e-003	0.0150	3.0000e-005	2.4200e-003	2.0000e-005	2.4400e-003	6.5000e-004	2.0000e-005	6.6000e-004	0.0000	2.2008	2.2008	1.2000e-004	0.0000	2.2033
Total	**1.2000e-003**	**1.4500e-003**	**0.0150**	**3.0000e-005**	**2.4200e-003**	**2.0000e-005**	**2.4400e-003**	**6.5000e-004**	**2.0000e-005**	**6.6000e-004**	**0.0000**	**2.2008**	**2.2008**	**1.2000e-004**	**0.0000**	**2.2033**

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	0.3485	0.7658	3.5599	6.8900e-003	0.4928	9.3300e-003	0.5021	0.1320	8.5700e-003	0.1405	0.0000	538.8889	538.8889	0.0254	0.0000	539.4215
Unmitigated	0.3485	0.7658	3.5599	6.8900e-003	0.4928	9.3300e-003	0.5021	0.1320	8.5700e-003	0.1405	0.0000	538.8889	538.8889	0.0254	0.0000	539.4215

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	468.93	493.92	429.73	1,337,455	1,337,455
Total	468.93	493.92	429.73	1,337,455	1,337,455

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.456308	0.078455	0.189443	0.162186	0.075334	0.010727	0.010063	0.001006	0.001372	0.000782	0.008662	0.000748	0.004912

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	103.2792	103.2792	4.6700e-003	9.7000e-004	103.6768
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	103.2792	103.2792	4.6700e-003	9.7000e-004	103.6768
NaturalGas Mitigated	4.7100e-003	0.0403	0.0171	2.6000e-004		3.2600e-003	3.2600e-003		3.2600e-003	3.2600e-003	0.0000	46.6258	46.6258	8.9000e-004	8.5000e-004	46.9095
NaturalGas Unmitigated	4.7100e-003	0.0403	0.0171	2.6000e-004		3.2600e-003	3.2600e-003		3.2600e-003	3.2600e-003	0.0000	46.6258	46.6258	8.9000e-004	8.5000e-004	46.9095

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	873734	4.7100e-003	0.0403	0.0171	2.6000e-004		3.2600e-003	3.2600e-003		3.2600e-003	3.2600e-003	0.0000	46.6258	46.6258	8.9000e-004	8.5000e-004	46.9095
Total		**4.7100e-003**	**0.0403**	**0.0171**	**2.6000e-004**		**3.2600e-003**	**3.2600e-003**		**3.2600e-003**	**3.2600e-003**	**0.0000**	**46.6258**	**46.6258**	**8.9000e-004**	**8.5000e-004**	**46.9095**

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	873734	4.7100e-003	0.0403	0.0171	2.6000e-004		3.2600e-003	3.2600e-003		3.2600e-003	3.2600e-003	0.0000	46.6258	46.6258	8.9000e-004	8.5000e-004	46.9095
Total		**4.7100e-003**	**0.0403**	**0.0171**	**2.6000e-004**		**3.2600e-003**	**3.2600e-003**		**3.2600e-003**	**3.2600e-003**	**0.0000**	**46.6258**	**46.6258**	**8.9000e-004**	**8.5000e-004**	**46.9095**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	355019	103.2792	4.6700e-003	9.7000e-004	103.6768
Total		**103.2792**	**4.6700e-003**	**9.7000e-004**	**103.6768**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	355019	103.2792	4.6700e-003	9.7000e-004	103.6768
Total		**103.2792**	**4.6700e-003**	**9.7000e-004**	**103.6768**

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	3.5686	0.0460	4.1564	1.5000e-003		0.5341	0.5341		0.5341	0.5341	50.6149	21.8215	72.4364	0.0473	3.9800e-003	74.6642
Unmitigated	3.5686	0.0460	4.1564	1.5000e-003		0.5341	0.5341		0.5341	0.5341	50.6149	21.8215	72.4364	0.0473	3.9800e-003	74.6642

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	0.1380					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3445					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.0746	0.0417	3.7875	1.4800e-003		0.5321	0.5321		0.5321	0.5321	50.6149	21.2272	71.8421	0.0467	3.9800e-003	74.0572
Landscaping	0.0116	4.3200e-003	0.3689	2.0000e-005		1.9900e-003	1.9900e-003		1.9900e-003	1.9900e-003	0.0000	0.5943	0.5943	6.1000e-004	0.0000	0.6070
Total	**3.5686**	**0.0460**	**4.1564**	**1.5000e-003**		**0.5341**	**0.5341**		**0.5341**	**0.5341**	**50.6149**	**21.8215**	**72.4364**	**0.0473**	**3.9800e-003**	**74.6642**

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	0.1380					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3445					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.0746	0.0417	3.7875	1.4800e-003		0.5321	0.5321		0.5321	0.5321	50.6149	21.2272	71.8421	0.0467	3.9800e-003	74.0572
Landscaping	0.0116	4.3200e-003	0.3689	2.0000e-005		1.9900e-003	1.9900e-003		1.9900e-003	1.9900e-003	0.0000	0.5943	0.5943	6.1000e-004	0.0000	0.6070
Total	**3.5686**	**0.0460**	**4.1564**	**1.5000e-003**		**0.5341**	**0.5341**		**0.5341**	**0.5341**	**50.6149**	**21.8215**	**72.4364**	**0.0473**	**3.9800e-003**	**74.6642**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	8.0876	0.1043	2.5200e-003	11.0593
Unmitigated	8.0876	0.1044	2.5200e-003	11.0609

7.2 Water by Land Use

Unmitigated

	Indoor/ Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	3.19255 / 2.01269	8.0876	0.1044	2.5200e-003	11.0609
Total		**8.0876**	**0.1044**	**2.5200e-003**	**11.0609**

Mitigated

	Indoor/ Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	3.19255 / 2.01269	8.0876	0.1043	2.5200e-003	11.0593
Total		**8.0876**	**0.1043**	**2.5200e-003**	**11.0593**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	7.1047	0.4199	0.0000	15.9221
Unmitigated	7.1047	0.4199	0.0000	15.9221

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	35	7.1047	0.4199	0.0000	15.9221
Total		**7.1047**	**0.4199**	**0.0000**	**15.9221**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	35	7.1047	0.4199	0.0000	15.9221
Total		**7.1047**	**0.4199**	**0.0000**	**15.9221**

9.0 Operational Offroad

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

10.0 Vegetation

APPENDIX C: CALEEMOD OUTPUT FILES – CRITERIA AIR POLLUTANTS FOR 225 APARTMENT UNITS

El Dorado Springs 23 - Existing Zoning

El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Low Rise	225.00	Dwelling Unit	14.06	225,000.00	644

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2015
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase -

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblProjectCharacteristics	OperationalYear	2014	2015

2.0 Emissions Summary

2.1 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	351.6875	4.8945	443.0994	0.1667		59.6972	59.6972		59.6954	59.6954	6,248.6394	2,654.0125	8,902.6519	5.8012	0.4915	9,176.8433
Energy	0.0885	0.7566	0.3219	4.8300e-003		0.0612	0.0612		0.0612	0.0612		965.8327	965.8327	0.0185	0.0177	971.7106
Mobile	7.9965	14.4591	77.1719	0.1410	9.7438	0.1888	9.9326	2.6000	0.1731	2.7731		12,501.9770	12,501.9770	0.5789		12,514.1338
Total	**359.7725**	**20.1102**	**520.5932**	**0.3125**	**9.7438**	**59.9471**	**69.6909**	**2.6000**	**59.9297**	**62.5297**	**6,248.6394**	**16,121.8222**	**22,370.4616**	**6.3986**	**0.5092**	**22,662.6877**

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	7.7417	0.2228	18.9323	9.8000e-004		0.3728	0.3728		0.3700	0.3700	0.0000	4,321.6596	4,321.6596	0.1170	0.0786	4,348.4870
Energy	0.0885	0.7566	0.3219	4.8300e-003		0.0612	0.0612		0.0612	0.0612		965.8327	965.8327	0.0185	0.0177	971.7106
Mobile	7.9965	14.4591	77.1719	0.1410	9.7438	0.1888	9.9326	2.6000	0.1731	2.7731		12,501.9770	12,501.9770	0.5789		12,514.1338
Total	**15.8268**	**15.4384**	**96.4262**	**0.1468**	**9.7438**	**0.6228**	**10.3666**	**2.6000**	**0.6042**	**3.2043**	**0.0000**	**17,789.4693**	**17,789.4693**	**0.7144**	**0.0963**	**17,834.3314**

	ROG	NOx	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	**95.60**	**23.23**	**81.48**	**53.02**	**0.00**	**98.96**	**85.12**	**0.00**	**98.99**	**94.88**	**100.00**	**-10.34**	**20.48**	**88.84**	**81.08**	**21.31**

3.0 Operational Detail - Mobile

3.1 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	7.9965	14.4591	77.1719	0.1410	9.7438	0.1888	9.9326	2.6000	0.1731	2.7731		12,501.9770	12,501.9770	0.5789		12,514.1338
Unmitigated	7.9965	14.4591	77.1719	0.1410	9.7438	0.1888	9.9326	2.6000	0.1731	2.7731		12,501.9770	12,501.9770	0.5789		12,514.1338

3.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	1,482.75	1,611.00	1365.75	4,252,004	4,252,004
Total	1,482.75	1,611.00	1,365.75	4,252,004	4,252,004

3.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.455780	0.078333	0.189232	0.163096	0.075602	0.010805	0.009660	0.001020	0.001371	0.000788	0.008641	0.000749	0.004924

4.0 Energy Detail

Historical Energy Use: N

4.1 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	0.0885	0.7566	0.3219	4.8300e-003		0.0612	0.0612		0.0612	0.0612		965.8327	965.8327	0.0185	0.0177	971.7106
NaturalGas Unmitigated	0.0885	0.7566	0.3219	4.8300e-003		0.0612	0.0612		0.0612	0.0612		965.8327	965.8327	0.0185	0.0177	971.7106

4.2 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					
Apartments Low Rise	8209.58	0.0885	0.7566	0.3219	4.8300e-003		0.0612	0.0612		0.0612	0.0612		965.8327	965.8327	0.0185	0.0177	971.7106
Total		**0.0885**	**0.7566**	**0.3219**	**4.8300e-003**		**0.0612**	**0.0612**		**0.0612**	**0.0612**		**965.8327**	**965.8327**	**0.0185**	**0.0177**	**971.7106**

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					
Apartments Low Rise	8.20958	0.0885	0.7566	0.3219	4.8300e-003		0.0612	0.0612		0.0612	0.0612		965.8327	965.8327	0.0185	0.0177	971.7106
Total		**0.0885**	**0.7566**	**0.3219**	**4.8300e-003**		**0.0612**	**0.0612**		**0.0612**	**0.0612**		**965.8327**	**965.8327**	**0.0185**	**0.0177**	**971.7106**

5.0 Area Detail

5.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	7.7417	0.2228	18.9323	9.8000e-004		0.3728	0.3728		0.3700	0.3700	0.0000	4,321.6596	4,321.6596	0.1170	0.0786	4,348.4870
Unmitigated	351.6875	4.8945	443.0994	0.1667		59.6972	59.6972		59.6954	59.6954	6,248.6394	2,654.0125	8,902.6519	5.8012	0.4915	9,176.8433

5.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.9286					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.8150					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	344.3389	4.6718	424.1885	0.1657		59.5959	59.5959		59.5942	59.5942	6,248.6394	2,620.5882	8,869.2277	5.7665	0.4915	9,142.6891
Landscaping	0.6050	0.2228	18.9109	9.8000e-004		0.1013	0.1013		0.1013	0.1013		33.4243	33.4243	0.0348		34.1542
Total	**351.6875**	**4.8945**	**443.0994**	**0.1667**		**59.6972**	**59.6972**		**59.6954**	**59.6954**	**6,248.6394**	**2,654.0125**	**8,902.6519**	**5.8012**	**0.4915**	**9,176.8433**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.9286					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.8150					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.3931	2.0000e-005	0.0214	0.0000		0.2716	0.2716		0.2687	0.2687	0.0000	4,288.2353	4,288.2353	0.0822	0.0786	4,314.3328
Landscaping	0.6050	0.2228	18.9109	9.8000e-004		0.1013	0.1013		0.1013	0.1013		33.4243	33.4243	0.0348		34.1542
Total	**7.7417**	**0.2228**	**18.9323**	**9.8000e-004**		**0.3728**	**0.3728**		**0.3700**	**0.3700**	**0.0000**	**4,321.6596**	**4,321.6596**	**0.1170**	**0.0786**	**4,348.4870**