Appendix C

Air Quality/Greenhouse Gas Worksheets

Primary Greenhouse Gases (GHGs) of concern

Carbon Dioxide. The global carbon cycle is made up of large carbon flows and reservoirs. Billions of tons of carbon in the form of CO_2 are absorbed by oceans and living biomass (i.e., sinks) and are emitted to the atmosphere annually through natural processes (i.e., sources). When in equilibrium, carbon fluxes among these various reservoirs are roughly balanced (United States Environmental Protection Agency [U.S. EPA], 2014). CO_2 was the first GHG demonstrated to be increasing in atmospheric concentration, with the first conclusive measurements being made in the second half of the 20th century. Concentrations of CO_2 in the atmosphere have risen approximately 40 percent since the industrial revolution. The global atmospheric concentration of CO_2 has increased from a pre-industrial value of about 280 parts per million (ppm) to 391 ppm in 2011 (IPCC, 2007; Oceanic and Atmospheric Administration [NOAA], 2010). The average annual CO_2 concentration growth rate was larger between 1995 and 2005 (average: 1.9 ppm per year) than it has been since the beginning of continuous direct atmospheric measurements (1960–2005 average: 1.4 ppm per year), although there is year-to-year variability in growth rates (NOAA, 2010). Currently, CO_2 represents an estimated 74 percent of total GHG emissions (IPCC, 2007). The largest source of CO_2 emissions, and of overall GHG emissions, is fossil fuel combustion.

Methane. Methane (CH_4) is an effective absorber of radiation, though its atmospheric concentration is less than that of CO_2 and its lifetime in the atmosphere is limited to 10 to 12 years. It has a GWP approximately 25 times that of CO_2. Over the last 250 years, the concentration of CH_4 in the atmosphere has increased by 148 percent (IPCC, 2007), although emissions have declined from 1990 levels. Anthropogenic sources of CH_4 include enteric fermentation associated with domestic livestock, landfills, natural gas and petroleum systems, agricultural activities, coal mining, wastewater treatment, stationary and mobile combustion, and certain industrial processes (U.S. EPA, 2014).

Nitrous Oxide. Concentrations of nitrous oxide (N_2O) began to rise at the beginning of the industrial revolution and continue to increase at a relatively uniform growth rate (NOAA, 2010). N_2O is produced by microbial processes in soil and water, including those reactions that occur in fertilizers that contain nitrogen, fossil fuel combustion, and other chemical processes. Use of these fertilizers has increased over the last century. Agricultural soil management and mobile source fossil fuel combustion are the major sources of N_2O emissions. The GWP of nitrous oxide is approximately 298 times that of CO_2 (IPCC, 2007).

Fluorinated Gases (HFCS, PFCS and SF_6). Fluorinated gases, such as hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfurhexafluoride (SF_6), are powerful GHGs that are emitted from a variety of industrial processes. Fluorinated gases are used as substitutes for ozone-depleting substances such as chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs), and halons, which have been regulated since the mid-1980s because of their ozone-destroying potential and are phased out under the Montreal Protocol (1987) and Clean Air Act Amendments of 1990. Electrical transmission and distribution systems account for most SF_6 emissions, while PFC emissions result from semiconductor manufacturing and as a by-product of primary aluminum production. Fluorinated gases are typically emitted in smaller quantities than CO_2, CH_4, and N_2O, but these compounds have much higher GWPs. SF_6 is the most potent GHG the IPCC has evaluated.

Potential Effects of Climate Change

Globally, climate change has the potential to affect numerous environmental resources through potential impacts related to future air temperatures and precipitation patterns. Scientific modeling predicts that continued GHG emissions at or above current rates would induce more extreme climate changes during the 21st century than were observed during the 20th century. Long-term trends have found that each of the past three decades has been warmer than all the previous decades in the instrumental record, and the decade from 2000 through 2010 has been the warmest. The global combined land and ocean temperature data show an increase of about 0.89°C (0.69°C–1.08°C) over the period 1901–2012 and about 0.72°C (0.49°C–0.89°C) over the period 1951–2012 when described by a linear trend. Several independently analyzed data records of global and regional Land-Surface Air Temperature (LSAT) obtained from station observations are in agreement that LSAT as well as sea surface temperatures have increased. In addition to these findings, there are identifiable signs that global warming is currently taking place, including substantial ice loss in the Arctic over the past two decades (IPCC, 2014).

According to the CalEPA's *2010 Climate Action Team Biennial Report*, potential impacts of climate change in California may include loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years (CalEPA, 2010). Below is a summary of some of the potential effects that could be experienced in California as a result of climate change.

Air Quality. Higher temperatures, which are conducive to air pollution formation, could worsen air quality in California. Climate change may increase the concentration of ground-level ozone, but the magnitude of the effect, and therefore its indirect effects, are uncertain. If higher temperatures are accompanied by drier conditions, the potential for large wildfires could increase, which, in turn, would further worsen air quality. However, if higher temperatures are accompanied by wetter, rather than drier conditions, the rains would tend to temporarily clear the air of particulate pollution and reduce the incidence of large wildfires, thereby ameliorating the pollution associated with wildfires. Additionally, severe heat accompanied by drier conditions and poor air quality could increase the number of heat-related deaths, illnesses, and asthma attacks throughout the state (California Energy Commission [CEC], 2009).

Water Supply. Analysis of paleoclimatic data (such as tree-ring reconstructions of stream flow and precipitation) indicates a history of naturally and widely varying hydrologic conditions in California and the west, including a pattern of recurring and extended droughts. Uncertainty remains with respect to the overall impact of climate change on future water supplies in California. However, the average early spring snowpack in the Sierra Nevada decreased by about 10 percent during the last century, a loss of 1.5 million acre-feet of snowpack storage. During the same period, sea level rose eight inches along California's coast. California's temperature has risen 1°F, mostly at night and during the winter, with higher elevations experiencing the highest increase. Many Southern California cities have experienced their lowest recorded annual precipitation twice within the past decade. In a span of only two years, Los Angeles experienced both its driest and wettest years on record (California Department of Water Resources [DWR], 2008; CCCC, 2009).

This uncertainty complicates the analysis of future water demand, especially where the relationship between climate change and its potential effect on water demand is not well

understood. The Sierra snowpack provides the majority of California's water supply by accumulating snow during the state's wet winters and releasing it slowly during the state's dry springs and summers. Based upon historical data and modeling DWR projects that the Sierra snowpack will experience a 25 to 40 percent reduction from its historic average by 2050. Climate change is also anticipated to bring warmer storms that result in less snowfall at lower elevations, reducing the total snowpack (DWR, 2008).

Hydrology and Sea Level Rise. As discussed above, climate change could potentially affect: the amount of snowfall, rainfall, and snow pack; the intensity and frequency of storms; flood hydrographs (flash floods, rain or snow events, coincidental high tide and high runoff events); sea level rise and coastal flooding; coastal erosion; and the potential for salt water intrusion. According to The Impacts of Sea-Level Rise on the California Coast, prepared by the California Climate Change Center (CCCC) (CCCC, 2009), climate change has the potential to induce substantial sea level rise in the coming century. The rising sea level increases the likelihood and risk of flooding. The rate of increase of global mean sea levels over the 2001-2010 decade, as observed by satellites, ocean buoys and land gauges, was approximately 3.2 mm per year, which is double the observed 20th century trend of 1.6 mm per year (World Meteorological Organization [WMO], 2013). As a result, sea levels averaged over the last decade were about 8 inches higher than those of 1880 (WMO, 2013). Sea levels are rising faster now than in the previous two millennia, and the rise is expected to accelerate, even with robust GHG emission control measures. The most recent IPCC report (2013) predicts a mean sea–level rise of 11-38 inches by 2100. This prediction is more than 50 percent higher than earlier projections of 7-23 inches, when comparing the same emissions scenarios and time periods. A rise in sea levels could result in coastal flooding and erosion and could jeopardize California's water supply due to salt water intrusion. I*n addition, i*ncreased CO_2 emissions can cause oceans to acidify due to the carbonic acid it forms. Increased storm intensity and frequency could affect the ability of flood-control facilities, including levees, to handle storm events.

Agriculture. California has a $30 billion annual agricultural industry that produces half of the country's fruits and vegetables. Higher CO_2 levels can stimulate plant production and increase plant water-use efficiency. However, if temperatures rise and drier conditions prevail, water demand could increase; crop-yield could be threatened by a less reliable water supply; and greater air pollution could render plants more susceptible to pest and disease outbreaks. In addition, temperature increases could change the time of year certain crops, such as wine grapes, bloom or ripen, and thereby affect their quality (CCCC, 2006).

Ecosystems and Wildlife. Climate change and the potential resulting changes in weather patterns could have ecological effects on a global and local scale. Increasing concentrations of GHGs are likely to accelerate the rate of climate change. Scientists project that the average global surface temperature could rise by 1.0-4.5°F (0.6-2.5°C) in the next 50 years, and 2.2-10°F (1.4-5.8°C) in the next century, with substantial regional variation. Soil moisture is likely to decline in many regions, and intense rainstorms are likely to become more frequent. Rising temperatures could have four major impacts on plants and animals: (1) timing of ecological events; (2) geographic range; (3) species' composition within communities; and (4) ecosystem processes, such as carbon cycling and storage (Parmesan, 2006).

International and Federal Climate Change Regulations

International Regulations. The United States is, and has been, a participant in the United Nations Framework Convention on Climate Change (UNFCCC) since it was produced in 1992. The UNFCCC is an international environmental treaty with the objective of, "stabilization of GHG concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system." This is generally understood to be achieved by stabilizing global GHG concentrations between 350 and 400 ppm, in order to limit the global average temperature increases between 2 and 2.4°C above pre-industrial levels (IPCC, 2007). The UNFCCC itself does not set limits on GHG emissions for individual countries or enforcement mechanisms. Instead, the treaty provides for updates, called "protocols," that would identify mandatory emissions limits.

Five years later, the UNFCCC brought nations together again to draft the *Kyoto Protocol* (1997). The Kyoto Protocol established commitments for industrialized nations to reduce their collective emissions of six GHGs (CO_2, CH_4, N_2O, SF_6, HFCs, and PFCs) to 5.2 percent below 1990 levels by 2012. The United States is a signatory of the Kyoto Protocol, but Congress has not ratified it and the United States has not bound itself to the Protocol's commitments (UNFCCC, 2007). The first commitment period of the Kyoto Protocol ended in 2012. Governments, including 38 industrialized countries, agreed to a second commitment period of the Kyoto Protocol beginning January 1, 2013 and ending either on December 31, 2017 or December 31, 2020, to be decided by the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol at its seventeenth session (UNFCCC, 2011).

In Durban (17th session of the Conference of the Parties in Durban, South Africa, 2011), governments decided to adopt a universal legal agreement on climate change. Work began on that task immediately under a new group called the Ad Hoc Working Group on the Durban Platform for Enhanced Action. Progress was also made regarding the creation of a Green Climate Fund (GCF) for which a management framework was adopted (UNFCCC, 2011; United Nations, 2011).

In December 2015, the 21st session of the Conference of the Parties (COP21) adopted the Paris Agreement. The deal requires all countries that ratify it to commit to cutting greenhouse gas emissions, with the goal of peaking greenhouse gas emissions "as soon as possible" (Worland, 2015). The agreement includes commitments to (1) achieve a balance between sources and sinks of greenhouse gases in the second half of this century; (2) to keep global temperature increase "well below" 2 degrees Celsius (C) or 3.6 degrees Fahrenheit (F) and to pursue efforts to limit it to 1.5 C; (3) to review progress every five years; and (4) to spend $100 billion a year in climate finance for developing countries by 2020 (UNFCCC, 2015). The agreement includes both legally binding measures, like reporting requirements, as well as voluntary or non-binding measures while, such as the setting of emissions targets for any individual country (Worland, 2015).

Federal Regulations. The United States Supreme Court in *Massachusetts et al. v. Environmental Protection Agency et al.* ([2007] 549 U.S. 05-1120) held that the U.S. EPA has the authority to regulate motor-vehicle GHG emissions under the federal Clean Air Act.

The U.S. EPA issued a Final Rule for mandatory reporting of GHG emissions in October 2009. This Final Rule applies to fossil fuel suppliers, industrial gas suppliers, direct GHG emitters,

and manufacturers of heavy-duty and off-road vehicles and vehicle engines, and requires annual reporting of emissions. The first annual reports for these sources were due in March 2011.

On May 13, 2010, the U.S. EPA issued a Final Rule that took effect on January 2, 2011, setting a threshold of 75,000 tons CO_2e per year for GHG emissions. New and existing industrial facilities that meet or exceed that threshold will require a permit after that date. On November 10, 2010, the U.S. EPA published the "PSD and Title V Permitting Guidance for Greenhouse Gases." The U.S. EPA's guidance document is directed at state agencies responsible for air pollution permits under the Federal Clean Air Act to help them understand how to implement GHG reduction requirements while mitigating costs for industry. It is expected that most states will use the U.S. EPA's new guidelines when processing new air pollution permits for power plants, oil refineries, cement manufacturing, and other large pollution point sources.

On January 2, 2011, the U.S. EPA implemented the first phase of the Tailoring Rule for GHG emissions Title V Permitting. Under the first phase of the Tailoring Rule, all new sources of emissions are subject to GHG Title V permitting if they are otherwise subject to Title V for another air pollutant and they emit at least 75,000 tons CO_2e per year. Under Phase 1, no sources were required to obtain a Title V permit solely due to GHG emissions. Phase 2 of the Tailoring Rule went into effect July 1, 2011. At that time new sources were subject to GHG Title V permitting if the source emits 100,000 tons CO_2e per year, or they are otherwise subject to Title V permitting for another pollutant and emit at least 75,000 tons CO_2e per year.

On July 3, 2012, the U.S. EPA issued the final rule that retains the GHG permitting thresholds that were established in Phases 1 and 2 of the GHG Tailoring Rule. These emission thresholds determine when Clean Air Act permits under the New Source Review Prevention of Significant Deterioration (PSD) and Title V Operating Permit programs are required for new and existing industrial facilities.

Skechers Design Center and Executive Offices

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	120.50	1000sqft	1.76	120,500.00	0
Enclosed Parking with Elevator	609.00	Space	0.00	243,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	8			**Operational Year**	2019
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Site size = 1.76 acres from project summary in site plan

Construction Phase - 24 month construction schedule

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - info

Off-road Equipment -

Off-road Equipment -

Trips and VMT - 132,000 CY export/14 CY per truck =9,429 trips

Demolition - Demo = 34,133 sf

Grading - 134,000 CY cut - 2000 CY fill = 132,000 cy export

Architectural Coating - New SCAQMD rule

Vehicle Trips - 1221 trips/ 75.4 (1000 sq ft)= 16.2

Area Coating - New SCAQMD Rule

Construction Off-road Equipment Mitigation -

Area Mitigation - new scaqmd rule

Energy Mitigation - <http://www.airquality.org/ceqa/RecommendedGuidanceLandUseEmissionReductions.pdf>

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	100.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	100	50
tblConstructionPhase	NumDays	10.00	50.00
tblConstructionPhase	NumDays	200.00	329.00
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	NumDays	4.00	58.00
tblConstructionPhase	NumDays	10.00	67.00
tblConstructionPhase	PhaseEndDate	10/10/2019	9/1/2019
tblConstructionPhase	PhaseEndDate	2/5/2018	2/2/2018
tblConstructionPhase	PhaseEndDate	8/12/2019	8/1/2019
tblConstructionPhase	PhaseStartDate	8/2/2019	6/24/2019
tblConstructionPhase	PhaseStartDate	11/16/2017	11/15/2017
tblConstructionPhase	PhaseStartDate	5/10/2019	5/1/2019
tblGrading	AcresOfGrading	21.75	1.76
tblGrading	MaterialExported	0.00	132,000.00
tblLandUse	LotAcreage	2.77	1.76
tblLandUse	LotAcreage	5.48	0.00
tblProjectCharacteristics	OperationalYear	2014	2019
tblTripsAndVMT	HaulingTripNumber	16,500.00	9,429.00
tblVehicleTrips	WD_TR	11.01	16.20

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	7.6103	90.7796	72.2495	0.1652	10.3449	3.3060	13.6509	3.8979	3.0660	6.9639	0.0000	16,406.7564	16,406.7564	1.1694	0.0000	16,431.3127
2018	4.4871	57.6030	48.2076	0.1361	10.5648	1.5365	12.1013	4.0207	1.4136	5.4343	0.0000	13,313.3251	13,313.3251	0.5363	0.0000	13,324.5872
2019	35.0513	29.8088	36.2880	0.0693	2.0958	1.5089	3.6047	0.5631	1.4311	1.9942	0.0000	6,147.7358	6,147.7358	0.8821	0.0000	6,166.2602
Total	**47.1487**	**178.1914**	**156.7452**	**0.3706**	**23.0055**	**6.3514**	**29.3568**	**8.4817**	**5.9107**	**14.3923**	**0.0000**	**35,867.8172**	**35,867.8172**	**2.5878**	**0.0000**	**35,922.1601**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	7.6103	90.7796	72.2495	0.1652	7.2718	3.3060	10.5778	2.4440	3.0660	5.5100	0.0000	16,406.7564	16,406.7564	1.1694	0.0000	16,431.3127
2018	4.4871	57.6030	48.2076	0.1361	7.9214	1.5365	9.4579	2.6319	1.4136	4.0455	0.0000	13,313.3251	13,313.3251	0.5363	0.0000	13,324.5872
2019	35.0513	29.8088	36.2880	0.0693	2.0958	1.5089	3.6047	0.5631	1.4311	1.9942	0.0000	6,147.7358	6,147.7358	0.8821	0.0000	6,166.2602
Total	**47.1487**	**178.1914**	**156.7452**	**0.3706**	**17.2890**	**6.3514**	**23.6403**	**5.6390**	**5.9107**	**11.5496**	**0.0000**	**35,867.8172**	**35,867.8172**	**2.5878**	**0.0000**	**35,922.1601**

	ROG	NOx	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**	**24.85**	**0.00**	**19.47**	**33.52**	**0.00**	**19.75**	**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	9.0657	7.0000e-004	0.0752	1.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004		0.1597	0.1597	4.3000e-004		0.1687
Energy	0.0341	0.3104	0.2607	1.8600e-003		0.0236	0.0236		0.0236	0.0236		372.4722	372.4722	7.1400e-003	6.8300e-003	374.7390
Mobile	6.2886	18.2767	69.5194	0.1947	13.3579	0.2823	13.6402	3.5722	0.2603	3.8325		15,674.3086	15,674.3086	0.6024		15,686.9585
Total	**15.3885**	**18.5877**	**69.8553**	**0.1965**	**13.3579**	**0.3061**	**13.6640**	**3.5722**	**0.2841**	**3.8564**		**16,046.9405**	**16,046.9405**	**0.6099**	**6.8300e-003**	**16,061.8662**

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	7.6787	7.0000e-004	0.0752	1.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004		0.1597	0.1597	4.3000e-004		0.1687
Energy	0.0261	0.2373	0.1993	1.4200e-003		0.0180	0.0180		0.0180	0.0180		284.6946	284.6946	5.4600e-003	5.2200e-003	286.4272
Mobile	6.2886	18.2767	69.5194	0.1947	13.3579	0.2823	13.6402	3.5722	0.2603	3.8325		15,674.3086	15,674.3086	0.6024		15,686.9585
Total	**13.9934**	**18.5146**	**69.7939**	**0.1961**	**13.3579**	**0.3006**	**13.6585**	**3.5722**	**0.2786**	**3.8508**		**15,959.1629**	**15,959.1629**	**0.6083**	**5.2200e-003**	**15,973.5544**

	ROG	NOx	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	**9.07**	**0.39**	**0.09**	**0.22**	**0.00**	**1.82**	**0.04**	**0.00**	**1.96**	**0.14**	**0.00**	**0.55**	**0.55**	**0.28**	**23.57**	**0.55**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/18/2017	11/15/2017	5	43	
2	Grading	Grading	11/15/2017	2/2/2018	5	58	
3	Building Construction	Building Construction	2/3/2018	5/9/2019	5	329	
4	Paving	Paving	5/1/2019	8/1/2019	5	67	
5	Architectural Coating	Architectural Coating	6/24/2019	9/1/2019	5	50	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.76

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 546,150; Non-Residential Outdoor: 182,050 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Graders	1	6.00	174	0.41
Grading	Rubber Tired Dozers	1	6.00	255	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	226	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	125	0.42
Paving	Paving Equipment	1	8.00	130	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	155.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	9,429.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	141.00	60.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	28.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7814	0.0000	0.7814	0.1183	0.0000	0.1183			0.0000			0.0000
Off-Road	2.7216	26.5855	20.8712	0.0245		1.6062	1.6062		1.5022	1.5022		2,457.4682	2,457.4682	0.6235		2,470.5620
Total	**2.7216**	**26.5855**	**20.8712**	**0.0245**	**0.7814**	**1.6062**	**2.3876**	**0.1183**	**1.5022**	**1.6206**		**2,457.4682**	**2,457.4682**	**0.6235**		**2,470.5620**

3.2 Demolition - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0633	0.9607	0.8019	2.6900e-003	0.0628	0.0137	0.0765	0.0172	0.0126	0.0298		266.2839	266.2839	1.9900e-003		266.3257
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	0.0540	0.0731	0.7641	1.7800e-003	0.1453	1.3200e-003	0.1466	0.0385	1.2100e-003	0.0398		145.1496	145.1496	8.0400e-003		145.3184
Total	**0.1173**	**1.0338**	**1.5660**	**4.4700e-003**	**0.2081**	**0.0150**	**0.2231**	**0.0557**	**0.0138**	**0.0695**		**411.4335**	**411.4335**	**0.0100**		**411.6441**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3516	0.0000	0.3516	0.0532	0.0000	0.0532			0.0000			0.0000
Off-Road	2.7216	26.5855	20.8712	0.0245		1.6062	1.6062		1.5022	1.5022	0.0000	2,457.4682	2,457.4682	0.6235		2,470.5620
Total	**2.7216**	**26.5855**	**20.8712**	**0.0245**	**0.3516**	**1.6062**	**1.9578**	**0.0532**	**1.5022**	**1.5555**	**0.0000**	**2,457.4682**	**2,457.4682**	**0.6235**		**2,470.5620**

3.2 Demolition - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0633	0.9607	0.8019	2.6900e-003	0.0628	0.0137	0.0765	0.0172	0.0126	0.0298		266.2839	266.2839	1.9900e-003		266.3257
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	0.0540	0.0731	0.7641	1.7800e-003	0.1453	1.3200e-003	0.1466	0.0385	1.2100e-003	0.0398		145.1496	145.1496	8.0400e-003		145.3184
Total	**0.1173**	**1.0338**	**1.5660**	**4.4700e-003**	**0.2081**	**0.0150**	**0.2231**	**0.0557**	**0.0138**	**0.0695**		**411.4335**	**411.4335**	**0.0100**		**411.6441**

3.3 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.8061	0.0000	4.8061	2.5251	0.0000	2.5251			0.0000			0.0000
Off-Road	1.8844	19.7889	13.1786	0.0141		1.0661	1.0661		0.9808	0.9808		1,439.1894	1,439.1894	0.4410		1,448.4496
Total	**1.8844**	**19.7889**	**13.1786**	**0.0141**	**4.8061**	**1.0661**	**5.8722**	**2.5251**	**0.9808**	**3.5060**		**1,439.1894**	**1,439.1894**	**0.4410**		**1,448.4496**

3.3 Grading - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.8538	43.3266	36.1636	0.1211	4.4599	0.6178	5.0777	1.1750	0.5684	1.7434		12,009.3425	12,009.3425	0.0899		12,011.2302
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0332	0.0450	0.4702	1.1000e-003	0.0894	8.1000e-004	0.0902	0.0237	7.5000e-004	0.0245		89.3228	89.3228	4.9500e-003		89.4267
Total	**2.8870**	**43.3715**	**36.6338**	**0.1222**	**4.5493**	**0.6186**	**5.1679**	**1.1987**	**0.5691**	**1.7678**		**12,098.6654**	**12,098.6654**	**0.0948**		**12,100.6570**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.1628	0.0000	2.1628	1.1363	0.0000	1.1363			0.0000			0.0000
Off-Road	1.8844	19.7889	13.1786	0.0141		1.0661	1.0661		0.9808	0.9808	0.0000	1,439.1894	1,439.1894	0.4410		1,448.4496
Total	**1.8844**	**19.7889**	**13.1786**	**0.0141**	**2.1628**	**1.0661**	**3.2289**	**1.1363**	**0.9808**	**2.1171**	**0.0000**	**1,439.1894**	**1,439.1894**	**0.4410**		**1,448.4496**

3.3 Grading - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.8538	43.3266	36.1636	0.1211	4.4599	0.6178	5.0777	1.1750	0.5684	1.7434		12,009.3425	12,009.3425	0.0899		12,011.2302
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0332	0.0450	0.4702	1.1000e-003	0.0894	8.1000e-004	0.0902	0.0237	7.5000e-004	0.0245		89.3228	89.3228	4.9500e-003		89.4267
Total	**2.8870**	**43.3715**	**36.6338**	**0.1222**	**4.5493**	**0.6186**	**5.1679**	**1.1987**	**0.5691**	**1.7678**		**12,098.6654**	**12,098.6654**	**0.0948**		**12,100.6570**

3.3 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.8061	0.0000	4.8061	2.5251	0.0000	2.5251			0.0000			0.0000
Off-Road	1.6639	17.3061	12.2672	0.0141		0.9184	0.9184		0.8450	0.8450		1,415.2041	1,415.2041	0.4406		1,424.4561
Total	**1.6639**	**17.3061**	**12.2672**	**0.0141**	**4.8061**	**0.9184**	**5.7246**	**2.5251**	**0.8450**	**3.3701**		**1,415.2041**	**1,415.2041**	**0.4406**		**1,424.4561**

3.3 Grading - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.7933	40.2561	35.5151	0.1210	5.6692	0.6173	6.2865	1.4719	0.5679	2.0398		11,812.0737	11,812.0737	0.0911		11,813.9873
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	0.0299	0.0408	0.4254	1.1000e-003	0.0894	7.8000e-004	0.0902	0.0237	7.3000e-004	0.0244		86.0473	86.0473	4.5900e-003		86.1438
Total	**2.8232**	**40.2970**	**35.9405**	**0.1221**	**5.7586**	**0.6181**	**6.3767**	**1.4956**	**0.5686**	**2.0642**		**11,898.1210**	**11,898.1210**	**0.0957**		**11,900.1311**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.1628	0.0000	2.1628	1.1363	0.0000	1.1363			0.0000			0.0000
Off-Road	1.6639	17.3061	12.2672	0.0141		0.9184	0.9184		0.8450	0.8450	0.0000	1,415.2041	1,415.2041	0.4406		1,424.4561
Total	**1.6639**	**17.3061**	**12.2672**	**0.0141**	**2.1628**	**0.9184**	**3.0812**	**1.1363**	**0.8450**	**1.9813**	**0.0000**	**1,415.2041**	**1,415.2041**	**0.4406**		**1,424.4561**

3.3 Grading - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.7933	40.2561	35.5151	0.1210	5.6692	0.6173	6.2865	1.4719	0.5679	2.0398		11,812.0737	11,812.0737	0.0911		11,813.9873
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	0.0299	0.0408	0.4254	1.1000e-003	0.0894	7.8000e-004	0.0902	0.0237	7.3000e-004	0.0244		86.0473	86.0473	4.5900e-003		86.1438
Total	**2.8232**	**40.2970**	**35.9405**	**0.1221**	**5.7586**	**0.6181**	**6.3767**	**1.4956**	**0.5686**	**2.0642**		**11,898.1210**	**11,898.1210**	**0.0957**		**11,900.1311**

3.4 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5826	17.3173	13.8357	0.0220		1.0532	1.0532		1.0172	1.0172		2,021.4136	2,021.4136	0.4059		2,029.9373
Total	**2.5826**	**17.3173**	**13.8357**	**0.0220**		**1.0532**	**1.0532**		**1.0172**	**1.0172**		**2,021.4136**	**2,021.4136**	**0.4059**		**2,029.9373**

3.4 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4764	4.5067	6.7739	0.0131	0.3744	0.0696	0.4440	0.1065	0.0640	0.1705		1,268.0873	1,268.0873	9.6200e-003		1,268.2894
Worker	0.5262	0.7194	7.4978	0.0193	1.5761	0.0138	1.5899	0.4180	0.0128	0.4308		1,516.5843	1,516.5843	0.0810		1,518.2849
Total	**1.0026**	**5.2262**	**14.2717**	**0.0324**	**1.9504**	**0.0834**	**2.0338**	**0.5245**	**0.0768**	**0.6013**		**2,784.6716**	**2,784.6716**	**0.0906**		**2,786.5743**

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	2.5826	17.3173	13.8357	0.0220		1.0532	1.0532		1.0172	1.0172	0.0000	2,021.4136	2,021.4136	0.4059		2,029.9373
Total	**2.5826**	**17.3173**	**13.8357**	**0.0220**		**1.0532**	**1.0532**		**1.0172**	**1.0172**	**0.0000**	**2,021.4136**	**2,021.4136**	**0.4059**		**2,029.9373**

3.4 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4764	4.5067	6.7739	0.0131	0.3744	0.0696	0.4440	0.1065	0.0640	0.1705		1,268.0873	1,268.0873	9.6200e-003		1,268.2894
Worker	0.5262	0.7194	7.4978	0.0193	1.5761	0.0138	1.5899	0.4180	0.0128	0.4308		1,516.5843	1,516.5843	0.0810		1,518.2849
Total	**1.0026**	**5.2262**	**14.2717**	**0.0324**	**1.9504**	**0.0834**	**2.0338**	**0.5245**	**0.0768**	**0.6013**		**2,784.6716**	**2,784.6716**	**0.0906**		**2,786.5743**

3.4 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2639	15.8827	13.4498	0.0220		0.9117	0.9117		0.8808	0.8808		2,008.7495	2,008.7495	0.3850		2,016.8347
Total	**2.2639**	**15.8827**	**13.4498**	**0.0220**		**0.9117**	**0.9117**		**0.8808**	**0.8808**		**2,008.7495**	**2,008.7495**	**0.3850**		**2,016.8347**

3.4 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4513	4.1558	6.5598	0.0130	0.3745	0.0661	0.4406	0.1066	0.0608	0.1674		1,242.0218	1,242.0218	9.4200e-003		1,242.2196
Worker	0.4832	0.6596	6.8649	0.0193	1.5761	0.0135	1.5895	0.4180	0.0125	0.4305		1,457.0683	1,457.0683	0.0757		1,458.6579
Total	**0.9345**	**4.8154**	**13.4247**	**0.0323**	**1.9505**	**0.0796**	**2.0301**	**0.5246**	**0.0733**	**0.5978**		**2,699.0901**	**2,699.0901**	**0.0851**		**2,700.8775**

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	2.2639	15.8827	13.4498	0.0220		0.9117	0.9117		0.8808	0.8808	0.0000	2,008.7495	2,008.7495	0.3850		2,016.8347
Total	**2.2639**	**15.8827**	**13.4498**	**0.0220**		**0.9117**	**0.9117**		**0.8808**	**0.8808**	**0.0000**	**2,008.7495**	**2,008.7495**	**0.3850**		**2,016.8347**

3.4 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4513	4.1558	6.5598	0.0130	0.3745	0.0661	0.4406	0.1066	0.0608	0.1674		1,242.0218	1,242.0218	9.4200e-003		1,242.2196
Worker	0.4832	0.6596	6.8649	0.0193	1.5761	0.0135	1.5895	0.4180	0.0125	0.4305		1,457.0683	1,457.0683	0.0757		1,458.6579
Total	**0.9345**	**4.8154**	**13.4247**	**0.0323**	**1.9505**	**0.0796**	**2.0301**	**0.5246**	**0.0733**	**0.5978**		**2,699.0901**	**2,699.0901**	**0.0851**		**2,700.8775**

3.5 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8923	9.0499	8.7806	0.0133		0.5164	0.5164		0.4759	0.4759		1,305.5566	1,305.5566	0.4050		1,314.0618
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8923**	**9.0499**	**8.7806**	**0.0133**		**0.5164**	**0.5164**		**0.4759**	**0.4759**		**1,305.5566**	**1,305.5566**	**0.4050**		**1,314.0618**

3.5 Paving - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0446	0.0608	0.6329	1.7700e-003	0.1453	1.2400e-003	0.1466	0.0385	1.1500e-003	0.0397		134.3396	134.3396	6.9800e-003		134.4862
Total	**0.0446**	**0.0608**	**0.6329**	**1.7700e-003**	**0.1453**	**1.2400e-003**	**0.1466**	**0.0385**	**1.1500e-003**	**0.0397**		**134.3396**	**134.3396**	**6.9800e-003**		**134.4862**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8923	9.0499	8.7806	0.0133		0.5164	0.5164		0.4759	0.4759	0.0000	1,305.5566	1,305.5566	0.4050		1,314.0618
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8923**	**9.0499**	**8.7806**	**0.0133**		**0.5164**	**0.5164**		**0.4759**	**0.4759**	**0.0000**	**1,305.5566**	**1,305.5566**	**0.4050**		**1,314.0618**

3.5 Paving - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0446	0.0608	0.6329	1.7700e-003	0.1453	1.2400e-003	0.1466	0.0385	1.1500e-003	0.0397		134.3396	134.3396	6.9800e-003		134.4862
Total	**0.0446**	**0.0608**	**0.6329**	**1.7700e-003**	**0.1453**	**1.2400e-003**	**0.1466**	**0.0385**	**1.1500e-003**	**0.0397**		**134.3396**	**134.3396**	**6.9800e-003**		**134.4862**

3.6 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	33.7521					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		281.9473
Total	**34.0185**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**281.9473**

3.6 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0960	0.1310	1.3632	3.8200e-003	0.3130	2.6800e-003	0.3157	0.0830	2.4800e-003	0.0855		289.3469	289.3469	0.0150		289.6626
Total	**0.0960**	**0.1310**	**1.3632**	**3.8200e-003**	**0.3130**	**2.6800e-003**	**0.3157**	**0.0830**	**2.4800e-003**	**0.0855**		**289.3469**	**289.3469**	**0.0150**		**289.6626**

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	33.7521					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		281.9473
Total	**34.0185**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**281.9473**

3.6 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0960	0.1310	1.3632	3.8200e-003	0.3130	2.6800e-003	0.3157	0.0830	2.4800e-003	0.0855		289.3469	289.3469	0.0150		289.6626
Total	**0.0960**	**0.1310**	**1.3632**	**3.8200e-003**	**0.3130**	**2.6800e-003**	**0.3157**	**0.0830**	**2.4800e-003**	**0.0855**		**289.3469**	**289.3469**	**0.0150**		**289.6626**

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	6.2886	18.2767	69.5194	0.1947	13.3579	0.2823	13.6402	3.5722	0.2603	3.8325		15,674.3086	15,674.3086	0.6024		15,686.9585
Unmitigated	6.2886	18.2767	69.5194	0.1947	13.3579	0.2823	13.6402	3.5722	0.2603	3.8325		15,674.3086	15,674.3086	0.6024		15,686.9585

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	1,952.10	285.59	118.09	4,677,642	4,677,642
Total	1,952.10	285.59	118.09	4,677,642	4,677,642

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
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.530902	0.057841	0.178699	0.124790	0.039063	0.006298	0.016951	0.033908	0.002496	0.003149	0.003689	0.000536	0.001678

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0261	0.2373	0.1993	1.4200e-003		0.0180	0.0180		0.0180	0.0180		284.6946	284.6946	5.4600e-003	5.2200e-003	286.4272
NaturalGas Unmitigated	0.0341	0.3104	0.2607	1.8600e-003		0.0236	0.0236		0.0236	0.0236		372.4722	372.4722	7.1400e-003	6.8300e-003	374.7390

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					
General Office Building	3166.01	0.0341	0.3104	0.2607	1.8600e-003		0.0236	0.0236		0.0236	0.0236		372.4722	372.4722	7.1400e-003	6.8300e-003	374.7390
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0341**	**0.3104**	**0.2607**	**1.8600e-003**		**0.0236**	**0.0236**		**0.0236**	**0.0236**		**372.4722**	**372.4722**	**7.1400e-003**	**6.8300e-003**	**374.7390**

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					
General Office Building	2.4199	0.0261	0.2373	0.1993	1.4200e-003		0.0180	0.0180		0.0180	0.0180		284.6946	284.6946	5.4600e-003	5.2200e-003	286.4272
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0261**	**0.2373**	**0.1993**	**1.4200e-003**		**0.0180**	**0.0180**		**0.0180**	**0.0180**		**284.6946**	**284.6946**	**5.4600e-003**	**5.2200e-003**	**286.4272**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	7.6787	7.0000e-004	0.0752	1.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004		0.1597	0.1597	4.3000e-004		0.1687
Unmitigated	9.0657	7.0000e-004	0.0752	1.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004		0.1597	0.1597	4.3000e-004		0.1687

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.8494					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.2092					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.1300e-003	7.0000e-004	0.0752	1.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004		0.1597	0.1597	4.3000e-004		0.1687
Total	**9.0657**	**7.0000e-004**	**0.0752**	**1.0000e-005**		**2.7000e-004**	**2.7000e-004**		**2.7000e-004**	**2.7000e-004**		**0.1597**	**0.1597**	**4.3000e-004**		**0.1687**

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	0.4624					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.2092					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.1300e-003	7.0000e-004	0.0752	1.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004		0.1597	0.1597	4.3000e-004		0.1687
Total	**7.6787**	**7.0000e-004**	**0.0752**	**1.0000e-005**		**2.7000e-004**	**2.7000e-004**		**2.7000e-004**	**2.7000e-004**		**0.1597**	**0.1597**	**4.3000e-004**		**0.1687**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

10.0 Vegetation

Skechers Design Center and Executive Offices

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	120.50	1000sqft	1.76	120,500.00	0
Enclosed Parking with Elevator	609.00	Space	0.00	243,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	8			**Operational Year**	2019
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Site size = 1.76 acres from project summary in site plan

Construction Phase - 24 month construction schedule

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - info

Off-road Equipment -

Off-road Equipment -

Trips and VMT - 132,000 CY export/14 CY per truck =9,429 trips

Demolition - Demo = 34,133 sf

Grading - 134,000 CY cut - 2000 CY fill = 132,000 cy export

Architectural Coating - New SCAQMD rule

Vehicle Trips - 1221 trips/ 75.4 (1000 sq ft)= 16.2

Area Coating - New SCAQMD Rule

Construction Off-road Equipment Mitigation -

Area Mitigation - new scaqmd rule

Energy Mitigation - <http://www.airquality.org/ceqa/RecommendedGuidanceLandUseEmissionReductions.pdf>

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	100.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	100	50
tblConstructionPhase	NumDays	10.00	50.00
tblConstructionPhase	NumDays	200.00	329.00
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	NumDays	4.00	58.00
tblConstructionPhase	NumDays	10.00	67.00
tblConstructionPhase	PhaseEndDate	10/10/2019	9/1/2019
tblConstructionPhase	PhaseEndDate	2/5/2018	2/2/2018
tblConstructionPhase	PhaseEndDate	8/12/2019	8/1/2019
tblConstructionPhase	PhaseStartDate	8/2/2019	6/24/2019
tblConstructionPhase	PhaseStartDate	11/16/2017	11/15/2017
tblConstructionPhase	PhaseStartDate	5/10/2019	5/1/2019
tblGrading	AcresOfGrading	21.75	1.76
tblGrading	MaterialExported	0.00	132,000.00
tblLandUse	LotAcreage	2.77	1.76
tblLandUse	LotAcreage	5.48	0.00
tblProjectCharacteristics	OperationalYear	2014	2019
tblTripsAndVMT	HaulingTripNumber	16,500.00	9,429.00
tblVehicleTrips	WD_TR	11.01	16.20

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					
2017	0.1389	1.6491	1.2860	2.8700e-003	0.2342	0.0626	0.2968	0.0964	0.0582	0.1545	0.0000	258.9181	258.9181	0.0204	0.0000	259.3458
2018	0.4732	3.4019	3.8908	8.1600e-003	0.4357	0.1533	0.5890	0.1524	0.1467	0.2991	0.0000	668.9290	668.9290	0.0592	0.0000	670.1723
2019	1.0307	1.3216	1.6403	3.2200e-003	0.1014	0.0667	0.1681	0.0273	0.0636	0.0909	0.0000	256.7213	256.7213	0.0332	0.0000	257.4190
Total	**1.6428**	**6.3726**	**6.8170**	**0.0143**	**0.7713**	**0.2826**	**1.0539**	**0.2760**	**0.2685**	**0.5445**	**0.0000**	**1,184.5684**	**1,184.5684**	**0.1128**	**0.0000**	**1,186.9371**

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					
2017	0.1389	1.6491	1.2860	2.8700e-003	0.1483	0.0626	0.2109	0.0547	0.0582	0.1129	0.0000	258.9181	258.9181	0.0204	0.0000	259.3458
2018	0.4732	3.4019	3.8908	8.1600e-003	0.3590	0.1533	0.5123	0.1121	0.1467	0.2588	0.0000	668.9287	668.9287	0.0592	0.0000	670.1720
2019	1.0307	1.3216	1.6403	3.2200e-003	0.1014	0.0667	0.1681	0.0273	0.0636	0.0909	0.0000	256.7212	256.7212	0.0332	0.0000	257.4189
Total	**1.6428**	**6.3726**	**6.8170**	**0.0143**	**0.6087**	**0.2826**	**0.8914**	**0.1941**	**0.2685**	**0.4626**	**0.0000**	**1,184.5679**	**1,184.5679**	**0.1128**	**0.0000**	**1,186.9366**

	ROG	NOx	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**	**21.08**	**0.00**	**15.42**	**29.69**	**0.00**	**15.05**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.6541	9.0000e-005	9.4000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0181	0.0181	5.0000e-005	0.0000	0.0191
Energy	6.2300e-003	0.0567	0.0476	3.4000e-004		4.3100e-003	4.3100e-003		4.3100e-003	4.3100e-003	0.0000	1,070.1403	1,070.1403	0.0475	0.0107	1,074.4622
Mobile	0.8085	2.5213	9.4433	0.0267	1.7734	0.0381	1.8115	0.4750	0.0351	0.5101	0.0000	1,946.7221	1,946.7221	0.0739	0.0000	1,948.2729
Waste						0.0000	0.0000		0.0000	0.0000	22.7492	0.0000	22.7492	1.3444	0.0000	50.9824
Water						0.0000	0.0000		0.0000	0.0000	6.7946	121.5365	128.3311	0.7035	0.0176	148.5703
Total	**2.4688**	**2.5781**	**9.5003**	**0.0270**	**1.7734**	**0.0424**	**1.8158**	**0.4750**	**0.0395**	**0.5145**	**29.5438**	**3,138.4170**	**3,167.9607**	**2.1693**	**0.0284**	**3,222.3069**

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	1.4010	9.0000e-005	9.4000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0181	0.0181	5.0000e-005	0.0000	0.0191
Energy	4.7600e-003	0.0433	0.0364	2.6000e-004		3.2900e-003	3.2900e-003		3.2900e-003	3.2900e-003	0.0000	937.6360	937.6360	0.0418	9.3300e-003	941.4078
Mobile	0.8085	2.5213	9.4433	0.0267	1.7734	0.0381	1.8115	0.4750	0.0351	0.5101	0.0000	1,946.7221	1,946.7221	0.0739	0.0000	1,948.2729
Waste						0.0000	0.0000		0.0000	0.0000	11.3746	0.0000	11.3746	0.6722	0.0000	25.4912
Water						0.0000	0.0000		0.0000	0.0000	6.7946	121.5365	128.3311	0.7033	0.0176	148.5595
Total	**2.2142**	**2.5647**	**9.4891**	**0.0269**	**1.7734**	**0.0414**	**1.8148**	**0.4750**	**0.0384**	**0.5135**	**18.1692**	**3,005.9127**	**3,024.0818**	**1.4913**	**0.0269**	**3,063.7505**

	ROG	NOx	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	**10.31**	**0.52**	**0.12**	**0.30**	**0.00**	**2.40**	**0.06**	**0.00**	**2.58**	**0.20**	**38.50**	**4.22**	**4.54**	**31.26**	**4.97**	**4.92**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/18/2017	11/15/2017	5	43	
2	Grading	Grading	11/15/2017	2/2/2018	5	58	
3	Building Construction	Building Construction	2/3/2018	5/9/2019	5	329	
4	Paving	Paving	5/1/2019	8/1/2019	5	67	
5	Architectural Coating	Architectural Coating	6/24/2019	9/1/2019	5	50	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.76

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 546,150; Non-Residential Outdoor: 182,050 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Graders	1	6.00	174	0.41
Grading	Rubber Tired Dozers	1	6.00	255	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	226	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	125	0.42
Paving	Paving Equipment	1	8.00	130	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	155.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	9,429.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	141.00	60.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	28.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0168	0.0000	0.0168	2.5400e-003	0.0000	2.5400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0585	0.5716	0.4487	5.3000e-004		0.0345	0.0345		0.0323	0.0323	0.0000	47.9316	47.9316	0.0122	0.0000	48.1870
Total	**0.0585**	**0.5716**	**0.4487**	**5.3000e-004**	**0.0168**	**0.0345**	**0.0513**	**2.5400e-003**	**0.0323**	**0.0348**	**0.0000**	**47.9316**	**47.9316**	**0.0122**	**0.0000**	**48.1870**

3.2 Demolition - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.3400e-003	0.0210	0.0167	6.0000e-005	1.3300e-003	2.9000e-004	1.6200e-003	3.6000e-004	2.7000e-004	6.3000e-004	0.0000	5.2008	5.2008	4.0000e-005	0.0000	5.2016
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	1.0900e-003	1.6100e-003	0.0168	4.0000e-005	3.0600e-003	3.0000e-005	3.0900e-003	8.1000e-004	3.0000e-005	8.4000e-004	0.0000	2.8766	2.8766	1.6000e-004	0.0000	2.8799
Total	**2.4300e-003**	**0.0226**	**0.0335**	**1.0000e-004**	**4.3900e-003**	**3.2000e-004**	**4.7100e-003**	**1.1700e-003**	**3.0000e-004**	**1.4700e-003**	**0.0000**	**8.0775**	**8.0775**	**2.0000e-004**	**0.0000**	**8.0816**

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					7.5600e-003	0.0000	7.5600e-003	1.1400e-003	0.0000	1.1400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0585	0.5716	0.4487	5.3000e-004		0.0345	0.0345		0.0323	0.0323	0.0000	47.9316	47.9316	0.0122	0.0000	48.1870
Total	**0.0585**	**0.5716**	**0.4487**	**5.3000e-004**	**7.5600e-003**	**0.0345**	**0.0421**	**1.1400e-003**	**0.0323**	**0.0334**	**0.0000**	**47.9316**	**47.9316**	**0.0122**	**0.0000**	**48.1870**

3.2 Demolition - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.3400e-003	0.0210	0.0167	6.0000e-005	1.3300e-003	2.9000e-004	1.6200e-003	3.6000e-004	2.7000e-004	6.3000e-004	0.0000	5.2008	5.2008	4.0000e-005	0.0000	5.2016
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	1.0900e-003	1.6100e-003	0.0168	4.0000e-005	3.0600e-003	3.0000e-005	3.0900e-003	8.1000e-004	3.0000e-005	8.4000e-004	0.0000	2.8766	2.8766	1.6000e-004	0.0000	2.8799
Total	**2.4300e-003**	**0.0226**	**0.0335**	**1.0000e-004**	**4.3900e-003**	**3.2000e-004**	**4.7100e-003**	**1.1700e-003**	**3.0000e-004**	**1.4700e-003**	**0.0000**	**8.0775**	**8.0775**	**2.0000e-004**	**0.0000**	**8.0816**

3.3 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1394	0.0000	0.1394	0.0732	0.0000	0.0732	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0311	0.3265	0.2175	2.3000e-004		0.0176	0.0176		0.0162	0.0162	0.0000	21.5426	21.5426	6.6000e-003	0.0000	21.6812
Total	**0.0311**	**0.3265**	**0.2175**	**2.3000e-004**	**0.1394**	**0.0176**	**0.1570**	**0.0732**	**0.0162**	**0.0894**	**0.0000**	**21.5426**	**21.5426**	**6.6000e-003**	**0.0000**	**21.6812**

3.3 Grading - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0463	0.7276	0.5784	2.0000e-003	0.0722	0.0102	0.0824	0.0190	9.3700e-003	0.0284	0.0000	180.0079	180.0079	1.3400e-003	0.0000	180.0360
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2000e-004	7.6000e-004	7.9300e-003	2.0000e-005	1.4500e-003	1.0000e-005	1.4600e-003	3.8000e-004	1.0000e-005	4.0000e-004	0.0000	1.3586	1.3586	7.0000e-005	0.0000	1.3601
Total	**0.0468**	**0.7284**	**0.5863**	**2.0200e-003**	**0.0736**	**0.0102**	**0.0838**	**0.0194**	**9.3800e-003**	**0.0288**	**0.0000**	**181.3665**	**181.3665**	**1.4100e-003**	**0.0000**	**181.3961**

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					0.0627	0.0000	0.0627	0.0330	0.0000	0.0330	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0311	0.3265	0.2175	2.3000e-004		0.0176	0.0176		0.0162	0.0162	0.0000	21.5426	21.5426	6.6000e-003	0.0000	21.6812
Total	**0.0311**	**0.3265**	**0.2175**	**2.3000e-004**	**0.0627**	**0.0176**	**0.0803**	**0.0330**	**0.0162**	**0.0491**	**0.0000**	**21.5426**	**21.5426**	**6.6000e-003**	**0.0000**	**21.6812**

3.3 Grading - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0463	0.7276	0.5784	2.0000e-003	0.0722	0.0102	0.0824	0.0190	9.3700e-003	0.0284	0.0000	180.0079	180.0079	1.3400e-003	0.0000	180.0360
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2000e-004	7.6000e-004	7.9300e-003	2.0000e-005	1.4500e-003	1.0000e-005	1.4600e-003	3.8000e-004	1.0000e-005	4.0000e-004	0.0000	1.3586	1.3586	7.0000e-005	0.0000	1.3601
Total	**0.0468**	**0.7284**	**0.5863**	**2.0200e-003**	**0.0736**	**0.0102**	**0.0838**	**0.0194**	**9.3800e-003**	**0.0288**	**0.0000**	**181.3665**	**181.3665**	**1.4100e-003**	**0.0000**	**181.3961**

3.3 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1394	0.0000	0.1394	0.0732	0.0000	0.0732	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0208	0.2163	0.1533	1.8000e-004		0.0115	0.0115		0.0106	0.0106	0.0000	16.0481	16.0481	5.0000e-003	0.0000	16.1531
Total	**0.0208**	**0.2163**	**0.1533**	**1.8000e-004**	**0.1394**	**0.0115**	**0.1509**	**0.0732**	**0.0106**	**0.0838**	**0.0000**	**16.0481**	**16.0481**	**5.0000e-003**	**0.0000**	**16.1531**

3.3 Grading - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0344	0.5121	0.4299	1.5100e-003	0.0695	7.7100e-003	0.0772	0.0181	7.0900e-003	0.0251	0.0000	134.1297	134.1297	1.0300e-003	0.0000	134.1512
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5000e-004	5.2000e-004	5.4400e-003	1.0000e-005	1.1000e-003	1.0000e-005	1.1100e-003	2.9000e-004	1.0000e-005	3.0000e-004	0.0000	0.9915	0.9915	5.0000e-005	0.0000	0.9926
Total	**0.0347**	**0.5127**	**0.4353**	**1.5200e-003**	**0.0706**	**7.7200e-003**	**0.0783**	**0.0183**	**7.1000e-003**	**0.0254**	**0.0000**	**135.1212**	**135.1212**	**1.0800e-003**	**0.0000**	**135.1438**

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					0.0627	0.0000	0.0627	0.0330	0.0000	0.0330	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0208	0.2163	0.1533	1.8000e-004		0.0115	0.0115		0.0106	0.0106	0.0000	16.0481	16.0481	5.0000e-003	0.0000	16.1530
Total	**0.0208**	**0.2163**	**0.1533**	**1.8000e-004**	**0.0627**	**0.0115**	**0.0742**	**0.0330**	**0.0106**	**0.0435**	**0.0000**	**16.0481**	**16.0481**	**5.0000e-003**	**0.0000**	**16.1530**

3.3 Grading - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0344	0.5121	0.4299	1.5100e-003	0.0695	7.7100e-003	0.0772	0.0181	7.0900e-003	0.0251	0.0000	134.1297	134.1297	1.0300e-003	0.0000	134.1512
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5000e-004	5.2000e-004	5.4400e-003	1.0000e-005	1.1000e-003	1.0000e-005	1.1100e-003	2.9000e-004	1.0000e-005	3.0000e-004	0.0000	0.9915	0.9915	5.0000e-005	0.0000	0.9926
Total	**0.0347**	**0.5127**	**0.4353**	**1.5200e-003**	**0.0706**	**7.7200e-003**	**0.0783**	**0.0183**	**7.1000e-003**	**0.0254**	**0.0000**	**135.1212**	**135.1212**	**1.0800e-003**	**0.0000**	**135.1438**

3.4 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3048	2.0434	1.6326	2.5900e-003		0.1243	0.1243		0.1200	0.1200	0.0000	216.3879	216.3879	0.0435	0.0000	217.3003
Total	**0.3048**	**2.0434**	**1.6326**	**2.5900e-003**		**0.1243**	**0.1243**		**0.1200**	**0.1200**	**0.0000**	**216.3879**	**216.3879**	**0.0435**	**0.0000**	**217.3003**

3.4 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0545	0.5423	0.7642	1.5500e-003	0.0435	8.1600e-003	0.0516	0.0124	7.5100e-003	0.0199	0.0000	136.4079	136.4079	1.0100e-003	0.0000	136.4291
Worker	0.0584	0.0872	0.9053	2.3200e-003	0.1823	1.6300e-003	0.1840	0.0484	1.5100e-003	0.0499	0.0000	164.9639	164.9639	8.6700e-003	0.0000	165.1460
Total	**0.1129**	**0.6295**	**1.6695**	**3.8700e-003**	**0.2258**	**9.7900e-003**	**0.2356**	**0.0608**	**9.0200e-003**	**0.0698**	**0.0000**	**301.3718**	**301.3718**	**9.6800e-003**	**0.0000**	**301.5751**

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	0.3048	2.0434	1.6326	2.5900e-003		0.1243	0.1243		0.1200	0.1200	0.0000	216.3876	216.3876	0.0435	0.0000	217.3001
Total	**0.3048**	**2.0434**	**1.6326**	**2.5900e-003**		**0.1243**	**0.1243**		**0.1200**	**0.1200**	**0.0000**	**216.3876**	**216.3876**	**0.0435**	**0.0000**	**217.3001**

3.4 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0545	0.5423	0.7642	1.5500e-003	0.0435	8.1600e-003	0.0516	0.0124	7.5100e-003	0.0199	0.0000	136.4079	136.4079	1.0100e-003	0.0000	136.4291
Worker	0.0584	0.0872	0.9053	2.3200e-003	0.1823	1.6300e-003	0.1840	0.0484	1.5100e-003	0.0499	0.0000	164.9639	164.9639	8.6700e-003	0.0000	165.1460
Total	**0.1129**	**0.6295**	**1.6695**	**3.8700e-003**	**0.2258**	**9.7900e-003**	**0.2356**	**0.0608**	**9.0200e-003**	**0.0698**	**0.0000**	**301.3718**	**301.3718**	**9.6800e-003**	**0.0000**	**301.5751**

3.4 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1053	0.7385	0.6254	1.0200e-003		0.0424	0.0424		0.0410	0.0410	0.0000	84.7373	84.7373	0.0162	0.0000	85.0783
Total	**0.1053**	**0.7385**	**0.6254**	**1.0200e-003**		**0.0424**	**0.0424**		**0.0410**	**0.0410**	**0.0000**	**84.7373**	**84.7373**	**0.0162**	**0.0000**	**85.0783**

3.4 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0204	0.1971	0.2912	6.1000e-004	0.0171	3.0600e-003	0.0202	4.8800e-003	2.8100e-003	7.7000e-003	0.0000	52.6505	52.6505	3.9000e-004	0.0000	52.6587
Worker	0.0211	0.0315	0.3269	9.1000e-004	0.0719	6.3000e-004	0.0725	0.0191	5.8000e-004	0.0197	0.0000	62.4569	62.4569	3.1900e-003	0.0000	62.5240
Total	**0.0415**	**0.2286**	**0.6181**	**1.5200e-003**	**0.0890**	**3.6900e-003**	**0.0927**	**0.0240**	**3.3900e-003**	**0.0274**	**0.0000**	**115.1074**	**115.1074**	**3.5800e-003**	**0.0000**	**115.1827**

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	0.1053	0.7385	0.6254	1.0200e-003		0.0424	0.0424		0.0410	0.0410	0.0000	84.7372	84.7372	0.0162	0.0000	85.0782
Total	**0.1053**	**0.7385**	**0.6254**	**1.0200e-003**		**0.0424**	**0.0424**		**0.0410**	**0.0410**	**0.0000**	**84.7372**	**84.7372**	**0.0162**	**0.0000**	**85.0782**

3.4 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0204	0.1971	0.2912	6.1000e-004	0.0171	3.0600e-003	0.0202	4.8800e-003	2.8100e-003	7.7000e-003	0.0000	52.6505	52.6505	3.9000e-004	0.0000	52.6587
Worker	0.0211	0.0315	0.3269	9.1000e-004	0.0719	6.3000e-004	0.0725	0.0191	5.8000e-004	0.0197	0.0000	62.4569	62.4569	3.1900e-003	0.0000	62.5240
Total	**0.0415**	**0.2286**	**0.6181**	**1.5200e-003**	**0.0890**	**3.6900e-003**	**0.0927**	**0.0240**	**3.3900e-003**	**0.0274**	**0.0000**	**115.1074**	**115.1074**	**3.5800e-003**	**0.0000**	**115.1827**

3.5 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0299	0.3032	0.2942	4.5000e-004		0.0173	0.0173		0.0159	0.0159	0.0000	39.6768	39.6768	0.0123	0.0000	39.9352
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0299**	**0.3032**	**0.2942**	**4.5000e-004**		**0.0173**	**0.0173**		**0.0159**	**0.0159**	**0.0000**	**39.6768**	**39.6768**	**0.0123**	**0.0000**	**39.9352**

3.5 Paving - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4000e-003	2.0900e-003	0.0217	6.0000e-005	4.7700e-003	4.0000e-005	4.8100e-003	1.2700e-003	4.0000e-005	1.3100e-003	0.0000	4.1486	4.1486	2.1000e-004	0.0000	4.1530
Total	**1.4000e-003**	**2.0900e-003**	**0.0217**	**6.0000e-005**	**4.7700e-003**	**4.0000e-005**	**4.8100e-003**	**1.2700e-003**	**4.0000e-005**	**1.3100e-003**	**0.0000**	**4.1486**	**4.1486**	**2.1000e-004**	**0.0000**	**4.1530**

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	0.0299	0.3032	0.2942	4.5000e-004		0.0173	0.0173		0.0159	0.0159	0.0000	39.6767	39.6767	0.0123	0.0000	39.9352
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0299**	**0.3032**	**0.2942**	**4.5000e-004**		**0.0173**	**0.0173**		**0.0159**	**0.0159**	**0.0000**	**39.6767**	**39.6767**	**0.0123**	**0.0000**	**39.9352**

3.5 Paving - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4000e-003	2.0900e-003	0.0217	6.0000e-005	4.7700e-003	4.0000e-005	4.8100e-003	1.2700e-003	4.0000e-005	1.3100e-003	0.0000	4.1486	4.1486	2.1000e-004	0.0000	4.1530
Total	**1.4000e-003**	**2.0900e-003**	**0.0217**	**6.0000e-005**	**4.7700e-003**	**4.0000e-005**	**4.8100e-003**	**1.2700e-003**	**4.0000e-005**	**1.3100e-003**	**0.0000**	**4.1486**	**4.1486**	**2.1000e-004**	**0.0000**	**4.1530**

3.6 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.8438					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6600e-003	0.0459	0.0460	7.0000e-005		3.2200e-003	3.2200e-003		3.2200e-003	3.2200e-003	0.0000	6.3831	6.3831	5.4000e-004	0.0000	6.3945
Total	**0.8505**	**0.0459**	**0.0460**	**7.0000e-005**		**3.2200e-003**	**3.2200e-003**		**3.2200e-003**	**3.2200e-003**	**0.0000**	**6.3831**	**6.3831**	**5.4000e-004**	**0.0000**	**6.3945**

3.6 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2500e-003	3.3600e-003	0.0349	1.0000e-004	7.6700e-003	7.0000e-005	7.7400e-003	2.0400e-003	6.0000e-005	2.1000e-003	0.0000	6.6682	6.6682	3.4000e-004	0.0000	6.6753
Total	**2.2500e-003**	**3.3600e-003**	**0.0349**	**1.0000e-004**	**7.6700e-003**	**7.0000e-005**	**7.7400e-003**	**2.0400e-003**	**6.0000e-005**	**2.1000e-003**	**0.0000**	**6.6682**	**6.6682**	**3.4000e-004**	**0.0000**	**6.6753**

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	0.8438					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6600e-003	0.0459	0.0460	7.0000e-005		3.2200e-003	3.2200e-003		3.2200e-003	3.2200e-003	0.0000	6.3831	6.3831	5.4000e-004	0.0000	6.3945
Total	**0.8505**	**0.0459**	**0.0460**	**7.0000e-005**		**3.2200e-003**	**3.2200e-003**		**3.2200e-003**	**3.2200e-003**	**0.0000**	**6.3831**	**6.3831**	**5.4000e-004**	**0.0000**	**6.3945**

3.6 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2500e-003	3.3600e-003	0.0349	1.0000e-004	7.6700e-003	7.0000e-005	7.7400e-003	2.0400e-003	6.0000e-005	2.1000e-003	0.0000	6.6682	6.6682	3.4000e-004	0.0000	6.6753
Total	**2.2500e-003**	**3.3600e-003**	**0.0349**	**1.0000e-004**	**7.6700e-003**	**7.0000e-005**	**7.7400e-003**	**2.0400e-003**	**6.0000e-005**	**2.1000e-003**	**0.0000**	**6.6682**	**6.6682**	**3.4000e-004**	**0.0000**	**6.6753**

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	0.8085	2.5213	9.4433	0.0267	1.7734	0.0381	1.8115	0.4750	0.0351	0.5101	0.0000	1,946.7221	1,946.7221	0.0739	0.0000	1,948.2729
Unmitigated	0.8085	2.5213	9.4433	0.0267	1.7734	0.0381	1.8115	0.4750	0.0351	0.5101	0.0000	1,946.7221	1,946.7221	0.0739	0.0000	1,948.2729

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	1,952.10	285.59	118.09	4,677,642	4,677,642
Total	1,952.10	285.59	118.09	4,677,642	4,677,642

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
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.530902	0.057841	0.178699	0.124790	0.039063	0.006298	0.016951	0.033908	0.002496	0.003149	0.003689	0.000536	0.001678

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive 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	890.5016	890.5016	0.0409	8.4700e-003	893.9866
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,008.4733	1,008.4733	0.0464	9.5900e-003	1,012.4200
NaturalGas Mitigated	4.7600e-003	0.0433	0.0364	2.6000e-004		3.2900e-003	3.2900e-003		3.2900e-003	3.2900e-003	0.0000	47.1344	47.1344	9.0000e-004	8.6000e-004	47.4212
NaturalGas Unmitigated	6.2300e-003	0.0567	0.0476	3.4000e-004		4.3100e-003	4.3100e-003		4.3100e-003	4.3100e-003	0.0000	61.6670	61.6670	1.1800e-003	1.1300e-003	62.0422

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					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	1.1556e+006	6.2300e-003	0.0567	0.0476	3.4000e-004		4.3100e-003	4.3100e-003		4.3100e-003	4.3100e-003	0.0000	61.6670	61.6670	1.1800e-003	1.1300e-003	62.0422
Total		**6.2300e-003**	**0.0567**	**0.0476**	**3.4000e-004**		**4.3100e-003**	**4.3100e-003**		**4.3100e-003**	**4.3100e-003**	**0.0000**	**61.6670**	**61.6670**	**1.1800e-003**	**1.1300e-003**	**62.0422**

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					
General Office Building	883265	4.7600e-003	0.0433	0.0364	2.6000e-004		3.2900e-003	3.2900e-003		3.2900e-003	3.2900e-003	0.0000	47.1344	47.1344	9.0000e-004	8.6000e-004	47.4212
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**4.7600e-003**	**0.0433**	**0.0364**	**2.6000e-004**		**3.2900e-003**	**3.2900e-003**		**3.2900e-003**	**3.2900e-003**	**0.0000**	**47.1344**	**47.1344**	**9.0000e-004**	**8.6000e-004**	**47.4212**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	1.64186e+006	469.8471	0.0216	4.4700e-003	471.6859
General Office Building	1.88221e+006	538.6262	0.0248	5.1200e-003	540.7341
Total		**1,008.4733**	**0.0464**	**9.5900e-003**	**1,012.4200**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	1.40314e+006	401.5311	0.0185	3.8200e-003	403.1025
General Office Building	1.70869e+006	488.9705	0.0225	4.6500e-003	490.8841
Total		**890.5016**	**0.0409**	**8.4700e-003**	**893.9866**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.4010	9.0000e-005	9.4000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0181	0.0181	5.0000e-005	0.0000	0.0191
Unmitigated	1.6541	9.0000e-005	9.4000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0181	0.0181	5.0000e-005	0.0000	0.0191

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	0.3375					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.3157					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.9000e-004	9.0000e-005	9.4000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0181	0.0181	5.0000e-005	0.0000	0.0191
Total	**1.6541**	**9.0000e-005**	**9.4000e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0181**	**0.0181**	**5.0000e-005**	**0.0000**	**0.0191**

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	0.0844					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.3157					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.9000e-004	9.0000e-005	9.4000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0181	0.0181	5.0000e-005	0.0000	0.0191
Total	**1.4010**	**9.0000e-005**	**9.4000e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0181**	**0.0181**	**5.0000e-005**	**0.0000**	**0.0191**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	128.3311	0.7033	0.0176	148.5595
Unmitigated	128.3311	0.7035	0.0176	148.5703

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	21.4169 / 13.1265	128.3311	0.7035	0.0176	148.5703
Total		**128.3311**	**0.7035**	**0.0176**	**148.5703**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	21.4169 / 13.1265	128.3311	0.7033	0.0176	148.5595
Total		**128.3311**	**0.7033**	**0.0176**	**148.5595**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	11.3746	0.6722	0.0000	25.4912
Unmitigated	22.7492	1.3444	0.0000	50.9824

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	112.07	22.7492	1.3444	0.0000	50.9824
Total		**22.7492**	**1.3444**	**0.0000**	**50.9824**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	56.035	11.3746	0.6722	0.0000	25.4912
Total		**11.3746**	**0.6722**	**0.0000**	**25.4912**

9.0 Operational Offroad

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

10.0 Vegetation