Greenhouse Gas Analysis for the Lotus Ranch Project, City of El Centro, California

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Acronyms

AB	Assembly Bill
APN	Assessor's Parcel Number
BAU	Business as usual
CAFE	Corporate Average Fuel Economy
CalEEMod	California Emissions Estimator Model
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CEQA	California Environmental Quality Act
CH_4	methane
CO_2	carbon dioxide
EO	Executive Order
EPA	Environmental Protection Agency
GHG	Greenhouse Gas
GWP	global warming potential
LCFS	Low Carbon Fuel Standard
$MMTCO_2E$	million metric tons of CO_2 equivalent
mpg	miles per gallon
$MTCO_2E$	metric tons of CO_2 equivalent
N_2O	nitrous oxide
RPS	Renewables Portfolio Standard
Title 24	California Code of Regulations, Title 24 (i.e., California Building Code)
CalGreen	California Green Building Standards
NAT	no action taken
I-8	Interstate 8

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Executive Summary

This report evaluates potential greenhouse gas (GHG) impacts associated with the Lotus Ranch Project (project) in El Centro, California. The project would construct 617 single-family residences and two parks, consisting of 5.8 acres each, on a 213-acre site. Projects with significant GHG impacts as defined under the California Environmental Quality Act (CEQA) are required to undergo thorough review and implement mitigation measures where feasible.

The City of El Centro has not adopted thresholds for evaluating the significance of GHG impacts. This analysis assesses the significance of the project's GHG emissions based on consistency with Assembly Bill 32 (AB 32) by comparing the project's GHG emissions, as proposed, to the project's GHG emissions if it were built using a business as usual (BAU) or no action taken (NAT) approach. If the difference between the project's emissions as proposed, and the project's emissions under a California Air Resources Board (CARB) 2020 NAT scenario, is at least the difference that has been determined by CARB as necessary to meet AB 32's goals in the Scoping Plan; then the project can be determined to be consistent with AB 32 and thus not significant for purposes of CEQA. This analysis conservatively utilizes the original, 28.3 percent reduction from a NAT scenario as identified in the 2008 Scoping Plan as the point of comparison for purposes of assessing the project's significance.

Emissions estimates in this report incorporate project compliance with applicable regulations, including the 2013 Title 24 Part 6 (California Energy Code) and Part 11 (California Green Building Standards) requirements, as well as statewide implementation of laws and regulations aimed at reducing vehicle emissions. As detailed in this analysis, the project would result in 8,087 metric tons of carbon dioxide (CO_2) equivalent ($MTCO_2E$) annually. Business as usual (BAU) emissions that would occur in the absence of project design features and new laws and regulations aimed at reducing GHG emissions would total 11,396 $MTCO_2E$ annually. The project's emissions would be an approximate 29.0 percent reduction over BAU. The level of impacts associated with the project's contribution of GHGs to cumulative statewide emissions would therefore be less than significant. Additionally, the project is consistent with the goals and strategies of state Climate Change Plans, policies, and regulations aimed at reducing GHG emissions from land use and development, and impacts to these plans, policies, and regulations would be less than significant.

1.0 Introduction

This report evaluates the significance of greenhouse gas (GHG) emissions associated with the Lotus Ranch Project (project) in El Centro, California. To evaluate the incremental effect of project development on statewide emissions and global climate change, it is important to have a basic understanding of the nature of the global climate change problem.

1.1 Understanding Global Climate Change

Global climate change is a change in the average weather of Earth, which can be measured by wind patterns, storms, precipitation, and temperature. Earth's climate is in a state of constant flux with periodic warming and cooling cycles. Extreme periods of cooling are termed "ice ages," which may then be followed by extended periods of warmth. For most of Earth's geologic history, these periods of warming and cooling have been the result of many complicated interacting natural factors that include: volcanic eruptions that spew gases and particles (dust) into the atmosphere; the amount of water, vegetation, and ice covering Earth's surface; subtle changes in Earth's orbit; and the amount of energy released by the sun (sun cycles). However, since the beginning of the Industrial Revolution around 1760, Earth's average temperature has been increasing at a rate that is faster than can be explained by natural climate cycles alone.

With the Industrial Revolution came an increase in the combustion of carbon-based fuels such as wood, coal, oil, natural gas, and biomass. Industrial processes have also created emissions of substances not found in nature. This in turn has led to a marked increase in the emissions of gases shown to influence the world's climate. These gases, termed "greenhouse" gases, influence the amount of heat trapped in Earth's atmosphere. Because recently observed increased concentrations of GHGs in the atmosphere are related to increased emissions resulting from human activity, the current cycle of "global warming" is generally believed to be largely due to human activity. Of late, the issue of global warming or global climate change has arguably become the most important and widely debated environmental issue in the United States and the world. Because it is the collective of human actions taking place throughout the world that contributes to climate change, it is quintessentially a global or cumulative issue.

1.2 Greenhouse Gases of Primary Concern

There are numerous GHGs, both naturally occurring and manmade. Table 1 summarizes some of the most common. Each GHG has variable atmospheric lifetime and global warming potential (GWP).

TABLE 1
GLOBAL WARMING POTENTIALS (GWPs) AND ATMOSPHERIC LIFETIMES (YEARS)

Gas	Atmospheric Lifetime	100-year GWP	20-year GWP	500-year GWP
Carbon dioxide (CO_2)	50–200	1	1	1
Methane (CH_4)*	12	25	72	7.6
Nitrous oxide (N_2O)	114	298	289	153
HFC-23	270	14,800	12,000	12,200
HFC-32	4.9	675	2,330	205
HFC-125	29	3,500	6,350	1,100
HFC-134a	14	1,430	3,830	435
HFC-143a	52	4,470	5,890	1,590
HFC-152a	1.4	124	437	38
HFC-227ea	34.2	3,220	5,310	1,040
HFC-236fa	240	9,810	8,100	7,660
HFC-43-10mee	15.9	1,640	4,140	500
CF_4	50,000	7,390	5,210	11,200
C_2F_6	10,000	12,200	8,630	18,200
C_3F_8	2,600	8,830	6,310	12,500
C_4F_{10}	2,600	8,860	6,330	12,500
c-C_4F_8	3,200	10,300	7,310	14,700
C_5F_{12}	4,100	9,160	6,510	13,300
C_6F_{14}	3,200	9,300	6,600	13,300
SF_6	3,200	22,800	16,300	32,600

SOURCE: Intergovernmental Panel on Climate Change 2007
GWP = global warming potential
* The methane GWP includes the direct effects and those indirect effects due to the production of tropospheric ozone and stratospheric water vapor. The indirect effect due to the production of CO_2 is not included.

The atmospheric lifetime of the GHG is the average time a molecule stays stable in the atmosphere. Most GHGs have long atmospheric lifetimes, staying in the atmosphere hundreds or thousands of years. The potential of a gas to trap heat and warm the atmosphere is measured by its GWP. Specifically, GWP is defined as (U.S. Environmental Protection Agency [EPA] 2010):

> The cumulative radiative forcing—both direct and indirect effects—integrated over a period of time from the emission of a unit mass of gas relative to some reference gas.

The reference gas for establishing GWP is carbon dioxide (CO_2), which has a GWP of 1. As an example, methane (CH_4), while having a shorter atmospheric lifetime than CO_2, has a 100-year GWP of 25, which means that it has a greater global warming effect than CO_2 on a molecule-by-molecule basis.

All of the gases in Table 1 are produced by both biogenic (natural) and anthropogenic (human) sources. These are the GHGs of primary concern in this analysis. CO_2 would be emitted by the project due to the combustion of fossil fuels in vehicles (including

construction), from electricity generation and natural gas consumption, water use, and from solid waste disposal. Smaller amounts of CH_4 and nitrous oxide (N_2O) would be emitted from the same project operations.

2.0 Project Description

The project would be developed on 213 acres of undeveloped land south of Interstate 8 (I-8). The project includes the construction of 617 single-family residential units, two parks consisting of 5.8 acres each, and off-site improvements to serve the project. The project would require an Annexation from Imperial County to the City of El Centro (City), Pre-Zone (Low Density Residential), Vesting Tentative Map, and Development Agreement.

The project would be constructed in three phases. Phase 1 would construct 158 single-family residential units and a 5.8-acre park, Phase 2 would construct 240 single-family residential units, and Phase 3 would construct 219 single-family residential units and a 5.8-acre park.

Figure 1 shows the regional location of the project. Figure 2 shows an aerial photograph of the project site and vicinity. Figure 3 shows the tentative subdivision map.

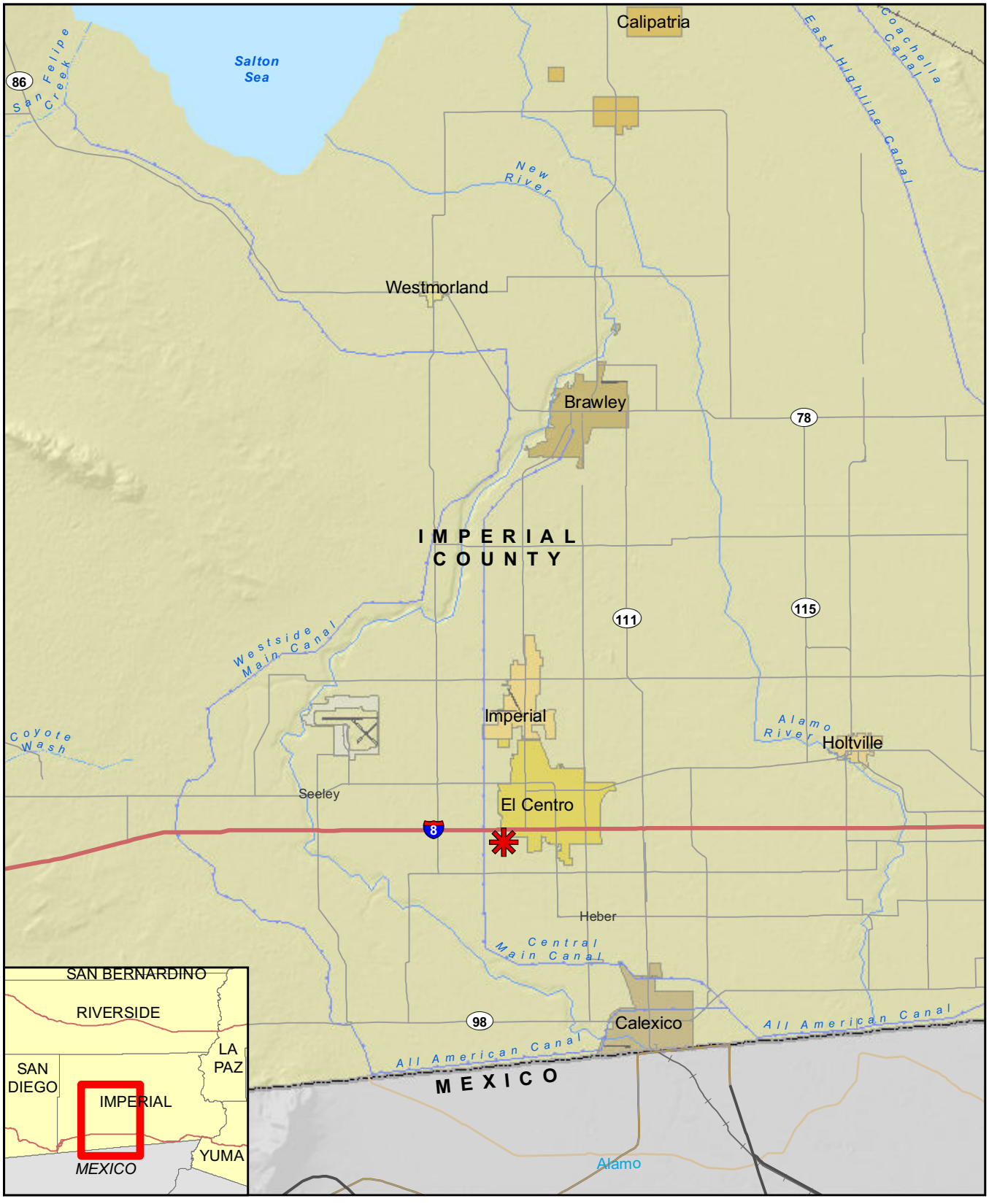
The surrounding land uses consist of I-8, Southwest High School, and rural residences to the north; agricultural land (specifically hay storage yard/cattle feed yard) to the south; the Farmer Estates Subdivision, which includes single-family homes, and agricultural land to the east; and agricultural land to the west.

3.0 Existing Conditions

3.1 Environmental Setting

3.1.1 State and Regional GHG Inventories

The California Air Resources Board (CARB) performs statewide GHG inventories. The inventory is divided into nine broad sectors of economic activity: agriculture, commercial, electricity generation, forestry, high GWP emitters, industrial, recycling and waste, residential, and transportation. Emissions are quantified in million metric tons of CO_2 equivalent ($MMTCO_2E$). Table 2 shows the estimated statewide GHG emissions for the years 1990, 2008 and 2011.



Project Location

FIGURE 1

Regional Location

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FIGURE 2

Aerial Photograph of Project Site and Vicinity

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Image source: G-MAC Development (2014)

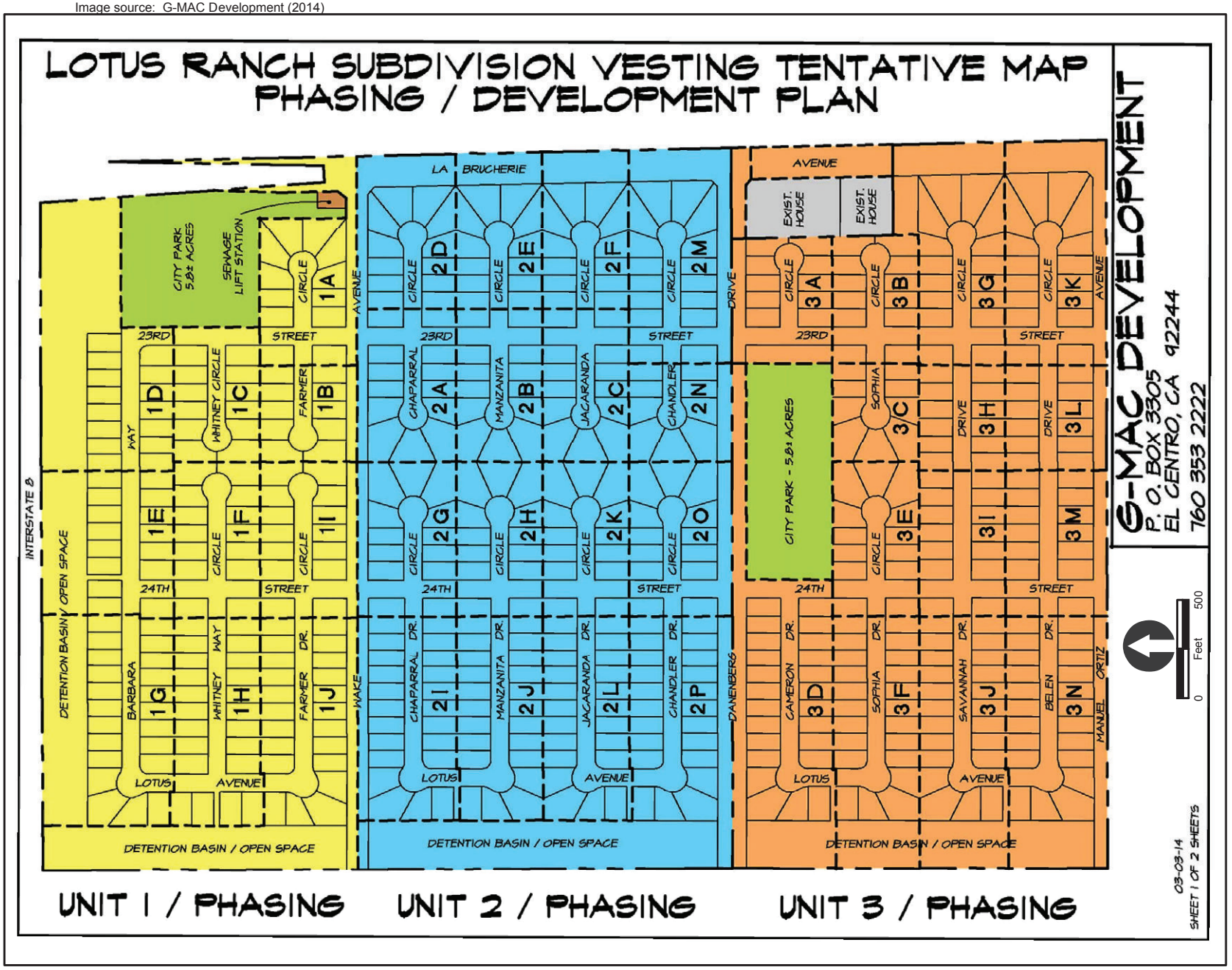

FIGURE 4

Tentative Subdivision Map

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TABLE 2
CALIFORNIA GHG EMISSIONS BY SECTOR IN 1990, 2008, AND 2011

Sector	1990[1] Emissions in $MMTCO_2E$ (% total)[2]	2008[3] Emissions in $MMTCO_2E$ (% total)[2]	2011 Emissions in $MMTCO_2E$ (% total)[2]
Sources			
Agriculture	23.4 (5%)	33.88 (7%)	32.24 (7%)
Commercial	14.4 (3%)	15.56 (3%)	15.62 (3%)
Electricity Generation	110.6 (26%)	120.14 (25%)	86.57 (19%)
High GWP	–	11.48 (2%)	15.17 (3%)
Industrial	103.0 (24%)	89.27 (18%)	93.24 (21%)
Recycling and Waste	–	6.69 (1%)	7.0 (2%)
Residential	29.7 (7%)	29.03 (6%)	29.85 (7%)
Transportation	150.7 (35%)	177.16 (37%)	168.42 (38%)
Forestry (Net CO_2 flux)	-6.69	–	–
Not Specified	1.27	–	–
TOTAL	**426.6**	**483.22**	**448.11**

SOURCE: California Energy Commission 2014, CARB 2007, CARB 2013
[1] 1990 data was retrieved from the CARB 2007 source.
[2] Percentages may not total 100 due to rounding.
[3] 2008 and 2011 data was retrieved from the CARB 2013 source.
[4] Reported emissions for key sectors. The inventory totals for 2008 and 2011 did not include Forestry or Not Specified sources.

As shown in Table 2, statewide GHG source emissions totaled 427 $MMTCO_2E$ in 1990, 483 $MMTCO_2E$ in 2008, and 448 $MMTCO_2E$ in 2011. Many factors affect year-to-year changes in GHG emissions, including economic activity, demographic influences, environmental conditions such as drought, and the impact of regulatory efforts to control GHG emissions. While CARB has adopted multiple GHG emission reduction measures, the effect of those reductions will not be seen until around 2015. According to CARB, most of the reductions since 2008 have been driven by economic factors (recession), previous energy efficiency actions, and the renewable portfolio standard (CARB 2013). Transportation-related emissions consistently contribute the most GHG emissions, followed by electricity generation and industrial emissions.

The forestry sector is unique because it not only includes emissions associated with harvest, fire, and land use conversion (sources), but also includes removals of atmospheric CO_2 (sinks) by photosynthesis, which is then bound (sequestered) in plant tissues.

3.1.2 On-Site GHG Emissions Sources

The project site is currently undeveloped and is not a source of GHG emissions.

3.2 Regulatory Background

In response to rising concern associated with increasing GHG emissions and global climate change impacts, several plans and regulations have been adopted at the international, national, and state levels with the aim of reducing GHG emissions. The following is a discussion of the federal, state, and local plans and regulations most applicable to the project.

3.2.1 Federal

The federal government, U.S. EPA, and other federal agencies have many federal level programs and projects to reduce GHG emissions.

3.2.1.1 Environmental Protection Agency

The U.S. EPA has many federal level programs and projects to reduce GHG emissions. The U.S. EPA provides technical expertise and encourages voluntary reductions from the private sector. One of the voluntary programs applicable to the proposed project is the Energy Star program.

Energy Star is a joint program of U.S. EPA and the U.S. Department of Energy, which promotes energy-efficient products and practices. Tools and initiatives include the Energy Star Portfolio Manager, which helps track and assess energy and water consumption across an entire portfolio of buildings, and the Energy Star Most Efficient 2013, which provides information on exceptional products that represent the leading edge in energy-efficient products in the year 2013 (U.S. EPA 2013).

The U.S. EPA also partners with the public sector, including states, tribes, localities, and resource managers, to encourage smart growth, sustainability preparation, and renewable energy and climate change preparation. These initiatives include the Clean Energy–Environment State Partnership Program, the Climate Ready Water Utilities Initiative, the Climate Ready Estuaries Program, and the Sustainable Communities Partnership (U.S. EPA 2014).

3.2.1.2 Corporate Average Fuel Economy Standards

The project would generate vehicle trips. These vehicles would consume fuel and would result in GHG emissions. The federal Corporate Average Fuel Economy (CAFE) standards determine the fuel efficiency of certain vehicle classes in the U.S. While the standards had not changed since 1990, as part of the Energy and Security Act of 2007, the CAFE standards were increased in 2007 for new light-duty vehicles to 35 miles per gallon (mpg) by 2020. In May 2009, plans were announced to further increase CAFE standards to require light-duty vehicles to meet an average fuel economy of 35.5 mpg by

2016. In August 2012, fuel economy standards were further increased to 54.5 mpg for cars and light-duty trucks by Model Year 2025. This will nearly double the fuel efficiency of those vehicles compared to new vehicles currently on our roads. With improved gas mileage, fewer gallons of transportation fuel would be combusted to travel the same distance, thereby reducing nationwide GHG emissions associated with vehicle travel.

3.2.2 State

The State of California has adopted a number of plans and regulations aimed at identifying statewide and regional GHG emissions caps, GHG emissions reduction targets, and actions and timelines to achieve the target GHG reductions.

3.2.2.1 Executive Order S-3-05—Statewide GHG Emission Targets

Executive order (EO) S-3-05 established the following GHG emission reduction targets for the State of California:

- by 2010, reduce GHG emissions to 2000 levels;
- by 2020, reduce GHG emissions to 1990 levels;
- by 2050, reduce GHG emissions to 80 percent below 1990 levels.

This EO also directs the Secretary of the California EPA to oversee the efforts made to reach these targets, and to prepare biannual reports on the progress made toward meeting the targets and on the impacts to California related to global warming, including impacts to water supply, public health, agriculture, the coastline, and forestry. With regard to impacts, the report shall also prepare and report on mitigation and adaptation plans to combat the impacts. The first Climate Action Team Assessment Report was produced in March 2006 and has been updated every two years.

3.2.2.2 Assembly Bill 32—California Global Warming Solutions Act

In response to EO S-3-05, the California legislature passed Assembly Bill (AB) 32 (Nuñez), the “California Global Warming Solutions Act of 2006.” AB 32 codified the 2020 emission reduction target from EO S-3-05 and required CARB to adopt rules and regulations that would reduce GHG emissions to 1990 levels by 2020. CARB is also required to publish a list of discrete GHG emission reduction measures.

3.2.2.3 Climate Change Scoping Plan

The CARB Scoping Plan was originally developed in December 2008 in response to AB 32. The plan outlines measures to reduce statewide GHG emissions to 1990 levels by 2020. This reduction was estimated to equate to a 28.3 percent reduction from the BAU 2020 emission levels.

The key elements of the Scoping Plan include:

- Expanding and strengthening existing energy efficiency programs, as well as building and appliance standards.
- Achieving a statewide renewable 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.
- Adopt and implement measures pursuant to existing State laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard ("LCFS").
- 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.

Approved in May 2014, the First Update to the Scoping Plan (CARB 2014) defines CARB's priorities for the next five years and sets the groundwork to reach long-term goals set forth in EO S-3-05. A stated goal of the update is to lay the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050. The update revises 2020 BAU forecasts from 596 $MMTCO_2E$ to 509 $MMTCO_2E$, based on economic downturn. This, in turn, changes the BAU reduction target from 28.3 percent to 16.1 percent. The update describes advancements in climate science such as the quantification of the impacts of temperature change, further understanding of the mechanisms of climate pollutants (black carbon, methane, and hydrofluorocarbons), and improvements to GHG monitoring. The First Update also describes progress made since the original Scoping Plan including implementation of a more comprehensive Cap-and-Trade Program, LCFS, a 33 percent Renewable Portfolio Standard, and Advanced Clean Cars program, which has been adopted at the federal level.

3.2.2.4 Transportation-related Emissions Reductions

The project would generate vehicle trips, resulting in transportation-related GHG emissions. Transportation accounts for the largest share of the state's GHG emissions. Accordingly, a large share of the reduction of GHG emissions from the recommended measures addresses this sector. CARB's method is a comprehensive, three-prong strategy: reducing GHG emissions from vehicles, reducing the carbon content of the fuel these vehicles burn, and reducing the miles these vehicles travel.

a. AB 1493—Pavley GHG Vehicle Standards

AB 1493 (Pavley) directed CARB to adopt vehicle standards that lowered GHG emissions from passenger vehicles and light-duty trucks to the maximum extent technologically feasible, beginning with the 2009 model year. CARB has adopted amendments to its regulations that would enforce AB 1493 but provide vehicle manufacturers with new compliance flexibility. Pavley standards are currently divided into two phases. Standards that regulate vehicles model years 2009 through 2016 are termed "Pavley I", standards for model years 2017 through 2025 were originally termed "Pavley II".

With these actions, it is expected that Pavley I and Advanced Clean Cars will reduce GHG emissions from California passenger vehicles by a total of 31.5 $MMTCO_2E$ (or 22 percent, including 2.7 percent from Advanced Clean Cars) counted toward the total pre-economic downturn statewide reduction target on the capped sector of 146.7 $MMTCO_2E$ (CARB 2012; see Table 3).

CARB adopted a second phase of the Pavley regulations, termed "Pavley II," which are now called the Low Emission Vehicle III (LEV III) Standards. LEV III covers model years 2017 to 2025. These reductions are to come from improved vehicle technologies such as small engines with superchargers, continuously variable transmissions, and hybrid electric drives.

TABLE 3
CARB SCOPING PLAN – RECOMMENDED GHG REDUCTION MEASURES

Recommended Reduction Measures	Reductions Counted Towards 2020 Target In $MMTCO_2E$	(% total) [2]
ESTIMATED REDUCTIONS RESULTING FROM THE COMBINATION OF CAPPED SECTORS AND COMPLEMENTARY MEASURES	**146.7**	
California Light-duty Vehicle Greenhouse Gas Standards • Implement Pavley Standards • Develop LEV III light-duty vehicle standards	31.7	(22%)
Energy Efficiency • Building/appliance efficiency, new programs, etc. • Increase combined heat and power generation by 30,000 gigaWatts (GWh) • Solar Water Heating (AB 1470 goal)	26.3	(18%)
Renewables Portfolio Standard (RPS) (33% by 2020)	21.3	(14%)
Low Carbon Fuel Standard	15.0	(10%)
Regional Transportation-related GHG Targets[1]	5.0	(4%)
Vehicle Efficiency Measures	4.5	(3%)
Goods Movement • Ship Electrification at Ports • System-wide Efficiency Improvements	3.7	(3%)
Million Solar Roofs	2.1	(2%)
Medium/Heavy Duty Trucks • Heavy-duty Vehicle Greenhouse Gas Emissions Reduction (Aerodynamic Efficiency) • Medium- and Heavy-duty Vehicle Hybridization	1.4	(<1%)
High Speed Rail	1.0	(<1%)
Industrial Measures (for sources covered under cap & trade program) • Refinery Measures • Energy Efficiency and Co-Benefits Audits	0.3	(<.5%)
Additional Reductions Necessary to Achieve the Cap	34.4	(23%)
ESTIMATED REDUCTIONS RESULTING FROM UNCAPPED SECTORS	**27.3**	
Industrial Measures (for sources not covered under cap & trade program) • Oil and Gas Extraction and Transmission	1.1	
High Global Warming Potential Gas Measures	20.2	
Sustainable Forests	5.0	
Recycling and Waste (landfill methane capture)	1.0	
TOTAL REDUCTIONS COUNTED TOWARDS 2020 TARGET	**174.0**[3]	

SOURCE: Table 2 of CARB 2008.

[1] This number represents an estimate of what may be achieved from local land use changes. It is not the Senate Bill 375 regional target. CARB will establish regional targets for each Metropolitan Planning Organization following input of the Regional Targets Advisory Committee and a public stakeholders' consultation process per Senate Bill 375.

[2] Percentages are relative to the capped sector subtotal of 146.7 MMTCO2E, and may not total 100 due to rounding.

[3] The total reduction for the recommended measures slightly exceeds the 169 MMTCO2E of reductions estimated in the BAU 2020 Emissions Forecast. This is the net effect of adding several measures and adjusting the emissions reduction estimates for some other measures.

b. EO S-01-07—Low Carbon Fuel Standard

EO S-01-07 directed that a statewide goal be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020 through a LCFS. CARB adopted the LCFS as a discrete early action measure pursuant to AB 32 and includes the LCFS as a reduction measure in its Scoping Plan (see Table 3).

The LCFS is a performance standard with flexible compliance mechanisms intended to incentivize the development of a diverse set of clean low-carbon transportation fuel options. Its aim is to accelerate the availability and diversity of low-carbon fuels such as biofuels, electricity, and hydrogen by taking into consideration the full life cycle of GHG emissions.

c. Regional Transportation-related GHG Targets

The Regional Transportation-related GHG Targets measure included in the Scoping Plan identifies policies to reduce transportation emissions through changes in future land use patterns and community design, as well as through improvements in public transportation that reduce vehicle miles traveled. Improved planning and the resulting development are seen as essential for meeting the 2050 emissions target (CARB 2008). CARB expects that this measure will reduce transportation-related GHG emissions by about 5 $MMTCO_2E$, or 4 percent of the total statewide reductions attributed to the capped sectors (see Table 3).

d. Senate Bill 375—Regional Emissions Targets

Senate Bill 375 requires CARB to set regional targets for reducing passenger vehicle GHG emissions in accordance with the Scoping Plan measure described above. Its purpose is to align regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation to reduce GHG emissions by promoting high-density mixed-use developments around mass transit hubs.

3.2.2.5 Non-transportation-related Emissions Reductions

In the energy sector, Scoping Plan measures aim to provide better information and overcome institutional barriers that slow the adoption of cost-effective energy-efficiency technologies. They include enhanced energy-efficiency programs to provide incentives for customers to purchase and install more efficient products and processes, and building and appliance standards to ensure that manufacturers and builders bring improved products to market. Over the long term, the recommended measures will increase the amount of electricity from renewable energy sources and improve the energy efficiency of industries, homes, and buildings. While energy efficiency accounts for the largest emissions reductions from this sector, other applicable land development measures, such as water conservation, materials use and waste reduction, and green

building design and development practices, achieve additional emissions reduction. The project would result in additional non-transportation-related GHG emissions. The following is a discussion of those applicable to the proposed project.

a. Renewables Portfolio Standard

The Renewable Portfolio Standard (RPS) promotes diversification of the state's electricity supply. Originally adopted with a goal to achieve a 20 percent renewable energy mix by 2020, the goal has been accelerated and increased to a goal of 33 percent by 2020. Renewable energy includes (but is not limited to) wind, solar, geothermal, small hydroelectric, biomass, anaerobic digestion, and landfill gas. Its purpose is to achieve a 33 percent renewable energy mix statewide, providing 33 percent of the state's electricity needs met by renewable resources by 2020 (CARB 2008). The RPS is included in CARB's Scoping Plan list of reduction measures (see Table 3). Increasing the RPS to 33 percent accelerates the transformation of the electricity sector, including investment in the transmission infrastructure and systems changes to allow integration of large quantities of intermittent wind and solar generation. Increased use of renewables would decrease California's reliance on fossil fuels, thus reducing emissions of GHGs from the electricity sector. As part of the 2008 Scoping Plan original estimates, CARB estimated that full achievement of the RPS would decrease statewide GHG emissions by 21.3 $MMTCO_2E$ (CARB 2008).

b. California Code of Regulations, Title 24, Part 6—California Energy Code

New construction and major renovations must demonstrate compliance with the current Energy Code through increases in energy efficiency given selection of various heating, ventilation, and air conditioning; sealing; window glazing; insulation; and other components related to the building envelope. The most recent amendments to the

Energy Code became effective January 1, 2014. The 2013 Energy Code provides mandatory energy-efficiency measures as well as voluntary tiers for increased energy efficiency. The 2013 Energy Code is anticipated to result in 25 to 30 percent energy savings over the 2008 Title 24 standards (California Energy Commission [CEC] 2013).

c. California Code of Regulations, Title 24, Part 11—California Green Building Standards

California Green Building Standards (CalGreen) institutes mandatory minimum environmental performance standards for all ground-up new construction of commercial and low-rise residential buildings, state-owned buildings, schools, and hospitals. These mandatory standards include reduction of indoor water use by 20 percent, diversion of 50 percent of all construction/demolition waste, inspection of energy systems to ensure optimal working efficiency, and requirements for low-pollutant emitting finish materials.

CalGreen also includes voluntary tiers (I and II) with stricter environmental performance standards. Local jurisdictions must enforce the minimum mandatory requirements and may adopt CalGreen with amendments for stricter requirements. The 2013 revisions to CalGreen clarify existing regulation.

3.2.3 Local

The City of El Centro General Plan includes several climate change-related policies aimed at reducing GHG emissions from future development and City operations (City of El Centro 2004). GHG policies are related to public outreach, land use patterns, alternative modes of transportation, energy efficiency, and water conservation. The use of other modes of transportation such as public transit, walking, bicycling, and ridesharing are promoted to reduce the demand for transportation system improvements and to improve air quality. The Conservation/Open Space Element discusses reducing pollutant levels through stationary source, mobile source, transportation and land use control, and energy conservation measures.

4.0 Significance Criteria and Analysis Methodologies

4.1 Determining Significance

The California Environmental Quality Act (CEQA) Guidelines, Appendix G Environmental Checklist, includes the following two questions regarding assessment of GHG emissions:

1) Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

2) Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of GHGs?

As stated in the CEQA Guidelines, these questions are “intended to encourage thoughtful assessment of impacts and do not necessarily represent thresholds of significance” (Title 14, Division 6, Chapter 3 Guidelines for Implementation of the CEQA, Appendix G, VII Greenhouse Gas Emissions).

The CEQA Guidelines require Lead Agencies to adopt GHG thresholds of significance. When adopting these thresholds, the amended Guidelines allow Lead Agencies to consider thresholds of significance adopted or recommended by other public agencies,

or recommended by experts, provided that the thresholds are supported by substantial evidence, and/or to develop their own significance threshold.

As discussed in Section 3.2.2.3, in the Scoping Plan, CARB determined that achieving the 1990 emission level in 2020 would require a reduction in GHG emissions of approximately 28.3 percent in the absence of new laws and regulations (referred to as BAU or "No Action Taken" ["NAT"]). The First Update to the Scoping Plan revises 2020 BAU forecasts from 596 $MMTCO_2E$ to 509 $MMTCO_2E$, based on economic downturn. This, in turn changes the BAU reduction target from 28.3 percent to 16.1 percent.

The City has not adopted thresholds for evaluating the significance of GHG impacts. This analysis assesses the significance of the project's GHG emissions based on consistency with AB 32 by comparing the project's GHG emissions as proposed to the project's GHG emissions if it were built using a BAU or NAT approach in terms of design, methodology, and technology. If the difference between the project's emissions as proposed and the project's emissions under a CARB 2020 NAT scenario is at least the difference that has been determined by CARB as necessary to meet AB 32's goals in the Scoping Plan, then the project can be determined to be consistent with AB 32 and thus not significant for purposes of CEQA. This analysis conservatively utilizes the original 28.3 percent reduction from a CARB 2020 NAT scenario, as identified in the 2008 Scoping Plan, as the point of comparison for purposes of assessing the project's significance under the BAU methodology; even though CARB subsequently determined that a lower reduction from BAU may be sufficient for purposes of achieving the mandates of AB 32.

4.2 Methodology

To evaluate the project's net GHG emissions, emissions were calculated using the California Emissions Estimator Model (CalEEMod). CalEEMod was developed with the participation of several state air districts. The emissions sources include construction (off-road vehicles), mobile (on-road vehicles), area (fireplaces, consumer products [cleansers, aerosols, solvents], landscape maintenance equipment, architectural coatings), energy, water and wastewater, and solid waste sources.

GHG emissions are estimated in terms of total $MTCO_2E$. CO_2E emissions are the preferred way to assess combined GHG emissions because they give weight to the GWP of a gas. The GWP, as described above in Section 1.2, is the potential of a gas to warm the global climate in the same amount as an equivalent amount of emissions of CO_2.

The analysis methodology and input data are described in the following sections. Where project-specific data was not available, model inputs were based on information provided in the CalEEMod User's Guide (California Air Pollution Control Officers Association [CAPCOA] 2013).

4.2.1 Construction Emissions

Construction activities emit GHGs primarily though combustion of fuels (mostly diesel) in the engines of off-road construction equipment and through combustion of diesel and gasoline in on-road construction vehicles and the commute vehicles of the construction workers. Smaller amounts of GHGs are also emitted through the energy use embodied in water use for fugitive dust control. Every phase of the construction process, including demolition, grading, paving, and building, emits GHGs in volumes proportional to the quantity and type of construction equipment used.

GHG emissions associated with each phase of project construction are calculated by multiplying the total fuel consumed by the construction equipment and worker trips by applicable emission factors. The number and pieces of construction equipment are calculated based on the project-specific design. In the absence of project-specific construction information, equipment for all phases of construction is estimated based on the size of the land use.

Construction emissions are calculated for each phase of construction based on the construction equipment and other factors determined as needed to complete construction by the target completion year. As such, each year has varying quantities of GHG emissions. The South Coast Air Quality Management District (SCAQMD) and the Association of Environmental Professionals (2010) have recommended that total construction GHG emissions resulting from a project be amortized over 30 years and added to operational GHG emissions (SCAQMD 2009).

Construction schedules and equipment required to grade and prepare the project site for the construction of single-family homes and parks was provided by the project engineer. The project site is vacant and flat, and would require minimal earthwork. It is anticipated that land clearing/grubbing would take 2 days, grading/excavation would take 14 days, fine grading would take 7 days, drainage/utilities would take 30 days, and paving would take 3 days. Single-family residential would then be constructed in phases. At this time, the amount of time required to construct the units is unknown. For modeling purposes, and to be conservative, building construction was modeled over a period of 5 years and the architectural coatings phase of construction would occur simultaneous with building construction. Park construction would occur during Phases 1 and 3.

4.2.2 Vehicle Emissions

Transportation-related GHG emissions comprise the largest sector contributing to inventoried statewide GHG emissions, accounting for 38 percent of the total statewide emissions in 2011 (CARB 2013). GHG emissions from vehicles come from the combustion of fossil fuels in vehicle engines. The vehicle emissions are calculated based on the vehicle type and the trip rate for each land use.

Trip generation rates were obtained from the traffic report prepared for the project (Linscott, Law, and Greenspan [LLG] 2014). The single-family residential uses would generate 10 trips per dwelling unit and the park space would generate 1.89 trips per acre, for a total of 6,192 average daily trips. A trip length of two miles was modeled for the park uses since the parks would serve the future occupants of the project. As stated in the City of El Centro Parks and Recreation Facilities Master Plan, "The neighborhood park is the basic unit of the park system. The most desirable size is between five to ten acres, with three acres as a minimum size. It should be within easy walking distance of residential areas (distributed within a quarter- to half-mile radius) and uninterrupted by major arterial streets or other obstructions. The focus is on informal recreation with programmed activities for youth team practices and games. The park should be centrally located in the service area." (City of El Centro 2008). The furthest distance from the proposed parks to the proposed residences would be less than half a mile. An average length of two miles was modeled to account for people coming from longer distances for occasional park use.

The vehicle emission factors and fleet mix are derived from CARB's Emission Factors 2011 model, which includes GHG-reducing effects from the implementation of Pavley I (Clean Car Standards) and the LCFS, and are thus considered in the calculation of standards project emissions. The emissions from mobile sources were reduced by an additional 2.4 percent to account for implementation of Low Emission Vehicles III. For calculation of vehicle emissions generated under a BAU scenario, alternative emission factors that do not include the effects of Pavley and LCFS were used (CAPCOA 2013).

4.2.3 Estimating Energy Use Emissions

GHGs are emitted as a result of activities in buildings for which electricity and natural gas are used as energy sources. GHGs are generated during the generation of electricity from fossil fuels off-site in power plants. These emissions are considered indirect but are calculated in CalEEMod as associated with a building's operation. Electric power generation accounts for the second largest sector contributing to both inventoried and projected statewide GHG emissions, comprising 23 percent of the projected total 2020 statewide BAU emissions from the 2008 Scoping Plan forecast (CARB 2008). Combustion of fossil fuel emits criteria pollutants and GHGs directly into the atmosphere. When this occurs in a building, it is considered a direct emissions

source associated with that building. When these emissions are generated at another location, it is considered indirect emissions.

CalEEMod default energy values are based on the CEC-sponsored California Commercial End Use Survey and Residential Appliance Saturation Survey studies, which identify energy use by building type and climate zone. Because these studies are based on older buildings, adjustments have been made in CalEEMod to account for changes to Title 24 building codes. The default adjustment is to the 2008 Title 24 energy code (part 6 of the building code). Adjustments to simulate the 2005 Title 24 energy code are available in CalEEMod.

Energy emissions associated with BAU were estimated assuming construction in accordance with the 2005 Title 24 energy code. Energy emissions associated with the project were estimated assuming the project would be constructed in accordance with the 2013 Title 24 energy code, which is 25 percent more energy efficient than the previous 2008 Title 24 energy code (CEC 2013; Imperial Valley Economic Development Corporation 2013). The increase in energy efficiency can be achieved by using better building components such as more insulation, higher efficiency windows, house wrap, radiant barriers, and higher-efficiency heating, cooling, and water heating equipment.

The project would also reduce energy emissions through the installation of energy-efficient appliances in the residential units. The energy-efficient appliances include clothes washers (a 30 percent improvement), dishwashers (a 15 percent improvement), fans (a 50 percent improvement), and refrigerators (a 15 percent improvement).

4.2.4 Estimating Area Source Emissions

Area sources include GHG emissions that would occur from the use of fireplaces and landscaping equipment, as well as from the use of consumer products and architectural coatings. The use of fireplaces directly emits CO_2 from the combustion of natural gas, wood, or biomass, some of which are classified as biogenic. Additionally, the use of landscape equipment emits GHGs associated with the equipment's fuel combustion. The landscaping equipment values were derived from the 2011 In-Use Off-Road Equipment Inventory Model (CARB 2011). Area source emissions were calculated using default values for both the project and the BAU scenario.

4.2.5 Estimating Water and Wastewater Emissions

The amount of water used and wastewater generated by a project has indirect GHG emissions associated with it. These emissions are a result of the energy used to supply, distribute, and treat the water and wastewater. In addition to the indirect GHG emissions associated with energy use, wastewater treatment can directly emit both CH_4 and N_2O.

GHG emissions associated with supplying and treating the water and wastewater are calculated for this project based on the indoor and outdoor water use consumption data for each land use subtype, which comes from the Pacific Institute's *Waste Not, Want Not: The Potential for Urban Water Conservation in California* 2003 (as cited in CAPCOA 2013). Based on that report, a percentage of total water consumption was dedicated to landscape irrigation. This percentage was used to determine outdoor water use. Wastewater generation was similarly based on a reported percentage of total indoor water use (CAPCOA 2013). BAU water use calculations do not consider any reduction in water use from these estimates. However, the project will be subject to 2013 Title 24 Part 11 standards, also known as the California Green Building Standards. Thus, in order to demonstrate compliance with the 2013 Title 24 Part 11 standards, a 20 percent increase in water use efficiency was included in the water consumption calculations for the project.

The electricity intensity values for various phases of supplying and treating water are derived from the CEC's 2006 *Refining Estimates of Water-related Energy Use in California*. The water/wastewater emissions for the analysis were calculated by multiplying the total projected water/wastewater demand by the applicable water electricity intensities and the utility intensity GHG factors.

4.2.6 Estimating Solid Waste Emissions

The disposal of solid waste produces GHG emissions from anaerobic decomposition in landfills, incineration, and transportation of waste. To calculate the GHG emissions generated by disposing of solid waste for the project, the total volume of solid waste was calculated using waste disposal rates identified by California Department of Resources Recycling and Recovery. The methods for quantifying GHG emissions from solid waste are based on the Intergovernmental Panel on Climate Change method, using the degradable organic content of waste. GHG emissions associated with the project's waste disposal were calculated using these parameters. BAU and project GHG emissions associated with waste disposal were both calculated using CalEEMod's default parameters.

5.0 GHG Emissions Calculations

In accordance with CEQA, this analysis evaluates the significance of the project in terms of (1) its contribution of GHGs to cumulative statewide emissions, and (2) its consistency with local and state regulations, plans, and policies aimed at reducing GHG emissions.

5.1 Project GHG Emissions

Based on the methodology summarized in Section 4.2, Methodology, the primary sources of direct and indirect GHG emissions due to the project have been calculated and are summarized in Table 4. CalEEMod output is provided in Attachment 1.

TABLE 4
PROJECT (2020) GHG EMISSIONS
($MTCO_2E$ PER YEAR)

Emission Source	Project GHG Emissions
Vehicles	3,111
Energy Use	3,455
Area Sources	472
Water Use	474
Solid Waste Disposal	372
Construction	201
Total Project Emissions	8,087

SOURCE: CalEEMod Version 2013.2.2 (Attachment 1)
NOTE: Totals may vary due to independent rounding

As shown, the project would generate 8,087 $MTCO_2E$ annually. A majority of the GHG emissions would be due to vehicle and energy use sources.

5.2 BAU GHG Emissions

BAU emissions are those that would occur in the absence of project design features and new laws and regulations aimed at reducing GHG emissions. BAU emissions in 2020 were calculated using the methodology discussed in Section 4.2. BAU emissions are summarized in Table 5. CalEEMod output is provided in Attachment 2.

TABLE 5
BAU (2020) GHG EMISSIONS
($MTCO_2E$ PER YEAR)

Emission Source	BAU GHG Emissions
Vehicles	5,687
Energy Use	4,060
Area Sources	472
Water Use	604
Solid Waste Disposal	372
Construction	201
Total Project Emissions	11,396

SOURCE: CalEEMod Version 2013.2.2 (Attachment 2)
NOTE: Totals may vary due to independent rounding

As shown, the BAU scenario would generate 11,396 $MTCO_2E$ annually.

6.0 GHG Impact Analysis

6.1 GHG Emissions

6.1.1 Impacts

The City has not adopted thresholds for evaluating the significance of GHG impacts. As discussed, this analysis assesses the significance of the project's GHG emissions based on consistency with AB 32 by comparing the project's GHG emissions, as proposed, to the project's GHG emissions if it were built using a BAU or NAT approach in terms of design, methodology, and technology. This analysis conservatively utilizes the original, 28.3 percent reduction from a CARB 2020 NAT scenario, as identified in the 2008 Scoping Plan, as the point of comparison for purposes of assessing the project's significance under the BAU methodology, even though CARB subsequently determined that a lower reduction from BAU may be sufficient for purposes of achieving the mandates of AB 32.

Table 6 provides a summary of the project emissions relative to BAU emissions and provides the percentage reductions for comparison with the 28.3 percent reduction relative to BAU goal.

TABLE 6
ESTIMATED PROJECT AND BAU GHG EMISSIONS AND REDUCTIONS IN 2020 ($MTCO_2E$)

Emission Source	BAU Emissions	Project Emissions	Percent Reduction
Vehicles	5,687	3,111	45.3%
Energy Use	4,060	3,455	14.9%
Area	472	472	0.0%
Water Use	604	474	21.4%
Solid Waste	372	372	0.0%
Construction	201	201	0.0%
TOTAL	**11,396**	**8,087**	**29.0%**

BAU emissions would total approximately 11,396 $MTCO_2E$ annually. Proposed project emissions with GHG reductions would total 8,087 $MTCO_2E$ per year. This is an approximate 29.0 percent reduction over BAU.

6.1.2 Significance of Impacts

As demonstrated, the project would result in more than a 28.3 percent reduction in GHG emissions (29.0 percent reduction), and the level of impacts associated with contribution of GHGs to cumulative statewide emissions would be less than significant.

6.2 Consistency with Adopted Plans, Policies, and Regulations

6.2.1 Impacts

The regulatory plans and policies discussed extensively in Section 3.0 above aim to reduce national, state, and local GHG emissions by primarily targeting the largest emitters of GHGs: the transportation and energy sectors. Plan goals and regulatory standards are thus largely focused on the automobile industry and public utilities. For the transportation sector, the reduction strategy is generally three pronged: to reduce GHG emissions from vehicles by improving engine design; to reduce the carbon content of transportation fuels through research, funding, and incentives to fuel suppliers; and to reduce the miles vehicles travel through land use change and infrastructure investments.

For the energy sector, the reduction strategies aim to reduce energy demand; impose emission caps on energy providers; establish minimum building energy and green building standards; transition to renewable non-fossil fuels; incentivize homeowners and builders; fully recover landfill gas for energy; expand research and development; and so forth.

EO S-3-05 established GHG emission reduction targets for the state, and AB 32 launched the Climate Change Scoping Plan that outlined the reduction measures needed to reach these targets. The Scoping Plan and its implementing and complementary regulations are discussed at length in Section 3.2. In short, the project was shown to provide a 29.0 percent reduction relative to BAU emissions, consistent with the overall 28.3 percent reduction targeted in the Scoping Plan/BAU 2020 Forecast. The project, by providing a 29.0 percent reduction in GHG emissions compared to BAU, may be seen to exceed its fair share in achieving the state's reduction target. The project incorporates energy efficiency reductions are consistent with state GHG reduction goals and climate change adaptation strategies. The project is also consistent with green building strategies recommended in the State Climate Change Scoping Plan. Therefore, the project would be consistent with the state reduction targets for transportation, energy, and other emissions associated with land use and development, and would be consistent with the Scoping Plan.

6.2.2 Significance of Impacts

The project is consistent with the goals and strategies of state plans, policies, and regulations aimed at reducing GHG emissions from land use and development. The level of impacts would be less than significant.

7.0 Conclusions and Recommendations

The BAU project without GHG-reducing design features would generate a net total of 11,396 MTCO2E annually. The project with GHG-reducing design features and implementation of state laws and regulations would generate a net total of 8,087 $MTCO_2E$ annually. This represents a 29.0 percent reduction in BAU GHG emissions, thereby exceeding the 28.3 percent reduction target. This reduction in GHG emissions would be due to a reduction in vehicle emissions through implementation of vehicle regulations including Pavley I, LCFS, and LEV III; a reduction in energy use through implementation of 2013 Title 24 energy code requirements and the installation of energy efficient appliances; and a reduction in water use through implementation of CalGreen. The level of impacts associated with the project's contribution of GHGs to cumulative statewide emissions would therefore be less than significant. Additionally, the project is consistent with the goals and strategies of state Climate Change Plans, policies, and regulations aimed at reducing GHG emissions from land use and development, and impacts to these plans, policies, and regulations would be less than significant.

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ATTACHMENTS

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ATTACHMENT 1

CalEEMod Output – Project GHG Emissions

7524 Lotus Ranch

Imperial County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	11.60	Acre	11.60	505,296.00	0
Single Family Housing	617.00	Dwelling Unit	201.40	1,110,600.00	1993

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.4	**Precipitation Freq (Days)**	12
Climate Zone	15			**Operational Year**	2020
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MWhr)	1270.9	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 213 acres

Construction Phase - Grading schedule obtained from project engineer
Building construction/arch coatings assumed to last 5 years

Off-road Equipment - 10 hours construction/day

Off-road Equipment - 10 hours construction/day

Off-road Equipment - Equipment obtained from project engineer

Off-road Equipment - Equipment obtained from project engineer

Off-road Equipment - Equipment obtained from project engineer

Off-road Equipment - Equipment obtained from project engineer

Off-road Equipment - Equipment obtained from project engineer
Trips and VMT -

On-road Fugitive Dust - Workers and trucks would travel paved roads

Grading -

Architectural Coating -

Vehicle Trips - Park - 1.89 trips/acre
Single-Family - 10 trips/du

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Road Dust - Residential trips would travel paved roads

Woodstoves - No woodstoves

Area Coating -

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	330.00	1,305.00
tblConstructionPhase	NumDays	4,650.00	1,305.00
tblConstructionPhase	NumDays	465.00	14.00
tblConstructionPhase	NumDays	465.00	7.00
tblConstructionPhase	NumDays	330.00	3.00
tblConstructionPhase	NumDays	180.00	2.00

tblConstructionPhase	PhaseEndDate	3/23/2026	3/22/2021
tblConstructionPhase	PhaseStartDate	3/23/2021	3/22/2016
tblLandUse	LotAcreage	200.32	201.40
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	UsageHours	6.00	10.00
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tblOffRoadEquipment	UsageHours	8.00	0.00
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tblOnRoadDust	HaulingPercentPave	50.00	100.00
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tblOnRoadDust	VendorPercentPave	50.00	100.00
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tblOnRoadDust	WorkerPercentPave	50.00	100.00
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tblVehicleTrips	CW_TL	6.70	2.00
tblVehicleTrips	WD_TR	1.59	1.89
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tblWoodstoves	NumberCatalytic	15.43	0.00
tblWoodstoves	NumberNoncatalytic	15.43	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	1,509.20	0.00

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					
2016	2.7717	7.7209	9.0431	0.0127	0.4385	0.4056	0.8441	0.1147	0.3812	0.4959	0.0000	1,094.1609	1,094.1609	0.1488	0.0000	1,097.2865
2017	3.2354	7.2669	9.7594	0.0144	0.5264	0.3874	0.9138	0.1424	0.3649	0.5073	0.0000	1,203.4734	1,203.4734	0.1381	0.0000	1,206.3730
2018	3.1069	6.4905	9.1519	0.0145	0.5283	0.3310	0.8592	0.1429	0.3120	0.4549	0.0000	1,183.5122	1,183.5122	0.1346	0.0000	1,186.3388
2019	3.0010	5.8725	8.6819	0.0145	0.5281	0.2873	0.8154	0.1428	0.2708	0.4136	0.0000	1,160.4907	1,160.4907	0.1310	0.0000	1,163.2415
2020	2.9227	5.2754	8.2759	0.0145	0.5300	0.2511	0.7811	0.1433	0.2367	0.3800	0.0000	1,137.3663	1,137.3663	0.1287	0.0000	1,140.0697
2021	0.6219	1.0216	1.7466	3.1500e-003	0.1153	0.0471	0.1624	0.0312	0.0444	0.0755	0.0000	246.5036	246.5036	0.0276	0.0000	247.0825
Total	**15.6596**	**33.6477**	**46.6588**	**0.0737**	**2.6666**	**1.7094**	**4.3760**	**0.7172**	**1.6100**	**2.3273**	**0.0000**	**6,025.5071**	**6,025.5071**	**0.7088**	**0.0000**	**6,040.3921**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	2.7717	7.7209	9.0431	0.0127	0.4240	0.4056	0.8295	0.1132	0.3812	0.4944	0.0000	1,094.1603	1,094.1603	0.1488	0.0000	1,097.2859
2017	3.2354	7.2669	9.7594	0.0144	0.5264	0.3874	0.9138	0.1424	0.3649	0.5073	0.0000	1,203.4728	1,203.4728	0.1381	0.0000	1,206.3725
2018	3.1069	6.4905	9.1519	0.0145	0.5283	0.3310	0.8592	0.1429	0.3120	0.4549	0.0000	1,183.5117	1,183.5117	0.1346	0.0000	1,186.3383
2019	3.0010	5.8724	8.6819	0.0145	0.5281	0.2873	0.8154	0.1428	0.2708	0.4136	0.0000	1,160.4901	1,160.4901	0.1310	0.0000	1,163.2409
2020	2.9227	5.2754	8.2759	0.0145	0.5300	0.2511	0.7811	0.1433	0.2367	0.3800	0.0000	1,137.3657	1,137.3657	0.1287	0.0000	1,140.0691
2021	0.6219	1.0216	1.7466	3.1500e-003	0.1153	0.0471	0.1624	0.0312	0.0444	0.0755	0.0000	246.5035	246.5035	0.0276	0.0000	247.0824
Total	**15.6596**	**33.6477**	**46.6588**	**0.0737**	**2.6520**	**1.7094**	**4.3615**	**0.7157**	**1.6100**	**2.3257**	**0.0000**	**6,025.5042**	**6,025.5042**	**0.7088**	**0.0000**	**6,040.3891**

	ROG	NOx	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**	**0.55**	**0.00**	**0.33**	**0.22**	**0.00**	**0.07**	**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	10.5851	0.0878	7.9591	2.4000e-004		0.5144	0.5144		0.5141	0.5141	41.0307	420.5666	461.5973	0.0152	0.0112	465.3868
Energy	0.1123	0.9600	0.4085	6.1300e-003		0.0776	0.0776		0.0776	0.0776	0.0000	3,843.3039	3,843.3039	0.0836	0.0333	3,855.3767
Mobile	4.2056	8.7338	42.5014	0.0596	3.9074	0.1223	4.0297	1.0430	0.1126	1.1556	0.0000	4,165.2335	4,165.2335	0.2205	0.0000	4,169.8635
Waste						0.0000	0.0000		0.0000	0.0000	166.0730	0.0000	166.0730	9.8146	0.0000	372.1803
Water						0.0000	0.0000		0.0000	0.0000	12.7536	552.5841	565.3377	1.3225	0.0335	603.5078
Total	**14.9031**	**9.7815**	**50.8691**	**0.0660**	**3.9074**	**0.7143**	**4.6217**	**1.0430**	**0.7043**	**1.7473**	**219.8573**	**8,981.6881**	**9,201.5454**	**11.4565**	**0.0780**	**9,466.3151**

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	7.0719	0.0532	4.5992	2.4000e-004		0.0575	0.0575		0.0572	0.0572	0.0000	469.1646	469.1646	0.0162	8.4600e-003	472.1276
Energy	0.0892	0.7623	0.3244	4.8700e-003		0.0616	0.0616		0.0616	0.0616	0.0000	3,444.6678	3,444.6678	0.0754	0.0283	3,455.0174
Mobile	3.9760	7.1743	37.1193	0.0456	2.9299	0.0945	3.0245	0.7821	0.0871	0.8691	0.0000	3,184.2517	3,184.2517	0.1765	0.0000	3,187.9576
Waste						0.0000	0.0000		0.0000	0.0000	166.0730	0.0000	166.0730	9.8146	0.0000	372.1803
Water						0.0000	0.0000		0.0000	0.0000	10.2029	433.6887	443.8916	1.0578	0.0268	474.4114
Total	**11.1371**	**7.9898**	**42.0428**	**0.0507**	**2.9299**	**0.2137**	**3.1436**	**0.7821**	**0.2059**	**0.9879**	**176.2759**	**7,531.7728**	**7,708.0487**	**11.1405**	**0.0635**	**7,961.6943**

	ROG	NOx	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	**25.27**	**18.32**	**17.35**	**23.14**	**25.02**	**70.09**	**31.98**	**25.02**	**70.77**	**43.46**	**19.82**	**16.14**	**16.23**	**2.76**	**18.56**	**15.89**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grubbing/Land Clearing	Site Preparation	1/4/2016	1/5/2016	5	2	
2	Grading	Grading	1/6/2016	1/25/2016	5	14	
3	Fine Grading	Grading	1/26/2016	2/3/2016	5	7	
4	Drainage/Utilities	Trenching	2/4/2016	3/16/2016	5	30	
5	Paving	Paving	3/17/2016	3/21/2016	5	3	
6	Building Construction	Building Construction	3/22/2016	3/22/2021	5	1305	
7	Architectural Coatings	Architectural Coating	3/22/2016	3/22/2021	5	1305	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 43.75

Acres of Paving: 0

Residential Indoor: 2,248,965; Residential Outdoor: 749,655; Non-Residential Indoor: 757,944; Non-Residential Outdoor: 252,648 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grubbing/Land Clearing	Graders	1	10.00	174	0.41
Grubbing/Land Clearing	Off-Highway Trucks	1	10.00	400	0.38
Grubbing/Land Clearing	Rubber Tired Dozers	0	0.00	255	0.40
Grubbing/Land Clearing	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Grading	Excavators	0	0.00	162	0.38
Grading	Graders	1	10.00	174	0.41
Grading	Off-Highway Trucks	1	10.00	400	0.38
Grading	Rubber Tired Dozers	0	0.00	255	0.40
Grading	Scrapers	2	10.00	361	0.48
Grading	Tractors/Loaders/Backhoes	0	0.00	97	0.37

Fine Grading	Excavators	1	10.00	162	0.38
Fine Grading	Graders	0	0.00	174	0.41
Fine Grading	Off-Highway Trucks	1	10.00	400	0.38
Fine Grading	Plate Compactors	1	10.00	8	0.43
Fine Grading	Rubber Tired Dozers	0	0.00	255	0.40
Fine Grading	Rubber Tired Loaders	1	10.00	199	0.36
Fine Grading	Scrapers	0	0.00	361	0.48
Fine Grading	Tractors/Loaders/Backhoes	1	10.00	97	0.37
Drainage/Utilities	Concrete/Industrial Saws	1	10.00	81	0.73
Drainage/Utilities	Graders	1	10.00	174	0.41
Drainage/Utilities	Off-Highway Trucks	1	10.00	400	0.38
Drainage/Utilities	Scrapers	1	10.00	361	0.48
Paving	Graders	1	10.00	174	0.41
Paving	Pavers	1	10.00	125	0.42
Paving	Paving Equipment	0	0.00	130	0.36
Paving	Rollers	1	10.00	80	0.38
Paving	Rubber Tired Loaders	1	10.00	199	0.36
Building Construction	Cranes	1	10.00	226	0.29
Building Construction	Forklifts	3	10.00	89	0.20
Building Construction	Generator Sets	1	10.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	10.00	97	0.37
Building Construction	Welders	1	10.00	46	0.45
Architectural Coatings	Air Compressors	1	10.00	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
Grubbing/Land Clearing	2	5.00	0.00	0.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT
Fine Grading	5	13.00	0.00	0.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT
Drainage/Utilities	4	10.00	0.00	0.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	4	10.00	0.00	0.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	434.00	149.00	0.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coatings	1	87.00	0.00	0.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grubbing/Land Clearing - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					6.6000e-004	0.0000	6.6000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4500e-003	0.0265	0.0125	2.0000e-005		1.2400e-003	1.2400e-003		1.1400e-003	1.1400e-003	0.0000	2.2864	2.2864	6.9000e-004	0.0000	2.3009
Total	**2.4500e-003**	**0.0265**	**0.0125**	**2.0000e-005**	**6.6000e-004**	**1.2400e-003**	**1.9000e-003**	**7.0000e-005**	**1.1400e-003**	**1.2100e-003**	**0.0000**	**2.2864**	**2.2864**	**6.9000e-004**	**0.0000**	**2.3009**

3.2 Grubbing/Land Clearing - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.9000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0228	0.0228	0.0000	0.0000	0.0228
Total	**3.0000e-005**	**3.0000e-005**	**2.9000e-004**	**0.0000**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0228**	**0.0228**	**0.0000**	**0.0000**	**0.0228**

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					2.6000e-004	0.0000	2.6000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4500e-003	0.0265	0.0125	2.0000e-005		1.2400e-003	1.2400e-003		1.1400e-003	1.1400e-003	0.0000	2.2864	2.2864	6.9000e-004	0.0000	2.3009
Total	**2.4500e-003**	**0.0265**	**0.0125**	**2.0000e-005**	**2.6000e-004**	**1.2400e-003**	**1.5000e-003**	**3.0000e-005**	**1.1400e-003**	**1.1700e-003**	**0.0000**	**2.2864**	**2.2864**	**6.9000e-004**	**0.0000**	**2.3009**

3.2 Grubbing/Land Clearing - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.9000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0228	0.0228	0.0000	0.0000	0.0228
Total	**3.0000e-005**	**3.0000e-005**	**2.9000e-004**	**0.0000**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0228**	**0.0228**	**0.0000**	**0.0000**	**0.0228**

3.3 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0232	0.0000	0.0232	2.5000e-003	0.0000	2.5000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0414	0.4937	0.2802	4.3000e-004		0.0211	0.0211		0.0194	0.0194	0.0000	40.5720	40.5720	0.0122	0.0000	40.8290
Total	**0.0414**	**0.4937**	**0.2802**	**4.3000e-004**	**0.0232**	**0.0211**	**0.0443**	**2.5000e-003**	**0.0194**	**0.0219**	**0.0000**	**40.5720**	**40.5720**	**0.0122**	**0.0000**	**40.8290**

3.3 Grading - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	4.6000e-004	4.1000e-003	0.0000	3.9000e-004	0.0000	3.9000e-004	1.0000e-004	0.0000	1.1000e-004	0.0000	0.3191	0.3191	3.0000e-005	0.0000	0.3197
Total	**3.9000e-004**	**4.6000e-004**	**4.1000e-003**	**0.0000**	**3.9000e-004**	**0.0000**	**3.9000e-004**	**1.0000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.3191**	**0.3191**	**3.0000e-005**	**0.0000**	**0.3197**

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					9.0500e-003	0.0000	9.0500e-003	9.8000e-004	0.0000	9.8000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0414	0.4937	0.2802	4.3000e-004		0.0211	0.0211		0.0194	0.0194	0.0000	40.5720	40.5720	0.0122	0.0000	40.8290
Total	**0.0414**	**0.4937**	**0.2802**	**4.3000e-004**	**9.0500e-003**	**0.0211**	**0.0302**	**9.8000e-004**	**0.0194**	**0.0204**	**0.0000**	**40.5720**	**40.5720**	**0.0122**	**0.0000**	**40.8290**

3.3 Grading - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	4.6000e-004	4.1000e-003	0.0000	3.9000e-004	0.0000	3.9000e-004	1.0000e-004	0.0000	1.1000e-004	0.0000	0.3191	0.3191	3.0000e-005	0.0000	0.3197
Total	**3.9000e-004**	**4.6000e-004**	**4.1000e-003**	**0.0000**	**3.9000e-004**	**0.0000**	**3.9000e-004**	**1.0000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.3191**	**0.3191**	**3.0000e-005**	**0.0000**	**0.3197**

3.4 Fine Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6600e-003	0.1105	0.0566	1.2000e-004		4.8500e-003	4.8500e-003		4.4600e-003	4.4600e-003	0.0000	11.5547	11.5547	3.4600e-003	0.0000	11.6274
Total	**9.6600e-003**	**0.1105**	**0.0566**	**1.2000e-004**	**0.0000**	**4.8500e-003**	**4.8500e-003**	**0.0000**	**4.4600e-003**	**4.4600e-003**	**0.0000**	**11.5547**	**11.5547**	**3.4600e-003**	**0.0000**	**11.6274**

3.4 Fine Grading - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5000e-004	3.0000e-004	2.6700e-003	0.0000	2.5000e-004	0.0000	2.5000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2074	0.2074	2.0000e-005	0.0000	0.2078
Total	**2.5000e-004**	**3.0000e-004**	**2.6700e-003**	**0.0000**	**2.5000e-004**	**0.0000**	**2.5000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2074**	**0.2074**	**2.0000e-005**	**0.0000**	**0.2078**

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6600e-003	0.1105	0.0566	1.2000e-004		4.8500e-003	4.8500e-003		4.4600e-003	4.4600e-003	0.0000	11.5547	11.5547	3.4600e-003	0.0000	11.6273
Total	**9.6600e-003**	**0.1105**	**0.0566**	**1.2000e-004**	**0.0000**	**4.8500e-003**	**4.8500e-003**	**0.0000**	**4.4600e-003**	**4.4600e-003**	**0.0000**	**11.5547**	**11.5547**	**3.4600e-003**	**0.0000**	**11.6273**

3.4 Fine Grading - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5000e-004	3.0000e-004	2.6700e-003	0.0000	2.5000e-004	0.0000	2.5000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2074	0.2074	2.0000e-005	0.0000	0.2078
Total	**2.5000e-004**	**3.0000e-004**	**2.6700e-003**	**0.0000**	**2.5000e-004**	**0.0000**	**2.5000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2074**	**0.2074**	**2.0000e-005**	**0.0000**	**0.2078**

3.5 Drainage/Utilities - 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	0.0748	0.8147	0.4646	7.6000e-004		0.0384	0.0384		0.0359	0.0359	0.0000	70.6991	70.6991	0.0193	0.0000	71.1035
Total	**0.0748**	**0.8147**	**0.4646**	**7.6000e-004**		**0.0384**	**0.0384**		**0.0359**	**0.0359**	**0.0000**	**70.6991**	**70.6991**	**0.0193**	**0.0000**	**71.1035**

3.5 Drainage/Utilities - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.3000e-004	9.8000e-004	8.7900e-003	1.0000e-005	8.3000e-004	1.0000e-005	8.3000e-004	2.2000e-004	1.0000e-005	2.3000e-004	0.0000	0.6837	0.6837	6.0000e-005	0.0000	0.6850
Total	**8.3000e-004**	**9.8000e-004**	**8.7900e-003**	**1.0000e-005**	**8.3000e-004**	**1.0000e-005**	**8.3000e-004**	**2.2000e-004**	**1.0000e-005**	**2.3000e-004**	**0.0000**	**0.6837**	**0.6837**	**6.0000e-005**	**0.0000**	**0.6850**

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	0.0748	0.8147	0.4646	7.6000e-004		0.0384	0.0384		0.0359	0.0359	0.0000	70.6990	70.6990	0.0193	0.0000	71.1034
Total	**0.0748**	**0.8147**	**0.4646**	**7.6000e-004**		**0.0384**	**0.0384**		**0.0359**	**0.0359**	**0.0000**	**70.6990**	**70.6990**	**0.0193**	**0.0000**	**71.1034**

3.5 Drainage/Utilities - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.3000e-004	9.8000e-004	8.7900e-003	1.0000e-005	8.3000e-004	1.0000e-005	8.3000e-004	2.2000e-004	1.0000e-005	2.3000e-004	0.0000	0.6837	0.6837	6.0000e-005	0.0000	0.6850
Total	**8.3000e-004**	**9.8000e-004**	**8.7900e-003**	**1.0000e-005**	**8.3000e-004**	**1.0000e-005**	**8.3000e-004**	**2.2000e-004**	**1.0000e-005**	**2.3000e-004**	**0.0000**	**0.6837**	**0.6837**	**6.0000e-005**	**0.0000**	**0.6850**

3.6 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	4.2300e-003	0.0459	0.0218	4.0000e-005		2.3600e-003	2.3600e-003		2.1700e-003	2.1700e-003	0.0000	3.4484	3.4484	1.0400e-003	0.0000	3.4702
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.2300e-003**	**0.0459**	**0.0218**	**4.0000e-005**		**2.3600e-003**	**2.3600e-003**		**2.1700e-003**	**2.1700e-003**	**0.0000**	**3.4484**	**3.4484**	**1.0400e-003**	**0.0000**	**3.4702**

3.6 Paving - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	1.0000e-004	8.8000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0684	0.0684	1.0000e-005	0.0000	0.0685
Total	**8.0000e-005**	**1.0000e-004**	**8.8000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0684**	**0.0684**	**1.0000e-005**	**0.0000**	**0.0685**

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	4.2300e-003	0.0459	0.0218	4.0000e-005		2.3600e-003	2.3600e-003		2.1700e-003	2.1700e-003	0.0000	3.4484	3.4484	1.0400e-003	0.0000	3.4702
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.2300e-003**	**0.0459**	**0.0218**	**4.0000e-005**		**2.3600e-003**	**2.3600e-003**		**2.1700e-003**	**2.1700e-003**	**0.0000**	**3.4484**	**3.4484**	**1.0400e-003**	**0.0000**	**3.4702**

3.6 Paving - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	1.0000e-004	8.8000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0684	0.0684	1.0000e-005	0.0000	0.0685
Total	**8.0000e-005**	**1.0000e-004**	**8.8000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0684**	**0.0684**	**1.0000e-005**	**0.0000**	**0.0685**

3.7 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	0.4621	3.9262	2.5225	3.6600e-003		0.2690	0.2690		0.2524	0.2524	0.0000	331.2612	331.2612	0.0834	0.0000	333.0119
Total	**0.4621**	**3.9262**	**2.5225**	**3.6600e-003**		**0.2690**	**0.2690**		**0.2524**	**0.2524**	**0.0000**	**331.2612**	**331.2612**	**0.0834**	**0.0000**	**333.0119**

3.7 Building Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1825	1.5522	2.2330	3.8300e-003	0.1200	0.0329	0.1529	0.0339	0.0303	0.0642	0.0000	347.4061	347.4061	2.0900e-003	0.0000	347.4501
Worker	0.2456	0.2883	2.5947	2.7900e-003	0.2442	1.8900e-003	0.2461	0.0648	1.7300e-003	0.0666	0.0000	201.7779	201.7779	0.0179	0.0000	202.1533
Total	**0.4282**	**1.8406**	**4.8278**	**6.6200e-003**	**0.3641**	**0.0348**	**0.3989**	**0.0988**	**0.0320**	**0.1308**	**0.0000**	**549.1840**	**549.1840**	**0.0200**	**0.0000**	**549.6034**

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	0.4621	3.9262	2.5225	3.6600e-003		0.2690	0.2690		0.2524	0.2524	0.0000	331.2608	331.2608	0.0834	0.0000	333.0115
Total	**0.4621**	**3.9262**	**2.5225**	**3.6600e-003**		**0.2690**	**0.2690**		**0.2524**	**0.2524**	**0.0000**	**331.2608**	**331.2608**	**0.0834**	**0.0000**	**333.0115**

3.7 Building Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1825	1.5522	2.2330	3.8300e-003	0.1200	0.0329	0.1529	0.0339	0.0303	0.0642	0.0000	347.4061	347.4061	2.0900e-003	0.0000	347.4501
Worker	0.2456	0.2883	2.5947	2.7900e-003	0.2442	1.8900e-003	0.2461	0.0648	1.7300e-003	0.0666	0.0000	201.7779	201.7779	0.0179	0.0000	202.1533
Total	**0.4282**	**1.8406**	**4.8278**	**6.6200e-003**	**0.3641**	**0.0348**	**0.3989**	**0.0988**	**0.0320**	**0.1308**	**0.0000**	**549.1840**	**549.1840**	**0.0200**	**0.0000**	**549.6034**

3.7 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.5366	4.6327	3.1479	4.6600e-003		0.3104	0.3104		0.2911	0.2911	0.0000	417.3846	417.3846	0.1044	0.0000	419.5776
Total	**0.5366**	**4.6327**	**3.1479**	**4.6600e-003**		**0.3104**	**0.3104**		**0.2911**	**0.2911**	**0.0000**	**417.3846**	**417.3846**	**0.1044**	**0.0000**	**419.5776**

3.7 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.2041	1.7588	2.6219	4.8700e-003	0.1528	0.0367	0.1895	0.0432	0.0337	0.0769	0.0000	434.8201	434.8201	2.5000e-003	0.0000	434.8725
Worker	0.2818	0.3349	2.9863	3.5500e-003	0.3112	2.3100e-003	0.3135	0.0826	2.1200e-003	0.0847	0.0000	246.5288	246.5288	0.0211	0.0000	246.9716
Total	**0.4859**	**2.0937**	**5.6082**	**8.4200e-003**	**0.4640**	**0.0390**	**0.5030**	**0.1258**	**0.0358**	**0.1617**	**0.0000**	**681.3489**	**681.3489**	**0.0236**	**0.0000**	**681.8442**

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	0.5366	4.6327	3.1478	4.6600e-003		0.3104	0.3104		0.2911	0.2911	0.0000	417.3841	417.3841	0.1044	0.0000	419.5771
Total	**0.5366**	**4.6327**	**3.1478**	**4.6600e-003**		**0.3104**	**0.3104**		**0.2911**	**0.2911**	**0.0000**	**417.3841**	**417.3841**	**0.1044**	**0.0000**	**419.5771**

3.7 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.2041	1.7588	2.6219	4.8700e-003	0.1528	0.0367	0.1895	0.0432	0.0337	0.0769	0.0000	434.8201	434.8201	2.5000e-003	0.0000	434.8725
Worker	0.2818	0.3349	2.9863	3.5500e-003	0.3112	2.3100e-003	0.3135	0.0826	2.1200e-003	0.0847	0.0000	246.5288	246.5288	0.0211	0.0000	246.9716
Total	**0.4859**	**2.0937**	**5.6082**	**8.4200e-003**	**0.4640**	**0.0390**	**0.5030**	**0.1258**	**0.0358**	**0.1617**	**0.0000**	**681.3489**	**681.3489**	**0.0236**	**0.0000**	**681.8442**

3.7 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	0.4630	4.0914	3.0533	4.6800e-003		0.2610	0.2610		0.2451	0.2451	0.0000	414.0953	414.0953	0.1032	0.0000	416.2623
Total	**0.4630**	**4.0914**	**3.0533**	**4.6800e-003**		**0.2610**	**0.2610**		**0.2451**	**0.2451**	**0.0000**	**414.0953**	**414.0953**	**0.1032**	**0.0000**	**416.2623**

3.7 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	0.1796	1.5927	2.4254	4.8700e-003	0.1532	0.0345	0.1877	0.0433	0.0317	0.0750	0.0000	428.2288	428.2288	2.4500e-003	0.0000	428.2801
Worker	0.2556	0.3084	2.7239	3.5600e-003	0.3124	2.2500e-003	0.3147	0.0829	2.0800e-003	0.0850	0.0000	237.9543	237.9543	0.0197	0.0000	238.3686
Total	**0.4352**	**1.9011**	**5.1493**	**8.4300e-003**	**0.4656**	**0.0368**	**0.5024**	**0.1262**	**0.0338**	**0.1600**	**0.0000**	**666.1831**	**666.1831**	**0.0222**	**0.0000**	**666.6488**

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	0.4630	4.0914	3.0533	4.6800e-003		0.2610	0.2610		0.2451	0.2451	0.0000	414.0948	414.0948	0.1032	0.0000	416.2618
Total	**0.4630**	**4.0914**	**3.0533**	**4.6800e-003**		**0.2610**	**0.2610**		**0.2451**	**0.2451**	**0.0000**	**414.0948**	**414.0948**	**0.1032**	**0.0000**	**416.2618**

3.7 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	0.1796	1.5927	2.4254	4.8700e-003	0.1532	0.0345	0.1877	0.0433	0.0317	0.0750	0.0000	428.2288	428.2288	2.4500e-003	0.0000	428.2801
Worker	0.2556	0.3084	2.7239	3.5600e-003	0.3124	2.2500e-003	0.3147	0.0829	2.0800e-003	0.0850	0.0000	237.9543	237.9543	0.0197	0.0000	238.3686
Total	**0.4352**	**1.9011**	**5.1493**	**8.4300e-003**	**0.4656**	**0.0368**	**0.5024**	**0.1262**	**0.0338**	**0.1600**	**0.0000**	**666.1831**	**666.1831**	**0.0222**	**0.0000**	**666.6488**

3.7 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	0.4079	3.6827	2.9794	4.6800e-003		0.2243	0.2243		0.2106	0.2106	0.0000	409.3171	409.3171	0.1016	0.0000	411.4506
Total	**0.4079**	**3.6827**	**2.9794**	**4.6800e-003**		**0.2243**	**0.2243**		**0.2106**	**0.2106**	**0.0000**	**409.3171**	**409.3171**	**0.1016**	**0.0000**	**411.4506**

3.7 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	0.1618	1.4481	2.2867	4.8600e-003	0.1531	0.0324	0.1855	0.0432	0.0298	0.0731	0.0000	420.4751	420.4751	2.3800e-003	0.0000	420.5251
Worker	0.2339	0.2852	2.5118	3.5600e-003	0.3124	2.2200e-003	0.3146	0.0829	2.0500e-003	0.0850	0.0000	229.2163	229.2163	0.0186	0.0000	229.6068
Total	**0.3957**	**1.7333**	**4.7986**	**8.4200e-003**	**0.4655**	**0.0346**	**0.5001**	**0.1262**	**0.0319**	**0.1580**	**0.0000**	**649.6914**	**649.6914**	**0.0210**	**0.0000**	**650.1320**

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	0.4079	3.6827	2.9794	4.6800e-003		0.2243	0.2243		0.2106	0.2106	0.0000	409.3167	409.3167	0.1016	0.0000	411.4501
Total	**0.4079**	**3.6827**	**2.9794**	**4.6800e-003**		**0.2243**	**0.2243**		**0.2106**	**0.2106**	**0.0000**	**409.3167**	**409.3167**	**0.1016**	**0.0000**	**411.4501**

3.7 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	0.1618	1.4481	2.2867	4.8600e-003	0.1531	0.0324	0.1855	0.0432	0.0298	0.0731	0.0000	420.4751	420.4751	2.3800e-003	0.0000	420.5251
Worker	0.2339	0.2852	2.5118	3.5600e-003	0.3124	2.2200e-003	0.3146	0.0829	2.0500e-003	0.0850	0.0000	229.2163	229.2163	0.0186	0.0000	229.6068
Total	**0.3957**	**1.7333**	**4.7986**	**8.4200e-003**	**0.4655**	**0.0346**	**0.5001**	**0.1262**	**0.0319**	**0.1580**	**0.0000**	**649.6914**	**649.6914**	**0.0210**	**0.0000**	**650.1320**

3.7 Building Construction - 2020

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	0.3677	3.3622	2.9347	4.7000e-003		0.1949	0.1949		0.1830	0.1830	0.0000	404.5956	404.5956	0.1007	0.0000	406.7107
Total	**0.3677**	**3.3622**	**2.9347**	**4.7000e-003**		**0.1949**	**0.1949**		**0.1830**	**0.1830**	**0.0000**	**404.5956**	**404.5956**	**0.1007**	**0.0000**	**406.7107**

3.7 Building Construction - 2020

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	0.1390	1.2224	2.1046	4.8600e-003	0.1535	0.0294	0.1829	0.0434	0.0270	0.0704	0.0000	411.7366	411.7366	2.2900e-003	0.0000	411.7847
Worker	0.2188	0.2692	2.3630	3.5700e-003	0.3136	2.2100e-003	0.3158	0.0833	2.0400e-003	0.0853	0.0000	220.9885	220.9885	0.0178	0.0000	221.3629
Total	**0.3578**	**1.4916**	**4.4676**	**8.4300e-003**	**0.4671**	**0.0316**	**0.4987**	**0.1266**	**0.0291**	**0.1557**	**0.0000**	**632.7251**	**632.7251**	**0.0201**	**0.0000**	**633.1477**

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	0.3677	3.3622	2.9347	4.7000e-003		0.1949	0.1949		0.1830	0.1830	0.0000	404.5951	404.5951	0.1007	0.0000	406.7102
Total	**0.3677**	**3.3622**	**2.9347**	**4.7000e-003**		**0.1949**	**0.1949**		**0.1830**	**0.1830**	**0.0000**	**404.5951**	**404.5951**	**0.1007**	**0.0000**	**406.7102**

3.7 Building Construction - 2020

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	0.1390	1.2224	2.1046	4.8600e-003	0.1535	0.0294	0.1829	0.0434	0.0270	0.0704	0.0000	411.7366	411.7366	2.2900e-003	0.0000	411.7847
Worker	0.2188	0.2692	2.3630	3.5700e-003	0.3136	2.2100e-003	0.3158	0.0833	2.0400e-003	0.0853	0.0000	220.9885	220.9885	0.0178	0.0000	221.3629
Total	**0.3578**	**1.4916**	**4.4676**	**8.4300e-003**	**0.4671**	**0.0316**	**0.4987**	**0.1266**	**0.0291**	**0.1557**	**0.0000**	**632.7251**	**632.7251**	**0.0201**	**0.0000**	**633.1477**

3.7 Building Construction - 2021

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	0.0717	0.6642	0.6280	1.0200e-003		0.0364	0.0364		0.0342	0.0342	0.0000	88.0339	88.0339	0.0217	0.0000	88.4894
Total	**0.0717**	**0.6642**	**0.6280**	**1.0200e-003**		**0.0364**	**0.0364**		**0.0342**	**0.0342**	**0.0000**	**88.0339**	**88.0339**	**0.0217**	**0.0000**	**88.4894**

3.7 Building Construction - 2021

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	0.0284	0.2174	0.4417	1.0600e-003	0.0334	5.6700e-003	0.0391	9.4300e-003	5.2200e-003	0.0147	0.0000	89.4393	89.4393	5.0000e-004	0.0000	89.4498
Worker	0.0454	0.0562	0.4920	7.8000e-004	0.0682	4.8000e-004	0.0687	0.0181	4.4000e-004	0.0186	0.0000	47.4005	47.4005	3.7900e-003	0.0000	47.4801
Total	**0.0737**	**0.2736**	**0.9337**	**1.8400e-003**	**0.1016**	**6.1500e-003**	**0.1078**	**0.0275**	**5.6600e-003**	**0.0332**	**0.0000**	**136.8399**	**136.8399**	**4.2900e-003**	**0.0000**	**136.9298**

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	0.0717	0.6642	0.6280	1.0200e-003		0.0364	0.0364		0.0342	0.0342	0.0000	88.0338	88.0338	0.0217	0.0000	88.4893
Total	**0.0717**	**0.6642**	**0.6280**	**1.0200e-003**		**0.0364**	**0.0364**		**0.0342**	**0.0342**	**0.0000**	**88.0338**	**88.0338**	**0.0217**	**0.0000**	**88.4893**

3.7 Building Construction - 2021

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	0.0284	0.2174	0.4417	1.0600e-003	0.0334	5.6700e-003	0.0391	9.4300e-003	5.2200e-003	0.0147	0.0000	89.4393	89.4393	5.0000e-004	0.0000	89.4498
Worker	0.0454	0.0562	0.4920	7.8000e-004	0.0682	4.8000e-004	0.0687	0.0181	4.4000e-004	0.0186	0.0000	47.4005	47.4005	3.7900e-003	0.0000	47.4801
Total	**0.0737**	**0.2736**	**0.9337**	**1.8400e-003**	**0.1016**	**6.1500e-003**	**0.1078**	**0.0275**	**5.6600e-003**	**0.0332**	**0.0000**	**136.8399**	**136.8399**	**4.2900e-003**	**0.0000**	**136.9298**

3.8 Architectural Coatings - 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	1.6355					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0626	0.4033	0.3203	5.1000e-004		0.0334	0.0334		0.0334	0.0334	0.0000	43.4053	43.4053	5.1200e-003	0.0000	43.5128
Total	**1.6981**	**0.4033**	**0.3203**	**5.1000e-004**		**0.0334**	**0.0334**		**0.0334**	**0.0334**	**0.0000**	**43.4053**	**43.4053**	**5.1200e-003**	**0.0000**	**43.5128**

3.8 Architectural Coatings - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0492	0.0578	0.5201	5.6000e-004	0.0490	3.8000e-004	0.0493	0.0130	3.5000e-004	0.0133	0.0000	40.4486	40.4486	3.5800e-003	0.0000	40.5238
Total	**0.0492**	**0.0578**	**0.5201**	**5.6000e-004**	**0.0490**	**3.8000e-004**	**0.0493**	**0.0130**	**3.5000e-004**	**0.0133**	**0.0000**	**40.4486**	**40.4486**	**3.5800e-003**	**0.0000**	**40.5238**

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	1.6355					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0626	0.4033	0.3203	5.1000e-004		0.0334	0.0334		0.0334	0.0334	0.0000	43.4053	43.4053	5.1200e-003	0.0000	43.5127
Total	**1.6981**	**0.4033**	**0.3203**	**5.1000e-004**		**0.0334**	**0.0334**		**0.0334**	**0.0334**	**0.0000**	**43.4053**	**43.4053**	**5.1200e-003**	**0.0000**	**43.5127**

3.8 Architectural Coatings - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0492	0.0578	0.5201	5.6000e-004	0.0490	3.8000e-004	0.0493	0.0130	3.5000e-004	0.0133	0.0000	40.4486	40.4486	3.5800e-003	0.0000	40.5238
Total	**0.0492**	**0.0578**	**0.5201**	**5.6000e-004**	**0.0490**	**3.8000e-004**	**0.0493**	**0.0130**	**3.5000e-004**	**0.0133**	**0.0000**	**40.4486**	**40.4486**	**3.5800e-003**	**0.0000**	**40.5238**

3.8 Architectural Coatings - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.0845					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0720	0.4734	0.4048	6.4000e-004		0.0376	0.0376		0.0376	0.0376	0.0000	55.3205	55.3205	5.8400e-003	0.0000	55.4432
Total	**2.1565**	**0.4734**	**0.4048**	**6.4000e-004**		**0.0376**	**0.0376**		**0.0376**	**0.0376**	**0.0000**	**55.3205**	**55.3205**	**5.8400e-003**	**0.0000**	**55.4432**

3.8 Architectural Coatings - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0565	0.0671	0.5986	7.1000e-004	0.0624	4.6000e-004	0.0629	0.0166	4.3000e-004	0.0170	0.0000	49.4194	49.4194	4.2300e-003	0.0000	49.5081
Total	**0.0565**	**0.0671**	**0.5986**	**7.1000e-004**	**0.0624**	**4.6000e-004**	**0.0629**	**0.0166**	**4.3000e-004**	**0.0170**	**0.0000**	**49.4194**	**49.4194**	**4.2300e-003**	**0.0000**	**49.5081**

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	2.0845					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0720	0.4734	0.4048	6.4000e-004		0.0376	0.0376		0.0376	0.0376	0.0000	55.3204	55.3204	5.8400e-003	0.0000	55.4431
Total	**2.1565**	**0.4734**	**0.4048**	**6.4000e-004**		**0.0376**	**0.0376**		**0.0376**	**0.0376**	**0.0000**	**55.3204**	**55.3204**	**5.8400e-003**	**0.0000**	**55.4431**

3.8 Architectural Coatings - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0565	0.0671	0.5986	7.1000e-004	0.0624	4.6000e-004	0.0629	0.0166	4.3000e-004	0.0170	0.0000	49.4194	49.4194	4.2300e-003	0.0000	49.5081
Total	**0.0565**	**0.0671**	**0.5986**	**7.1000e-004**	**0.0624**	**4.6000e-004**	**0.0629**	**0.0166**	**4.3000e-004**	**0.0170**	**0.0000**	**49.4194**	**49.4194**	**4.2300e-003**	**0.0000**	**49.5081**

3.8 Architectural Coatings - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.0925					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0650	0.4363	0.4033	6.5000e-004		0.0328	0.0328		0.0328	0.0328	0.0000	55.5334	55.5334	5.2800e-003	0.0000	55.6442
Total	**2.1574**	**0.4363**	**0.4033**	**6.5000e-004**		**0.0328**	**0.0328**		**0.0328**	**0.0328**	**0.0000**	**55.5334**	**55.5334**	**5.2800e-003**	**0.0000**	**55.6442**

3.8 Architectural Coatings - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0512	0.0618	0.5460	7.1000e-004	0.0626	4.5000e-004	0.0631	0.0166	4.2000e-004	0.0170	0.0000	47.7005	47.7005	3.9500e-003	0.0000	47.7836
Total	**0.0512**	**0.0618**	**0.5460**	**7.1000e-004**	**0.0626**	**4.5000e-004**	**0.0631**	**0.0166**	**4.2000e-004**	**0.0170**	**0.0000**	**47.7005**	**47.7005**	**3.9500e-003**	**0.0000**	**47.7836**

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	2.0925					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0650	0.4363	0.4033	6.5000e-004		0.0328	0.0328		0.0328	0.0328	0.0000	55.5333	55.5333	5.2800e-003	0.0000	55.6441
Total	**2.1574**	**0.4363**	**0.4033**	**6.5000e-004**		**0.0328**	**0.0328**		**0.0328**	**0.0328**	**0.0000**	**55.5333**	**55.5333**	**5.2800e-003**	**0.0000**	**55.6441**

3.8 Architectural Coatings - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0512	0.0618	0.5460	7.1000e-004	0.0626	4.5000e-004	0.0631	0.0166	4.2000e-004	0.0170	0.0000	47.7005	47.7005	3.9500e-003	0.0000	47.7836
Total	**0.0512**	**0.0618**	**0.5460**	**7.1000e-004**	**0.0626**	**4.5000e-004**	**0.0631**	**0.0166**	**4.2000e-004**	**0.0170**	**0.0000**	**47.7005**	**47.7005**	**3.9500e-003**	**0.0000**	**47.7836**

3.8 Architectural Coatings - 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	2.0925					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0580	0.3992	0.4005	6.5000e-004		0.0280	0.0280		0.0280	0.0280	0.0000	55.5333	55.5333	4.6900e-003	0.0000	55.6318
Total	**2.1504**	**0.3992**	**0.4005**	**6.5000e-004**		**0.0280**	**0.0280**		**0.0280**	**0.0280**	**0.0000**	**55.5333**	**55.5333**	**4.6900e-003**	**0.0000**	**55.6318**

3.8 Architectural Coatings - 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	0.0469	0.0572	0.5035	7.1000e-004	0.0626	4.4000e-004	0.0631	0.0166	4.1000e-004	0.0170	0.0000	45.9489	45.9489	3.7300e-003	0.0000	46.0272
Total	**0.0469**	**0.0572**	**0.5035**	**7.1000e-004**	**0.0626**	**4.4000e-004**	**0.0631**	**0.0166**	**4.1000e-004**	**0.0170**	**0.0000**	**45.9489**	**45.9489**	**3.7300e-003**	**0.0000**	**46.0272**

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	2.0925					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0580	0.3992	0.4005	6.5000e-004		0.0280	0.0280		0.0280	0.0280	0.0000	55.5332	55.5332	4.6900e-003	0.0000	55.6317
Total	**2.1504**	**0.3992**	**0.4005**	**6.5000e-004**		**0.0280**	**0.0280**		**0.0280**	**0.0280**	**0.0000**	**55.5332**	**55.5332**	**4.6900e-003**	**0.0000**	**55.6317**

3.8 Architectural Coatings - 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	0.0469	0.0572	0.5035	7.1000e-004	0.0626	4.4000e-004	0.0631	0.0166	4.1000e-004	0.0170	0.0000	45.9489	45.9489	3.7300e-003	0.0000	46.0272
Total	**0.0469**	**0.0572**	**0.5035**	**7.1000e-004**	**0.0626**	**4.4000e-004**	**0.0631**	**0.0166**	**4.1000e-004**	**0.0170**	**0.0000**	**45.9489**	**45.9489**	**3.7300e-003**	**0.0000**	**46.0272**

3.8 Architectural Coatings - 2020

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	2.1005					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0529	0.3676	0.3999	6.5000e-004		0.0242	0.0242		0.0242	0.0242	0.0000	55.7460	55.7460	4.3200e-003	0.0000	55.8367
Total	**2.1534**	**0.3676**	**0.3999**	**6.5000e-004**		**0.0242**	**0.0242**		**0.0242**	**0.0242**	**0.0000**	**55.7460**	**55.7460**	**4.3200e-003**	**0.0000**	**55.8367**

3.8 Architectural Coatings - 2020

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	0.0439	0.0540	0.4737	7.2000e-004	0.0629	4.4000e-004	0.0633	0.0167	4.1000e-004	0.0171	0.0000	44.2995	44.2995	3.5700e-003	0.0000	44.3746
Total	**0.0439**	**0.0540**	**0.4737**	**7.2000e-004**	**0.0629**	**4.4000e-004**	**0.0633**	**0.0167**	**4.1000e-004**	**0.0171**	**0.0000**	**44.2995**	**44.2995**	**3.5700e-003**	**0.0000**	**44.3746**

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	2.1005					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0529	0.3676	0.3999	6.5000e-004		0.0242	0.0242		0.0242	0.0242	0.0000	55.7460	55.7460	4.3200e-003	0.0000	55.8366
Total	**2.1534**	**0.3676**	**0.3999**	**6.5000e-004**		**0.0242**	**0.0242**		**0.0242**	**0.0242**	**0.0000**	**55.7460**	**55.7460**	**4.3200e-003**	**0.0000**	**55.8366**

3.8 Architectural Coatings - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0439	0.0540	0.4737	7.2000e-004	0.0629	4.4000e-004	0.0633	0.0167	4.1000e-004	0.0171	0.0000	44.2995	44.2995	3.5700e-003	0.0000	44.3746
Total	**0.0439**	**0.0540**	**0.4737**	**7.2000e-004**	**0.0629**	**4.4000e-004**	**0.0633**	**0.0167**	**4.1000e-004**	**0.0171**	**0.0000**	**44.2995**	**44.2995**	**3.5700e-003**	**0.0000**	**44.3746**

3.8 Architectural Coatings - 2021

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	0.4570					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0104	0.0725	0.0863	1.4000e-004		4.4700e-003	4.4700e-003		4.4700e-003	4.4700e-003	0.0000	12.1280	12.1280	8.3000e-004	0.0000	12.1454
Total	**0.4674**	**0.0725**	**0.0863**	**1.4000e-004**		**4.4700e-003**	**4.4700e-003**		**4.4700e-003**	**4.4700e-003**	**0.0000**	**12.1280**	**12.1280**	**8.3000e-004**	**0.0000**	**12.1454**

3.8 Architectural Coatings - 2021

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	9.0900e-003	0.0113	0.0986	1.6000e-004	0.0137	1.0000e-004	0.0138	3.6300e-003	9.0000e-005	3.7200e-003	0.0000	9.5020	9.5020	7.6000e-004	0.0000	9.5179
Total	**9.0900e-003**	**0.0113**	**0.0986**	**1.6000e-004**	**0.0137**	**1.0000e-004**	**0.0138**	**3.6300e-003**	**9.0000e-005**	**3.7200e-003**	**0.0000**	**9.5020**	**9.5020**	**7.6000e-004**	**0.0000**	**9.5179**

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	0.4570					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0104	0.0725	0.0863	1.4000e-004		4.4700e-003	4.4700e-003		4.4700e-003	4.4700e-003	0.0000	12.1279	12.1279	8.3000e-004	0.0000	12.1454
Total	**0.4674**	**0.0725**	**0.0863**	**1.4000e-004**		**4.4700e-003**	**4.4700e-003**		**4.4700e-003**	**4.4700e-003**	**0.0000**	**12.1279**	**12.1279**	**8.3000e-004**	**0.0000**	**12.1454**

3.8 Architectural Coatings - 2021

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	9.0900e-003	0.0113	0.0986	1.6000e-004	0.0137	1.0000e-004	0.0138	3.6300e-003	9.0000e-005	3.7200e-003	0.0000	9.5020	9.5020	7.6000e-004	0.0000	9.5179
Total	**9.0900e-003**	**0.0113**	**0.0986**	**1.6000e-004**	**0.0137**	**1.0000e-004**	**0.0138**	**3.6300e-003**	**9.0000e-005**	**3.7200e-003**	**0.0000**	**9.5020**	**9.5020**	**7.6000e-004**	**0.0000**	**9.5179**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Increase Diversity

Improve Walkability Design

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive 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	3.9760	7.1743	37.1193	0.0456	2.9299	0.0945	3.0245	0.7821	0.0871	0.8691	0.0000	3,184.2517	3,184.2517	0.1765	0.0000	3,187.9576
Unmitigated	4.2056	8.7338	42.5014	0.0596	3.9074	0.1223	4.0297	1.0430	0.1126	1.1556	0.0000	4,165.2335	4,165.2335	0.2205	0.0000	4,169.8635

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	21.92	18.44	18.44	11,169	8,375
Single Family Housing	6,170.00	6,219.36	5411.09	10,172,855	7,627,990
Total	6,191.92	6,237.80	5,429.53	10,184,023	7,636,365

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	2.00	2.00	2.00	33.00	48.00	19.00	66	28	6
Single Family Housing	7.30	3.90	3.70	40.20	19.20	40.60	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.453353	0.072072	0.167043	0.164349	0.044084	0.005634	0.012559	0.073882	0.001798	0.000151	0.002348	0.000646	0.002080

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive 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	2,561.8462	2,561.8462	0.0585	0.0121	2,566.8232
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,731.5122	2,731.5122	0.0623	0.0129	2,736.8188
NaturalGas Mitigated	0.0892	0.7623	0.3244	4.8700e-003		0.0616	0.0616		0.0616	0.0616	0.0000	882.8216	882.8216	0.0169	0.0162	888.1943
NaturalGas Unmitigated	0.1123	0.9600	0.4085	6.1300e-003		0.0776	0.0776		0.0776	0.0776	0.0000	1,111.7917	1,111.7917	0.0213	0.0204	1,118.5579

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	2.08342e+007	0.1123	0.9600	0.4085	6.1300e-003		0.0776	0.0776		0.0776	0.0776	0.0000	1,111.7917	1,111.7917	0.0213	0.0204	1,118.5579
Total		**0.1123**	**0.9600**	**0.4085**	**6.1300e-003**		**0.0776**	**0.0776**		**0.0776**	**0.0776**	**0.0000**	**1,111.7917**	**1,111.7917**	**0.0213**	**0.0204**	**1,118.5579**

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.65435e+007	0.0892	0.7623	0.3244	4.8700e-003		0.0616	0.0616		0.0616	0.0616	0.0000	882.8216	882.8216	0.0169	0.0162	888.1943
Total		**0.0892**	**0.7623**	**0.3244**	**4.8700e-003**		**0.0616**	**0.0616**		**0.0616**	**0.0616**	**0.0000**	**882.8216**	**882.8216**	**0.0169**	**0.0162**	**888.1943**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	4.73834e+006	2,731.5122	0.0623	0.0129	2,736.8188
Total		**2,731.5122**	**0.0623**	**0.0129**	**2,736.8188**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	4.44402e+006	2,561.8462	0.0585	0.0121	2,566.8232
Total		**2,561.8462**	**0.0585**	**0.0121**	**2,566.8232**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive 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	7.0719	0.0532	4.5992	2.4000e-004		0.0575	0.0575		0.0572	0.0572	0.0000	469.1646	469.1646	0.0162	8.4600e-003	472.1276
Unmitigated	10.5851	0.0878	7.9591	2.4000e-004		0.5144	0.5144		0.5141	0.5141	41.0307	420.5666	461.5973	0.0152	0.0112	465.3868

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	1.0462					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.3109					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.0880	0.0346	3.3625	0.0000		0.4891	0.4891		0.4888	0.4888	41.0307	413.0829	454.1136	7.9200e-003	0.0112	457.7499
Landscaping	0.1400	0.0532	4.5966	2.4000e-004		0.0253	0.0253		0.0253	0.0253	0.0000	7.4837	7.4837	7.3000e-003	0.0000	7.6369
Total	**10.5851**	**0.0878**	**7.9591**	**2.4000e-004**		**0.5144**	**0.5144**		**0.5141**	**0.5141**	**41.0307**	**420.5666**	**461.5973**	**0.0152**	**0.0112**	**465.3868**

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	1.0462					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	5.8390					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0467	0.0000	2.5400e-003	0.0000		0.0322	0.0322		0.0319	0.0319	0.0000	461.6809	461.6809	8.8500e-003	8.4600e-003	464.4907
Landscaping	0.1400	0.0532	4.5966	2.4000e-004		0.0253	0.0253		0.0253	0.0253	0.0000	7.4837	7.4837	7.3000e-003	0.0000	7.6369
Total	**7.0719**	**0.0532**	**4.5992**	**2.4000e-004**		**0.0575**	**0.0575**		**0.0572**	**0.0572**	**0.0000**	**469.1646**	**469.1646**	**0.0162**	**8.4600e-003**	**472.1276**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	443.8916	1.0578	0.0268	474.4114
Unmitigated	565.3377	1.3225	0.0335	603.5078

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 13.8212	88.5190	2.0200e-003	4.2000e-004	88.6910
Single Family Housing	40.2 / 25.3435	476.8187	1.3205	0.0331	514.8168
Total		**565.3377**	**1.3225**	**0.0335**	**603.5078**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 11.0569	70.8152	1.6200e-003	3.3000e-004	70.9528
Single Family Housing	32.16 / 20.2748	373.0764	1.0562	0.0265	403.4586
Total		**443.8916**	**1.0578**	**0.0268**	**474.4114**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	166.0730	9.8146	0.0000	372.1803
Unmitigated	166.0730	9.8146	0.0000	372.1803

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	1	0.2030	0.0120	0.0000	0.4549
Single Family Housing	817.13	165.8700	9.8026	0.0000	371.7254
Total		**166.0730**	**9.8146**	**0.0000**	**372.1803**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	1	0.2030	0.0120	0.0000	0.4549
Single Family Housing	817.13	165.8700	9.8026	0.0000	371.7254
Total		**166.0730**	**9.8146**	**0.0000**	**372.1803**

9.0 Operational Offroad

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

10.0 Vegetation

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ATTACHMENT 2

CalEEMod Output – BAU GHG Emissions

7524 Lotus Ranch BAU

Imperial County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	11.60	Acre	11.60	505,296.00	0
Single Family Housing	617.00	Dwelling Unit	201.40	1,110,600.00	1993

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.4	**Precipitation Freq (Days)**	12
Climate Zone	15			**Operational Year**	2020
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MWhr)	1270.9	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 213 acres

Construction Phase - Grading schedule obtained from project engineer
Building construction/arch coatings assumed to last 5 years

Off-road Equipment - 10 hours construction/day

Off-road Equipment - 10 hours construction/day

Off-road Equipment - Equipment obtained from project engineer

Off-road Equipment - Equipment obtained from project engineer

Off-road Equipment - Equipment obtained from project engineer

Off-road Equipment - Equipment obtained from project engineer

Off-road Equipment - Equipment obtained from project engineer
Trips and VMT -

On-road Fugitive Dust - Workers and trucks would travel paved roads

Grading -

Architectural Coating -

Vehicle Trips - Park - 1.89 trips/acre
Single-Family - 10 trips/du

Vechicle Emission Factors - BAU emission factors

Vechicle Emission Factors - BAU emission factors

Vechicle Emission Factors - BAU emission factors

Road Dust - Residential trips would travel paved roads

Woodstoves - No woodstoves

Area Coating -

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation -

Water Mitigation -

Energy Use -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	330.00	1,305.00
tblConstructionPhase	NumDays	4,650.00	1,305.00
tblConstructionPhase	NumDays	465.00	14.00
tblConstructionPhase	NumDays	465.00	7.00
tblConstructionPhase	NumDays	330.00	3.00

tblConstructionPhase	NumDays	180.00	2.00
tblConstructionPhase	PhaseEndDate	3/23/2026	3/22/2021
tblConstructionPhase	PhaseStartDate	3/23/2021	3/22/2016
tblLandUse	LotAcreage	200.32	201.40
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
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tblOffRoadEquipment	PhaseName		Grubbing/Land Clearing
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tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00

tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	10.00
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tblOffRoadEquipment	UsageHours	8.00	10.00
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tblOnRoadDust	WorkerPercentPave	50.00	100.00
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tblVehicleTrips	CW_TL	6.70	2.00
tblVehicleTrips	WD_TR	1.59	1.89
tblVehicleTrips	WD_TR	9.57	10.00
tblWoodstoves	NumberCatalytic	15.43	0.00
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tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	1,509.20	0.00

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					
2016	2.7717	7.7209	9.0431	0.0127	0.4385	0.4056	0.8441	0.1147	0.3812	0.4959	0.0000	1,094.1609	1,094.1609	0.1488	0.0000	1,097.2865
2017	3.2354	7.2669	9.7594	0.0144	0.5264	0.3874	0.9138	0.1424	0.3649	0.5073	0.0000	1,203.4734	1,203.4734	0.1381	0.0000	1,206.3730
2018	3.1069	6.4905	9.1519	0.0145	0.5283	0.3310	0.8592	0.1429	0.3120	0.4549	0.0000	1,183.5122	1,183.5122	0.1346	0.0000	1,186.3388
2019	3.0010	5.8725	8.6819	0.0145	0.5281	0.2873	0.8154	0.1428	0.2708	0.4136	0.0000	1,160.4907	1,160.4907	0.1310	0.0000	1,163.2415
2020	2.9227	5.2754	8.2759	0.0145	0.5300	0.2511	0.7811	0.1433	0.2367	0.3800	0.0000	1,137.3663	1,137.3663	0.1287	0.0000	1,140.0697
2021	0.6219	1.0216	1.7466	3.1500e-003	0.1153	0.0471	0.1624	0.0312	0.0444	0.0755	0.0000	246.5036	246.5036	0.0276	0.0000	247.0825
Total	**15.6596**	**33.6477**	**46.6588**	**0.0737**	**2.6666**	**1.7094**	**4.3760**	**0.7172**	**1.6100**	**2.3273**	**0.0000**	**6,025.5071**	**6,025.5071**	**0.7088**	**0.0000**	**6,040.3921**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	2.7717	7.7209	9.0431	0.0127	0.4240	0.4056	0.8295	0.1132	0.3812	0.4944	0.0000	1,094.1603	1,094.1603	0.1488	0.0000	1,097.2859
2017	3.2354	7.2669	9.7594	0.0144	0.5264	0.3874	0.9138	0.1424	0.3649	0.5073	0.0000	1,203.4728	1,203.4728	0.1381	0.0000	1,206.3725
2018	3.1069	6.4905	9.1519	0.0145	0.5283	0.3310	0.8592	0.1429	0.3120	0.4549	0.0000	1,183.5117	1,183.5117	0.1346	0.0000	1,186.3383
2019	3.0010	5.8724	8.6819	0.0145	0.5281	0.2873	0.8154	0.1428	0.2708	0.4136	0.0000	1,160.4901	1,160.4901	0.1310	0.0000	1,163.2409
2020	2.9227	5.2754	8.2759	0.0145	0.5300	0.2511	0.7811	0.1433	0.2367	0.3800	0.0000	1,137.3657	1,137.3657	0.1287	0.0000	1,140.0691
2021	0.6219	1.0216	1.7466	3.1500e-003	0.1153	0.0471	0.1624	0.0312	0.0444	0.0755	0.0000	246.5035	246.5035	0.0276	0.0000	247.0824
Total	**15.6596**	**33.6477**	**46.6588**	**0.0737**	**2.6520**	**1.7094**	**4.3615**	**0.7157**	**1.6100**	**2.3257**	**0.0000**	**6,025.5042**	**6,025.5042**	**0.7088**	**0.0000**	**6,040.3891**

	ROG	NOx	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**	**0.55**	**0.00**	**0.33**	**0.22**	**0.00**	**0.07**	**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	10.5851	0.0878	7.9591	2.4000e-004		0.5144	0.5144		0.5141	0.5141	41.0307	420.5666	461.5973	0.0152	0.0112	465.3868
Energy	0.1226	1.0479	0.4459	6.6900e-003		0.0847	0.0847		0.0847	0.0847	0.0000	4,047.5328	4,047.5328	0.0879	0.0356	4,060.4239
Mobile	4.2056	8.7338	42.5014	0.0596	3.9074	0.1223	4.0297	1.0430	0.1126	1.1556	0.0000	5,682.0497	5,682.0497	0.2205	0.0000	5,686.6797
Waste						0.0000	0.0000		0.0000	0.0000	166.0730	0.0000	166.0730	9.8146	0.0000	372.1803
Water						0.0000	0.0000		0.0000	0.0000	12.7536	552.5841	565.3377	1.3225	0.0335	603.5078
Total	**14.9134**	**9.8694**	**50.9065**	**0.0665**	**3.9074**	**0.7214**	**4.6288**	**1.0430**	**0.7114**	**1.7544**	**219.8573**	**10,702.7331**	**10,922.5904**	**11.4608**	**0.0804**	**11,188.1785**

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	7.5438	0.0532	4.5992	2.4000e-004		0.0575	0.0575		0.0572	0.0572	0.0000	469.1646	469.1646	0.0162	8.4600e-003	472.1276
Energy	0.1226	1.0479	0.4459	6.6900e-003		0.0847	0.0847		0.0847	0.0847	0.0000	4,047.5328	4,047.5328	0.0879	0.0356	4,060.4239
Mobile	4.2056	8.7338	42.5014	0.0596	3.9074	0.1223	4.0297	1.0430	0.1126	1.1556	0.0000	5,682.0497	5,682.0497	0.2205	0.0000	5,686.6797
Waste						0.0000	0.0000		0.0000	0.0000	166.0730	0.0000	166.0730	9.8146	0.0000	372.1803
Water						0.0000	0.0000		0.0000	0.0000	12.7536	552.5841	565.3377	1.3223	0.0335	603.4875
Total	**11.8720**	**9.8348**	**47.5465**	**0.0665**	**3.9074**	**0.2645**	**4.1719**	**1.0430**	**0.2545**	**1.2975**	**178.8266**	**10,751.3311**	**10,930.1577**	**11.4615**	**0.0776**	**11,194.8989**

	ROG	NOx	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	**20.39**	**0.35**	**6.60**	**0.00**	**0.00**	**63.34**	**9.87**	**0.00**	**64.23**	**26.04**	**18.66**	**-0.45**	**-0.07**	**-0.01**	**3.46**	**-0.06**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grubbing/Land Clearing	Site Preparation	1/4/2016	1/5/2016	5	2	
2	Grading	Grading	1/6/2016	1/25/2016	5	14	
3	Fine Grading	Grading	1/26/2016	2/3/2016	5	7	
4	Drainage/Utilities	Trenching	2/4/2016	3/16/2016	5	30	
5	Paving	Paving	3/17/2016	3/21/2016	5	3	
6	Building Construction	Building Construction	3/22/2016	3/22/2021	5	1305	
7	Architectural Coatings	Architectural Coating	3/22/2016	3/22/2021	5	1305	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 43.75

Acres of Paving: 0

Residential Indoor: 2,248,965; Residential Outdoor: 749,655; Non-Residential Indoor: 757,944; Non-Residential Outdoor: 252,648 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grubbing/Land Clearing	Graders	1	10.00	174	0.41
Grubbing/Land Clearing	Off-Highway Trucks	1	10.00	400	0.38
Grubbing/Land Clearing	Rubber Tired Dozers	0	0.00	255	0.40
Grubbing/Land Clearing	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Grading	Excavators	0	0.00	162	0.38
Grading	Graders	1	10.00	174	0.41
Grading	Off-Highway Trucks	1	10.00	400	0.38
Grading	Rubber Tired Dozers	0	0.00	255	0.40
Grading	Scrapers	2	10.00	361	0.48
Grading	Tractors/Loaders/Backhoes	0	0.00	97	0.37

Fine Grading	Excavators	1	10.00	162	0.38
Fine Grading	Graders	0	0.00	174	0.41
Fine Grading	Off-Highway Trucks	1	10.00	400	0.38
Fine Grading	Plate Compactors	1	10.00	8	0.43
Fine Grading	Rubber Tired Dozers	0	0.00	255	0.40
Fine Grading	Rubber Tired Loaders	1	10.00	199	0.36
Fine Grading	Scrapers	0	0.00	361	0.48
Fine Grading	Tractors/Loaders/Backhoes	1	10.00	97	0.37
Drainage/Utilities	Concrete/Industrial Saws	1	10.00	81	0.73
Drainage/Utilities	Graders	1	10.00	174	0.41
Drainage/Utilities	Off-Highway Trucks	1	10.00	400	0.38
Drainage/Utilities	Scrapers	1	10.00	361	0.48
Paving	Graders	1	10.00	174	0.41
Paving	Pavers	1	10.00	125	0.42
Paving	Paving Equipment	0	0.00	130	0.36
Paving	Rollers	1	10.00	80	0.38
Paving	Rubber Tired Loaders	1	10.00	199	0.36
Building Construction	Cranes	1	10.00	226	0.29
Building Construction	Forklifts	3	10.00	89	0.20
Building Construction	Generator Sets	1	10.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	10.00	97	0.37
Building Construction	Welders	1	10.00	46	0.45
Architectural Coatings	Air Compressors	1	10.00	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
Grubbing/Land Clearing	2	5.00	0.00	0.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT
Fine Grading	5	13.00	0.00	0.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT
Drainage/Utilities	4	10.00	0.00	0.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	4	10.00	0.00	0.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	434.00	149.00	0.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coatings	1	87.00	0.00	0.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grubbing/Land Clearing - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					6.6000e-004	0.0000	6.6000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4500e-003	0.0265	0.0125	2.0000e-005		1.2400e-003	1.2400e-003		1.1400e-003	1.1400e-003	0.0000	2.2864	2.2864	6.9000e-004	0.0000	2.3009
Total	**2.4500e-003**	**0.0265**	**0.0125**	**2.0000e-005**	**6.6000e-004**	**1.2400e-003**	**1.9000e-003**	**7.0000e-005**	**1.1400e-003**	**1.2100e-003**	**0.0000**	**2.2864**	**2.2864**	**6.9000e-004**	**0.0000**	**2.3009**

3.2 Grubbing/Land Clearing - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.9000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0228	0.0228	0.0000	0.0000	0.0228
Total	**3.0000e-005**	**3.0000e-005**	**2.9000e-004**	**0.0000**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0228**	**0.0228**	**0.0000**	**0.0000**	**0.0228**

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					2.6000e-004	0.0000	2.6000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4500e-003	0.0265	0.0125	2.0000e-005		1.2400e-003	1.2400e-003		1.1400e-003	1.1400e-003	0.0000	2.2864	2.2864	6.9000e-004	0.0000	2.3009
Total	**2.4500e-003**	**0.0265**	**0.0125**	**2.0000e-005**	**2.6000e-004**	**1.2400e-003**	**1.5000e-003**	**3.0000e-005**	**1.1400e-003**	**1.1700e-003**	**0.0000**	**2.2864**	**2.2864**	**6.9000e-004**	**0.0000**	**2.3009**

3.2 Grubbing/Land Clearing - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	3.0000e-005	2.9000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0228	0.0228	0.0000	0.0000	0.0228
Total	**3.0000e-005**	**3.0000e-005**	**2.9000e-004**	**0.0000**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0228**	**0.0228**	**0.0000**	**0.0000**	**0.0228**

3.3 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0232	0.0000	0.0232	2.5000e-003	0.0000	2.5000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0414	0.4937	0.2802	4.3000e-004		0.0211	0.0211		0.0194	0.0194	0.0000	40.5720	40.5720	0.0122	0.0000	40.8290
Total	**0.0414**	**0.4937**	**0.2802**	**4.3000e-004**	**0.0232**	**0.0211**	**0.0443**	**2.5000e-003**	**0.0194**	**0.0219**	**0.0000**	**40.5720**	**40.5720**	**0.0122**	**0.0000**	**40.8290**

3.3 Grading - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	4.6000e-004	4.1000e-003	0.0000	3.9000e-004	0.0000	3.9000e-004	1.0000e-004	0.0000	1.1000e-004	0.0000	0.3191	0.3191	3.0000e-005	0.0000	0.3197
Total	**3.9000e-004**	**4.6000e-004**	**4.1000e-003**	**0.0000**	**3.9000e-004**	**0.0000**	**3.9000e-004**	**1.0000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.3191**	**0.3191**	**3.0000e-005**	**0.0000**	**0.3197**

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					9.0500e-003	0.0000	9.0500e-003	9.8000e-004	0.0000	9.8000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0414	0.4937	0.2802	4.3000e-004		0.0211	0.0211		0.0194	0.0194	0.0000	40.5720	40.5720	0.0122	0.0000	40.8290
Total	**0.0414**	**0.4937**	**0.2802**	**4.3000e-004**	**9.0500e-003**	**0.0211**	**0.0302**	**9.8000e-004**	**0.0194**	**0.0204**	**0.0000**	**40.5720**	**40.5720**	**0.0122**	**0.0000**	**40.8290**

3.3 Grading - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	4.6000e-004	4.1000e-003	0.0000	3.9000e-004	0.0000	3.9000e-004	1.0000e-004	0.0000	1.1000e-004	0.0000	0.3191	0.3191	3.0000e-005	0.0000	0.3197
Total	**3.9000e-004**	**4.6000e-004**	**4.1000e-003**	**0.0000**	**3.9000e-004**	**0.0000**	**3.9000e-004**	**1.0000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.3191**	**0.3191**	**3.0000e-005**	**0.0000**	**0.3197**

3.4 Fine Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6600e-003	0.1105	0.0566	1.2000e-004		4.8500e-003	4.8500e-003		4.4600e-003	4.4600e-003	0.0000	11.5547	11.5547	3.4600e-003	0.0000	11.6274
Total	**9.6600e-003**	**0.1105**	**0.0566**	**1.2000e-004**	**0.0000**	**4.8500e-003**	**4.8500e-003**	**0.0000**	**4.4600e-003**	**4.4600e-003**	**0.0000**	**11.5547**	**11.5547**	**3.4600e-003**	**0.0000**	**11.6274**

3.4 Fine Grading - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5000e-004	3.0000e-004	2.6700e-003	0.0000	2.5000e-004	0.0000	2.5000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2074	0.2074	2.0000e-005	0.0000	0.2078
Total	**2.5000e-004**	**3.0000e-004**	**2.6700e-003**	**0.0000**	**2.5000e-004**	**0.0000**	**2.5000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2074**	**0.2074**	**2.0000e-005**	**0.0000**	**0.2078**

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6600e-003	0.1105	0.0566	1.2000e-004		4.8500e-003	4.8500e-003		4.4600e-003	4.4600e-003	0.0000	11.5547	11.5547	3.4600e-003	0.0000	11.6273
Total	**9.6600e-003**	**0.1105**	**0.0566**	**1.2000e-004**	**0.0000**	**4.8500e-003**	**4.8500e-003**	**0.0000**	**4.4600e-003**	**4.4600e-003**	**0.0000**	**11.5547**	**11.5547**	**3.4600e-003**	**0.0000**	**11.6273**

3.4 Fine Grading - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5000e-004	3.0000e-004	2.6700e-003	0.0000	2.5000e-004	0.0000	2.5000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2074	0.2074	2.0000e-005	0.0000	0.2078
Total	**2.5000e-004**	**3.0000e-004**	**2.6700e-003**	**0.0000**	**2.5000e-004**	**0.0000**	**2.5000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2074**	**0.2074**	**2.0000e-005**	**0.0000**	**0.2078**

3.5 Drainage/Utilities - 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	0.0748	0.8147	0.4646	7.6000e-004		0.0384	0.0384		0.0359	0.0359	0.0000	70.6991	70.6991	0.0193	0.0000	71.1035
Total	**0.0748**	**0.8147**	**0.4646**	**7.6000e-004**		**0.0384**	**0.0384**		**0.0359**	**0.0359**	**0.0000**	**70.6991**	**70.6991**	**0.0193**	**0.0000**	**71.1035**

3.5 Drainage/Utilities - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.3000e-004	9.8000e-004	8.7900e-003	1.0000e-005	8.3000e-004	1.0000e-005	8.3000e-004	2.2000e-004	1.0000e-005	2.3000e-004	0.0000	0.6837	0.6837	6.0000e-005	0.0000	0.6850
Total	**8.3000e-004**	**9.8000e-004**	**8.7900e-003**	**1.0000e-005**	**8.3000e-004**	**1.0000e-005**	**8.3000e-004**	**2.2000e-004**	**1.0000e-005**	**2.3000e-004**	**0.0000**	**0.6837**	**0.6837**	**6.0000e-005**	**0.0000**	**0.6850**

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	0.0748	0.8147	0.4646	7.6000e-004		0.0384	0.0384		0.0359	0.0359	0.0000	70.6990	70.6990	0.0193	0.0000	71.1034
Total	**0.0748**	**0.8147**	**0.4646**	**7.6000e-004**		**0.0384**	**0.0384**		**0.0359**	**0.0359**	**0.0000**	**70.6990**	**70.6990**	**0.0193**	**0.0000**	**71.1034**

3.5 Drainage/Utilities - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.3000e-004	9.8000e-004	8.7900e-003	1.0000e-005	8.3000e-004	1.0000e-005	8.3000e-004	2.2000e-004	1.0000e-005	2.3000e-004	0.0000	0.6837	0.6837	6.0000e-005	0.0000	0.6850
Total	**8.3000e-004**	**9.8000e-004**	**8.7900e-003**	**1.0000e-005**	**8.3000e-004**	**1.0000e-005**	**8.3000e-004**	**2.2000e-004**	**1.0000e-005**	**2.3000e-004**	**0.0000**	**0.6837**	**0.6837**	**6.0000e-005**	**0.0000**	**0.6850**

3.6 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	4.2300e-003	0.0459	0.0218	4.0000e-005		2.3600e-003	2.3600e-003		2.1700e-003	2.1700e-003	0.0000	3.4484	3.4484	1.0400e-003	0.0000	3.4702
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.2300e-003**	**0.0459**	**0.0218**	**4.0000e-005**		**2.3600e-003**	**2.3600e-003**		**2.1700e-003**	**2.1700e-003**	**0.0000**	**3.4484**	**3.4484**	**1.0400e-003**	**0.0000**	**3.4702**

3.6 Paving - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	1.0000e-004	8.8000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0684	0.0684	1.0000e-005	0.0000	0.0685
Total	**8.0000e-005**	**1.0000e-004**	**8.8000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0684**	**0.0684**	**1.0000e-005**	**0.0000**	**0.0685**

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	4.2300e-003	0.0459	0.0218	4.0000e-005		2.3600e-003	2.3600e-003		2.1700e-003	2.1700e-003	0.0000	3.4484	3.4484	1.0400e-003	0.0000	3.4702
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.2300e-003**	**0.0459**	**0.0218**	**4.0000e-005**		**2.3600e-003**	**2.3600e-003**		**2.1700e-003**	**2.1700e-003**	**0.0000**	**3.4484**	**3.4484**	**1.0400e-003**	**0.0000**	**3.4702**

3.6 Paving - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	1.0000e-004	8.8000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0684	0.0684	1.0000e-005	0.0000	0.0685
Total	**8.0000e-005**	**1.0000e-004**	**8.8000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0684**	**0.0684**	**1.0000e-005**	**0.0000**	**0.0685**

3.7 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	0.4621	3.9262	2.5225	3.6600e-003		0.2690	0.2690		0.2524	0.2524	0.0000	331.2612	331.2612	0.0834	0.0000	333.0119
Total	**0.4621**	**3.9262**	**2.5225**	**3.6600e-003**		**0.2690**	**0.2690**		**0.2524**	**0.2524**	**0.0000**	**331.2612**	**331.2612**	**0.0834**	**0.0000**	**333.0119**

3.7 Building Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1825	1.5522	2.2330	3.8300e-003	0.1200	0.0329	0.1529	0.0339	0.0303	0.0642	0.0000	347.4061	347.4061	2.0900e-003	0.0000	347.4501
Worker	0.2456	0.2883	2.5947	2.7900e-003	0.2442	1.8900e-003	0.2461	0.0648	1.7300e-003	0.0666	0.0000	201.7779	201.7779	0.0179	0.0000	202.1533
Total	**0.4282**	**1.8406**	**4.8278**	**6.6200e-003**	**0.3641**	**0.0348**	**0.3989**	**0.0988**	**0.0320**	**0.1308**	**0.0000**	**549.1840**	**549.1840**	**0.0200**	**0.0000**	**549.6034**

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	0.4621	3.9262	2.5225	3.6600e-003		0.2690	0.2690		0.2524	0.2524	0.0000	331.2608	331.2608	0.0834	0.0000	333.0115
Total	**0.4621**	**3.9262**	**2.5225**	**3.6600e-003**		**0.2690**	**0.2690**		**0.2524**	**0.2524**	**0.0000**	**331.2608**	**331.2608**	**0.0834**	**0.0000**	**333.0115**

3.7 Building Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1825	1.5522	2.2330	3.8300e-003	0.1200	0.0329	0.1529	0.0339	0.0303	0.0642	0.0000	347.4061	347.4061	2.0900e-003	0.0000	347.4501
Worker	0.2456	0.2883	2.5947	2.7900e-003	0.2442	1.8900e-003	0.2461	0.0648	1.7300e-003	0.0666	0.0000	201.7779	201.7779	0.0179	0.0000	202.1533
Total	**0.4282**	**1.8406**	**4.8278**	**6.6200e-003**	**0.3641**	**0.0348**	**0.3989**	**0.0988**	**0.0320**	**0.1308**	**0.0000**	**549.1840**	**549.1840**	**0.0200**	**0.0000**	**549.6034**

3.7 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.5366	4.6327	3.1479	4.6600e-003		0.3104	0.3104		0.2911	0.2911	0.0000	417.3846	417.3846	0.1044	0.0000	419.5776
Total	**0.5366**	**4.6327**	**3.1479**	**4.6600e-003**		**0.3104**	**0.3104**		**0.2911**	**0.2911**	**0.0000**	**417.3846**	**417.3846**	**0.1044**	**0.0000**	**419.5776**

3.7 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.2041	1.7588	2.6219	4.8700e-003	0.1528	0.0367	0.1895	0.0432	0.0337	0.0769	0.0000	434.8201	434.8201	2.5000e-003	0.0000	434.8725
Worker	0.2818	0.3349	2.9863	3.5500e-003	0.3112	2.3100e-003	0.3135	0.0826	2.1200e-003	0.0847	0.0000	246.5288	246.5288	0.0211	0.0000	246.9716
Total	**0.4859**	**2.0937**	**5.6082**	**8.4200e-003**	**0.4640**	**0.0390**	**0.5030**	**0.1258**	**0.0358**	**0.1617**	**0.0000**	**681.3489**	**681.3489**	**0.0236**	**0.0000**	**681.8442**

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	0.5366	4.6327	3.1478	4.6600e-003		0.3104	0.3104		0.2911	0.2911	0.0000	417.3841	417.3841	0.1044	0.0000	419.5771
Total	**0.5366**	**4.6327**	**3.1478**	**4.6600e-003**		**0.3104**	**0.3104**		**0.2911**	**0.2911**	**0.0000**	**417.3841**	**417.3841**	**0.1044**	**0.0000**	**419.5771**

3.7 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.2041	1.7588	2.6219	4.8700e-003	0.1528	0.0367	0.1895	0.0432	0.0337	0.0769	0.0000	434.8201	434.8201	2.5000e-003	0.0000	434.8725
Worker	0.2818	0.3349	2.9863	3.5500e-003	0.3112	2.3100e-003	0.3135	0.0826	2.1200e-003	0.0847	0.0000	246.5288	246.5288	0.0211	0.0000	246.9716
Total	**0.4859**	**2.0937**	**5.6082**	**8.4200e-003**	**0.4640**	**0.0390**	**0.5030**	**0.1258**	**0.0358**	**0.1617**	**0.0000**	**681.3489**	**681.3489**	**0.0236**	**0.0000**	**681.8442**

3.7 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	0.4630	4.0914	3.0533	4.6800e-003		0.2610	0.2610		0.2451	0.2451	0.0000	414.0953	414.0953	0.1032	0.0000	416.2623
Total	**0.4630**	**4.0914**	**3.0533**	**4.6800e-003**		**0.2610**	**0.2610**		**0.2451**	**0.2451**	**0.0000**	**414.0953**	**414.0953**	**0.1032**	**0.0000**	**416.2623**

3.7 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	0.1796	1.5927	2.4254	4.8700e-003	0.1532	0.0345	0.1877	0.0433	0.0317	0.0750	0.0000	428.2288	428.2288	2.4500e-003	0.0000	428.2801
Worker	0.2556	0.3084	2.7239	3.5600e-003	0.3124	2.2500e-003	0.3147	0.0829	2.0800e-003	0.0850	0.0000	237.9543	237.9543	0.0197	0.0000	238.3686
Total	**0.4352**	**1.9011**	**5.1493**	**8.4300e-003**	**0.4656**	**0.0368**	**0.5024**	**0.1262**	**0.0338**	**0.1600**	**0.0000**	**666.1831**	**666.1831**	**0.0222**	**0.0000**	**666.6488**

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	0.4630	4.0914	3.0533	4.6800e-003		0.2610	0.2610		0.2451	0.2451	0.0000	414.0948	414.0948	0.1032	0.0000	416.2618
Total	**0.4630**	**4.0914**	**3.0533**	**4.6800e-003**		**0.2610**	**0.2610**		**0.2451**	**0.2451**	**0.0000**	**414.0948**	**414.0948**	**0.1032**	**0.0000**	**416.2618**

3.7 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	0.1796	1.5927	2.4254	4.8700e-003	0.1532	0.0345	0.1877	0.0433	0.0317	0.0750	0.0000	428.2288	428.2288	2.4500e-003	0.0000	428.2801
Worker	0.2556	0.3084	2.7239	3.5600e-003	0.3124	2.2500e-003	0.3147	0.0829	2.0800e-003	0.0850	0.0000	237.9543	237.9543	0.0197	0.0000	238.3686
Total	**0.4352**	**1.9011**	**5.1493**	**8.4300e-003**	**0.4656**	**0.0368**	**0.5024**	**0.1262**	**0.0338**	**0.1600**	**0.0000**	**666.1831**	**666.1831**	**0.0222**	**0.0000**	**666.6488**

3.7 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	0.4079	3.6827	2.9794	4.6800e-003		0.2243	0.2243		0.2106	0.2106	0.0000	409.3171	409.3171	0.1016	0.0000	411.4506
Total	**0.4079**	**3.6827**	**2.9794**	**4.6800e-003**		**0.2243**	**0.2243**		**0.2106**	**0.2106**	**0.0000**	**409.3171**	**409.3171**	**0.1016**	**0.0000**	**411.4506**

3.7 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	0.1618	1.4481	2.2867	4.8600e-003	0.1531	0.0324	0.1855	0.0432	0.0298	0.0731	0.0000	420.4751	420.4751	2.3800e-003	0.0000	420.5251
Worker	0.2339	0.2852	2.5118	3.5600e-003	0.3124	2.2200e-003	0.3146	0.0829	2.0500e-003	0.0850	0.0000	229.2163	229.2163	0.0186	0.0000	229.6068
Total	**0.3957**	**1.7333**	**4.7986**	**8.4200e-003**	**0.4655**	**0.0346**	**0.5001**	**0.1262**	**0.0319**	**0.1580**	**0.0000**	**649.6914**	**649.6914**	**0.0210**	**0.0000**	**650.1320**

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	0.4079	3.6827	2.9794	4.6800e-003		0.2243	0.2243		0.2106	0.2106	0.0000	409.3167	409.3167	0.1016	0.0000	411.4501
Total	**0.4079**	**3.6827**	**2.9794**	**4.6800e-003**		**0.2243**	**0.2243**		**0.2106**	**0.2106**	**0.0000**	**409.3167**	**409.3167**	**0.1016**	**0.0000**	**411.4501**

3.7 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	0.1618	1.4481	2.2867	4.8600e-003	0.1531	0.0324	0.1855	0.0432	0.0298	0.0731	0.0000	420.4751	420.4751	2.3800e-003	0.0000	420.5251
Worker	0.2339	0.2852	2.5118	3.5600e-003	0.3124	2.2200e-003	0.3146	0.0829	2.0500e-003	0.0850	0.0000	229.2163	229.2163	0.0186	0.0000	229.6068
Total	**0.3957**	**1.7333**	**4.7986**	**8.4200e-003**	**0.4655**	**0.0346**	**0.5001**	**0.1262**	**0.0319**	**0.1580**	**0.0000**	**649.6914**	**649.6914**	**0.0210**	**0.0000**	**650.1320**

3.7 Building Construction - 2020

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	0.3677	3.3622	2.9347	4.7000e-003		0.1949	0.1949		0.1830	0.1830	0.0000	404.5956	404.5956	0.1007	0.0000	406.7107
Total	**0.3677**	**3.3622**	**2.9347**	**4.7000e-003**		**0.1949**	**0.1949**		**0.1830**	**0.1830**	**0.0000**	**404.5956**	**404.5956**	**0.1007**	**0.0000**	**406.7107**

3.7 Building Construction - 2020

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	0.1390	1.2224	2.1046	4.8600e-003	0.1535	0.0294	0.1829	0.0434	0.0270	0.0704	0.0000	411.7366	411.7366	2.2900e-003	0.0000	411.7847
Worker	0.2188	0.2692	2.3630	3.5700e-003	0.3136	2.2100e-003	0.3158	0.0833	2.0400e-003	0.0853	0.0000	220.9885	220.9885	0.0178	0.0000	221.3629
Total	**0.3578**	**1.4916**	**4.4676**	**8.4300e-003**	**0.4671**	**0.0316**	**0.4987**	**0.1266**	**0.0291**	**0.1557**	**0.0000**	**632.7251**	**632.7251**	**0.0201**	**0.0000**	**633.1477**

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	0.3677	3.3622	2.9347	4.7000e-003		0.1949	0.1949		0.1830	0.1830	0.0000	404.5951	404.5951	0.1007	0.0000	406.7102
Total	**0.3677**	**3.3622**	**2.9347**	**4.7000e-003**		**0.1949**	**0.1949**		**0.1830**	**0.1830**	**0.0000**	**404.5951**	**404.5951**	**0.1007**	**0.0000**	**406.7102**

3.7 Building Construction - 2020

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	0.1390	1.2224	2.1046	4.8600e-003	0.1535	0.0294	0.1829	0.0434	0.0270	0.0704	0.0000	411.7366	411.7366	2.2900e-003	0.0000	411.7847
Worker	0.2188	0.2692	2.3630	3.5700e-003	0.3136	2.2100e-003	0.3158	0.0833	2.0400e-003	0.0853	0.0000	220.9885	220.9885	0.0178	0.0000	221.3629
Total	**0.3578**	**1.4916**	**4.4676**	**8.4300e-003**	**0.4671**	**0.0316**	**0.4987**	**0.1266**	**0.0291**	**0.1557**	**0.0000**	**632.7251**	**632.7251**	**0.0201**	**0.0000**	**633.1477**

3.7 Building Construction - 2021

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	0.0717	0.6642	0.6280	1.0200e-003		0.0364	0.0364		0.0342	0.0342	0.0000	88.0339	88.0339	0.0217	0.0000	88.4894
Total	**0.0717**	**0.6642**	**0.6280**	**1.0200e-003**		**0.0364**	**0.0364**		**0.0342**	**0.0342**	**0.0000**	**88.0339**	**88.0339**	**0.0217**	**0.0000**	**88.4894**

3.7 Building Construction - 2021

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	0.0284	0.2174	0.4417	1.0600e-003	0.0334	5.6700e-003	0.0391	9.4300e-003	5.2200e-003	0.0147	0.0000	89.4393	89.4393	5.0000e-004	0.0000	89.4498
Worker	0.0454	0.0562	0.4920	7.8000e-004	0.0682	4.8000e-004	0.0687	0.0181	4.4000e-004	0.0186	0.0000	47.4005	47.4005	3.7900e-003	0.0000	47.4801
Total	**0.0737**	**0.2736**	**0.9337**	**1.8400e-003**	**0.1016**	**6.1500e-003**	**0.1078**	**0.0275**	**5.6600e-003**	**0.0332**	**0.0000**	**136.8399**	**136.8399**	**4.2900e-003**	**0.0000**	**136.9298**

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	0.0717	0.6642	0.6280	1.0200e-003		0.0364	0.0364		0.0342	0.0342	0.0000	88.0338	88.0338	0.0217	0.0000	88.4893
Total	**0.0717**	**0.6642**	**0.6280**	**1.0200e-003**		**0.0364**	**0.0364**		**0.0342**	**0.0342**	**0.0000**	**88.0338**	**88.0338**	**0.0217**	**0.0000**	**88.4893**

3.7 Building Construction - 2021

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	0.0284	0.2174	0.4417	1.0600e-003	0.0334	5.6700e-003	0.0391	9.4300e-003	5.2200e-003	0.0147	0.0000	89.4393	89.4393	5.0000e-004	0.0000	89.4498
Worker	0.0454	0.0562	0.4920	7.8000e-004	0.0682	4.8000e-004	0.0687	0.0181	4.4000e-004	0.0186	0.0000	47.4005	47.4005	3.7900e-003	0.0000	47.4801
Total	**0.0737**	**0.2736**	**0.9337**	**1.8400e-003**	**0.1016**	**6.1500e-003**	**0.1078**	**0.0275**	**5.6600e-003**	**0.0332**	**0.0000**	**136.8399**	**136.8399**	**4.2900e-003**	**0.0000**	**136.9298**

3.8 Architectural Coatings - 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	1.6355					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0626	0.4033	0.3203	5.1000e-004		0.0334	0.0334		0.0334	0.0334	0.0000	43.4053	43.4053	5.1200e-003	0.0000	43.5128
Total	**1.6981**	**0.4033**	**0.3203**	**5.1000e-004**		**0.0334**	**0.0334**		**0.0334**	**0.0334**	**0.0000**	**43.4053**	**43.4053**	**5.1200e-003**	**0.0000**	**43.5128**

3.8 Architectural Coatings - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0492	0.0578	0.5201	5.6000e-004	0.0490	3.8000e-004	0.0493	0.0130	3.5000e-004	0.0133	0.0000	40.4486	40.4486	3.5800e-003	0.0000	40.5238
Total	**0.0492**	**0.0578**	**0.5201**	**5.6000e-004**	**0.0490**	**3.8000e-004**	**0.0493**	**0.0130**	**3.5000e-004**	**0.0133**	**0.0000**	**40.4486**	**40.4486**	**3.5800e-003**	**0.0000**	**40.5238**

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	1.6355					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0626	0.4033	0.3203	5.1000e-004		0.0334	0.0334		0.0334	0.0334	0.0000	43.4053	43.4053	5.1200e-003	0.0000	43.5127
Total	**1.6981**	**0.4033**	**0.3203**	**5.1000e-004**		**0.0334**	**0.0334**		**0.0334**	**0.0334**	**0.0000**	**43.4053**	**43.4053**	**5.1200e-003**	**0.0000**	**43.5127**

3.8 Architectural Coatings - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0492	0.0578	0.5201	5.6000e-004	0.0490	3.8000e-004	0.0493	0.0130	3.5000e-004	0.0133	0.0000	40.4486	40.4486	3.5800e-003	0.0000	40.5238
Total	**0.0492**	**0.0578**	**0.5201**	**5.6000e-004**	**0.0490**	**3.8000e-004**	**0.0493**	**0.0130**	**3.5000e-004**	**0.0133**	**0.0000**	**40.4486**	**40.4486**	**3.5800e-003**	**0.0000**	**40.5238**

3.8 Architectural Coatings - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.0845					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0720	0.4734	0.4048	6.4000e-004		0.0376	0.0376		0.0376	0.0376	0.0000	55.3205	55.3205	5.8400e-003	0.0000	55.4432
Total	**2.1565**	**0.4734**	**0.4048**	**6.4000e-004**		**0.0376**	**0.0376**		**0.0376**	**0.0376**	**0.0000**	**55.3205**	**55.3205**	**5.8400e-003**	**0.0000**	**55.4432**

3.8 Architectural Coatings - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0565	0.0671	0.5986	7.1000e-004	0.0624	4.6000e-004	0.0629	0.0166	4.3000e-004	0.0170	0.0000	49.4194	49.4194	4.2300e-003	0.0000	49.5081
Total	**0.0565**	**0.0671**	**0.5986**	**7.1000e-004**	**0.0624**	**4.6000e-004**	**0.0629**	**0.0166**	**4.3000e-004**	**0.0170**	**0.0000**	**49.4194**	**49.4194**	**4.2300e-003**	**0.0000**	**49.5081**

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	2.0845					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0720	0.4734	0.4048	6.4000e-004		0.0376	0.0376		0.0376	0.0376	0.0000	55.3204	55.3204	5.8400e-003	0.0000	55.4431
Total	**2.1565**	**0.4734**	**0.4048**	**6.4000e-004**		**0.0376**	**0.0376**		**0.0376**	**0.0376**	**0.0000**	**55.3204**	**55.3204**	**5.8400e-003**	**0.0000**	**55.4431**

3.8 Architectural Coatings - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0565	0.0671	0.5986	7.1000e-004	0.0624	4.6000e-004	0.0629	0.0166	4.3000e-004	0.0170	0.0000	49.4194	49.4194	4.2300e-003	0.0000	49.5081
Total	**0.0565**	**0.0671**	**0.5986**	**7.1000e-004**	**0.0624**	**4.6000e-004**	**0.0629**	**0.0166**	**4.3000e-004**	**0.0170**	**0.0000**	**49.4194**	**49.4194**	**4.2300e-003**	**0.0000**	**49.5081**

3.8 Architectural Coatings - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.0925					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0650	0.4363	0.4033	6.5000e-004		0.0328	0.0328		0.0328	0.0328	0.0000	55.5334	55.5334	5.2800e-003	0.0000	55.6442
Total	**2.1574**	**0.4363**	**0.4033**	**6.5000e-004**		**0.0328**	**0.0328**		**0.0328**	**0.0328**	**0.0000**	**55.5334**	**55.5334**	**5.2800e-003**	**0.0000**	**55.6442**

3.8 Architectural Coatings - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0512	0.0618	0.5460	7.1000e-004	0.0626	4.5000e-004	0.0631	0.0166	4.2000e-004	0.0170	0.0000	47.7005	47.7005	3.9500e-003	0.0000	47.7836
Total	**0.0512**	**0.0618**	**0.5460**	**7.1000e-004**	**0.0626**	**4.5000e-004**	**0.0631**	**0.0166**	**4.2000e-004**	**0.0170**	**0.0000**	**47.7005**	**47.7005**	**3.9500e-003**	**0.0000**	**47.7836**

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	2.0925					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0650	0.4363	0.4033	6.5000e-004		0.0328	0.0328		0.0328	0.0328	0.0000	55.5333	55.5333	5.2800e-003	0.0000	55.6441
Total	**2.1574**	**0.4363**	**0.4033**	**6.5000e-004**		**0.0328**	**0.0328**		**0.0328**	**0.0328**	**0.0000**	**55.5333**	**55.5333**	**5.2800e-003**	**0.0000**	**55.6441**

3.8 Architectural Coatings - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0512	0.0618	0.5460	7.1000e-004	0.0626	4.5000e-004	0.0631	0.0166	4.2000e-004	0.0170	0.0000	47.7005	47.7005	3.9500e-003	0.0000	47.7836
Total	**0.0512**	**0.0618**	**0.5460**	**7.1000e-004**	**0.0626**	**4.5000e-004**	**0.0631**	**0.0166**	**4.2000e-004**	**0.0170**	**0.0000**	**47.7005**	**47.7005**	**3.9500e-003**	**0.0000**	**47.7836**

3.8 Architectural Coatings - 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	2.0925					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0580	0.3992	0.4005	6.5000e-004		0.0280	0.0280		0.0280	0.0280	0.0000	55.5333	55.5333	4.6900e-003	0.0000	55.6318
Total	**2.1504**	**0.3992**	**0.4005**	**6.5000e-004**		**0.0280**	**0.0280**		**0.0280**	**0.0280**	**0.0000**	**55.5333**	**55.5333**	**4.6900e-003**	**0.0000**	**55.6318**

3.8 Architectural Coatings - 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	0.0469	0.0572	0.5035	7.1000e-004	0.0626	4.4000e-004	0.0631	0.0166	4.1000e-004	0.0170	0.0000	45.9489	45.9489	3.7300e-003	0.0000	46.0272
Total	**0.0469**	**0.0572**	**0.5035**	**7.1000e-004**	**0.0626**	**4.4000e-004**	**0.0631**	**0.0166**	**4.1000e-004**	**0.0170**	**0.0000**	**45.9489**	**45.9489**	**3.7300e-003**	**0.0000**	**46.0272**

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	2.0925					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0580	0.3992	0.4005	6.5000e-004		0.0280	0.0280		0.0280	0.0280	0.0000	55.5332	55.5332	4.6900e-003	0.0000	55.6317
Total	**2.1504**	**0.3992**	**0.4005**	**6.5000e-004**		**0.0280**	**0.0280**		**0.0280**	**0.0280**	**0.0000**	**55.5332**	**55.5332**	**4.6900e-003**	**0.0000**	**55.6317**

3.8 Architectural Coatings - 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	0.0469	0.0572	0.5035	7.1000e-004	0.0626	4.4000e-004	0.0631	0.0166	4.1000e-004	0.0170	0.0000	45.9489	45.9489	3.7300e-003	0.0000	46.0272
Total	**0.0469**	**0.0572**	**0.5035**	**7.1000e-004**	**0.0626**	**4.4000e-004**	**0.0631**	**0.0166**	**4.1000e-004**	**0.0170**	**0.0000**	**45.9489**	**45.9489**	**3.7300e-003**	**0.0000**	**46.0272**

3.8 Architectural Coatings - 2020

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	2.1005					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0529	0.3676	0.3999	6.5000e-004		0.0242	0.0242		0.0242	0.0242	0.0000	55.7460	55.7460	4.3200e-003	0.0000	55.8367
Total	**2.1534**	**0.3676**	**0.3999**	**6.5000e-004**		**0.0242**	**0.0242**		**0.0242**	**0.0242**	**0.0000**	**55.7460**	**55.7460**	**4.3200e-003**	**0.0000**	**55.8367**

3.8 Architectural Coatings - 2020

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	0.0439	0.0540	0.4737	7.2000e-004	0.0629	4.4000e-004	0.0633	0.0167	4.1000e-004	0.0171	0.0000	44.2995	44.2995	3.5700e-003	0.0000	44.3746
Total	**0.0439**	**0.0540**	**0.4737**	**7.2000e-004**	**0.0629**	**4.4000e-004**	**0.0633**	**0.0167**	**4.1000e-004**	**0.0171**	**0.0000**	**44.2995**	**44.2995**	**3.5700e-003**	**0.0000**	**44.3746**

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	2.1005					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0529	0.3676	0.3999	6.5000e-004		0.0242	0.0242		0.0242	0.0242	0.0000	55.7460	55.7460	4.3200e-003	0.0000	55.8366
Total	**2.1534**	**0.3676**	**0.3999**	**6.5000e-004**		**0.0242**	**0.0242**		**0.0242**	**0.0242**	**0.0000**	**55.7460**	**55.7460**	**4.3200e-003**	**0.0000**	**55.8366**

3.8 Architectural Coatings - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0439	0.0540	0.4737	7.2000e-004	0.0629	4.4000e-004	0.0633	0.0167	4.1000e-004	0.0171	0.0000	44.2995	44.2995	3.5700e-003	0.0000	44.3746
Total	**0.0439**	**0.0540**	**0.4737**	**7.2000e-004**	**0.0629**	**4.4000e-004**	**0.0633**	**0.0167**	**4.1000e-004**	**0.0171**	**0.0000**	**44.2995**	**44.2995**	**3.5700e-003**	**0.0000**	**44.3746**

3.8 Architectural Coatings - 2021

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	0.4570					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0104	0.0725	0.0863	1.4000e-004		4.4700e-003	4.4700e-003		4.4700e-003	4.4700e-003	0.0000	12.1280	12.1280	8.3000e-004	0.0000	12.1454
Total	**0.4674**	**0.0725**	**0.0863**	**1.4000e-004**		**4.4700e-003**	**4.4700e-003**		**4.4700e-003**	**4.4700e-003**	**0.0000**	**12.1280**	**12.1280**	**8.3000e-004**	**0.0000**	**12.1454**

3.8 Architectural Coatings - 2021

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	9.0900e-003	0.0113	0.0986	1.6000e-004	0.0137	1.0000e-004	0.0138	3.6300e-003	9.0000e-005	3.7200e-003	0.0000	9.5020	9.5020	7.6000e-004	0.0000	9.5179
Total	**9.0900e-003**	**0.0113**	**0.0986**	**1.6000e-004**	**0.0137**	**1.0000e-004**	**0.0138**	**3.6300e-003**	**9.0000e-005**	**3.7200e-003**	**0.0000**	**9.5020**	**9.5020**	**7.6000e-004**	**0.0000**	**9.5179**

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	0.4570					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0104	0.0725	0.0863	1.4000e-004		4.4700e-003	4.4700e-003		4.4700e-003	4.4700e-003	0.0000	12.1279	12.1279	8.3000e-004	0.0000	12.1454
Total	**0.4674**	**0.0725**	**0.0863**	**1.4000e-004**		**4.4700e-003**	**4.4700e-003**		**4.4700e-003**	**4.4700e-003**	**0.0000**	**12.1279**	**12.1279**	**8.3000e-004**	**0.0000**	**12.1454**

3.8 Architectural Coatings - 2021

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	9.0900e-003	0.0113	0.0986	1.6000e-004	0.0137	1.0000e-004	0.0138	3.6300e-003	9.0000e-005	3.7200e-003	0.0000	9.5020	9.5020	7.6000e-004	0.0000	9.5179
Total	**9.0900e-003**	**0.0113**	**0.0986**	**1.6000e-004**	**0.0137**	**1.0000e-004**	**0.0138**	**3.6300e-003**	**9.0000e-005**	**3.7200e-003**	**0.0000**	**9.5020**	**9.5020**	**7.6000e-004**	**0.0000**	**9.5179**

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	4.2056	8.7338	42.5014	0.0596	3.9074	0.1223	4.0297	1.0430	0.1126	1.1556	0.0000	5,682.0497	5,682.0497	0.2205	0.0000	5,686.6797
Unmitigated	4.2056	8.7338	42.5014	0.0596	3.9074	0.1223	4.0297	1.0430	0.1126	1.1556	0.0000	5,682.0497	5,682.0497	0.2205	0.0000	5,686.6797

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	21.92	18.44	18.44	11,169	11,169
Single Family Housing	6,170.00	6,219.36	5411.09	10,172,855	10,172,855
Total	6,191.92	6,237.80	5,429.53	10,184,023	10,184,023

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	2.00	2.00	2.00	33.00	48.00	19.00	66	28	6
Single Family Housing	7.30	3.90	3.70	40.20	19.20	40.60	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.453353	0.072072	0.167043	0.164349	0.044084	0.005634	0.012559	0.073882	0.001798	0.000151	0.002348	0.000646	0.002080

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: Y

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	2,833.9767	2,833.9767	0.0647	0.0134	2,839.4824
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,833.9767	2,833.9767	0.0647	0.0134	2,839.4824
NaturalGas Mitigated	0.1226	1.0479	0.4459	6.6900e-003		0.0847	0.0847		0.0847	0.0847	0.0000	1,213.5560	1,213.5560	0.0233	0.0223	1,220.9415
NaturalGas Unmitigated	0.1226	1.0479	0.4459	6.6900e-003		0.0847	0.0847		0.0847	0.0847	0.0000	1,213.5560	1,213.5560	0.0233	0.0223	1,220.9415

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	2.27412e+007	0.1226	1.0479	0.4459	6.6900e-003		0.0847	0.0847		0.0847	0.0847	0.0000	1,213.5560	1,213.5560	0.0233	0.0223	1,220.9415
Total		**0.1226**	**1.0479**	**0.4459**	**6.6900e-003**		**0.0847**	**0.0847**		**0.0847**	**0.0847**	**0.0000**	**1,213.5560**	**1,213.5560**	**0.0233**	**0.0223**	**1,220.9415**

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	2.27412e+007	0.1226	1.0479	0.4459	6.6900e-003		0.0847	0.0847		0.0847	0.0847	0.0000	1,213.5560	1,213.5560	0.0233	0.0223	1,220.9415
Total		**0.1226**	**1.0479**	**0.4459**	**6.6900e-003**		**0.0847**	**0.0847**		**0.0847**	**0.0847**	**0.0000**	**1,213.5560**	**1,213.5560**	**0.0233**	**0.0223**	**1,220.9415**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	4.91608e+006	2,833.9767	0.0647	0.0134	2,839.4824
Total		**2,833.9767**	**0.0647**	**0.0134**	**2,839.4824**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	4.91608e+006	2,833.9767	0.0647	0.0134	2,839.4824
Total		**2,833.9767**	**0.0647**	**0.0134**	**2,839.4824**

6.0 Area Detail

6.1 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	tons/yr										MT/yr					
Mitigated	7.5438	0.0532	4.5992	2.4000e-004		0.0575	0.0575		0.0572	0.0572	0.0000	469.1646	469.1646	0.0162	8.4600e-003	472.1276
Unmitigated	10.5851	0.0878	7.9591	2.4000e-004		0.5144	0.5144		0.5141	0.5141	41.0307	420.5666	461.5973	0.0152	0.0112	465.3868

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	1.0462					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.3109					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.0880	0.0346	3.3625	0.0000		0.4891	0.4891		0.4888	0.4888	41.0307	413.0829	454.1136	7.9200e-003	0.0112	457.7499
Landscaping	0.1400	0.0532	4.5966	2.4000e-004		0.0253	0.0253		0.0253	0.0253	0.0000	7.4837	7.4837	7.3000e-003	0.0000	7.6369
Total	**10.5851**	**0.0878**	**7.9591**	**2.4000e-004**		**0.5144**	**0.5144**		**0.5141**	**0.5141**	**41.0307**	**420.5666**	**461.5973**	**0.0152**	**0.0112**	**465.3868**

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	1.0462					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.3109					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0467	0.0000	2.5400e-003	0.0000		0.0322	0.0322		0.0319	0.0319	0.0000	461.6809	461.6809	8.8500e-003	8.4600e-003	464.4907
Landscaping	0.1400	0.0532	4.5966	2.4000e-004		0.0253	0.0253		0.0253	0.0253	0.0000	7.4837	7.4837	7.3000e-003	0.0000	7.6369
Total	**7.5438**	**0.0532**	**4.5992**	**2.4000e-004**		**0.0575**	**0.0575**		**0.0572**	**0.0572**	**0.0000**	**469.1646**	**469.1646**	**0.0162**	**8.4600e-003**	**472.1276**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	565.3377	1.3223	0.0335	603.4875
Unmitigated	565.3377	1.3225	0.0335	603.5078

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 13.8212	88.5190	2.0200e-003	4.2000e-004	88.6910
Single Family Housing	40.2 / 25.3435	476.8187	1.3205	0.0331	514.8168
Total		**565.3377**	**1.3225**	**0.0335**	**603.5078**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 13.8212	88.5190	2.0200e-003	4.2000e-004	88.6910
Single Family Housing	40.2 / 25.3435	476.8187	1.3203	0.0331	514.7965
Total		**565.3377**	**1.3223**	**0.0335**	**603.4875**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	166.0730	9.8146	0.0000	372.1803
Unmitigated	166.0730	9.8146	0.0000	372.1803

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	1	0.2030	0.0120	0.0000	0.4549
Single Family Housing	817.13	165.8700	9.8026	0.0000	371.7254
Total		**166.0730**	**9.8146**	**0.0000**	**372.1803**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	1	0.2030	0.0120	0.0000	0.4549
Single Family Housing	817.13	165.8700	9.8026	0.0000	371.7254
Total		**166.0730**	**9.8146**	**0.0000**	**372.1803**

9.0 Operational Offroad

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

10.0 Vegetation