Greenhouse Gas Analysis for the Otay Mesa Community Plan Update, City of San Diego Project No. 30330/304032 SCH No. 2004651076

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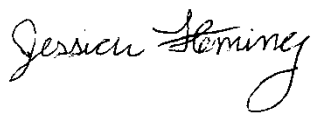

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ATTACHMENTS

Acronyms

AB	Assembly Bill
AEP	Association of Environmental Professionals
APS	Alternative Planning Strategy
BAU	business-as-usual
CAFE	Corporate Average Fuel Economy
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCAP	Climate Change Action Plan
CCP	Cities for Climate Protection
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CF_4	tetrafluoromethane
CH_4	methane
CMAP	Climate Mitigation and Adaptation Plan
CO_2	carbon dioxide
CPAP	Climate Protection Action Plan
CPU	Community Plan Update
CPUC	California Public Utilities Commission
C&D	Construction and Demolition
DOT	Department of Transportation
du	dwelling unit
EMFAC	Emission Factors
EO	Executive Order
EPA	U.S. Environmental Protection Agency
EPIC	Energy Policy Initiative Center
GDP	gross domestic product
GHG	greenhouse gas
GWh	gigaWatt hour
GWP	global warming potential
HFC	hydrofluorocarbons
ICLEI	International Council for Local Environmental Initiatives
I-5	Interstate 5
LCFS	Low Carbon Fuel Standard
LEED	Leadership in Energy and Environmental Design
LGOP	Local Government Operations Protocol
$MMTCO_2E$	million metric tons of carbon dioxide equivalent
mpg	miles per gallon

MPO	Metropolitan Planning Organization
$MTCO_2E$	metric tons of carbon dioxide equivalent
MW	megaWatt
N_2O	nitrous oxide
ODS	ozone depleting substance
OMCP	Otay Mesa Community Plan
OMDD	Otay Mesa Development District
OPR	Office of Planning and Research
PFC	perfluorocarbon
POE	Port of Entry
RPS	Renewables Portfolio Standard
RTP	regional transportation plan
SANDAG	San Diego Association of Governments
SCP	Sustainable Community Program
SCS	Sustainable Communities Strategy
SDAPCD	San Diego Air Pollution Control District
SF_6	sulfur hexafluoride
SR-905	State Route 905
U.S. DOE	U.S. Department of Energy
VMT	vehicle miles traveled

Executive Summary

This report evaluates potential greenhouse gas (GHG) impacts associated with the Otay Mesa Community Plan Update (CPU). The Otay Mesa community planning area is located in the southern portion of the City of San Diego. The CPU is an update to the adopted 1981 Otay Mesa Community Plan. Approval of the CPU amends the General Plan and would establish land use designations and policies to guide future development consistent with the City's General Plan (2008a). The CPU expresses the General Plan policies through the provision of more site-specific recommendations.

The CPU encompasses a broad range of the land use designations defined in the General Plan and contains a more detailed description and distribution of land uses than the citywide General Plan. Land uses include residential with a variety of density ranges, village centers, commercial, industrial, open space, parks, and institutional.

This GHG analysis evaluates potential effects associated with cumulative greenhouse gas emissions generated by the CPU. In accordance with California Environmental Quality Act (CEQA) and City guidelines, this analysis evaluates the significance of the CPU 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.

With regard to the first CEQA question, i.e., to evaluate cumulative GHG emissions impacts, GHG emissions were calculated for the CPU using the California Emissions Estimator Model (CalEEMod), of March 2011. CalEEMod estimates GHG emissions from construction and operational emissions sources. Pursuant to City criteria, the estimated greenhouse gases for the CPU were evaluated relative to business-as-usual (BAU) emissions, and a determination was made as to whether or not buildout of the CPU would achieve a reduction equal to or greater than 28.3 percent relative to BAU.

It was calculated that the CPU BAU emissions would total 4,758,348 metric tons of carbon dioxide equivalent ($MTCO_2E$), while the CPU with GHG reductions accounted for would total 4,215,989 $MTCO_2E$ annually. This reduction of 542,359 $MTCO_2E$ each year would be due to regulations on auto and fuel manufacturers that would reduce vehicle emissions and to the recently updated Title 24 California Building Code that contains increased energy- and water-efficiency requirements that would reduce GHG emissions from those sources. With these GHG reductions, GHG emissions from the CPU would result in an 11.4 percent reduction in GHG emissions relative to BAU. This falls short of meeting the City's requirement of a minimum 28.3 percent reduction in GHG emissions relative to BAU. Without mitigation measures to reduce GHG emissions further, the

CPU's contribution of GHGs to statewide cumulative GHG emissions would be significant. While future development projects would be required to implement GHG emission reduction measures to the extent practical, the degree of future impacts and applicability, feasibility, and success of future mitigation measures cannot be adequately known for each specific future project at this program-level of analysis. Therefore, the impacts associated with the contribution of GHG emissions to cumulative statewide emissions would be considered significant and unavoidable at the program-level, even with adherence to the Mitigation Framework.

Additionally, the CPU would increase diversity of land uses through new mixed-use zoning and would increase residential and employment densities through higher density requirements. It would also increase transit accessibility by locating residential and employment uses in close proximity to each other and would improve walkability through traffic calming measures and other roadway and connectivity improvements. All of these CPU features and policies are consistent with General Plan policies, strategies in regional and state GHG-reduction plans and programs, and specified GHG-reduction measures. However, because project-level details are not known, there is the potential that projects would not meet the necessary City reduction goals put in place in order to achieve the reductions required by Assembly Bill (AB) 32. Therefore, impacts associated with conflicts with existing GHG reduction plans would be potentially significant. Future projects implemented in accordance with the CPU shall be required to demonstrate their avoidance of significant impacts related to long-term operational emissions. However, impacts would remain significant and unavoidable at the program-level, even with adherence to the Mitigation Framework.

1.0 Introduction

To evaluate the incremental effect of the Community Plan Update (CPU) 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 the earth, which can be measured by wind patterns, storms, precipitation, and temperature. The 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 the 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 the earth's surface; subtle changes in the earth's

orbit; and the amount of energy released by the sun (sun cycles). However, since the beginning of the Industrial Revolution around 1750, the average temperature of the earth 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 the earth's atmosphere. Because recently observed increased concentrations of greenhouse gases (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.

The atmospheric lifetime of the GHG is the average time the 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 global warming potential (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—as shown in Table 1—consequently has a GWP of 1. As an example, methane (CH_4), while having a shorter atmospheric lifetime than carbon dioxide, has a 100-year GWP of 21, which means that it has a greater global warming effect than carbon dioxide on a molecule-by-molecule basis.

Of the gases listed in Table 1, CO_2, CH_4, and nitrous oxide (N_2O) are produced by both biogenic (natural) and anthropogenic (human) sources. The remaining gases occur

solely as the result of human processes. Hydrofluorocarbons (HFCs) are synthetic, man-made chemicals used as substitutes for ozone-depleting chlorofluorocarbons used in air conditioners and as refrigerants. Perfluorocarbons (PFCs) such as tetrafluoromethane (CF_4) are used primarily in aluminum production and semiconductor manufacture. Sulfur hexafluoride (SF_6) is used for insulation in electric power transmission and distribution equipment. HFCs, PFCs, and sulfur hexafluoride are not of primary concern to the CPU.

TABLE 1
GLOBAL WARMING POTENTIALS AND ATMOSPHERIC LIFETIMES (YEARS)

Gas	Atmospheric Lifetime	100-year GWP	20-year GWP	500-year GWP
CO_2	50–200	1	1	1
CH_4*	12±3	21	56	6.5
N_2O	120	310	280	170
HFC-23	264	11,700	9,100	9,800
HFC-32	5.6	650	2,100	200
HFC-125	32.6	2,800	4,600	920
HFC-134a	14.6	1,300	3,400	420
HFC-143a	48.3	3,800	5,000	1,400
HFC-152a	1.5	140	460	42
HFC-227ea	36.5	2,900	4,300	950
HFC-236fa	209	6,300	5,100	4,700
HFC-43-10mee	17.1	1,300	3,000	400
CF_4	50,000	6,500	4,400	10,000
C_2F_6	10,000	9,200	6,200	14,000
C_3F_8	2,600	7,000	4,800	10,100
C_4F_{10}	2,600	7,000	4,800	10,100
c-C_4F_8	3,200	8,700	6,000	12,700
C_5F_{12}	4,100	7,500	5,100	11,000
C_6F_{14}	3,200	7,400	5,000	10,700
SF_6	3,200	23,900	16,300	34,900

SOURCE: U.S. EPA 2010, Annex 6
GWP = global warming potential
CO_2 = carbon dioxide
CH_4 = methane
* 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.
N_2O = nitrous oxide
HFC = hydrofluorocarbon
CF_4 = tetrafluoromethane
C_2F_6 = hexafluoroethane
C_3F_8 = octafluoropropane
C_4F_{10} = decafluorobutane
c-C_4F_8 = perfluorocyclobutane
C_5F_{12} = dodecafluoropentane
C_6F_{14} = perfluorohexane
SF_6 = sulfur hexafluoride

CO_2, CH_4 and N_2O are the GHGs of primary concern in this analysis. Carbon dioxide would be emitted by the CPU 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 methane and nitrous oxide would be emitted from the same CPU operations.

2.0 Project Description

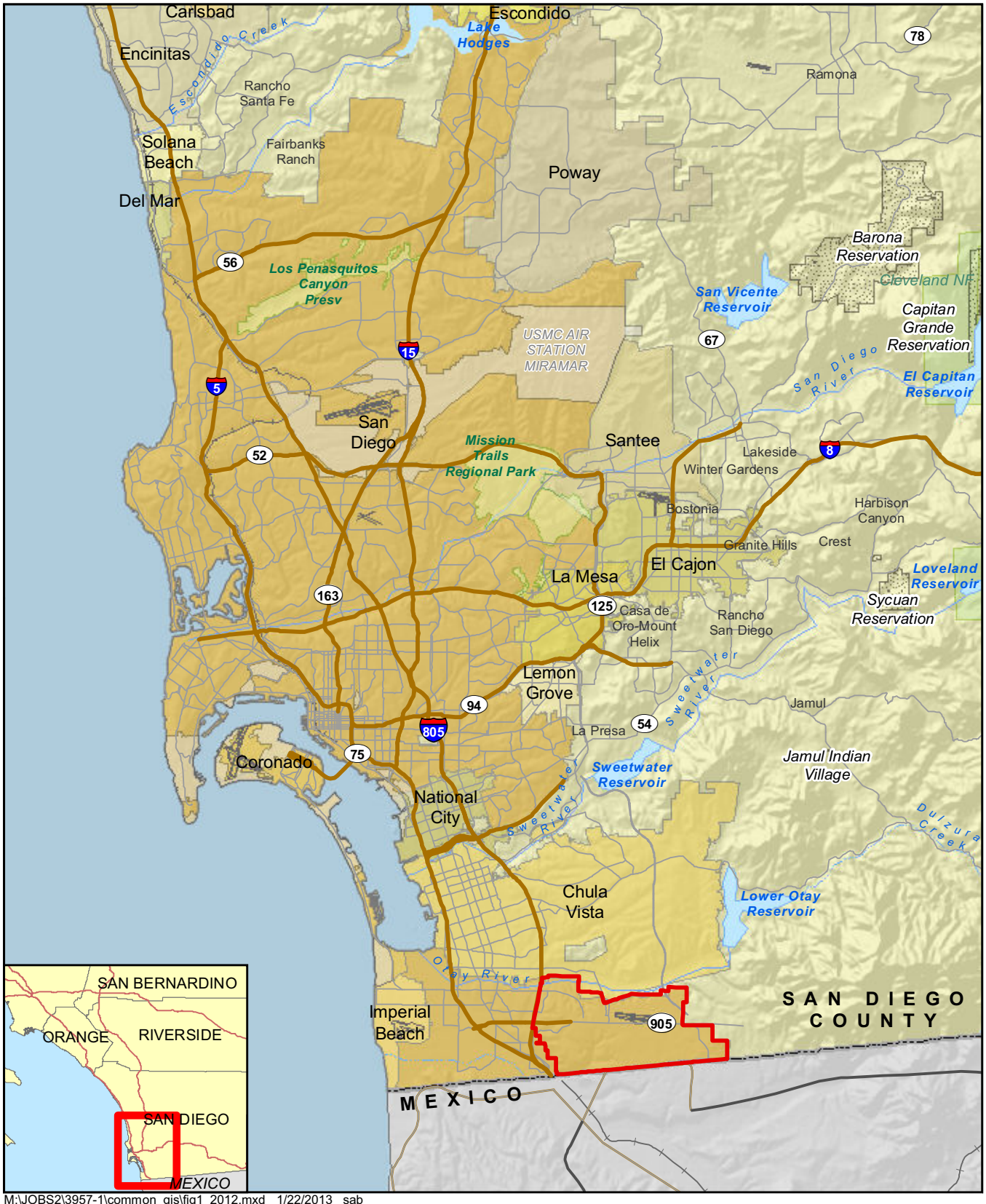
2.1 Project Overview

The CPU is an update to the adopted 1981 Otay Mesa Community Plan. The CPU provides goals and policies for future development within the CPU area. Approval of the CPU amends the General Plan. The concurrent Rezone would rescind the Otay Mesa Development District (OMDD) and update zoning regulations within the CPU area. Amendments to the Land Development Code (LDC) also would be required to create implementing zones for proposed commercial and industrial land use designations under the CPU.

Approval of the CPU would establish land use designations and policies to guide future development consistent with the City of San Diego's (City) General Plan (2008a). The CPU expresses the General Plan policies through the provision of more site-specific recommendations.

The CPU includes nine elements based on those promulgated in the City's General Plan, with goals and policies for each. The nine elements are: Land Use; Mobility; Urban Design; Economic Prosperity; Public Facilities, Services, and Safety; Recreation; Conservation; Noise; and Historic Preservation. Procedures for implementation of the goals and policies are also set forth.

Figure 1 shows the regional location of the CPU area. Figure 2 shows an aerial photograph of the CPU area and vicinity. Figure 3 shows the Adopted Otay Mesa Community Plan land uses within the CPU area. The CPU area is bounded by the City of Chula Vista (north), I-805 (west), International Border (south), and unincorporated San Diego County (east).



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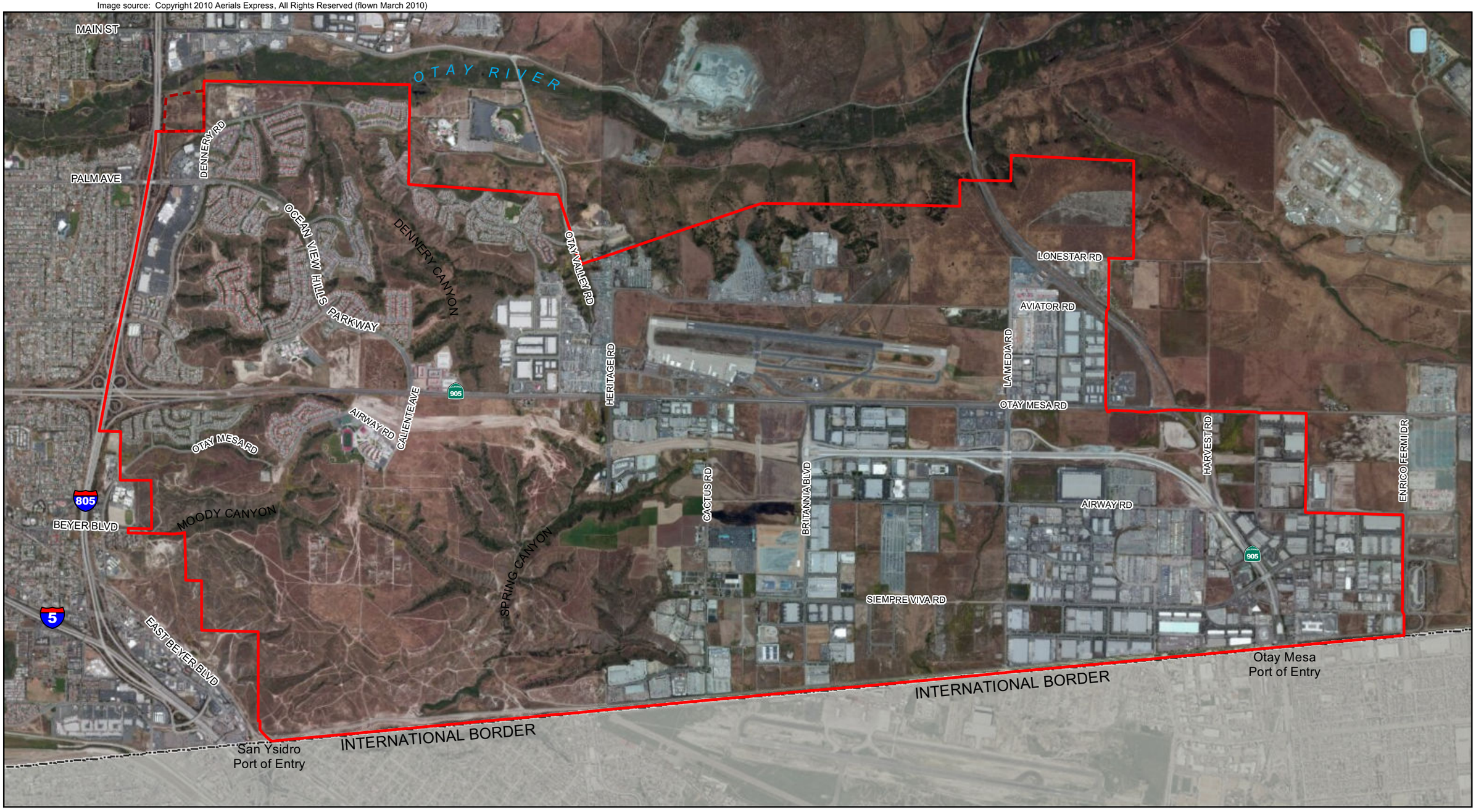
Otay Mesa Community Plan Boundary

FIGURE 1
Regional Location of
Otay Mesa Community Plan Area

Image source: Copyright 2010 Aerials Express, All Rights Reserved (flown March 2010)



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Otay Mesa Community Plan Boundary

Not A Part

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FIGURE 2

Aerial Photograph of CPU Area and Vicinity

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Map Source: City of San Diego Planning Department

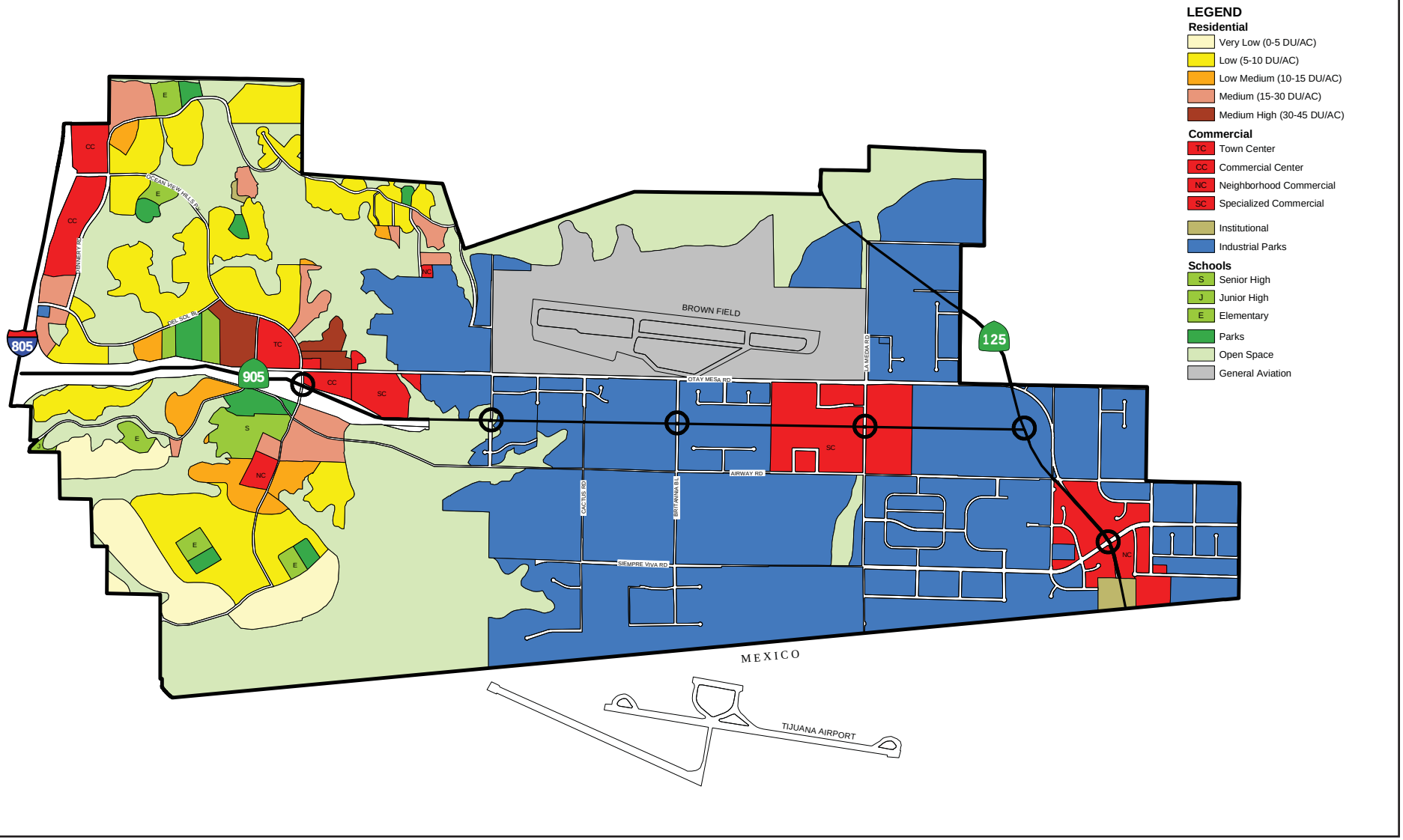

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FIGURE 3

Adopted Otay Mesa Community Plan Land Use Map

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2.2 Development Summary

The CPU encompasses a broad range of the land use designations defined in the General Plan and contains a more detailed description and distribution of land uses than the citywide General Plan. Land uses include residential with a variety of density ranges, village centers, commercial, industrial, open space, parks, and institutional. The existing Adopted Otay Mesa Community Plan and CPU land use distributions are summarized in Table 2. Figure 4 shows the CPU land uses.

TABLE 2
OTAY MESA LAND USE DISTRIBUTION

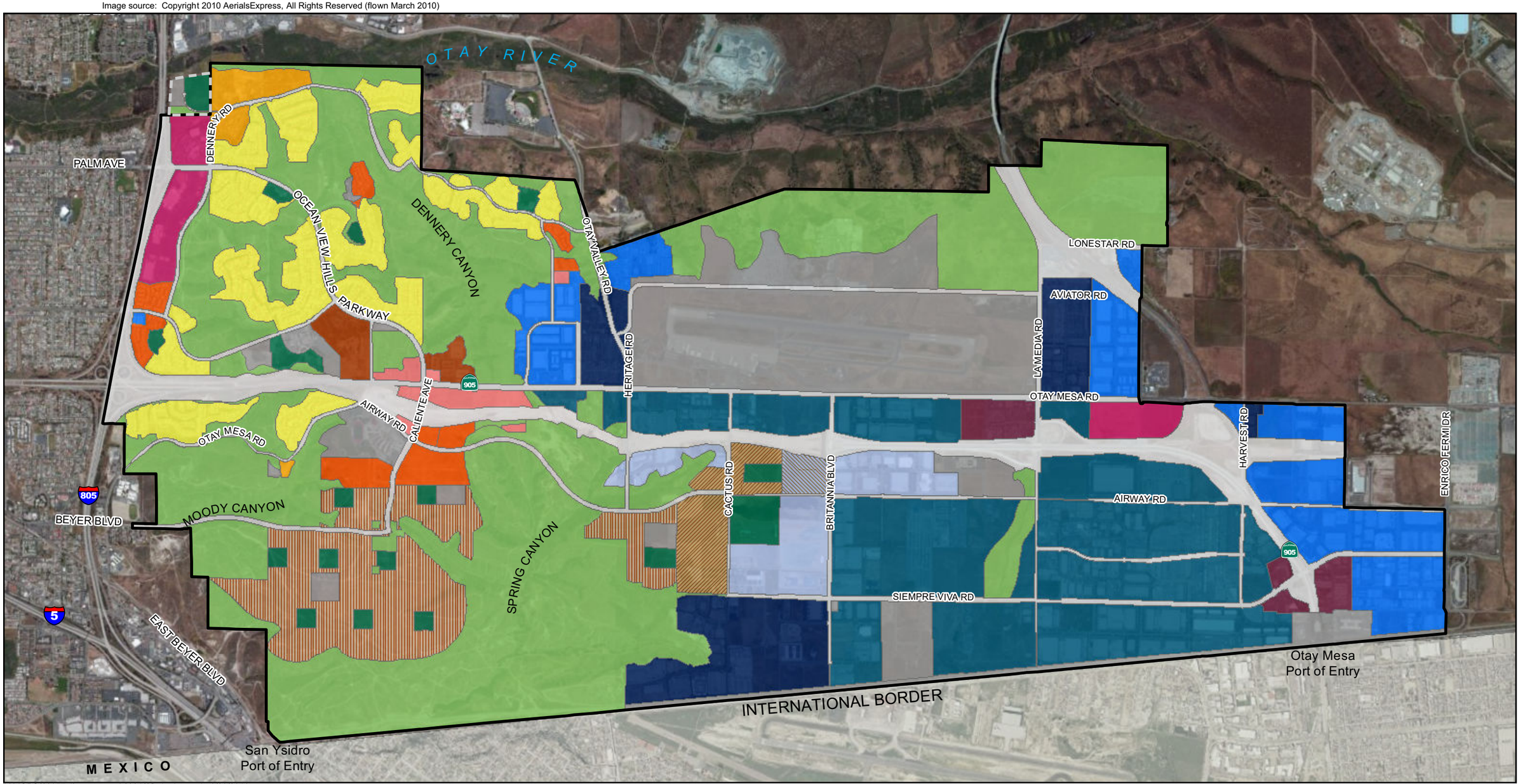
Land Use	Adopted Otay Mesa Community Plan	CPU
Open Space	2,570 acres	2,748 acres
Residential	1,269 acres/12,400 du	757 acres/7,648 du
Commercial	452 acres	316 acres
Village Area		
Residential	0 acres	695 acres/11,126 du
Mixed Use	0 acres	30 acres
Industrial	2,839 acres	2,426 acres
Institutional	1,027 acres	1,165 acres
Parks	64 acres	161 acres
Right-of-way	1,098 acres	1,021 acres
TOTAL	**9,319 acres/12,400 du**	**9,319 acres/18,774 du**

CPU = Community Plan Update
du = dwelling unit(s)

Five districts interconnected through activities and infrastructure would help organize and form the community of Otay Mesa. The districts include:

- Northwest District, which generally comprises the existing development in the northwestern portion of Otay Mesa and seven Precise Planning Area neighborhoods: California Terraces, Dennery Ranch, Hidden Trails, Remington Hills, Riviera del Sol, Robinhood Ridge, and Santee Investments.
- Southwest District, which includes the area south of State Route 905 (SR-905) and west of Spring Canyon. This district would be primarily residential in nature, with a core mixed-use center including civic and neighborhood-serving commercial uses and services.
- Central District, which generally is the land along the Airway Road corridor. The Central district would comprise three primary areas: Central Village, Grand Park, and Education Complex.
- Airport District, which generally is Brown Field and industrial land surrounding the airport.
- South District, which includes the existing port of entry (POE) and the uses intended to support the international business and trade that are necessary for the movement of goods across the border.

Image source: Copyright 2010 AerialsExpress, All Rights Reserved (flown March 2010)



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Otay Mesa Community Plan Boundary
Not A Part

Proposed Land Use Plan

Open Space, Parks, Institutional
- Open Space
- Parks
- Institutional

Village Centers
- Community Village
- Neighborhood Village

Residential
- Low
- Low Medium
- Medium
- Medium High

Commercial - Residential Prohibited
- Community Commercial
- Regional Commercial
- Heavy Commercial

Industrial
- Business Park - Office Permitted
- Business and International Trade
- Light Industrial
- Heavy Industrial
- Business Park - Residential Permitted

Other
- Right-of-Way

FIGURE 4
Proposed CPU Land Use

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2.3 CPU Goals and Policies

New policies within the CPU have been designed to reflect and implement the general GHG reduction recommendations of the General Plan and strategies of other local plans, and state GHG reduction measures. Specifically, the CPU includes updated Conservation, Mobility, and Urban Design elements that include several policies aimed at reducing GHG emissions from target emission sources and/or adapting to climate change. The CPU policies provide refinement of the General Plan and citywide policies specifically applicable to the Otay Mesa community. An overview of relevant CPU elements and policies are contained in Attachment 1.

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 carbon dioxide equivalent ($MMTCO_2E$). Table 3 shows the estimated statewide GHG emissions for the years 1990, 2000, 2004, and 2008.

TABLE 3
CALIFORNIA GHG EMISSIONS BY SECTOR IN 1990, 2000, 2004, AND 2008

Sector	1990 Emissions in $MMTCO_2E$ (% total)[1]	2000 Emissions in $MMTCO_2E$ (% total)[1]	2004 Emissions in $MMTCO_2E$ (% total)[1]	2008 Emissions in $MMTCO_2E$ (% total)[1]
Sources				
Agriculture	23.4 (5%)	25.44 (6%)	28.82 (6%)	28.06 (6%)
Commercial	14.4 (3%)	12.80 (3%)	13.20 (3%)	14.68 (3%)
Electricity Generation	110.6 (26%)	103.92 (23%)	119.96 (25%)	116.35 (24%)
Forestry (excluding sinks)	0.2 (<1%)	0.19 (<1%)	0.19 (<1%)	0.19 (<1%)
High GWP	--	10.95 (2%)	13.57 (3%)	15.65 (3%)
Industrial	103.0 (24%)	97.27 (21%)	90.87 (19%)	92.66 (19%)
Recycling and Waste	--	6.20 (1%)	6.23 (1%)	6.71 (1%)
Residential	29.7 (7%)	30.13 (7%)	29.34 (6%)	28.45 (6%)
Transportation	150.7 (35%)	171.13 (37%)	181.71 (38%)	174.99 (37%)
Unspecified Remaining[2]	1.3 (<1%)	--	--	--
Subtotal	*433.3*	*458.03*	*483.89*	*477.74*
Sinks				
Forestry Sinks	-6.7 (--)	-4.72 (--)	-4.32 (--)	-3.98 (--)
TOTAL	**426.6**	**453.31**	**479.57**	**473.76**

SOURCE: CARB 2007, 2010a
$MMTCO_2E$ = million metric tons of carbon dioxide equivalent
GWP = global warming potential
[1]Percentages may not total 100 due to rounding.
[2]Unspecified fuel combustion and ozone depleting substance (ODS) substitute use, which could not be attributed to an individual sector.

As shown in Table 3, without accounting for the forestry sector, statewide GHG emissions totaled 433 $MMTCO_2E$ in 1990, 458 $MMTCO_2E$ in 2000, 484 $MMTCO_2E$ in 2004, and 478 $MMTCO_2E$ in 2008. According to data from the CARB, it appears that statewide GHG emissions peaked in 2004 and are now beginning to decrease (CARB 2010a). 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. As seen in Table 3, the forestry sector consistently removes more CO_2 from the atmosphere statewide than it emits. As a result, although decreasing over time, this sector represents a net sink, removing a net 6.5 $MMTCO_2E$ from the atmosphere in 1990, a net 4.5 $MMTCO_2E$ in 2000, a net 4.1 $MMTCO_2E$ in 2004, and a net 3.8 $MMTCO_2E$ in 2008.

A San Diego regional emissions inventory was prepared by the University of San Diego School of Law, Energy Policy Initiative Center (EPIC) that took into account the unique characteristics of the region. Their 2006 emissions inventory for San Diego is duplicated

below in Table 4. The sectors included in this inventory are somewhat different from those in the statewide inventory.

TABLE 4
SAN DIEGO COUNTY GHG EMISSIONS BY SECTOR IN 2006

Sector	2006 Emissions in $MMTCO_2E$ (% total)[1]	
Agriculture/Forestry/Land Use	0.7	(2%)
Waste	0.7	(2%)
Electricity	9.0	(25%)
Natural Gas Consumption	3.0	(8%)
Industrial Processes & Products	1.6	(5%)
On-road Transportation	16.0	(45%)
Off-road Equipment & Vehicles	1.3	(4%)
Civil Aviation	1.7	(5%)
Rail	0.3	(<1%)
Water-borne Navigation	0.127	(<0.5%)
Other Fuels/Other	1.1	(3%)
TOTAL	**35.5**	

SOURCE: University of San Diego 2008
$MMTCO_2E$ = million metric tons of carbon dioxide equivalent
[1]Percentages may not total 100 due to rounding.

Similar to the statewide emissions, transportation-related GHG emissions contributed the most countywide, followed by emissions associated with energy use.

3.1.2 CPU Area GHG Inventory

A baseline analysis of the existing GHG emissions from CPU area land uses and associated traffic was performed using the California Emissions Estimator Model (CalEEMod) released in March 2011. This is the same methodology as that used for estimating GHG emissions resulting from CPU buildout (refer to Section 4.2). In brief, CalEEMod is a computer model that estimates GHG emissions from mobile (i.e., vehicular) sources, area sources (fireplaces, woodstoves, and landscape maintenance equipment), energy use (electricity and natural gas used in space heating and cooling, ventilation and lighting; and plug-in appliances), water and wastewater use, and solid waste disposal. Emissions are estimated based on land use information input to the model. The input land use information consists of land use subtypes (such as the residential subtypes of single-family residential and multi-family medium-rise residential) and their unit or square footage quantities. Other inputs include the air basin, climate zone, setting (urban, suburban, or rural), and utility provider (in this case San Diego Gas & Electric). In various places, the user can input additional information and/or override the default assumptions to account for project- or location-specific parameters. For this estimate of existing GHG emissions, the model default parameters including vehicle trip lengths and energy intensity factors were not changed.

Table 5 lists the existing land use quantities.

TABLE 5
EXISTING MODELED LAND USES

Land Uses	Existing
Single Family Residential (du)	2,591
Multi-family Residential (du)	1,109
Park (acres)	16
Commercial/Mixed Use (million square feet)	2.653
Institutional (million square feet)	4.988
Industrial (million square feet)	33.323

du = dwelling unit
NOTE: Land use data is from year 2009.

It was calculated that the existing uses currently emit 2,611,312 $MTCO_2E$ annually. The complete calculations of existing GHG emissions are included in Attachment 2 and summarized Table 6.

TABLE 6
EXISTING GHG EMISSIONS
($MTCO_2E$ PER YEAR)

Emission Source	Existing GHG Emissions
Vehicles	612,398
Energy Use	195,730
Area Sources	0
Water Use	916,242
Solid Waste Disposal	886,942
TOTAL	**2,611,312**

GHG = greenhouse gas

3.1.3 Consequences of Global Climate Change

CARB projected a future statewide GHG emissions increase of more than 23 percent (from 2004) by 2020 given BAU trends (CARB 2008a). Year 2020 estimates of California's GHG emissions have been updated to account for new estimates for future fuel and energy demand as well as other factors including the economic downturn. More recent estimates predict a future statewide emissions increase of approximately 7 percent (from 2008) by 2020 given current trends (CARB 2012). The 2008 EPIC study predicted a countywide increase to 43 $MMTCO_2E$, or roughly 20 percent (from 2006) by 2020, given a BAU trajectory. Updated estimates are not available, but are anticipated to be less than 20 percent for the same reasons.

The potential consequences of global climate change on the San Diego region are far reaching. The Climate Scenarios analysis report, published in 2006 by the California

Climate Change Center, uses a range of emissions scenarios to project a series of potential warming ranges (low, medium, or high temperature increases) that may occur in California during the 21st century. Throughout the state and the region, global climate and local microclimate changes could cause an increase in extreme heat days; higher concentrations, frequency, and duration of air pollutants; an increase in wildfires; more intense coastal storms; sea level rise; impacts to water supply and water quality through reduced snowpack and saltwater influx; public health impacts; impacts to near-shore marine ecosystems; reduced quantity and quality of agricultural products; pest population increases; and altered natural ecosystems and biodiversity.

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.

3.2.1 Federal

3.2.1.1 Climate Change Action Plan

Adopted in 1993, the U.S. Climate Change Action Plan (CCAP) consists of voluntary actions to reduce all significant GHGs from all economic sectors. Backed by federal funding, the CCAP supports cooperative partnerships between the government and the private sector in establishing flexible and cost-effective ways to reduce GHG emissions. The CCAP encourages investments in new technologies, but also relies on previous actions and programs focused on saving energy, reducing transportation emissions, improving forestry management, and reducing waste. With respect to energy and transportation-related GHG emissions reductions, the CCAP includes the following:

- Energy Demand Actions to accelerate the use of existing energy saving technologies and encourage the development of more advanced technologies. Commercial actions focus on installing efficient heating and cooling systems in commercial buildings and upgrading to energy-efficient lighting systems (the Green Lights program). The State Buildings Energy Incentive Fund provides funding to states for the development of public building energy management programs. Residential actions focus on developing new residential energy standards and building codes and providing money-saving energy efficient options to homeowners.

- Energy Supply Actions to reduce emissions from energy supply. These actions focus on increasing the use of natural gas, which emits less CO_2 than coal or oil, and investing in renewable energy sources, such as solar and wind power, which

result in zero net CO_2 emissions. Energy supply strategies also focus on reducing the amount of energy lost during distribution from power plants to consumers.

- Transportation Actions to reduce transportation-related emissions are focused on investing in cleaner fuels and more efficient technologies, and reducing vehicle miles traveled (VMT). In addition, the U.S. EPA and Department of Transportation (DOT) are to draft guidance documents for reducing VMTs for use in developing local clean air programs.

3.2.1.2 GHG Emissions Intensity Reduction Programs

The GHG Emissions Intensity is the ratio of GHG emissions to economic output. In 2002, the U.S. GHG Emissions Intensity was 183 metric tons per million dollars of gross domestic product (GDP; U.S. EPA 2007). In February 2002, the U.S. set a goal to reduce this GHG Emissions Intensity by 18 percent by 2012 through various reduction programs. A number of ongoing voluntary programs have thus been instituted to reduce nationwide GHG emissions. These include (U.S. EPA 2007):

- **Climate VISION Partnership:** In 2003, this program established a partnership between 12 major industries and the U.S. Department of Energy (U.S. DOE), the U.S. EPA, the DOT and the U.S. Department of Agriculture. The involved industries include electric utilities; petroleum refiners and natural gas producers; automobile, iron and steel, chemical and magnesium manufacturers; forest and paper producers; railroads; and cement, mining, aluminum, and semiconductor industries. These industries are working with the four agencies to reduce their GHG emissions by developing cost-effective solutions, measuring and reporting emissions, developing strategies for the adoption of advanced technologies, and implementing voluntary mitigation actions.

- **Cleaner Energy–Environment State Partnership:** This program established a partnership between federal and state agencies to support states in implementing strategies and policies to promote renewable energy, energy efficiency, and other cost-effective clean energies. States receive technical assistance from the U.S. EPA.

- **Climate Leaders:** Climate Leaders is a U.S. EPA's voluntary program that establishes partnerships with individual companies. Together they establish individual corporate goals for GHG emissions reduction and monitor their emissions to measure progress. More than 100 corporations that represent 8 percent of U.S. GHG emissions are involved in Climate Leaders. More than half have reached their emissions goals so far.

- **Energy Star:** Energy Star was established in 1992 by the U.S. EPA and became a joint program with the U.S. DOE in 1996. Energy Star is a program that labels energy

efficient products with the Energy Star label. Energy Star enables consumers to choose energy-efficient and cost-saving products. More than 1,400 manufacturers use Energy Star labels on their energy-efficient products.

- **Green Power Partnership:** This program establishes partnerships between the U.S. EPA, and companies and organizations that have bought or are considering buying green power, which is power generated from renewable energy sources. The U.S. EPA offers recognition and promotion to organizations that replace electricity consumption with green power.

3.2.1.3 Corporate Average Fuel Economy Standards

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, President Obama announced further plans to increase CAFE standards to require light duty vehicles to meet an average fuel economy of 35.5 mpg by 2016. 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.

3.2.1.4 Mandatory Reporting of GHGs Rule

Starting January 1, 2010, large emitters of heat-trapping gases began collecting GHG data and reporting their annual GHG emissions to the U.S. EPA. The first reports were generally due March 31, 2011, with extensions available under certain circumstances to September 30, 2011. Under this reporting rule, approximately 10,000 facilities are covered, accounting for nearly 85 percent of the nation's GHG emissions. This mandatory reporting applies to fossil fuel and industrial GHG suppliers, motor vehicle and engine manufacturers, and facilities that emit 25,000 $MTCO_2E$ or more per year. Vehicle and engine manufacturers outside of the light-duty sector are required to begin phasing in their GHG reporting starting with engine/vehicle model year 2011.

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 EO S-3-05—Statewide GHG Emission Targets

This executive order (EO), signed on June 1, 2005, 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 executive order also directs the secretary of the California EPA (CalEPA) 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 AB 32—California Global Warming Solutions Act

In response to Executive Order S-3-05, the California legislature passed AB 32 (Nuñez), the California Global Warming Solutions Act of 2006, which was signed on September 27, 2006. It requires the CARB to adopt rules and regulations that would reduce GHG emissions to 1990 levels by 2020. The CARB is also required to publish a list of discrete GHG emission reduction measures. As required by AB 32, CARB has established a statewide GHG emissions cap for 2020, and adopted reporting rules for large industrial sources and a Climate Change Scoping Plan (Scoping Plan).

3.2.2.3 Climate Change Scoping Plan

As directed by AB 32, the Scoping Plan prepared by CARB in December 2008 includes measures to reduce statewide GHG emissions to 1990 levels by 2020. These reductions are what CARB identified as necessary to reduce forecasted BAU 2020 emissions. CARB will update the Scoping Plan at least once every 5 years to allow evaluation of progress made and to correct the Scoping Plan's course where necessary.

As indicated in Table 7, the majority of reductions is directed at the sectors with the largest GHG emissions contributions—transportation and electricity generation—and involve statutory mandates affecting vehicle or fuel manufacture, public transit, and public utilities. The two measures most applicable to land use planning and development are the Regional Transportation Related GHG Targets and the Energy Efficiency measures. Implementing these two measures accounts for reduction of 31.3 $MMTCO_2E$ emissions, or 21 percent, of the total 146.7 $MMTCO_2E$ in reductions needed for capped sectors.

TABLE 7
CARB SCOPING PLAN-RECOMMENDED GHG REDUCTION MEASURES

Recommended Reduction Measures	Reductions Counted towards 2020 Target in $MMTCO_2E$	(% total)[1]
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 Pavley II light-duty vehicle standards	31.7	(22%)
Energy Efficiency • Building/appliance efficiency, new programs, etc. • Increase CHP generation by 30,000 GWh • Solar Water Heating (AB 1470 goal)	26.3	(18%)
Renewables Portfolio Standard (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 2008b
$MMTCO_2E$ = million metric tons of carbon dioxide equivalent
GWh = gigaWatt hours
AB = Assembly Bill
GHG = greenhouse gas

[1]Percentages are relative to the capped sector subtotal of 146.7 $MMTCO_2E$, and may not total 100 due to rounding.

[2]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.

[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.

CARB also lists several other recommended measures which will contribute toward achieving the 2020 statewide reduction goal, but whose reductions are not (for various reasons, including the potential for double counting) additive with the measures listed in Table 7. These include state and local government operations measures, green building, mandatory commercial recycling and other additional waste and recycling measures, water sector measures, and methane capture at large dairies.

The Scoping Plan reduction measures and complementary regulations are described further in the following sections, and are grouped under the two headings of Transportation-related Measures and Non-Transportation-Related Measures as representative of the sectors to which they apply.

3.2.2.4 Transportation-related Emissions Reductions

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 comes from this sector. To address emissions from vehicles, CARB is proposing 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) enacted July 2002, 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 adopted regulations in 2004 and applied to the U.S. EPA for a waiver under the federal Clean Air Act to implement them. Termed Pavley I, these regulations cover Model Years 2009 to 2016.

It is expected that the new regulations (Pavley I) would reduce GHG emissions from California passenger vehicles by about 22 percent in 2012 and about 30 percent in 2016 (CARB 2010b) for a total reduction of 31.7 $MMTCO_2E$ counted toward the total statewide reduction target (CARB 2008b) (see Table 7). These reductions are to come from improved vehicle technologies such as small engines with superchargers, continuously variable transmissions, and hybrid electric drives.

CARB has adopted a second, more stringent, phase of the Pavley regulations, termed Pavley II [now known as Low Emission Vehicle III GHG], that covers Model Years 2017 to 2025. Pavley II was estimated in 2008 to add an additional 4.0 $MMTCO_2E$ for 2 percent of the then-estimated 174 $MMTCO_2E$ reduction total. The revised 2010 projections estimate that Pavley II will reduce GHG emissions from passenger vehicles by 3.8 $MMTCO_2E$, 5 percent of the total 80 $MMTCO_2E$ reduction target (per CARB's 2010 revised projections; CARB 2010b). These reductions are to come from

improved vehicle technologies such as small engines with superchargers, continuously variable transmissions, and hybrid electric drives.

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

This executive order 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 Low Carbon Fuel Standard (LCFS). CARB adopted the LCFS as a discrete early action measure pursuant to AB 32 in April 2009 and includes it as a reduction measure in its Scoping Plan (see Table 7).

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. A 10 percent reduction in the intensity of transportation fuels is expected to equate to a reduction of 16.5 $MMTCO_2E$ in 2020. However, in order to account for possible overlap of benefits between LCFS and the Pavley GHG standards, CARB has discounted the contribution of LCFS to 15 $MMTCO_2E$ (CARB 2008b).

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 VMT. By reducing the miles vehicles travel, vehicle emissions will be reduced. Improved planning and the resulting development are seen as essential for meeting the 2050 emissions target (CARB 2008b p. 20). 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 7). Specific regional reduction targets established through Senate Bill 375 (SB-375; see discussion below) will determine more accurately what reductions can be achieved through this measure.

d. SB-375—Regional Emissions Targets

The SB-375 was signed in September 2008 and 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.

The CARB, in consultation with the Metropolitan Planning Organizations (MPOs), was required to provide each affected region with passenger vehicle GHG emissions

reduction targets for 2020 and 2035 by September 30, 2010. The San Diego Association of Governments (SANDAG) is the San Diego region's MPO. On August 9, 2010 CARB released the staff report on the proposed reduction target, which was subsequently approved by CARB on September 23, 2010. The San Diego region will be required to reduce greenhouse gas emissions from cars and light trucks 7 percent per capita by 2020 and 13 percent by 2035 (SANDAG 2011).

The reduction targets are to be updated every 8 years, but can be updated every 4 years if advancements in emissions technologies affect the reduction strategies to achieve the targets.

Once reduction targets are established, each of California's MPOs must prepare and adopt a Sustainable Communities Strategy (SCS) that demonstrates how the region will meet its greenhouse gas reduction targets through integrated land use, housing, and transportation planning. Enhanced public transit service combined with incentives for land use development that provides a better market for public transit will play an important role in the SCS. After the SCS is adopted by the MPO, the SCS will be incorporated into that region's federally enforceable regional transportation plan (RTP).

CARB is also required to review each final SCS to determine whether it would, if implemented, achieve the greenhouse gas emission reduction target for its region. If the combination of measures in the SCS will not meet the region's target, the MPO must prepare a separate Alternative Planning Strategy (APS) to meet the target. The APS is not a part of the RTP.

As an incentive to encourage implementation of the SCS and APS, developers can obtain relief from certain requirements under the California Environmental Quality Act (CEQA) for those projects that are consistent with either the SCS or APS (CARB 2010c).

San Diego's MPO, SANDAG, completed and adopted its 2050 RTP in October 2011, the first such plan in the state that included a SCS.

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.

a. Renewables Portfolio Standard

The Renewables Portfolio Standard (RPS) promotes diversification of the state's electricity supply. Originally adopted in 2002 with a goal to achieve a 20-percent renewable energy mix by 2020, the goal has been accelerated and increased, most recently so by EOs S-14-08 and S-21-09 to a goal of 33 percent by 2020. 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 2008b). The RPS is included in CARB's Scoping Plan list of reduction measures (see Table 7). Increasing the RPS to 33 percent is designed to accelerate 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. Renewable energy includes (but is not limited to) wind, solar, geothermal, small hydroelectric, biomass, anaerobic digestion, and landfill gas. Increased use of renewables would decrease California's reliance on fossil fuels, thus reducing emissions of GHGs from the electricity sector. CARB estimates that full achievement of the RPS would decrease statewide GHG emissions by 21.3 $MMTCO_2E$ (CARB 2008b).

b. Million Solar Roofs Program

The Million Solar Roofs Program was created by SB 1 in 2006 and includes the California Public Utilities Commission's (CPUC's) California Solar Initiative and California Energy Commission's (CEC's) New Solar Homes Partnership. It requires publicly owned utilities to adopt, implement, and finance solar-incentive programs to lower the cost of solar systems and help achieve the goal of installing 3,000 megaWatts (MW) of new solar capacity by 2020. The Million Solar Roofs Program is one of CARB's GHG-reduction measures identified in the 2008 Scoping Plan (see Table 7). Achievement of the program's goal is expected to equate to a reduction of 2.1 $MMTCO_2E$ in 2020 statewide BAU emissions (CARB 2008b).

c. SB-1368—Public Utility Emission Standards

The SB-1368 (Parata), passed in 2006, requires the CEC to set GHG-emission standards for entities providing electricity in the state. The bill further requires that the CPUC prohibit electricity providers and corporations from entering into long-term contracts, if those providers and corporations do not meet the CEC's standards (Union of Concerned Scientists 2007).

d. Title 24, Part 6—California Energy Code

The California Code of Regulations, Title 24, Part 6 is the California Energy Code. This code, originally enacted in 1978 in response to legislative mandates, establishes energy-

efficiency standards for residential and non-residential buildings in order to reduce California's energy consumption. The Energy Code is updated periodically to incorporate and consider new energy-efficiency technologies and methodologies as they become available. The most recent amendments to the Energy Code, known as 2008 Title 24, or the 2008 Energy Code, became effective January 1, 2010. 2008 Title 24 requires energy savings of 15–35 percent above the former 2005 Title 24 Energy Code. At a minimum, residential buildings must achieve a 15-percent reduction in their combined space heating, cooling, and water heating energy compared to the 2005 Title 24 standards. Incentives in the form of rebates and tax breaks are provided on a sliding scale for buildings achieving energy efficiency above the minimum 15 percent reduction over 2005 Title 24. The reference to 2005 Title 24 is relevant in that many of the State's long-term energy and GHG reduction goals identify energy-saving targets relative to Title 24 2005. By reducing California's energy consumption, emissions of statewide GHGs may also be reduced.

New construction and major renovations must demonstrate their compliance with the current Energy Code through submission and approval of a Title 24 Compliance Report to the local building permit review authority and the CEC. The compliance reports must demonstrate a building's energy performance through use of CEC-approved energy performance software that shows iterative increases in energy efficiency given selection of various Heating, Ventilation, and Air-conditioning (HVAC), sealing, glazing, insulation, and other components related to the building envelope. Title 24 governs energy consumed by the built environment, by the major building envelope systems such as space heating, space cooling, water heating, some aspects of the fixed lighting system, and ventilation. Non-building energy use, or plug-in energy use (such as appliances, equipment, electronics, plug-in lighting), are independent of building design and are not subject to Title 24.

e. Title 24, Part 11—California Green Building Standards

In 2007, the California Building Standards Commission began to work with state agencies on the adoption of green building standards for residential, commercial, and public building construction for the 2010 code adoption process. A voluntary version of the California Green Building Standards Code, referred to as CalGreen, was added to Title 24 as Part 11 in 2009. The 2010 version of CalGreen took effect January 1, 2011 and instituted mandatory minimum environmental performance standards for all ground-up new construction of commercial and low-rise residential buildings, state-owned buildings, schools, and hospitals. It also includes voluntary tiers (I and II) with stricter environmental performance standards for these same categories of residential and non-residential buildings. Its requirements for new construction include:

- 20 percent mandatory reduction in indoor water use relative to specified baseline levels, with voluntary goals for reductions of 30 percent and over;

- Mandatory water submetering;
- Mandatory diversion of 50-percent waste from landfills, with voluntary goal reductions of 65 percent for homes and 80 percent for commercial projects;
- Mandatory inspections of energy systems to ensure optimal working efficiency, with voluntary goals for 15 percent (Tier I) and 30 percent (Tier II) exceedance of 2008 Title 24; and
- Requirements for low-pollutant emitting exterior and interior finish materials such as paints, carpets, vinyl flooring, and particleboards.

Similar to the compliance reporting procedure described above for demonstrating energy code compliance in new buildings and major renovations, compliance with the CalGreen water reduction requirements must be demonstrated through completion of water use reporting forms for both residential and non-residential buildings. The water use compliance form must demonstrate a 20 percent reduction in indoor water use by either showing a 20 percent reduction in the overall baseline water use as identified in CalGreen or a reduced per-plumbing-fixture water use rate.

Related to CalGreen are the earlier 2000 Sustainable Building Goal (EO D-16-00) and 2004 Green Building Initiative (EO S-20-04). The 2000 Sustainable Building Goal instructed that all state buildings be constructed or renovated and maintained as models of energy, water, and materials efficiency. The 2004 Green Building Initiative recognized further that significant reductions in GHG emissions could be achieved through the design and construction of new green buildings as well as the sustainable operation, retrofitting, and renovation of existing buildings.

The CARB Scoping Plan includes a Green Building Strategy with the goal of expanding the use of green building practices to reduce the carbon footprint of new and existing buildings. Consistent with CalGreen, the Scoping Plan recognized that GHG reductions would be achieved through buildings that exceed minimum energy-efficiency standards, decrease consumption of potable water, reduce solid waste during construction and operation, and incorporate sustainable materials. Green building is thus a vehicle to achieve the Scoping Plan's statewide electricity and natural gas efficiency targets, and lower GHG emissions from waste and water transport sectors.

In the Scoping Plan, CARB projects that an additional 26 $MMTCO_2E$ could be reduced through expanded green building (CARB 2008b, p.17). However, this reduction is not counted toward the BAU 2020 reduction goal to avoid any double counting, as most of these reductions are accounted for in the electricity, waste, and water sectors. Because of this, CARB has assigned all emissions reductions that occur because of green building strategies to other sectors for meeting AB 32 requirements, but will continue to evaluate and refine the emissions from this sector.

f. SB-97—CEQA GHG Amendments

SB-97 (Dutton), passed by the legislature and signed on August 24, 2007, required the Office of Planning and Research (OPR) on or before July 1, 2009, to prepare, develop, and transmit to the Resources Agency amendments to the CEQA guidelines (Guidelines) to assist public agencies in the evaluation and mitigation of GHGs or the effects of GHGs as required under CEQA, including the effects associated with transportation and energy consumption. SB-97 required the Resources Agency to certify and adopt those guidelines by January 1, 2010. Proposed amendments to the state CEQA Guidelines for GHG emissions were submitted on April 13, 2009, adopted on December 30, 2009, and became effective March 18, 2010.

Section 15064.4 of the amended Guidelines includes the following requirements for determining the significance of impacts from GHG emissions:

> (a) The determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency consistent with the provisions in section 15064. A lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate, or estimate the amount of GHG emissions resulting from a project. A lead agency shall have discretion to determine, in the context of a particular project, whether to:
>
> > (1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use. The lead agency has discretion to select the model or methodology it considers most appropriate provided it supports its decision with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use; and/or
> >
> > (2) Rely on a qualitative analysis or performance-based standards.

While the amendments require calculation of a project's contribution, they clearly do not establish a standard by which to judge a significant effect or a means to establish such a standard.

3.2.3 Local

3.2.3.1 San Diego Sustainable Community Program

In 2002, the San Diego City Council unanimously approved the San Diego Sustainable Community Program (SCP) and requested that an *Ad Hoc* Advisory Committee be established to provide recommendations that would decrease GHG emissions from City operations. Actions identified in the SCP include:

1. Participation in the International Council for Local Environmental Initiatives (ICLEI) Cities for Climate Protection (CCP) Campaign to reduce GHG emissions, and in the California Climate Action Registry;
2. Establishment of a reduction target of 15 percent by 2010, using 1990 as a baseline; and
3. Direction to use the recommendations of the *Ad Hoc* Advisory Committee as a means to expand the GHG Emission Reduction Action Plan for the City organization and broaden its scope to include community actions.

3.2.3.2 Cities for Climate Protection

As a participant in the ICLEI Cities for Climate Protection Program, the City made a commitment to voluntarily decrease its GHG emissions by 2030. The Program includes five milestones: (1) establish a CCP campaign, (2) engage the community to participate, (3) sign the U.S. Mayors Climate Protection Agreement, (4) take initial solution steps, and (5) perform a GHG audit. The City has advanced past Milestone 3 by signing the Mayor's agreement and establishing actions to decrease City Operations' emissions.

3.2.3.3 Climate Protection Action Plan

In July 2005, the City of San Diego developed a Climate Protection Action Plan (CPAP) that identifies policies and actions to decrease GHG emissions from City operations. Recommendations included in CPAP for transportation included measures such as increasing carpooling and transit ridership, improving bicycle lanes, and converting the City vehicle fleet to low-emission or non-fossil-fueled vehicles. Recommendations in the CPAP for energy and other non-transportation emissions reductions included increasing building energy efficiency (i.e., requiring that all City projects achieve the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) Silver standard); reducing waste from City operations; continuing use of landfill methane as an energy source; reducing the urban heat island by avoiding dark roofs and roads which absorb and retain heat; and increasing shade tree and other vegetative cover plantings.

Because of City actions implemented earlier between 1990 and 2002, moderate GHG emissions reductions were reported in the CPAP. City actions taken to capture methane gas from solid waste landfills and sewage treatment plants resulted in the largest decrease in GHG emissions. Actions taken thus far to incorporate energy efficiency and alternative renewable energy reached only 5 percent of the City's 2010 goal. The transportation sector remains a significant source of GHG emissions in 2010 and has had the lowest GHG reductions, reaching only 2.2 percent of the goal for 2010. The recently amended City General Plan (2008a) includes a Policy CE-A.13 to regularly monitor and update the CPAP.

3.2.3.4 Sustainable Building Policies

In several of its policies, the City aims to reduce GHG emissions by requiring sustainable development practices in City operations and incentivizing sustainable development practices in private development. In Council Policy 900-14—Green Building Policy, adopted in 1997, Council Policy 900-16—Community Energy Partnership, and the updated Council Policy 900-14—Sustainable Buildings Expedite Program, last revised in 2006 [NOTE: City needs to provide update], the City establishes a mandate for all City projects to achieve the U.S. Green Building Council's LEED Silver standard for all new buildings and major renovations over 5,000 square feet. Incentives are also provided to private developers through the Expedite Program, which expedites project review of green building projects and discounts project review fees.

The City has also enacted codes and policies aimed at helping the City achieve the State's 50-percent waste diversion mandate, including the Refuse and Recyclable Materials Storage Regulations (Municipal Code Chapter 14, Article 2, Division 8), Recycling Ordinance (O-19678 Municipal Code Chapter 6, Article 6, Division 7), and the Construction and Demolition (C & D) Debris Deposit Ordinance (0-19420 & 0-19694 Municipal Code Chapter 6, Article 6, Division 6).

3.2.3.5 General Plan

The City of San Diego 2008 General Plan includes several climate change-related policies aimed at reducing GHG emissions from future development and City operations (City of San Diego 2008a). For example, Conservation Element policy CE-A.2 aims to "reduce the City's carbon footprint" and to "develop and adopt new or amended regulations, programs, and incentives as appropriate to implement the goals and policies set forth" related to climate change. The Land Use and Community Planning Element, the Mobility Element, the Urban Design Element, and the Public Facilities, Services and Safety Element also identify GHG reduction and climate change adaptation goals. These elements contain policy language related to sustainable land use patterns, alternative modes of transportation, energy efficiency, water conservation, waste reduction, and greater landfill efficiency. The overall intent of these policies is to support climate protection actions, while retaining flexibility in the design of implementation measures, which could be influenced by new scientific research, technological advances, environmental conditions, or state and federal legislation.

Cumulative impacts of GHG emissions were qualitatively analyzed and determined to be significant and unavoidable in the 2008 PEIR for the General Plan. The PEIR included a Mitigation Framework that indicated "for each future project requiring mitigation (measures that go beyond what is required by existing programs, plans and regulations), project-specific measures will [need to] be identified with the goal of reducing

incremental project-level impacts to less than significant; or the incremental contributions of a project may remain significant and unavoidable where no feasible mitigation exists."

3.2.3.6 Climate Mitigation and Adaptation Plan

A citywide Draft Climate Mitigation and Adaptation Plan (CMAP) has been developed to provide a mechanism for the City to achieve the goals of AB 32 and the CARB Scoping Plan at a program-level. The Draft CMAP is currently undergoing public review. The Draft CMAP elements have been prepared pursuant to guidance from the amended CEQA Guidelines and CARB recommendations for what constitutes an effective GHG reduction plan, as follows.

Section 15183.5 of the amended Guidelines includes the following requirements for plans that serve to tier and streamline the analysis of GHG emissions:

(a) Lead agencies may analyze and mitigate the significant effects of GHG emissions at a programmatic level, such as in a general plan, a long-range development plan, or a separate plan to reduce GHG emissions. Later project-specific environmental documents may tier from and/or incorporate by reference that existing programmatic review.

(b) Plans for the Reduction of GHG Emissions. Public agencies may choose to analyze and mitigate significant GHG emissions in a plan for the reduction of GHG emissions or similar document. A plan to reduce GHG emissions may be used in a cumulative impact analysis as set forth below. Pursuant to sections 15064(h)(3) and 15130(d), a lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable, if the project complies with the requirements in a previously adopted plan or mitigation program under specified circumstances.

(1) Plan Elements. A plan for the reduction of GHG emissions should:

(A) Quantify GHG emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area.

(B) Establish a level, based on substantial evidence, below which the contribution to GHG emissions from activities covered by the plan would not be cumulatively considerable.

(C) Identify and analyze the GHG emissions resulting from specific actions or categories of actions anticipated within the geographic area.

(D) Specify measures or a group of measures including performance standards that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specific emissions level.

(E) Establish a mechanism to monitor the plan's progress toward achieving the level and to require amendment if the plan is not achieving specified levels.

(F) Be adopted in a public process following environmental review.

(2) Use with Later Activities. A plan for the reduction of GHG emissions, once adopted following certification of an EIR or adoption of an environmental document, may be used in the cumulative impacts analysis of later projects. An environmental document that relies on a GHG reduction plan for a cumulative impacts analysis must identify those requirements specified in the plan that apply to the project, and, if those requirements are not otherwise binding and enforceable, incorporates those requirements as mitigation measures applicable to the project. If there is substantial evidence that the effects of a particular project may be cumulatively considerable notwithstanding the project's compliance with the specified requirements in the plan for the reduction of GHG emissions, an EIR must be prepared for the project.

(c) Special Situations. As provided in the Public Resource Code sections 21155.2 and 21159.28, environmental documents for certain residential and mixed-use projects and transit priority projects, as defined in section 21155, that are consistent with the general use designation, density, building intensity, and applicable policies specified for the project area in an applicable sustainable communities strategy or alternative planning strategy [refer to Section 4.2.3.4.d above] need not analyze global warming impacts resulting from cars and light duty trucks. A lead agency should consider whether such projects may result in GHG emissions from other sources, however, consistent with these Guidelines.

The City's Draft CMAP establishes a planning horizon of 2013 through 2035 and quantifies GHG emissions, establishes GHG reduction targets for 2020, 2035, and 2050, identifies strategies and measures to reduce GHG emissions, and provides guidance for monitoring progress on an annual basis.

3.2.3.7 Climate Action Strategy

The SANDAG Climate Action Strategy is a long-range policy (year 2030) that focuses on transportation, electricity, and natural gas sectors. It is a complement to the Regional

Energy Strategy 2030 Update and feeds into the SANDAG RTP and Regional Comprehensive Plan. It is currently in process of being prepared.

As indicated above, per the requirements of SB 375, the San Diego region will be required to reduce GHG emissions from cars and light trucks 7 percent per capita by 2020 and 13 percent by 2035 (SANDAG 2011). These reduction targets have been incorporated into the 2050 RTP and SCS for the San Diego region.

4.0 Significance Criteria and Analysis Methodologies

4.1 Determining Significance

Thresholds used to evaluate potential impacts due to GHG emissions are based on applicable criteria in the CEQA Guidelines Appendix G. The CPU would have a significant GHG impact if it would:

1) Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.

2) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of GHGs.

As stated in the Guidelines, these two statements 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). To date, there have been no local, regional, state, or federal regulations establishing a threshold of significance to determine project-specific impacts of GHG 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.

The City has not adopted its own GHG Thresholds of Significance for CEQA and is following guidance from the California Air Pollution Control Officers Association (CAPCOA) report *CEQA & Climate Change*, dated January 2008, for interim screening criteria to determine when a GHG analysis would be required and information from the CARB Scoping Plan and BAU 2020 Forecast to determine when a cumulatively significant contribution of GHGs has occurred (City of San Diego 2008b).

Although the criteria discussed below are interim guidance, they represent a good faith effort to evaluate whether GHG impacts from a project are significant, taking into account the type and location of the proposed development, the best available scientific data regarding GHG emissions, and the current statewide goals and strategies for reduction of GHG emissions. It is also important to note that the San Diego Air Pollution Control District (SDAPCD) has not provided guidance on the quantification of GHG emissions or emissions thresholds for the San Diego Region.

4.1.1 900 $MTCO_2E$ Screening Criterion

A 900-metric-ton screening criterion for determining when a GHG analysis is required was chosen by the City based on available guidance from the CAPCOA report. The CAPCOA report references the 900-metric-ton guideline as a conservative threshold for requiring further analysis and mitigation. This emission level is based on the amount of vehicle trips, the typical energy and water use, and other factors associated with projects. CAPCOA identifies the following project types in Table 8 that are estimated to emit approximately 900 metric tons or $MTCO_2E$ of GHGs annually as shown. Projects that meet the following criteria are not required by the City to prepare a GHG technical analysis report.

TABLE 8
PROJECT TYPES THAT DO NOT REQUIRE A GHG ANALYSIS AND MITIGATION

Project Type	Project Size that Generates Approximately 900 Metric Tons of GHGs per Year
Single Family Residential	50 units
Apartments/Condominiums	70 units
General Commercial Office Space	35,000 square feet
Retail Space	11,000 square feet
Supermarket/Grocery Space	6,300 square feet

GHG = greenhouse gas

4.1.2 Further Analysis Demonstrating a 28.3-percent Reduction in BAU

For projects that do not meet the criteria outlined in Table 8 or emit GHGs in excess of 900 $MTCO_2E$, the City requires a GHG emissions analysis to demonstrate that a proposed project design achieves a 28.3 percent reduction relative to BAU GHG emissions. The CPU's ultimate growth capacity exceeds the screening criteria identified above in Table 8. The CPU is thus subject to the City's requirement to complete a GHG emissions analysis that demonstrates a minimum 28.3 percent reduction relative to BAU emissions.

4.1.2.1 Business-as-usual Emissions

BAU emissions are the GHG emissions that would be expected to occur in the absence of GHG-reduction measures or mitigation. As described above in Section 3.2.2.2, AB 32 directed CARB to develop a Scoping Plan that identified the reduction measures needed to achieve the targets established in AB 32/S-3-05. In order to assess the scope of the reductions California needs to make to return to 1990 emissions levels by 2020, CARB staff estimated 2020 BAU GHG emissions (Table 9), which represent the emissions that would be expected to occur without any GHG reduction measures. CARB staff estimated that statewide 2020 BAU GHG emissions would be 596 $MMTCO_2E$, requiring a reduction of 169 $MMTCO_2E$, to attain the 2020 emissions limit of 427 $MMTCO_2E$. This equates to a 28.3 percent reduction relative to BAU.

TABLE 9
CALIFORNIA BAU 2020 GHG EMISSIONS FORECAST

Sector	Projected 2020 Emissions in $MMTCO_2E$ (% total)
Transportation	225.4 (38%)
Electricity	139.2 (23%)
Commercial and Residential	46.7 (8%)
Industry	100.5 (17%)
Recycling and Waste	7.7 (1%)
High GWP	46.9 (8%)
Agriculture	29.8 (5%)
Forest Net Emissions	0.0
TOTAL	**596.4**

SOURCE: CARB 2008a
$MMTCO_2E$ = million metric tons of carbon dioxide equivalent
GWP = global warming potential

The 2020 BAU emissions forecast thus serves as the basis for establishing the City's 28.3-percent reduction relative to BAU goal and is consistent with the current CEQA Guidelines, which state that cumulative impacts may be measured relative to a cumulative baseline that includes a

> summary of projections contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. Such plans may include a general plan, regional transportation plan, or plans for the reduction of GHG emissions.

4.1.2.2 Calculating Project Emissions Relative to BAU

While BAU emissions are the GHG emissions that would be expected to occur in the absence of GHG-reduction measures or mitigation, project emissions are the GHG

emissions that would be expected to occur with GHG-reduction measures or mitigation. When assessing project emissions against the City's 28.3 percent reduction relative to BAU, project emissions estimates are to account for the GHG reductions achieved through statewide regulations adopted since 2005 to reduce GHG emissions. This includes the Pavley and LCFS measures aimed at reducing vehicle emissions (by approximately 30 percent), the 2008 update to the Title 24 Energy Efficiency Standards aimed at reducing energy emissions (by a minimum of 15 percent), and the 2011 effective date of implementing the mandatory water reduction requirements of CalGreen aimed at reducing water use emissions (by approximately 20 percent). In addition to these statewide regulations, project GHG emissions estimates are to account for any project-specific GHG reductions achieved through design features or mitigation.

The project's estimated 2020 GHG emissions with GHG reductions are then evaluated relative to the 2020 BAU GHG emissions for comparison to the City's threshold as follows:

$$\left(\frac{\dot{m}_{GHG,BAU} - \dot{m}_{GHG,PR}}{\dot{m}_{GHG,BAU}} \right) \times 100 \geq 28.3?$$

Where

$\dot{m}_{GHG,BAU}$ = Project's 2020 BAU GHG emissions ($MMTCO_2E$)

$\dot{m}_{GHG,PR}$ = Project's net 2020 GHG emissions with GHG-reducing features incorporated ($MMTCO_2E$)

If the project's 2020 GHG emissions accounting for the effects of GHG-reducing regulations and project-specific design features represent a 28.3 percent reduction relative to the project's BAU GHG emissions, the project would not result in a significant impact to global climate change. Section 5.1 provides this analysis. The following Section 4.2 describes the methodology and assumptions used in quantifying project and BAU emissions.

4.1.3 Other Threshold Considerations

4.1.3.1 2020 BAU GHG Emissions Forecast Update

As described above in Section 3.2.2.3, the 2020 BAU emissions forecast modeled by CARB in 2008 was updated by CARB in 2010. In October 2010, CARB revised its 2020 BAU emissions projection based on current economic forecasts, as influenced by the economic downturn, and statewide GHG reduction measures already in place. The result of this update was to reduce the originally estimated statewide 2020 BAU emission estimate of 596 $MMTCO_2E$ to 507 $MMTCO_2E$. This value accounts not only for reduced energy demand and growth due to the economic downturn, but also incorporates two adopted Scoping Plan GHG reduction measures. The two measures the revised 2020 forecast accounts for include the Pavley I and RPS 20 percent (refer to

Sections 3.2.2.4.a and 3.2.2.5.a). Considering the updated BAU estimate of 507 MMTCO2E by 2020, a 16 percent reduction below the estimated BAU levels would be necessary to return to 1990 levels (i.e., 427 MMTCO2E) by 2020 (CARB 2011). This value has been incorporated into a revised Scoping Plan that was adopted in 2011. Table 10 shows the revised 2010 projections compared to the 2008 projections.

TABLE 10
CALIFORNIA BAU 2020 COMPARATIVE GHG EMISSIONS FORECASTS

Sector	2008 Scoping Plan Projected 2020 Emissions in $MMTCO_2E$ (% total)	2011 Scoping Plan Projected 2020 Emissions in $MMTCO_2E$ (% total)
Transportation	225.4 (38%)	183.9 (36%)
Electricity	139.2 (23%)	110.4 (22%)
Commercial and Residential	46.7 (8%)	45.3 (9%)
Industry	100.5 (17%)	91.5 (18%)
Recycling and Waste	7.7 (1%)	8.5 (2%)
High GWP	46.9 (8%)	37.9 (7%)
Agriculture	29.8 (5%)	29.1 (6%)
Forest Net Emissions	0.0	0.0
TOTAL	**596.4**	**506.6**

SOURCE: CARB 2010d
$MMTCO_2E$ = million metric tons of carbon dioxide equivalent
GWP = global warming potential

The City is currently evaluating whether or not to update its GHG guidelines and interim threshold to a 16 percent reduction relative to BAU in accordance with the updated CARB projection, or some other threshold.

4.1.3.2 Efficiency and Bright Line Thresholds

The City's 28.3 percent reduction in GHG emissions relative to BAU goal is considered a performance threshold. Other GHG performance thresholds, as well as other types of GHG thresholds, have been considered by other jurisdictions. For example, the County of San Diego has completed a recent update to its *Guidelines for Determining Significance for Climate Change,* which includes not only a 16 percent performance threshold (based on the updated BAU forecast and Scoping Plan), but also includes a 4.32 $MTCO_2E$ efficiency threshold (i.e., a per capita threshold) and a 2,500 $MTCO_2E$ bright line (i.e., maximum level, operational emissions only) threshold for projects in the County. Similar efficiency or bright line thresholds could be applicable to projects in the City; but have not yet been identified.

4.1.3.3 GHG Regulatory Program Updates

In addition to revisions to the BAU forecast and Scoping Plan, there have also been court cases subsequent to 2008 affecting what regulatory programs designed to reduce

GHG emissions statewide can be implemented and/or attributed toward a project's analysis of whether it meets the applicable BAU threshold. For example, CARB's implementation of the LCFS GHG reduction program has been impeded by recent litigation. In December 2011, a preliminary injunction blocking CARB's implementation of the LCFS was granted. On April 23, 2012, the Ninth Circuit Court of Appeals overturned the injunction pending a ruling on the merits of the case. While there is no injunction currently in place, the City has determined there is sufficient legal uncertainty with this program that projects cannot rely on taking credit for CARB's implementation of the LCFS program when analyzing whether or not it meets the BAU threshold.

Accordingly, the City has approved a new protocol requiring GHG technical studies to analyze project impacts both with and without reliance on the LCFS.

4.2 Methodology and Assumptions

Given current City guidance, the CPU land uses are evaluated relative to the 28.3 percent BAU reduction threshold; the vehicle portion of these estimates is estimated both with and without accounting for the LCFS. To evaluate the CPU's GHG emissions relative to BAU, emissions were quantified and projected to the year 2020 for both BAU and the CPU. This is because the AB 32, CARB BAU Forecast, and associated Scoping Plan GHG reduction targets (including the overall 28.3 percent reduction in BAU target) are projected to a year 2020 horizon. Although the CPU has a time horizon of 15 to 20 years, with buildout anticipated to complete by roughly 2030 or 2035, no specific GHG reduction target has been identified in state legislation after 2020. Executive Order S-3-05 identified a GHG reduction target for 2050 but did not identify interim targets for the decades between 2020 and 2050. Establishing target reductions and significance of GHG emissions beyond 2020 is speculative. Therefore, in this analysis the GHG emissions estimates based on ultimate buildout of the CPU are compared to the 2020 GHG reduction goals in order to evaluate significance. In other words, for the purpose of this analysis, CPU buildout is projected to occur by 2020.

GHG emissions were estimated using the California Emissions Estimator Model (CalEEMod) Version 2011.1.1 released by CARB in March 2011 (SCAQMD 2011). In brief, the model estimates criteria air pollutants and GHG emissions by multiplying emission source intensity factors by estimated quantities of emission sources based on the land use information.

CalEEMod estimates emissions in terms of total metric ton CO_2 equivalent ($MTCO_2E$). CO_2-equivalent 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 1.1, is the potential of a gas to warm the global climate in the same amount as an equivalent amount of emissions of CO_2. Carbon dioxide (CO_2) thus has a GWP of 1.

Methane (CH_4) has a GWP of 21 and nitrous oxide (N_2O) has a GWP of 310, which means they have a greater global warming effect than CO_2.

Emission estimates were calculated for the three GHGs of primary concern (CO_2, CH_4, and N_2O) that would be emitted from construction and the five primary operational sources that would be associated with CPU buildout: mobile sources, area sources, energy use, water use, and solid waste disposal. To evaluate the reductions in GHG emissions of the CPU relative to the BAU 2020 Forecast, emissions were estimated for two scenarios: first, CPU buildout without GHG-reducing measures (i.e., CPU buildout under BAU conditions) and, second, CPU buildout with GHG-reducing measures. This allowed for a comparison between the CPU buildout with and without GHG-reducing measures in accordance with the City's 28.3 percent reduction goal.

The reported GHG estimates are provided in Section 5.1. Attachment 3 and 4 include the CalEEMod output files.

4.2.1 Defining CPU Characteristics and Land Use

The CPU is located in the San Diego Air Basin in climate zone 13 and is served by San Diego Gas and Electric (SDG&E). Each utility provider has specific energy intensity factors. SDG&E's energy intensity factors are shown in Table 11 below.

TABLE 11
SAN DIEGO GAS & ELECTRIC INTENSITY FACTORS

GHG	Intensity Factor[1] (lbs/MWh)
Carbon Dioxide (CO_2)	780.79
Methane (CH_4)	0.029
Nitrous Oxide (N_2O)	0.011

[1]SOURCE: CalEEMod Version 2011.1.1
GHG = greenhouse gas
lbs = pounds
MWh = megaWatt hour

These energy intensity values are used in CalEEMod to determine the GHG emissions associated with electricity use in various modules and are based on CARB's Local Government Operations Protocol (LGOP) (for CO_2) and E-Grid (for CH_4 and N_2O) values.

Table 12 lists the CPU buildout land use quantities. These include land uses that are currently existing in the CPU area as well as those that could be constructed under the CPU. It was assumed that future land uses would be constructed on currently vacant land (i.e., existing construction would remain). The distinction between these two categories is made because of the differences in energy and water consumption rates for new development versus existing development constructed in accordance with older building codes.

TABLE 12
FUTURE MODELED LAND USES

Land Uses[1]	Currently Existing Development	New Development	Total CPU Buildout
Single Family Residential (du)	2,591	1,682	4,273
Multi-family Residential (du)	1,106	13,395	14,501
Park (acres)	16	145	161
Commercial/Mixed Use (million square feet)	2.653	1.869	4.522
Institutional (million square feet)	4.988	10.236	15.224
Industrial (million square feet)	33.323	19.515	52.838

[1]Land use acreage obtained from Otay Mesa Community Plan Update 2011. Commercial and institutional square footages calculated from acreage assuming a 0.3 floor area ratio. Industrial square footages calculated from acreage assuming a 0.5 floor area ratio.
CPU = Community Plan Update
du = dwelling unit

4.2.2 Estimating 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 in the commute vehicles of the construction workers. Smaller amounts of GHGs are also emitted through the energy use embodied in any water use (for fugitive dust control) and lighting for the construction activity. Every phase of the construction process, including demolition, grading, paving, and building, emits GHG emissions, in volumes proportional to the quantity and type of construction equipment used. The heavier equipment typically emits more GHGs per hour of use than the lighter equipment because of their greater fuel consumption and engine design.

Construction is a temporary source of GHG emissions. Although these emissions are temporary, they must be accounted for, as the impact from the emissions of GHGs is cumulative. The Association of Environmental Professionals (AEP) has recently recommended that total construction GHG emissions resulting from a project be amortized over 30 years and added to operational GHG emissions to provide a cumulative estimate of annual GHG emissions for the plan (AEP 2010). In order to provide an estimate of the GHG emissions that would occur from construction of new development, CalEEMod construction defaults were assumed and the construction phasing was adjusted to 30 years. Also, as recommended in a recent (March 2012) CalEEMod workshop conducted by CARB, because CalEEMod overestimates construction exhaust emissions by roughly 30 percent, the resulting total quantity of construction emissions estimated by CalEEMod is multiplied by 0.70 to obtain total construction GHGs.

4.2.3 Estimating Vehicle Emissions

Transportation-related GHG emissions comprise the largest sector contributing to both inventoried and projected statewide GHG emissions, accounting for 38 percent of the projected total statewide 2020 BAU emissions (CARB 2008a). On-road vehicles alone account for 35 percent of forecasted 2020 BAU emissions. GHG emissions from vehicles come from the combustion of fossil fuels in vehicle engines.

CalEEMod estimates vehicle emissions by first calculating trip rate, trip length, trip purpose, and trip type percentages (e.g., home to work, home to shop, home to other) for each land use type, based on the land use types and quantities. For this analysis, CalEEMod default trip rates were edited to reflect the trip rates identified for each land use subtype in the traffic impact analysis (Urban Systems Associates 2012). The default trip lengths were assumed.

CalEEMod default vehicle emission factors and fleet mix are derived from the Emission Factors (EMFAC) 2007 model and adjusted for Pavley and the LCFS. For this analysis, the default values that account for Pavley and LCFS were assumed to yield accurate estimates of the future CPU with GHG reductions scenarios. To calculate each alternative BAU scenario however (i.e., the CPU without GHG reductions scenario), the CPU with reductions vehicle emissions were divided by 0.70 to achieve a 30 percent increase in order to reflect the absence of those two regulations.

4.2.4 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 24 percent of the projected total 2020 statewide BAU emissions (CARB 2008a). Combustion of fossil fuel emits criteria pollutants and GHGs directly into the atmosphere. When this occurs in a building this is considered a direct emissions source associated with that building.

Building energy use is typically divided into energy consumed by the built environment and energy consumed by uses that are independent of the construction of the building such as plug-in appliances. In California, Title 24 governs energy consumed by the built environment, mechanical systems, and some types of fixed lighting. Non-building energy use, or plug-in energy use, can be further subdivided by specific end-use (refrigeration, cooking, office equipment, etc.).

CalEEMod default energy values are based on the CEC-sponsored California Commercial End Use Survey (CEUS) and Residential Appliance Saturation Survey

(RASS) 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 current 2008 Title 24 energy code (part 6 of the building code). Adjustments to simulate the 2005 Title 24 energy code are also available in CalEEMod.

For the BAU energy emissions estimate and the existing conditions estimate, GHG emissions from energy use were calculated assuming construction in accordance with the 2005 Title 24 energy code. For the estimates of the CPU, energy emissions were estimated assuming all new development would be constructed in accordance with the 2008 Title 24 energy code and all existing development, which would remain under buildout of the CPU, was constructed in accordance with the 2005 Title 24 energy code. Table 12 shows the existing and the new development quantities.

4.2.5 Estimating Area Source Emissions

Area sources include hearths, woodstoves, and landscaping equipment. The use of hearths (fireplaces) and woodstoves directly emits CO_2 from the combustion of natural gas, wood, or biomass, some of which are thus classified as biogenic. The use of landscape equipment emits GHGs associated with the equipment's fuel combustion. CalEEMod estimates the number and type of equipment needed based on the number of summer days given the project's location. The model defaults for hearths, woodstoves, and landscaping equipment were assumed.

4.2.6 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 methane and nitrous oxide.

Default water consumption rates were assumed for the estimates of BAU and existing conditions, including the existing land uses that would remain within the CPU horizon year (refer to explanation in energy discussion above). However, for the future/new land uses of the CPU, a 20 percent reduction in water use was assumed in accordance with recent requirements of CalGreen. Similar to energy use, recent updates to the water conservation element of Title 24 have resulted in increased water conservation for development subsequent to 2010. New construction and redevelopment that would occur under the CPU would be constructed in accordance with the current 2011 CALGreen or later water conservation requirements. Because the 2011 CalGreen (i.e., Part 11 of Title 24) requires a minimum 20 percent reduction in water use, a 20 percent reduction in BAU water use was factored into the CPU emissions.

It should be noted that industrial land uses consume significantly more water than other land uses. Due to the large amount of industrial uses in the CPU area, GHG emissions due to water use are much greater in the CPU area than in other areas in the basin dominated by residential and commercial development.

4.2.7 Estimating Solid Waste Emissions

The disposal of solid waste produces GHG emissions from anaerobic decomposition in landfills, incineration, and transportation of waste. CalEEMod determines the GHG emissions associated with disposal of solid waste into landfills. Portions of these emissions are biogenic. CalEEMod methods for quantifying GHG emissions from solid waste are based on the Intergovernmental Panel on Climate Change (IPCC) method using the degradable organic content of waste. Existing, BAU, and CPU GHG emissions associated with waste disposal were all calculated using CalEEMod's default parameters.

Similar to water use, industrial land uses typically generate more waste than other land uses. Due to the large amount of industrial uses in the CPU area, GHG emissions due to solid waste are greater in the CPU area than in other areas in the basin.

4.2.8 Summary of Assumptions

Table 13 summarizes the assumptions used for the calculation of BAU and CPU emissions.

TABLE 13
BAU AND CPU GHG CALCULATION ASSUMPTIONS

Emission Source	BAU Assumptions	CPU Assumptions
Vehicle Emissions	Default Year 2020 emissions were divided by 0.70 to achieve a 30 percent increase in order to reflect the absence of the two statewide regulations, Pavley and LCFS.	Default Year 2020 emissions were assumed. Calculation of emissions without incorporation of the LCFS is also provided per City protocol.
Energy Emissions	2005 statewide average annual energy consumption rates were used to estimate BAU emissions, consistent with the CARB 2020 BAU forecast that assumed building energy efficiencies in accordance with 2005 Title 24.	For existing development, 2005 statewide average annual energy consumption rates were used to reflect construction in accordance with 2005 Title 24. For additional new development under the CPU, default 2008 Title 24 energy rates were assumed.

TABLE 13
BAU AND CPU GHG CALCULATION ASSUMPTIONS
(continued)

Emission Source	BAU Assumptions	CPU Assumptions
Area Source Emissions	All model defaults were assumed.	All model defaults were assumed.
Water Emissions	Average rates of water consumption were used in the calculation of BAU water use emissions, consistent with plumbing code regulations in effect at the time the CARB 2020 BAU forecast was made.	For existing development, average rates of water consumption were assumed. For additional new development, a 20 percent decrease in water consumption was assumed (in accordance with CalGreen).
Solid Waste Emissions	All model defaults were assumed.	All model defaults were assumed.
Construction Emissions	There would be no construction associated with existing development. For additional new development, CalEEMod construction defaults were assumed and the construction phasing was adjusted to 30 years. Additionally, construction emissions estimated by CalEEMod were multiplied by 0.70, because CalEEMod overestimates construction emissions by roughly 30 percent	There would be no construction associated with existing development. For additional new development, CalEEMod construction defaults were assumed and the construction phasing was adjusted to 30 years. Additionally, construction emissions estimated by CalEEMod were multiplied by 0.70, because CalEEMod overestimates construction emissions by roughly 30 percent

5.0 Impact Analysis

In accordance with CEQA and City guidelines, this analysis evaluates the significance of the CPU 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 Cumulative GHG Emissions

5.1.1 Impacts

As indicated in Section 4.1, based on the criteria shown in Table 8, the ultimate buildout that would be allowed under the CPU requires completion of a GHG emissions analysis in order to determine what, if any, cumulative impacts would result from project implementation. Specifically, the analysis must demonstrate whether or not ultimate buildout of the CPU, accounting for GHG reduction measures, would generate GHG

emissions at least 28.3 percent less than the emissions that would occur under a BAU buildout scenario. The BAU buildout scenario represents buildout of the CPU without accounting for GHG reduction measures. Thus, GHG estimates for both scenarios are discussed below.

Table 14 summarizes the estimated BAU GHG emissions in the CPU area.

TABLE 14
SUMMARY OF ESTIMATED BAU EMISSIONS ($MTCO_2E$)

Emission Source	Emissions from Currently Existing Development	Emissions from New Development	Total BAU Emissions
Vehicle	738,452	669,176	1,407,628
Energy	195,730	191,122	386,851
Area	8,856	36,118	44,975
Water Consumption	916,242	555,687	1,471,929
Solid Waste Disposal	886,942	525,419	1,412,361
Construction	0	34,604	34,604
TOTAL	**2,746,222**	**2,012,126**	**4,758,348**

BAU = business-as-usual
$MTCO_2E$ = metric tons of carbon dioxide equivalent

Based on the calculations described above, the combined total BAU GHG emissions without GHG reductions would be approximately 4,758,348 $MTCO_2E$. Of this total, approximately 2,746,222 $MTCO_2E$ (57.7 percent) would be associated with the CPU's currently existing development, and 2,012,126 $MTCO_2E$ (42.3 percent) would be associated with new proposed development.

Table 15 summarizes the estimated CPU GHG emissions with incorporation of GHG reduction measures.

TABLE 15
SUMMARY OF ESTIMATED CPU EMISSIONS ($MTCO_2E$)

Emission Source	Emissions from Currently Existing Development	Emissions from New Development	Total BAU Emissions
Vehicle	516,916	468,424	985,340
Energy	195,730	182,189	377,918
Area	8,856	36,118	44,975
Water Consumption	916,242	444,550	1,360,792
Solid Waste Disposal	886,942	525,419	1,412,361
Construction	0	34,604	34,604
TOTAL	**2,524,686**	**1,691,303**	**4,215,989**

CPU = Community Plan Update
$MTCO_2E$ = metric tons of carbon dioxide equivalent

Based on the calculations described above, the combined total CPU GHG emissions without GHG reductions would be approximately 4,215,989 $MTCO_2E$. Of this total, approximately 2,524,686 $MTCO_2E$ (59.9 percent) would be associated with the CPU's currently existing development, and 1,691,303 $MTCO_2E$ (40.1 percent) would be associated with new proposed development.

5.1.2 Significance of Impacts

Table 16 summarizes the estimated 2020 BAU emissions, the target emissions to achieve a 28.3 percent reduction relative to BAU, and the CPU emissions with the incorporation of GHG-reducing measures. Table 16 also provides the percentage reductions for comparison with the City's 28.3 percent reduction relative to BAU goal in accordance with the methodology discussed in Section 4.1.2. Emission calculations with inclusion of GHG reduction measures are provided in Attachment 5.

BAU emissions would total 4,758,348 $MTCO_2E$ annually. As shown in the second column in Table 16, a 28.3 percent reduction in CPU areawide BAU emissions would equal 3,411,735 $MTCO_2E$ per year. Therefore, the CPU would be considered to be consistent with the AB 32/Scoping Plan and City goals if it were to emit total annual emissions equal to or less than 3,411,735 $MTCO_2E$.

The CPU emissions with GHG reductions would total 4,215,989 $MTCO_2E$ annually. This reduction in BAU emissions of 542,359 $MTCO_2E$ each year would be due to regulations on auto and fuel manufacturers. Reductions would also be due to CalGreen that contains increased energy and water efficiency requirements that would reduce GHG emissions from those sources for additional new development. Of the estimated 4,215,989 $MTCO_2E$ of GHGs associated with buildout of the CPU, the majority (59.9 percent) would come from currently existing development and the remainder (40.1 percent) would come from additional new development.

TABLE 16
ESTIMATED CPU GHG EMISSIONS AND BAU REDUCTIONS
($MTCO_2E$)

Emission Source	BAU Emissions (i.e. without GHG Reductions) ($\dot{m}_{GHG,BAU}$)[1]	Target Emissions	CPU Emissions with GHG-Reductions ($\dot{m}_{GHG,PR}$)[1]	Percent Reduction relative to BAU Reduction Target
Vehicles	1,407,628	--	985,340	30.0
Energy Use	386,851	--	377,918	2.3
Area Sources	44,975	--	44,975	0.0
Water Use	1,471,929	--	1,360,792	7.6
Solid Waste	1,412,361	--	1,412,361	0.0
Construction	34,604	--	34,604	0.0
TOTAL	**4,758,348**	**3,411,735**	**4,215,989**	**11.4**[2]

CPU = Community Plan Update
GHG = greenhouse gas
BAU = business as usual
$MTCO_2E$ = metric tons of carbon dioxide equivalent
[1]Refer to Section 4.1.2.2 for nomenclature and description of City methodology for calculating BAU and Net Plan emissions.
[2]An 11.4 percent reduction accounts for Pavley and Low Carbon Fuel Standard reductions in vehicle emissions, 2008 Title 24 reductions in energy emissions, and CalGreen reductions in water use emissions. By not including the Low Carbon Fuel Standard reduction, the total percent reduction relative to BAU becomes 9.1 percent.

The CPU total GHG emissions, when compared to the BAU total annual emissions, would result in an 11.4 percent reduction in GHG emissions relative to BAU. This falls short of meeting the City's threshold of a minimum 28.3 percent reduction in GHG emissions relative to BAU. When comparing the new proposed development only (i.e., not taking into account the GHG emissions from currently existing development), the CPU would result in a 15.9 percent reduction relative to BAU. While there are other thresholds that are professionally accepted standards for review of projects, the comparison of the CPU to the 28.3 percent standard provides a conservative analysis of potential impacts. This impact associated with GHG emissions under the CPU would be considered significant and unavoidable.

The Mobility, Urban Design, and Conservation elements of the CPU include specific policies to require dense, compact, and diverse development; encourage highly efficient energy and water conservation design; increase walkability and bicycle and transit accessibility; increase urban forestry practices and community gardens; decrease urban heat islands; and increase climate-sensitive community design. These policies would serve to reduce consumption of fossil-fueled vehicles and energy resulting in a reduction in communitywide GHG emissions relative to BAU. These policies are discussed in detail in the Issue Section 5.2.

Despite the inclusion of these policies (most of which are not quantifiable in terms of their GHG emissions reductions at the program-level) and despite the GHG reductions gleaned from statewide regulations on vehicle GHG emissions and building energy and water use, the CPU's projected GHG emissions would fall short of meeting the 28.3 percent GHG reduction target relative to 2020 BAU. The approximate gap of 16.9 to 19.2 percent in meeting the target reductions would be made up through one or a combination of several effective and quantifiable GHG reduction measures that pertain to building and non-building energy use, indoor and outdoor water use, area sources, solid waste disposal, vegetation/carbon sequestration, construction equipment, and transportation/vehicles. Project-level GHG reduction design features are available that would reduce BAU GHG emissions to 28.3 percent or more relative to BAU and to the extent practicable would be implemented for future development projects under the CPU.

It should be noted that if the CPU were not adopted, development in Otay Mesa would continue to occur in accordance with the existing 1981 Otay Mesa Community Plan, which allows for more development than the CPU and would also generate more traffic than the CPU. The CPU would introduce higher density residential and commercial land use designations, as well as several new mixed-use and industrial land use designations. The GHG emissions associated with the 1981 Otay Mesa Community Plan would be greater than those of the CPU summarized in Table 4.16.

5.1.3 Mitigation Framework

GHG-1: Future projects shall demonstrate their avoidance of significant impacts related to long-term GHG emissions. The Mobility, Urban Design, and Conservation elements of the CPU include specific policies to require dense, compact, and diverse development, encourage highly efficient energy and water conservation design, increase walkability and bicycle and transit accessibility, increase urban forestry practices and community gardens, decrease urban heat islands, and increase climate-sensitive community design. These policies would serve to reduce consumption of fossil-fueled vehicles and energy resulting in a reduction in communitywide GHG emissions relative to BAU. Future projects shall incorporate GHG reducing features or mitigation measures in order to meet the City's reduction goals relative to BAU, to meet AB 32 year 2020 target levels. At the time of the writing of this report, the City's reduction goal is 28.3 percent relative to BAU emissions. Quantifiable GHG reduction measures at the level of subsequent projects pertain to:

- Building and non-building energy use
- Indoor and outdoor water use
- Area sources
- Solid waste disposal
- Vegetation/carbon sequestration

- Construction equipment
- Transportation/vehicles

The effectiveness and feasibility of these GHG reduction measures in reducing GHG emissions have been documented in the 2010 CAPCOA publication *Quantifying Greenhouse Gas Mitigation Measures* (CAPCOA 2010). They have subsequently been included in the mitigation modules of CalEEMod to quantify GHG emissions and reductions. These measures are included in the City's CMAP, yet to be adopted. These measures are best quantified at the project-level, because specific project-level design information is needed to calculate accurate GHG reductions. At the program-level, impacts would remain significant and unmitigated.

5.1.4 Significance of Impacts after Mitigation

While future development projects would be required to implement GHG emission reduction measures to the extent practical, the degree of future impacts and applicability, feasibility, and success of future mitigation measures cannot be adequately known for each specific future project at this program-level of analysis. Therefore, the impacts associated with the contribution of GHG emissions to cumulative statewide emissions would be considered significant and unavoidable, even with adherence to the Mitigation Framework.

5.2 Consistency with Adopted Plans, Policies, and Regulations

5.2.1 Impacts

5.2.1.1 Overview of Local and State GHG Reduction Measures

The regulatory plans and policies discussed extensively in Section 3.2 above aim to reduce national, state, and local GHG emissions by primarily targeting the largest emitters of GHGs: the transportation and energy sectors. The goals and regulatory standards discussed in Section 3.2 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 traveled through land use change and infrastructure investments. The types of land use changes that can measurably reduce GHG emissions associated with vehicle use include: increased density; increased diversity (mixed use); improved walkability design; improved transit accessibility; transit improvements; integration of below market-rate housing; and constrained parking.

By increasing density, especially within proximity of transit, people's travel distances are affected and greater options for the mode of travel are provided. This can result in a substantial reduction in VMT depending on the change in density compared to a typical suburban residential density (CAPCOA 2010). By increasing the diversity of land use (i.e., through mixed-use developments), a similar reduction in VMT can occur because trips between land use types would be shorter and may be accommodated by non-auto modes of transport. By increasing transit accessibility (e.g., by locating a high-density project near transit), a shift in travel mode is facilitated along with reduced VMT. Income has a statistically significant effect on the probability that a commuter will take transit or walk to work, as lower income families tend to have lower levels of auto ownership (CAPCOA 2010). Therefore, by integrating affordable and below market rate housing, VMT can be further reduced. By constraining parking supply, either through policy changes (e.g., reduced parking requirements for urban areas) or through pricing and/or preferential parking for ridesharing and fuel-efficient vehicles, VMT would decrease as motorists shift away from single-occupancy vehicle travel and carpool, take transit, or walk/bicycle instead.

The effectiveness of these land-use strategies ranges from less than one percent up to a maximum 30 percent reduction in community wide VMT and are not additive (CAPCOA 2010). For example, where high-density mixed use development is located within a five to ten minute walk from a transit station with high-frequency transit or bus service and is combined with walkable neighborhood design, a total VMT reduction up to 24 percent can be achieved (CAPCOA 2010).

For the energy sector, the reduction strategies of local, state and national plans 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. At the plan or project-level, policies or incentive programs for builders to exceed the current Title 24 energy efficiency standards, to install high efficiency lighting and energy-efficient plug-in appliances (for energy uses not subject to Title 24), and to incorporate on-site renewable energy generation can result in substantial GHG emissions reductions, up to 35 percent or more. Energy use associated with water consumption and wastewater treatment can also be reduced by applying an overall water reduction strategy (e.g., of 20 percent on indoor and outdoor water use) and/or policies and actions related to using reclaimed and gray water, installation of low-flow plumbing fixtures, use of water-efficient landscape design including turf reduction, and use of water-efficient irrigation systems. The institution of recycling and composting services can also reduce the energy embodied in the disposal of solid waste.

In addition to strategies aimed at reducing GHG emissions associated with vehicle and energy use, relevant local and state plans include GHG reduction strategies aimed at: reducing the heat island effect (and therefore energy-for-cooling demand) through urban

forestry and shade tree programs. These plans also include, reducing area source emissions from woodstoves and fireplaces through stricter restrictions on fuel type and restriction against their use; and restricting the type of landscaping equipment used (such as use of only electric-powered lawn mowers, leaf blowers and chain saws).

Additional policies and strategies focus on climate adaptation and include policies and strategies to increase climate adaptability and resilience through climate-sensitive building guidelines (e.g., through appropriate building orientation and glazing design), sea-level monitoring, and defensible building design.

5.2.1.2 Consistency with Local GHG Reduction Measures

As discussed in Section 2.3, new policies within the CPU have been designed to reflect and implement the general GHG reduction recommendations of the General Plan, strategies of other local plans, and state GHG reduction measures. Specifically, the CPU includes updated Conservation, Mobility, and Urban Design elements that include several policies aimed at reducing GHG emissions from target emission sources and/or aimed at adapting to climate change. The CPU policies provide refinement of the General Plan and citywide policies specifically applicable to the Otay Mesa community. In several cases these policies are also consistent with key state GHG reduction plans, regulations, and recommended mitigation measures. An overview of relevant CPU elements and policies are contained in Attachment 1. The following is a discussion of the CPU's Conservation, Mobility, and Urban Design elements' consistency with local GHG reduction measures.

Conservation Element

The Conservation Element contains climate change and sustainability policies that provide a framework for addressing and adapting to climate change. These strategies are generally consistent and encourage the implementation of the General Plan Mitigation Framework recommendations and Policies CE-A-1 through CE-A-13 and with climate change mitigation and adaptation strategies of State plans and programs. These framework policies include the types of policies anticipated to be set forth in the Draft CMAP currently being prepared by the City.

The CPU's Conservation Element also includes water conservation measures to reduce the need for water, thereby reducing the energy use embodied in water supply and treatment and its associated GHG emissions. The policies promote the use of reclaimed and recycled water. The policies are consistent with the outdoor water-reduction strategies of the General Plan, the Scoping Plan, the 2010 CAPCOA GHG Mitigation Measures report, and the recently effective 2011 CalGreen water-reduction requirements for residential and non-residential uses.

The urban forestry policies of the CPU conform to the General Plan urban forestry Policies CE-J.1 through CE-J.5 and promote the need for an increase in tree plantings in both residential and commercial areas. Planting shade trees around buildings has been shown to effectively lower the electricity cooling demand of buildings by blocking incident sunlight and reducing heat gain through windows, walls, and roofs (CAPCOA 2010). By reducing cooling demand, shade trees help reduce electricity demand from the local utility and therefore reduce GHG emissions that would otherwise be emitted during the production of electricity.

The CPU has the potential to provide multiple sites for community gardens that would contain individual and shared-plot spaces. The CPU community farm and garden policies promote the need for the development of community gardens within the community. Establishment of community gardens has the potential to further reduce GHG emissions by providing project residents with a local source of food, potentially resulting in a reduction in the number of trips and VMT traveled by both the food and the consumers to grocery stores and supermarkets. Community gardens can also contribute to GHG reductions by displacing carbon-intensive food production practices. These emission reductions cannot be reasonably quantified at this time, because they are based on several undefined parameters: the relative locations of farmers market, supermarket, and supermarket produce suppliers; carbon intensity of food production practices; and role of a farmers market in a development.

Mobility Element:

Through increasing density, bringing people closer to their work and providing pedestrian connections to retail, commercial, and residential units, a substantial reduction in VMT can occur. A communitywide reduction in vehicle travel would reduce local VMT, which would in turn reduce emissions associated with vehicle use. The CPU would generate 1,045,025 average daily trips. The daily trip rates took into account the CPU density, diversity or mixed-use, improved walkability, and transit accessibility. The effectiveness of these land-use strategies range from less than one percent up to a maximum 30 percent reduction in communitywide VMT (CAPCOA 2010).

The CPU Mobility Element includes numerous policies to improve the pedestrian and bicycle network, increase transit accessibility, and provide transit improvements. Generally, these policies are not only consistent with the General Plan, but are also consistent with the CARB Scoping Plan vehicle reduction measures for land use development and with specific traffic mitigation measures identified in the 2010 CAPCOA GHG Mitigation Measures report.

Urban Design Element:

The Urban Design Element provides policies that promote enhanced connectivity to activity centers, active commercial centers supported by transit, improved pedestrian

access and movement, pedestrian-oriented design principles, and improved walkability. Generally, these policies are consistent with the General Plan, the CARB Scoping Plan, and the 2010 CAPCOA GHG Mitigation Measures report.

The Urban Design Element also provides sustainability policies that promote green building techniques that are consistent with General Plan policies and with green building strategies recommended in the State Climate Change Scoping Plan and several of the measures identified in the 2010 CAPCOA GHG Mitigations Measures report. GHG reductions from these policies are not quantifiable at the plan-level. Future development projects implemented in accordance with the CPU would be required to implement some of these measures, which would be quantified and their GHG reductions accounted for using the CalEEMod GHG emissions estimator model or other appropriate methods, thereby further reducing GHG emissions associated with the buildout of the CPU.

5.2.1.3 Consistency with State GHG Reduction Strategies

EO S-3-05 established GHG emission reduction targets for the State, and AB 32 launched the CARB Climate Change Scoping Plan that outlined the reduction measures needed to reach these targets. The Climate Change Scoping Plan and its implementing and complementary regulations are discussed in Section 3.2.3 and generally encompass the GHG reduction strategies described at the beginning of this section (in Section 5.2.1.1). Subsequent to the CARB Climate Change Scoping Plan, the CAPCOA (a division of CARB), released the report *Quantifying Greenhouse Gas Mitigation Measures: A Resource for Local Government to Assess Emission Reductions from Greenhouse Gas Mitigation Measures* (Mitigation Measures report), that identifies specific project-level and program-level GHG reduction measures (CAPCOA 2010). The report includes quantification of the GHG reductions that could be achieved through incorporation of project-level mitigation measures. These measures fall into the same categories as discussed earlier: transportation, energy, water and wastewater, solid waste, area source (woodstoves, fireplaces, landscaping equipment), and construction emissions. Most of the mitigation measures included in the CAPCOA report are identified for project-level analyses, however, the project-level reduction strategies can be extrapolated to the program-level. The program-level reduction measures included in the report are few in comparison and are largely unquantifiable. They pertain to funding and incentive programs for increased energy efficiency; establishment of local farmer's markets and community gardens; urban shade tree planting programs, and communitywide strategies to reduce urban heat island effect. Several of the program-level measures, as well as the project-level measures, have been generally incorporated into the CPU as indicated in Section 5.2.1.2 above.

In general, the CPU policies outlined in Attachment 1 correspond to the general intent of the GHG reduction measures identified in both the 2010 CAPCOA GHG Mitigation Measures report and the 2008 CARB Climate Change Scoping Plan. Where practical,

GHG reductions were included in the quantification of the CPU's GHG emissions, as described in the Section 5.1 cumulative GHG emissions analysis. In the quantification of CPU GHG emissions in Section 5.1, GHG reductions were accounted for vehicle emissions, and energy and water use emissions. These comprised the GHG reduction/mitigation measures that were quantifiable at the program-level. Subsequent projects would achieve further GHG reductions in these emissions sources, as well as in the area source, construction, and solid waste GHG emissions, through project-specific design features.

5.2.2 Significance of Impacts

The CPU contains policies that would reduce GHG emissions from transportation and operational building uses (related to water and energy consumption, and solid waste generation, etc.) that would be consistent with the strategies of local and state plans, policies, and regulations aimed at reducing GHG emissions from land use and development. Subsequent projects implemented in accordance with the CPU would be required to implement GHG-reducing features beyond those mandated under existing codes and regulations. However, because project-level details are not known, there is the potential that projects would not meet the necessary City reduction goals put in place in order to achieve the reductions required by AB 32. Thus, the level of potential impacts associated with plan conflict would be potentially significant.

6.0 Conclusions and Recommendations

With regard to plan consistency, the CPU would be consistent with the goals, strategies, and reduction targets of relevant local and State plans, and regulations aimed at reducing GHG emissions from land use and development. The level of impact associated with potential plan conflict would therefore be less than significant.

With regard to cumulative GHG emissions quantities, the CPU's GHG emissions, when compared to their BAU emissions, would result in a 9.1 to 11.4 percent reduction in emissions relative to BAU. This falls short of demonstrating a minimum 28.3 percent reduction in GHG emissions relative to BAU in accordance with City guidance on GHG emissions. Without mitigation measures to reduce emissions further, the cumulative GHG emissions generated from the CPU would be significant. Implementation of Mitigation Framework GHG-1 (see Section 5.1.3) would be required.

Significance After Mitigation

While future development projects within the CPU area would be required to implement GHG emission reduction measures to the extent practicable, the degree of future impacts and applicability, feasibility, and success of future mitigation measures cannot

be adequately known for each specific future project at this program-level of analysis. Therefore, buildout of the CPU would result in impacts associated with the contribution of GHG emissions to cumulative statewide emissions that would be considered significant and unavoidable at the program-level, even with adherence to the Mitigation Framework.

7.0 References Cited

Association of Environmental Professionals (AEP)

2010 Spring 2010 Advanced CEQA Workshop. San Diego Chapter. May 13.

California Air Pollution Control Officers Association (CAPCOA)

2010 Quantifying Greenhouse Gas Mitigation Measures: A Resource for Local Government to Assess Emission Reductions from Greenhouse Gas Mitigation Measures. August.

California Air Resources Board (CARB)

2007 California 1990 Greenhouse Gas Emissions Level and 2020 Emissions Limit. November 16.

2008a California 2020 GHG Emissions Forecast. Accessed June 1, 2010 from the CARB website at http://www.arb.ca.gov/cc/inventory/data/forecast.htm. Last updated October 2008; last reviewed May 28, 2010.

2008b Climate Change Scoping Plan: A Framework for Change. Accessed from the CARB website April 15, 2010 at http://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf. December.

2010a *Greenhouse Gas Inventory Data – 2000 to 2008*. Obtained from the CARB website at http://www.arb.ca.gov/cc/inventory/data/data.htm (last updated May 12, 2010) on December 28.

2010b Greenhouse Gas Emission Forecast for 2020: Data Sources, Methods, and Assumptions, and Status of Scoping Plan Recommended Measures. October 28. Accessed from the CARB website at http://www.arb.ca.gov/cc/inventory/data/forecast.htm and http://www.arb.ca.gov/cc/scopingplan/status_of_scoping plan measures.pdf on May 4, 2012.

2010d California's Greenhouse Gas Emissions Inventory—2020 Emissions Forecast. Accessed from CARB website at http://www.arb.ca.gov/cc/inventory/data/forecast.htm on May 4, 2012.

2010c *Senate Bill 375 – Regional Targets*. Obtained from the CARB website at http://www.arb.ca.gov/cc/sb375/sb375.htm on October 29.

2011 Final Supplement to the AB 32 Scoping Plan Functional Equivalent Document. August 19. Accessed from the CARB website at http://www.arb.ca.gov/cc/scopingplan/document/final_supplement_to_sp_fed.pdf on May 9, 2012.

2012 California 2020 GHG Emissions Forecast. Accessed from the CARB website at http://www.arb.ca.gov/cc/inventory/data/forecast.htm. Last updated October 2012; last reviewed April 6, 2012.

San Diego Association of Governments (SANDAG)

2011 2050 Regional Transportation Plan. October.

San Diego, City of

2008a City of San Diego General Plan.

2008b Memorandum Addressing Greenhouse Gas Emissions from Projects Subject to CEQA. From Cecilia Gallardo. March 19.

South Coast Air Quality Management District (SCAQMD)

2011 California Emissions Estimator model (CalEEMod). User's Guide Version 2011.1. February.

Union of Concerned Scientists (UCS)

2007 SB 1368 (Perata) Greenhouse Gas Emissions Performance Standard for Major Power Plant Investments – A Fact Sheet of the Union of Concerned Scientists. Obtained from the UCS web site at http://www.ucsusa.org/assets/documents/global_warming/SB-1368-Perata-fact-sheet.pdf on June 7, 2007.

Urban Systems Associates, Inc.

2012 Transportation Analysis for the Otay Mesa Community Plan Update. Prepared for the City of San Diego. June 14, 2012.

U.S. Environmental Protection Agency (U.S. EPA)

2007 *U.S. Climate Policy and Actions*. Obtained from the EPA Climate Change website at http://www.epa.gov/climatechange/policy/index.html on May 25, 2007.

2010 *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2008*. U.S. Greenhouse Gas Inventory Program, Office of Atmospheric Programs. 430-R-10-006. April 15.

University of San Diego

2008 Greenhouse Gas Inventory: An Analysis of Regional Emissions and Strategies to Achieve AB 32 Targets. Prepared by the University of San Diego School of Law, Energy Policy Initiative Center (EPIC), and available online at http://www.sandiego.edu/epic/ghginventory/. September.

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ATTACHMENTS

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ATTACHMENT 1

CPU Goals and Policies Related to GHG

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CPU Goals and Policies Related to GHG

a. Conservation Element

Conservation Goals

- Preservation of a natural open space canyon network and associated biological resources
- Vernal pool preservation and management of greenhouse gas reductions through implementation of village land use plans, support for transit, incentives for clean technology industries, alternative energy generation, and sustainable development
- Assured water supply to meet future needs
- Implementation of urban runoff management techniques
- Development of a communitywide urban forest
- Local food generation through community farms and gardens
- Safe and healthy air quality within Otay Mesa

Climate Change and Sustainable Development

Policy 8.2.1. Implement General Plan sustainability policies through innovative regulations and the project review process.

Policy 8.2.2. Plan for energy efficiency through street orientation, building placement, and the use of shading in subdivisions and development plans.

Policy 8.2.3. Provide information on programs and incentives for achieving more energy-efficient buildings and renewable energy production.

Policy 8.2.4. Reduce project-level greenhouse gas emissions to acceptable levels through project design, application of site-specific mitigation measures, or adherence to standardized measures outlined in the City's adopted citywide climate action plan.

Policy 8.2.5. Support implementation of a solar farm as a part of the proposed Brown Field Master Plan.

Policy 8.2.6. Encourage businesses and property owners to conduct energy audits and implement retrofits to improve the energy and efficiency of existing buildings.

Water

Policy 8.3.1. Promote the expansion of the reclaimed water distribution system to allow greater use of recycled water.

Policy 8.3.3. Require installation of recycled water infrastructure as a part of the development review process.

Urban Forestry

Policy 8.5.1. Ensure that the overall tree cover and other vegetation throughout Otay Mesa is no less than 20 percent in urban residential areas and 10 percent in the business areas so that the natural landscape is sufficient in mass to provide significant benefits to the City in terms of air and water management.

Policy 8.5.2. Work with the City's Street Division/Urban Forestry Section to coordinate the appropriate selection and location of shade-producing trees from the Otay Mesa Community Plan's Street Tree List.

Policy 8.5.3. Require new development to retain significant and mature trees, where feasible.

Policy 8.5.4. Support public outreach efforts to educate business owners, residents, and school children on the care and environmental benefits of shade-producing street trees.

Policy 8.5.5. Plant trees strategically to achieve energy savings. Generally, orient tree plantings so that building structures maximize shading and cooling benefits from the canopy spread.

Community Farms and Gardens

Policy 8.6.1. Locate community gardens where there is sufficient demand, appropriate land, and where they will not generate adverse impacts on adjacent uses either on public or private land.

a. Consider locating community gardens adjacent to school facilities.

b. Provide space in new developments of a certain size or multi-family developments.

Policy 8.6.2. Support urban agriculture endeavors in Otay Mesa where consistent with other goals of the Otay Mesa Community Plan and the City's General Plan.

b. Mobility Element

Mobility Goals:

- A pedestrian sidewalk and trails network that allows for safe and comfortable walking throughout the community
- An effective transit network that provides fast and reliable service to local and regional destinations
- A complete and interconnected street system that balances the needs of drivers, bicyclists, pedestrians, and others
- A bicycle commuter network that links residents to transit, recreational, educational, and employment opportunities within the community
- Transportation infrastructure and operations investments that facilitate goods movement and international travel, while fostering economic prosperity and a high quality of life within the community

Walkability

Policy 3.1.1. Provide a sidewalk and trail system with connections to villages, activity centers, and open spaces.

Policy 3.1.2. Use street design and traffic management solutions, including but not limited to those described in the General Plan Pedestrian Improvements Toolbox, Table ME-1, to improve pedestrian safety and comfort.

Policy 3.1.3. Design Airway Road between Spring Canyon and La Media Road as Otay Mesa's "main street" with boulevard characteristics.

Policy 3.1.4. Enhance street or pedestrian connections within industrial superblocks through exterior improvements such as public art, pedestrian-scale windows, entrances, signs, street furniture, landscape, and plazas.

Policy 3.1.5. Implement the Community's Street Tree Master Plan to contribute to more walkable, tree-lined streets, using identified drought tolerant species.

Transit

Policy 3.2.1. Encourage SANDAG and MTS to expand transit investments and service in Otay Mesa.

a. Collaborate with agencies to implement the South Bay Bus Rapid Transit (BRT) services to the Port of Entry to provide access to employment.

b. Provide local bus service connecting the Iris Trolley Station, San Ysidro High School, Southwest Village, Central Village, Grand Park, and Southwestern College

Policy 3.2.2. Implement transit priority measures such as transit lanes, queue jumpers, and signal priority measures to allow transit to bypass congestion and result in faster transit travel times.

Policy 3.2.3. Coordinate with transit planners to address the needs of transit as a part of the project design and review process.

Policy 3.2.4. Emphasize transit orientation in village development plans including but not limited to those identified on the Land Use Map, Figure 2-1.

Policy 3.2.5. Work with SANDAG and MTS to provide local and regional transit linkages to California's High Speed Rail system, should the system be extended through Otay Mesa.

Bicycling

Policy 3.4.1. Refine and implement the Bicycle Master Plan in the Otay Mesa Community Plan area.

a. Develop bicycle facilities that implement internal connectivity to activity areas within the community and links to regional bicycle network.

b. Construct bicycle facilities.

c. Provide Class I bikeways along Airway Road, Caliente Road, and Beyer Boulevard.

d. Provide Class II bikeways along all new classified streets in Otay Mesa.

e. Bikeways within the village areas should connect to trail heads with access to the canyon system trails and pathways.

Policy 3.4.2. Provide multi-use trails in a manner consistent with the Multiple Species Conservation Program.

c. Urban Design Element

Urban Design Goals:

- An urban form that reflects land and topography as an amenity and provides an attractive built environment
- Functional industrial corridors with a high-quality design standard
- A Southwest Village and Central Village that respect and showcase Spring Canyon
- Active, safe, and pleasant streets, parks and public spaces
- Clearly identified routes that connect villages and major corridors to employment centers, core commercial areas, schools, parks, trails, and transit
- An urban forest that distinguishes the districts
- A community infused with distinctive public art and cultural amenities
- Attractive gateways at key entrances to the community's districts and villages

Distinct Districts

Policy 4.1.1. Enhance connectivity to activity centers.

a. Provide multimodal pathways with pedestrian and bicycle amenities to schools, parks, retail centers, and open space as part of new development, redevelopment, infill development proposals and Capital Improvement Projects.

b. Retrofit commercial areas with public spaces, where appropriate, as part of development proposals.

Policy 4.1.4. Require development intensities that create active commercial centers, support transit, and encourage lively streetscapes.

Policy 4.1.15. Improve pedestrian access and movement from the Port of Entry to transit and commercial uses through signs and enhanced pathways.

Streetscape

Policy 4.2.1. Implement pedestrian-oriented design principles at the project-level to activate the street and promote walkability in accordance with General Plan policies ME-A.7, UD-A.6, UD-B.4, UD-C.4, UD-C.6 and UD-C.7 for guidance.

Policy 4.2.2. Incorporate connectivity and walkability in the design of the street network.

a. Apply traffic-calming techniques, such as pop-outs, raised crosswalks, and parkways at truck route intersections with Airway Road and where the truck routes are adjacent to village and park uses.

b. Accommodate pedestrians along Britannia Boulevard and La Media Road with sidewalks that are separated from the travel lanes.

c. Utilize U-6 Urban Parkway Configurations from the Street Design Manual for design of sidewalks and parkways along Airway Road.

d. Separate pedestrians from vehicular traffic along Beyer Road and Ocean View Parkway, and design sidewalks to accommodate heavy pedestrian traffic to provide safe access to schools.

e. Design the street systems for the Southwest Village and the Central Village as a grid or modified-grid that utilizes existing paper streets for the north–south streets.

f. Create blocks that are no longer than 400 feet in length within residential, commercial, and village areas to provide short street segments and walkable block sizes.

g. Activate vibrant village cores using street furniture, sidewalk cafes, and public spaces.

h. Provide commercial alleys to allow rear deliveries, reduce traffic congestion, improve aesthetics, enhance parking access, and reduce the need for curb cuts.

i. Incorporate residential alleys to allow for rear garages, additional off-street parking, trash pick-up, and pedestrian areas.

Sustainability

Policy 4.9.1. Design new development to have a climate-, energy-efficient-, and environmentally oriented site design. Use sustainable methods in accordance with the policies in the General Plan, including: Conservation Element Section A. Climate Change and Sustainable Development; Section E. Urban Runoff Management; Section I. Sustainable Energy; and Section J. Urban Forestry. Urban Design Element Section A. General Urban Design.

Policy 4.9.2. Incorporate environmentally conscious building practices and materials for all new development and redevelopment proposals.

a. Use durable construction materials, as well as re-used and recycled materials.

b. Encourage the use of permeable paving elements in auto and non-auto-oriented areas.

c. Minimize impervious surfaces that have large thermal gain and hydromodification.

d. Ensure that all best management practices for storm water are implemented for both public and private properties.

Policy 4.9.3. Minimize building heat gain with appropriate shade treatments and design techniques.

a. Orient new buildings and lots to minimize east- and west-facing facades.

b. Provide awnings, canopies, and deep-set windows on south-facing windows and entries.

c. Provide exterior shades and shade screens on east-, west-, and south-facing windows

d. Use horizontal overhangs, awnings or shade structures above south-facing windows to mitigate summer sun but allow winter sun. Encourage overhang width to equal half the vertical window height to shade windows from early May to mid-August but still allowing the winter sun.

Policy 4.9.4. Provide on-site landscaping improvements that minimize heat gain and provide attractive landscape environments.

a. Plant deciduous trees on south side of buildings to shade south facades and roofs during the summer while allowing sunlight to penetrate buildings in the winter.

b. Plant groundcovers that prevent ground reflection and keep the surface cooler, preventing re-radiation.

Policy 4.9.5. Integrate storm water Low Impact Development principles as discussed in 8.4 and Best Management Practices (BMP's) early in the design process of new development, as well as any redevelopment proposals.

a. Encourage the use of green roofs and water collection devices to capture rainwater from the building for re-use.

b. Minimize on-site impermeable surfaces, such as concrete and asphalt.

c. Use permeable pavers, porous asphalt, reinforced grass pavement (turf–crete), cobblestone block pavement, etc., to detain and infiltrate run-off on-site.

ATTACHMENT 2

CalEEMod Output – Existing CPU Land Uses

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3957.1 OMCPU Existing Land Uses

San Diego County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Government Office Building	4987.62	1000sqft
General Light Industry	33323.4	1000sqft
City Park	16	Acre
Apartments Mid Rise	1106	Dwelling Unit
Single Family Housing	2591	Dwelling Unit
Strip Mall	2652.8	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**		**Utility Company**	San Diego Gas & Electric
Climate Zone	13		2.6		
		Precipitation Freq (Days)			
			40		

1.3 User Entered Comments

Project Characteristics -
Land Use - Source: OMCPU 2011
Construction Phase - construction calculated separately
Architectural Coating -
Vehicle Trips - Source: OMCPU Traffic Report
Woodstoves -
Area Coating -
Energy Use -
Energy Mitigation -
Water Mitigation -

2.0 Emissions Summary

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	472.24	3.49	314.64	0.11		0.00	40.52		0.00	40.52	3,818.84	4,850.05	8,668.90	3.64	0.36	8,856.59
Energy	3.53	31.70	24.33	0.19		0.00	2.44		0.00	2.44	0.00	194,694.59	194,694.59	6.60	2.89	195,729.50
Mobile	556.49	1,159.57	5,660.31	6.82	678.47	45.47	723.94	10.83	38.76	49.58	0.00	611,560.43	611,560.43	39.90	0.00	612,398.38
Waste						0.00	0.00		0.00	0.00	395,768.19	0.00	395,768.19	23,389.23	0.00	886,942.02
Water						0.00	0.00		0.00	0.00	0.00	767,569.80	767,569.80	5,073.45	135.90	916,242.04
Total	**1,032.26**	**1,194.76**	**5,999.28**	**7.12**	**678.47**	**45.47**	**766.90**	**10.83**	**38.76**	**92.54**	**399,587.03**	**1,578,674.87**	**1,978,261.91**	**28,512.82**	**139.15**	**2,620,168.53**

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	472.24	3.49	314.64	0.11		0.00	40.52		0.00	40.52	3,818.84	4,850.05	8,668.90	3.64	0.36	8,856.59
Energy	3.53	31.70	24.33	0.19		0.00	2.44		0.00	2.44	0.00	194,648.76	194,648.76	6.60	2.89	195,683.44
Mobile	556.49	1,159.57	5,660.31	6.82	678.47	45.47	723.94	10.83	38.76	49.58	0.00	611,560.43	611,560.43	39.90	0.00	612,398.38
Waste						0.00	0.00		0.00	0.00	395,768.19	0.00	395,768.19	23,389.23	0.00	886,942.02
Water						0.00	0.00		0.00	0.00	0.00	767,569.80	767,569.80	5,073.45	135.90	916,242.04
Total	**1,032.26**	**1,194.76**	**5,999.28**	**7.12**	**678.47**	**45.47**	**766.90**	**10.83**	**38.76**	**92.54**	**399,587.03**	**1,578,629.04**	**1,978,216.08**	**28,512.82**	**139.15**	**2,620,122.47**

4.0 Mobile Detail

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	556.49	1,159.57	5,660.31	6.82	678.47	45.47	723.94	10.83	38.76	49.58	0.00	611,560.43	611,560.43	39.90	0.00	612,398.38
Unmitigated	556.49	1,159.57	5,660.31	6.82	678.47	45.47	723.94	10.83	38.76	49.58	0.00	611,560.43	611,560.43	39.90	0.00	612,398.38
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	8,848.00	8,848.00	8848.00	25,263,724	25,263,724
City Park	554.24	554.24	554.24	1,183,221	1,183,221
General Light Industry	286,248.01	286,248.01	286248.01	835,704,242	835,704,242
Government Office Building	20,299.61	20,299.61	20299.61	34,811,410	34,811,410
Single Family Housing	22,774.89	22,774.89	22774.89	65,029,220	65,029,220
Strip Mall	213,417.76	213,417.76	213417.76	328,670,402	328,670,402
Total	552,142.51	552,142.51	552,142.51	1,290,662,219	1,290,662,219

4.3 Trip Type Information

	Miles			Trip %		
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
Apartments Mid Rise	10.80	7.30	7.50	41.60	18.80	39.60
City Park	9.50	7.30	7.30	33.00	48.00	19.00
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00
Government Office Building	9.50	7.30	7.30	33.00	62.00	5.00
Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00

5.0 Energy Detail

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						0.00	0.00		0.00	0.00	0.00	159,754.36	159,754.36	5.93	2.25	160,576.67
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	159,800.19	159,800.19	5.94	2.25	160,622.74
NaturalGas Mitigated	3.53	31.70	24.33	0.19		0.00	2.44		0.00	2.44	0.00	34,894.40	34,894.40	0.67	0.64	35,106.76
NaturalGas Unmitigated	3.53	31.70	24.33	0.19		0.00	2.44		0.00	2.44	0.00	34,894.40	34,894.40	0.67	0.64	35,106.76
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	tons/yr										MT/yr					
Apartments Mid Rise	1.23691e+007	0.07	0.57	0.24	0.00		0.00	0.05		0.00	0.05	0.00	660.06	660.06	0.01	0.01	664.08
City Park	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
General Light Industry	4.09545e+008	2.21	20.08	16.86	0.12		0.00	1.53		0.00	1.53	0.00	21,854.86	21,854.86	0.42	0.40	21,987.86
Government Office Building	1.17508e+008	0.63	5.76	4.84	0.03		0.00	0.44		0.00	0.44	0.00	6,270.69	6,270.69	0.12	0.11	6,308.85
Single Family Housing	1.08081e+008	0.58	4.98	2.12	0.03		0.00	0.40		0.00	0.40	0.00	5,767.62	5,767.62	0.11	0.11	5,802.72
Strip Mall	6.39325e+006	0.03	0.31	0.26	0.00		0.00	0.02		0.00	0.02	0.00	341.17	341.17	0.01	0.01	343.24
Total		**3.52**	**31.70**	**24.32**	**0.18**		**0.00**	**2.44**		**0.00**	**2.44**	**0.00**	**34,894.40**	**34,894.40**	**0.67**	**0.64**	**35,106.75**

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	tons/yr										MT/yr					
Apartments Mid Rise	1.23691e+007	0.07	0.57	0.24	0.00		0.00	0.05		0.00	0.05	0.00	660.06	660.06	0.01	0.01	664.08
City Park	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
General Light Industry	4.09545e+008	2.21	20.08	16.86	0.12		0.00	1.53		0.00	1.53	0.00	21,854.86	21,854.86	0.42	0.40	21,987.86
Government Office Building	1.17508e+008	0.63	5.76	4.84	0.03		0.00	0.44		0.00	0.44	0.00	6,270.69	6,270.69	0.12	0.11	6,308.85
Single Family Housing	1.08081e+008	0.58	4.98	2.12	0.03		0.00	0.40		0.00	0.40	0.00	5,767.62	5,767.62	0.11	0.11	5,802.72
Strip Mall	6.39325e+006	0.03	0.31	0.26	0.00		0.00	0.02		0.00	0.02	0.00	341.17	341.17	0.01	0.01	343.24
Total		**3.52**	**31.70**	**24.32**	**0.18**		**0.00**	**2.44**		**0.00**	**2.44**	**0.00**	**34,894.40**	**34,894.40**	**0.67**	**0.64**	**35,106.75**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Apartments Mid Rise	3.93538e+006					1,393.76	0.05	0.02	1,400.93
City Park	0					0.00	0.00	0.00	0.00
General Light Industry	3.12573e+008					110,701.15	4.11	1.56	111,270.97
Government Office Building	7.85051e+007					27,803.41	1.03	0.39	27,946.52
Single Family Housing	1.69596e+007					6,006.43	0.22	0.08	6,037.34
Strip Mall	3.92349e+007					13,895.45	0.52	0.20	13,966.98
Total						**159,800.20**	**5.93**	**2.25**	**160,622.74**

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Apartments Mid Rise	3.80597e+006					1,347.92	0.05	0.02	1,354.86
City Park	0					0.00	0.00	0.00	0.00
General Light Industry	3.12573e+008					110,701.15	4.11	1.56	111,270.97
Government Office Building	7.85051e+007					27,803.41	1.03	0.39	27,946.52
Single Family Housing	1.69596e+007					6,006.43	0.22	0.08	6,037.34
Strip Mall	3.92349e+007					13,895.45	0.52	0.20	13,966.98
Total						**159,754.36**	**5.93**	**2.25**	**160,576.67**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	472.24	3.49	314.64	0.11		0.00	40.52		0.00	40.52	3,818.84	4,850.05	8,668.90	3.64	0.36	8,856.59
Unmitigated	472.24	3.49	314.64	0.11		0.00	40.52		0.00	40.52	3,818.84	4,850.05	8,668.90	3.64	0.36	8,856.59
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	56.44					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	182.52					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	232.30	3.15	285.78	0.11		0.00	40.37		0.00	40.37	3,818.84	4,804.70	8,623.55	3.59	0.36	8,810.17
Landscaping	0.98	0.34	28.85	0.00		0.00	0.15		0.00	0.15	0.00	45.35	45.35	0.05	0.00	46.43
Total	**472.24**	**3.49**	**314.63**	**0.11**		**0.00**	**40.52**		**0.00**	**40.52**	**3,818.84**	**4,850.05**	**8,668.90**	**3.64**	**0.36**	**8,856.60**

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	56.44					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	182.52					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	232.30	3.15	285.78	0.11		0.00	40.37		0.00	40.37	3,818.84	4,804.70	8,623.55	3.59	0.36	8,810.17
Landscaping	0.98	0.34	28.85	0.00		0.00	0.15		0.00	0.15	0.00	45.35	45.35	0.05	0.00	46.43
Total	**472.24**	**3.49**	**314.63**	**0.11**		**0.00**	**40.52**		**0.00**	**40.52**	**3,818.84**	**4,850.05**	**8,668.90**	**3.64**	**0.36**	**8,856.60**

7.0 Water Detail

7.1 Mitigation Measures Water

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					767,569.80	5,073.45	135.90	916,242.04
Unmitigated					767,569.80	5,073.45	135.90	916,242.04
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Apartments Mid Rise	72.0604 / 45.4294					511.87	2.22	0.06	577.60
City Park	0 / 19.0637					75.01	0.00	0.00	75.40
General Light Industry	163849 / 0					757,431.63	5,029.48	134.68	904,801.11
Government Office Building	990.839 / 607.288					6,969.90	30.50	0.85	7,873.38
Single Family Housing	168.814 / 106.426					1,199.14	5.20	0.14	1,353.13
Strip Mall	196.5 / 120.435					1,382.25	6.05	0.17	1,561.42
Total						**767,569.80**	**5,073.45**	**135.90**	**916,242.04**

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Apartments Mid Rise	72.0604 / 45.4294					511.87	2.22	0.06	577.60
City Park	0 / 19.0637					75.01	0.00	0.00	75.40
General Light Industry	163849 / 0					757,431.63	5,029.48	134.68	904,801.11
Government Office Building	990.839 / 607.288					6,969.90	30.50	0.85	7,873.38
Single Family Housing	168.814 / 106.426					1,199.14	5.20	0.14	1,353.13
Strip Mall	196.5 / 120.435					1,382.25	6.05	0.17	1,561.42
Total						**767,569.80**	**5,073.45**	**135.90**	**916,242.04**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					395,768.19	23,389.23	0.00	886,942.02
Unmitigated					395,768.19	23,389.23	0.00	886,942.02
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Apartments Mid Rise	508.76					103.27	6.10	0.00	231.44
City Park	1.38					0.28	0.02	0.00	0.63
General Light Industry	1.93871e+006					393,540.94	23,257.60	0.00	881,950.61
Government Office Building	4638.49					941.57	55.65	0.00	2,110.12
Single Family Housing	3038.1					616.71	36.45	0.00	1,382.08
Strip Mall	2785.44					565.42	33.42	0.00	1,267.14
Total						**395,768.19**	**23,389.24**	**0.00**	**886,942.02**

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Apartments Mid Rise	508.76					103.27	6.10	0.00	231.44
City Park	1.38					0.28	0.02	0.00	0.63
General Light Industry	1.93871e+006					393,540.94	23,257.60	0.00	881,950.61
Government Office Building	4638.49					941.57	55.65	0.00	2,110.12
Single Family Housing	3038.1					616.71	36.45	0.00	1,382.08
Strip Mall	2785.44					565.42	33.42	0.00	1,267.14
Total						**395,768.19**	**23,389.24**	**0.00**	**886,942.02**

9.0 Vegetation

ATTACHMENT 3

CalEEMod Output – CPU Emissions without GHG Reduction Measures (BAU)

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Existing Development 2020 Business as Usual

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3957.1 OMCPU - Existing Development BAU

San Diego County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Government Office Building	4987.62	1000sqft
General Light Industry	33323.4	1000sqft
City Park	16	Acre
Apartments Mid Rise	1106	Dwelling Unit
Single Family Housing	2591	Dwelling Unit
Strip Mall	2652.8	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Utility Company**	San Diego Gas & Electric
Climate Zone	13	**Precipitation Freq (Days)**	40		

1.3 User Entered Comments

Project Characteristics -

Land Use - Existing Development

Construction Phase - Existing development - no construction

Vehicle Trips - Urban Systems Associates

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Woodstoves -

Energy Use -

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					
2011	0.13	0.78	1.16	0.00	0.13	0.03	0.16	0.00	0.03	0.03	0.00	173.72	173.72	0.01	0.00	173.91
Total	**0.13**	**0.78**	**1.16**	**0.00**	**0.13**	**0.03**	**0.16**	**0.00**	**0.03**	**0.03**	**0.00**	**173.72**	**173.72**	**0.01**	**0.00**	**173.91**

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					
2011	0.13	0.78	1.16	0.00	0.01	0.03	0.04	0.00	0.03	0.03	0.00	173.72	173.72	0.01	0.00	173.91
Total	**0.13**	**0.78**	**1.16**	**0.00**	**0.01**	**0.03**	**0.04**	**0.00**	**0.03**	**0.03**	**0.00**	**173.72**	**173.72**	**0.01**	**0.00**	**173.91**

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	472.11	3.47	313.63	0.11		0.00	40.52		0.00	40.52	3,818.84	4,850.05	8,668.90	3.63	0.36	8,856.44
Energy	3.53	31.70	24.33	0.19		0.00	2.44		0.00	2.44	0.00	194,694.59	194,694.59	6.60	2.89	195,729.50
Mobile	364.69	706.29	3,292.50	6.80	689.80	38.14	727.94	11.02	36.78	47.80	0.00	516,421.80	516,421.80	23.55	0.00	516,916.28
Waste						0.00	0.00		0.00	0.00	395,768.19	0.00	395,768.19	23,389.23	0.00	886,942.02
Water						0.00	0.00		0.00	0.00	0.00	767,569.80	767,569.80	5,073.45	135.90	916,242.04
Total	**840.33**	**741.46**	**3,630.46**	**7.10**	**689.80**	**38.14**	**770.90**	**11.02**	**36.78**	**90.76**	**399,587.03**	**1,483,536.24**	**1,883,123.28**	**28,496.46**	**139.15**	**2,524,686.28**

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	472.11	3.47	313.63	0.11		0.00	40.52		0.00	40.52	3,818.84	4,850.05	8,668.90	3.63	0.36	8,856.44
Energy	3.53	31.70	24.33	0.19		0.00	2.44		0.00	2.44	0.00	194,694.59	194,694.59	6.60	2.89	195,729.50
Mobile	364.69	706.29	3,292.50	6.80	689.80	38.14	727.94	11.02	36.78	47.80	0.00	516,421.80	516,421.80	23.55	0.00	516,916.28
Waste						0.00	0.00		0.00	0.00	395,768.19	0.00	395,768.19	23,389.23	0.00	886,942.02
Water						0.00	0.00		0.00	0.00	0.00	767,569.80	767,569.80	5,073.45	135.90	916,242.04
Total	**840.33**	**741.46**	**3,630.46**	**7.10**	**689.80**	**38.14**	**770.90**	**11.02**	**36.78**	**90.76**	**399,587.03**	**1,483,536.24**	**1,883,123.28**	**28,496.46**	**139.15**	**2,524,686.28**

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Building Construction - 2011

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	0.00	0.02	0.01	0.00		0.00	0.00		0.00	0.00	0.00	1.83	1.83	0.00	0.00	1.84
Total	**0.00**	**0.02**	**0.01**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**1.83**	**1.83**	**0.00**	**0.00**	**1.84**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.06	0.69	0.44	0.00	0.03	0.02	0.05	0.00	0.02	0.02	0.00	87.32	87.32	0.00	0.00	87.38
Worker	0.06	0.07	0.71	0.00	0.10	0.00	0.11	0.00	0.00	0.01	0.00	84.56	84.56	0.01	0.00	84.69
Total	**0.12**	**0.76**	**1.15**	**0.00**	**0.13**	**0.02**	**0.16**	**0.00**	**0.02**	**0.03**	**0.00**	**171.88**	**171.88**	**0.01**	**0.00**	**172.07**

3.2 Building Construction - 2011

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	0.00	0.02	0.01	0.00		0.00	0.00		0.00	0.00	0.00	1.83	1.83	0.00	0.00	1.84
Total	**0.00**	**0.02**	**0.01**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**1.83**	**1.83**	**0.00**	**0.00**	**1.84**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.06	0.69	0.44	0.00	0.00	0.02	0.03	0.00	0.02	0.02	0.00	87.32	87.32	0.00	0.00	87.38
Worker	0.06	0.07	0.71	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00	84.56	84.56	0.01	0.00	84.69
Total	**0.12**	**0.76**	**1.15**	**0.00**	**0.00**	**0.02**	**0.04**	**0.00**	**0.02**	**0.03**	**0.00**	**171.88**	**171.88**	**0.01**	**0.00**	**172.07**

4.0 Mobile Detail

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	364.69	706.29	3,292.50	6.80	689.80	38.14	727.94	11.02	36.78	47.80	0.00	516,421.80	516,421.80	23.55	0.00	516,916.28
Unmitigated	364.69	706.29	3,292.50	6.80	689.80	38.14	727.94	11.02	36.78	47.80	0.00	516,421.80	516,421.80	23.55	0.00	516,916.28
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	8,848.00	8,848.00	8848.00	25,263,724	25,263,724
City Park	723.84	723.84	723.84	1,545,292	1,545,292
General Light Industry	305,575.58	305,575.58	305575.58	892,131,304	892,131,304
Government Office Building	31,621.51	31,621.51	31621.51	54,227,110	54,227,110
Single Family Housing	22,774.89	22,774.89	22774.89	65,029,220	65,029,220
Strip Mall	177,896.77	177,896.77	177896.77	273,966,900	273,966,900
Total	547,440.59	547,440.59	547,440.59	1,312,163,551	1,312,163,551

4.3 Trip Type Information

	Miles			Trip %		
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
Apartments Mid Rise	10.80	7.30	7.50	41.60	18.80	39.60
City Park	9.50	7.30	7.30	33.00	48.00	19.00
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00
Government Office Building	9.50	7.30	7.30	33.00	62.00	5.00
Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00

5.0 Energy Detail

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						0.00	0.00		0.00	0.00	0.00	159,800.19	159,800.19	5.94	2.25	160,622.74
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	159,800.19	159,800.19	5.94	2.25	160,622.74
NaturalGas Mitigated	3.53	31.70	24.33	0.19		0.00	2.44		0.00	2.44	0.00	34,894.40	34,894.40	0.67	0.64	35,106.76
NaturalGas Unmitigated	3.53	31.70	24.33	0.19		0.00	2.44		0.00	2.44	0.00	34,894.40	34,894.40	0.67	0.64	35,106.76
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	tons/yr										MT/yr					
Apartments Mid Rise	1.23691e+007	0.07	0.57	0.24	0.00		0.00	0.05		0.00	0.05	0.00	660.06	660.06	0.01	0.01	664.08
City Park	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
General Light Industry	4.09545e+008	2.21	20.08	16.86	0.12		0.00	1.53		0.00	1.53	0.00	21,854.86	21,854.86	0.42	0.40	21,987.86
Government Office Building	1.17508e+008	0.63	5.76	4.84	0.03		0.00	0.44		0.00	0.44	0.00	6,270.69	6,270.69	0.12	0.11	6,308.85
Single Family Housing	1.08081e+008	0.58	4.98	2.12	0.03		0.00	0.40		0.00	0.40	0.00	5,767.62	5,767.62	0.11	0.11	5,802.72
Strip Mall	6.39325e+006	0.03	0.31	0.26	0.00		0.00	0.02		0.00	0.02	0.00	341.17	341.17	0.01	0.01	343.24
Total		**3.52**	**31.70**	**24.32**	**0.18**		**0.00**	**2.44**		**0.00**	**2.44**	**0.00**	**34,894.40**	**34,894.40**	**0.67**	**0.64**	**35,106.75**

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	tons/yr										MT/yr					
Apartments Mid Rise	1.23691e+007	0.07	0.57	0.24	0.00		0.00	0.05		0.00	0.05	0.00	660.06	660.06	0.01	0.01	664.08
City Park	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
General Light Industry	4.09545e+008	2.21	20.08	16.86	0.12		0.00	1.53		0.00	1.53	0.00	21,854.86	21,854.86	0.42	0.40	21,987.86
Government Office Building	1.17508e+008	0.63	5.76	4.84	0.03		0.00	0.44		0.00	0.44	0.00	6,270.69	6,270.69	0.12	0.11	6,308.85
Single Family Housing	1.08081e+008	0.58	4.98	2.12	0.03		0.00	0.40		0.00	0.40	0.00	5,767.62	5,767.62	0.11	0.11	5,802.72
Strip Mall	6.39325e+006	0.03	0.31	0.26	0.00		0.00	0.02		0.00	0.02	0.00	341.17	341.17	0.01	0.01	343.24
Total		**3.52**	**31.70**	**24.32**	**0.18**		**0.00**	**2.44**		**0.00**	**2.44**	**0.00**	**34,894.40**	**34,894.40**	**0.67**	**0.64**	**35,106.75**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Apartments Mid Rise	3.93538e+006					1,393.76	0.05	0.02	1,400.93
City Park	0					0.00	0.00	0.00	0.00
General Light Industry	3.12573e+008					110,701.15	4.11	1.56	111,270.97
Government Office Building	7.85051e+007					27,803.41	1.03	0.39	27,946.52
Single Family Housing	1.69596e+007					6,006.43	0.22	0.08	6,037.34
Strip Mall	3.92349e+007					13,895.45	0.52	0.20	13,966.98
Total						**159,800.20**	**5.93**	**2.25**	**160,622.74**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Apartments Mid Rise	3.93538e+006					1,393.76	0.05	0.02	1,400.93
City Park	0					0.00	0.00	0.00	0.00
General Light Industry	3.12573e+008					110,701.15	4.11	1.56	111,270.97
Government Office Building	7.85051e+007					27,803.41	1.03	0.39	27,946.52
Single Family Housing	1.69596e+007					6,006.43	0.22	0.08	6,037.34
Strip Mall	3.92349e+007					13,895.45	0.52	0.20	13,966.98
Total						**159,800.20**	**5.93**	**2.25**	**160,622.74**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	472.11	3.47	313.63	0.11		0.00	40.52		0.00	40.52	3,818.84	4,850.05	8,668.90	3.63	0.36	8,856.44
Unmitigated	472.11	3.47	313.63	0.11		0.00	40.52		0.00	40.52	3,818.84	4,850.05	8,668.90	3.63	0.36	8,856.44
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	56.44					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	182.52					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	232.30	3.15	285.78	0.11		0.00	40.37		0.00	40.37	3,818.84	4,804.70	8,623.55	3.59	0.36	8,810.17
Landscaping	0.85	0.32	27.84	0.00		0.00	0.15		0.00	0.15	0.00	45.35	45.35	0.04	0.00	46.28
Total	**472.11**	**3.47**	**313.62**	**0.11**		**0.00**	**40.52**		**0.00**	**40.52**	**3,818.84**	**4,850.05**	**8,668.90**	**3.63**	**0.36**	**8,856.45**

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	56.44					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	182.52					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	232.30	3.15	285.78	0.11		0.00	40.37		0.00	40.37	3,818.84	4,804.70	8,623.55	3.59	0.36	8,810.17
Landscaping	0.85	0.32	27.84	0.00		0.00	0.15		0.00	0.15	0.00	45.35	45.35	0.04	0.00	46.28
Total	**472.11**	**3.47**	**313.62**	**0.11**		**0.00**	**40.52**		**0.00**	**40.52**	**3,818.84**	**4,850.05**	**8,668.90**	**3.63**	**0.36**	**8,856.45**

7.0 Water Detail

7.1 Mitigation Measures Water

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					767,569.80	5,073.45	135.90	916,242.04
Unmitigated					767,569.80	5,073.45	135.90	916,242.04
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Apartments Mid Rise	72.0604 / 45.4294					511.87	2.22	0.06	577.60
City Park	0 / 19.0637					75.01	0.00	0.00	75.40
General Light Industry	163849 / 0					757,431.63	5,029.48	134.68	904,801.11
Government Office Building	990.839 / 607.288					6,969.90	30.50	0.85	7,873.38
Single Family Housing	168.814 / 106.426					1,199.14	5.20	0.14	1,353.13
Strip Mall	196.5 / 120.435					1,382.25	6.05	0.17	1,561.42
Total						**767,569.80**	**5,073.45**	**135.90**	**916,242.04**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Apartments Mid Rise	72.0604 / 45.4294					511.87	2.22	0.06	577.60
City Park	0 / 19.0637					75.01	0.00	0.00	75.40
General Light Industry	163849 / 0					757,431.63	5,029.48	134.68	904,801.11
Government Office Building	990.839 / 607.288					6,969.90	30.50	0.85	7,873.38
Single Family Housing	168.814 / 106.426					1,199.14	5.20	0.14	1,353.13
Strip Mall	196.5 / 120.435					1,382.25	6.05	0.17	1,561.42
Total						**767,569.80**	**5,073.45**	**135.90**	**916,242.04**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					395,768.19	23,389.23	0.00	886,942.02
Unmitigated					395,768.19	23,389.23	0.00	886,942.02
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Apartments Mid Rise	508.76					103.27	6.10	0.00	231.44
City Park	1.38					0.28	0.02	0.00	0.63
General Light Industry	1.93871e+006					393,540.94	23,257.60	0.00	881,950.61
Government Office Building	4638.49					941.57	55.65	0.00	2,110.12
Single Family Housing	3038.1					616.71	36.45	0.00	1,382.08
Strip Mall	2785.44					565.42	33.42	0.00	1,267.14
Total						**395,768.19**	**23,389.24**	**0.00**	**886,942.02**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Apartments Mid Rise	508.76					103.27	6.10	0.00	231.44
City Park	1.38					0.28	0.02	0.00	0.63
General Light Industry	1.93871e+006					393,540.94	23,257.60	0.00	881,950.61
Government Office Building	4638.49					941.57	55.65	0.00	2,110.12
Single Family Housing	3038.1					616.71	36.45	0.00	1,382.08
Strip Mall	2785.44					565.42	33.42	0.00	1,267.14
Total						**395,768.19**	**23,389.24**	**0.00**	**886,942.02**

9.0 Vegetation

New Development 2020 Business as Usual

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3957.1 OMCPU - New Development BAU

San Diego County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Government Office Building	10236.6	1000sqft
General Light Industry	19514.88	1000sqft
City Park	145	Acre
Apartments Mid Rise	13395	Dwelling Unit
Single Family Housing	1682	Dwelling Unit
Strip Mall	1868.72	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Utility Company**	San Diego Gas & Electric
Climate Zone	13	**Precipitation Freq (Days)**	40		

1.3 User Entered Comments

Project Characteristics -

Land Use - New Development

Construction Phase - Defaults assumed, but adjusted to 30 year total construction length

Vehicle Trips - Urban Systems Associates

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Woodstoves -

Energy Use -

Grading -

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					
2011	1.47	11.93	6.83	0.01	4.80	0.61	5.41	2.27	0.61	2.88	0.00	996.06	996.06	0.12	0.00	998.58
2012	1.65	13.57	7.38	0.01	2.67	0.65	3.33	1.10	0.65	1.75	0.00	1,308.72	1,308.72	0.13	0.00	1,311.54
2013	1.56	12.73	7.07	0.01	2.67	0.60	3.27	1.10	0.60	1.70	0.00	1,308.22	1,308.22	0.13	0.00	1,310.88
2014	22.23	122.56	202.80	0.40	33.27	4.85	38.13	1.64	4.50	6.14	0.00	36,569.46	36,569.46	1.68	0.00	36,604.77
2015	26.83	146.32	244.80	0.53	40.37	5.86	46.23	0.72	5.41	6.13	0.00	47,239.71	47,239.71	2.02	0.00	47,282.03
2016	25.11	136.38	226.96	0.53	40.37	5.54	45.91	0.72	5.13	5.85	0.00	46,669.36	46,669.36	1.88	0.00	46,708.80
2017	23.43	127.23	209.94	0.52	40.22	5.24	45.46	0.72	4.85	5.57	0.00	45,964.72	45,964.72	1.74	0.00	46,001.27
2018	22.10	120.04	196.26	0.53	40.37	5.03	45.40	0.72	4.65	5.37	0.00	45,648.36	45,648.36	1.63	0.00	45,682.65

	ROG	NOx	CO	SO2	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					
2019	20.94	113.51	184.05	0.53	40.37	4.82	45.19	0.72	4.46	5.18	0.00	45,201.83	45,201.83	1.54	0.00	45,234.08
2020	20.08	108.34	174.55	0.53	40.53	4.67	45.19	0.72	4.31	5.03	0.00	44,962.63	44,962.63	1.46	0.00	44,993.20
2021	19.23	103.34	166.24	0.53	40.37	4.54	44.92	0.72	4.20	4.92	0.00	44,624.39	44,624.39	1.39	0.00	44,653.65
2022	18.42	99.06	157.41	0.52	40.22	4.42	44.64	0.72	4.08	4.80	0.00	44,109.60	44,109.60	1.32	0.00	44,137.36
2023	17.74	95.75	149.92	0.52	40.22	4.33	44.55	0.72	4.00	4.72	0.00	43,794.65	43,794.65	1.27	0.00	43,821.24
2024	17.26	93.69	144.23	0.53	40.53	4.29	44.81	0.72	3.96	4.69	0.00	43,846.14	43,846.14	1.23	0.00	43,871.94
2025	16.67	91.00	138.18	0.53	40.37	4.21	44.59	0.72	3.89	4.61	0.00	43,421.58	43,421.58	1.17	0.00	43,446.20
2026	16.67	91.00	138.18	0.53	40.37	4.21	44.59	0.72	3.89	4.61	0.00	43,421.58	43,421.58	1.17	0.00	43,446.20
2027	16.67	91.00	138.18	0.53	40.37	4.21	44.59	0.72	3.89	4.61	0.00	43,421.58	43,421.58	1.17	0.00	43,446.20
2028	16.60	90.66	137.65	0.52	40.22	4.20	44.42	0.72	3.87	4.59	0.00	43,255.22	43,255.22	1.17	0.00	43,279.74
2029	16.67	91.00	138.18	0.53	40.37	4.21	44.59	0.72	3.89	4.61	0.00	43,421.58	43,421.58	1.17	0.00	43,446.20
2030	14.70	83.81	119.45	0.53	40.37	4.02	44.40	0.72	3.70	4.43	0.00	42,507.18	42,507.18	1.02	0.00	42,528.65
2031	14.70	83.81	119.45	0.53	40.37	4.02	44.40	0.72	3.70	4.43	0.00	42,507.18	42,507.18	1.02	0.00	42,528.65
2032	14.76	84.13	119.90	0.53	40.53	4.04	44.57	0.72	3.72	4.44	0.00	42,670.04	42,670.04	1.03	0.00	42,691.60
2033	14.64	83.49	118.99	0.53	40.22	4.01	44.23	0.72	3.69	4.41	0.00	42,344.32	42,344.32	1.02	0.00	42,365.71
2034	14.64	83.49	118.99	0.53	40.22	4.01	44.23	0.72	3.69	4.41	0.00	42,344.32	42,344.32	1.02	0.00	42,365.71
2035	13.39	81.02	108.68	0.53	40.37	3.93	44.30	0.72	3.62	4.34	0.00	42,043.47	42,043.47	0.93	0.00	42,063.02
2036	13.44	81.33	109.10	0.53	40.53	3.94	44.47	0.72	3.64	4.36	0.00	42,204.56	42,204.56	0.93	0.00	42,224.18
2037	7.93	48.01	64.76	0.31	23.68	2.32	25.99	0.42	2.14	2.56	0.00	24,794.45	24,794.45	0.55	0.00	24,806.05
2038	0.21	1.25	2.53	0.00	0.02	0.04	0.06	0.00	0.04	0.04	0.00	358.33	358.33	0.02	0.00	358.68
2039	285.12	1.22	10.37	0.04	5.02	0.22	5.23	0.08	0.20	0.28	0.00	3,033.13	3,033.13	0.10	0.00	3,035.30

	ROG	NOx	CO	SO2	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					
2040	339.92	0.99	10.67	0.05	5.98	0.24	6.22	0.09	0.23	0.32	0.00	3,461.91	3,461.91	0.11	0.00	3,464.21
Total	**1,054.78**	**2,391.66**	**3,671.70**	**12.45**	**965.99**	**107.28**	**1,073.32**	**22.54**	**99.21**	**121.78**	**0.00**	**1,037,454.28**	**1,037,454.28**	**31.14**	**0.00**	**1,038,108.29**

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					
2011	1.47	11.93	6.83	0.01	4.77	0.61	5.38	2.27	0.61	2.88	0.00	996.06	996.06	0.12	0.00	998.58
2012	1.65	13.57	7.38	0.01	2.64	0.65	3.30	1.10	0.65	1.75	0.00	1,308.72	1,308.72	0.13	0.00	1,311.54
2013	1.56	12.73	7.07	0.01	2.64	0.60	3.24	1.10	0.60	1.70	0.00	1,308.22	1,308.22	0.13	0.00	1,310.88
2014	22.23	122.56	202.80	0.40	4.19	4.85	9.05	1.64	4.50	6.14	0.00	36,569.46	36,569.46	1.68	0.00	36,604.77
2015	26.83	146.32	244.80	0.53	2.05	5.86	7.91	0.72	5.41	6.13	0.00	47,239.71	47,239.71	2.02	0.00	47,282.03
2016	25.11	136.38	226.96	0.53	2.05	5.54	7.59	0.72	5.13	5.85	0.00	46,669.36	46,669.36	1.88	0.00	46,708.80
2017	23.43	127.23	209.94	0.52	2.04	5.24	7.28	0.72	4.85	5.57	0.00	45,964.72	45,964.72	1.74	0.00	46,001.27
2018	22.10	120.04	196.26	0.53	2.05	5.03	7.08	0.72	4.65	5.37	0.00	45,648.36	45,648.36	1.63	0.00	45,682.65
2019	20.94	113.51	184.05	0.53	2.05	4.82	6.87	0.72	4.46	5.18	0.00	45,201.83	45,201.83	1.54	0.00	45,234.08
2020	20.08	108.34	174.55	0.53	2.06	4.67	6.72	0.72	4.31	5.03	0.00	44,962.63	44,962.63	1.46	0.00	44,993.20
2021	19.23	103.34	166.24	0.53	2.05	4.54	6.59	0.72	4.20	4.92	0.00	44,624.39	44,624.39	1.39	0.00	44,653.65
2022	18.42	99.06	157.41	0.52	2.04	4.42	6.46	0.72	4.08	4.80	0.00	44,109.60	44,109.60	1.32	0.00	44,137.36

	ROG	NOx	CO	SO2	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					
2023	17.74	95.75	149.92	0.52	2.04	4.33	6.37	0.72	4.00	4.72	0.00	43,794.65	43,794.65	1.27	0.00	43,821.24
2024	17.26	93.69	144.23	0.53	2.06	4.29	6.34	0.72	3.96	4.69	0.00	43,846.14	43,846.14	1.23	0.00	43,871.94
2025	16.67	91.00	138.18	0.53	2.05	4.21	6.26	0.72	3.89	4.61	0.00	43,421.58	43,421.58	1.17	0.00	43,446.20
2026	16.67	91.00	138.18	0.53	2.05	4.21	6.26	0.72	3.89	4.61	0.00	43,421.58	43,421.58	1.17	0.00	43,446.20
2027	16.67	91.00	138.18	0.53	2.05	4.21	6.26	0.72	3.89	4.61	0.00	43,421.58	43,421.58	1.17	0.00	43,446.20
2028	16.60	90.66	137.65	0.52	2.04	4.20	6.24	0.72	3.87	4.59	0.00	43,255.22	43,255.22	1.17	0.00	43,279.74
2029	16.67	91.00	138.18	0.53	2.05	4.21	6.26	0.72	3.89	4.61	0.00	43,421.58	43,421.58	1.17	0.00	43,446.20
2030	14.70	83.81	119.45	0.53	2.05	4.02	6.07	0.72	3.70	4.43	0.00	42,507.18	42,507.18	1.02	0.00	42,528.65
2031	14.70	83.81	119.45	0.53	2.05	4.02	6.07	0.72	3.70	4.43	0.00	42,507.18	42,507.18	1.02	0.00	42,528.65
2032	14.76	84.13	119.90	0.53	2.06	4.04	6.10	0.72	3.72	4.44	0.00	42,670.04	42,670.04	1.03	0.00	42,691.60
2033	14.64	83.49	118.99	0.53	2.04	4.01	6.05	0.72	3.69	4.41	0.00	42,344.32	42,344.32	1.02	0.00	42,365.71
2034	14.64	83.49	118.99	0.53	2.04	4.01	6.05	0.72	3.69	4.41	0.00	42,344.32	42,344.32	1.02	0.00	42,365.71
2035	13.39	81.02	108.68	0.53	2.05	3.93	5.98	0.72	3.62	4.34	0.00	42,043.47	42,043.47	0.93	0.00	42,063.02
2036	13.44	81.33	109.10	0.53	2.06	3.94	6.00	0.72	3.64	4.36	0.00	42,204.56	42,204.56	0.93	0.00	42,224.18
2037	7.93	48.01	64.76	0.31	1.20	2.32	3.52	0.42	2.14	2.56	0.00	24,794.45	24,794.45	0.55	0.00	24,806.05
2038	0.21	1.25	2.53	0.00	0.00	0.04	0.04	0.00	0.04	0.04	0.00	358.33	358.33	0.02	0.00	358.68
2039	285.12	1.22	10.37	0.04	0.21	0.22	0.43	0.08	0.20	0.28	0.00	3,033.13	3,033.13	0.10	0.00	3,035.30
2040	339.92	0.99	10.67	0.05	0.26	0.24	0.50	0.09	0.23	0.32	0.00	3,461.91	3,461.91	0.11	0.00	3,464.21
Total	**1,054.78**	**2,391.66**	**3,671.70**	**12.45**	**60.99**	**107.28**	**168.27**	**22.54**	**99.21**	**121.78**	**0.00**	**1,037,454.28**	**1,037,454.28**	**31.14**	**0.00**	**1,038,108.29**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1,200.71	14.14	1,279.02	0.46		0.00	165.27		0.00	165.25	15,573.90	19,779.35	35,353.25	14.80	1.46	36,118.10
Energy	3.80	33.94	24.30	0.21		0.00	2.63		0.00	2.63	0.00	190,107.66	190,107.66	6.38	2.84	191,121.54
Mobile	330.84	640.53	2,985.85	6.16	625.02	34.57	659.59	9.99	33.33	43.32	0.00	467,975.31	467,975.31	21.34	0.00	468,423.54
Waste						0.00	0.00		0.00	0.00	234,450.53	0.00	234,450.53	13,855.63	0.00	525,418.74
Water						0.00	0.00		0.00	0.00	0.00	466,504.56	466,504.56	3,042.51	81.58	555,687.40
Total	**1,535.35**	**688.61**	**4,289.17**	**6.83**	**625.02**	**34.57**	**827.49**	**9.99**	**33.33**	**211.20**	**250,024.43**	**1,144,366.88**	**1,394,391.31**	**16,940.66**	**85.88**	**1,776,769.32**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1,200.71	14.14	1,279.02	0.46		0.00	165.27		0.00	165.25	15,573.90	19,779.35	35,353.25	14.80	1.46	36,118.10
Energy	3.80	33.94	24.30	0.21		0.00	2.63		0.00	2.63	0.00	190,107.66	190,107.66	6.38	2.84	191,121.54
Mobile	330.84	640.53	2,985.85	6.16	625.02	34.57	659.59	9.99	33.33	43.32	0.00	467,975.31	467,975.31	21.34	0.00	468,423.54
Waste						0.00	0.00		0.00	0.00	234,450.53	0.00	234,450.53	13,855.63	0.00	525,418.74
Water						0.00	0.00		0.00	0.00	0.00	466,504.56	466,504.56	3,042.51	81.58	555,687.40
Total	**1,535.35**	**688.61**	**4,289.17**	**6.83**	**625.02**	**34.57**	**827.49**	**9.99**	**33.33**	**211.20**	**250,024.43**	**1,144,366.88**	**1,394,391.31**	**16,940.66**	**85.88**	**1,776,769.32**

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2011

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					2.13	0.00	2.13	1.17	0.00	1.17	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	1.30	10.59	5.95	0.01		0.54	0.54		0.54	0.54	0.00	855.90	855.90	0.11	0.00	858.12
Total	**1.30**	**10.59**	**5.95**	**0.01**	**2.13**	**0.54**	**2.67**	**1.17**	**0.54**	**1.71**	**0.00**	**855.90**	**855.90**	**0.11**	**0.00**	**858.12**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.02	0.17	0.00	0.02	0.00	0.03	0.00	0.00	0.00	0.00	19.77	19.77	0.00	0.00	19.80
Total	**0.01**	**0.02**	**0.17**	**0.00**	**0.02**	**0.00**	**0.03**	**0.00**	**0.00**	**0.00**	**0.00**	**19.77**	**19.77**	**0.00**	**0.00**	**19.80**

3.2 Site Preparation - 2011

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					2.13	0.00	2.13	1.17	0.00	1.17	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	1.30	10.59	5.95	0.01		0.54	0.54		0.54	0.54	0.00	855.90	855.90	0.11	0.00	858.12
Total	**1.30**	**10.59**	**5.95**	**0.01**	**2.13**	**0.54**	**2.67**	**1.17**	**0.54**	**1.71**	**0.00**	**855.90**	**855.90**	**0.11**	**0.00**	**858.12**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.02	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.77	19.77	0.00	0.00	19.80
Total	**0.01**	**0.02**	**0.17**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**19.77**	**19.77**	**0.00**	**0.00**	**19.80**

3.3 Grading - 2011

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					2.64	0.00	2.64	1.10	0.00	1.10	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.16	1.33	0.69	0.00		0.07	0.07		0.07	0.07	0.00	118.16	118.16	0.01	0.00	118.43
Total	**0.16**	**1.33**	**0.69**	**0.00**	**2.64**	**0.07**	**2.71**	**1.10**	**0.07**	**1.17**	**0.00**	**118.16**	**118.16**	**0.01**	**0.00**	**118.43**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.23	2.23	0.00	0.00	2.24
Total	**0.00**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.23**	**2.23**	**0.00**	**0.00**	**2.24**

3.3 Grading - 2011

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					2.64	0.00	2.64	1.10	0.00	1.10	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.16	1.33	0.69	0.00		0.07	0.07		0.07	0.07	0.00	118.16	118.16	0.01	0.00	118.43
Total	**0.16**	**1.33**	**0.69**	**0.00**	**2.64**	**0.07**	**2.71**	**1.10**	**0.07**	**1.17**	**0.00**	**118.16**	**118.16**	**0.01**	**0.00**	**118.43**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.23	2.23	0.00	0.00	2.24
Total	**0.00**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.23**	**2.23**	**0.00**	**0.00**	**2.24**

3.3 Grading - 2012

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					2.64	0.00	2.64	1.10	0.00	1.10	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	1.63	13.55	7.19	0.01		0.65	0.65		0.65	0.65	0.00	1,284.94	1,284.94	0.13	0.00	1,287.73
Total	**1.63**	**13.55**	**7.19**	**0.01**	**2.64**	**0.65**	**3.29**	**1.10**	**0.65**	**1.75**	**0.00**	**1,284.94**	**1,284.94**	**0.13**	**0.00**	**1,287.73**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.02	0.02	0.19	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	23.77	23.77	0.00	0.00	23.81
Total	**0.02**	**0.02**	**0.19**	**0.00**	**0.03**	**0.00**	**0.03**	**0.00**	**0.00**	**0.00**	**0.00**	**23.77**	**23.77**	**0.00**	**0.00**	**23.81**

3.3 Grading - 2012

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					2.64	0.00	2.64	1.10	0.00	1.10	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	1.63	13.55	7.19	0.01		0.65	0.65		0.65	0.65	0.00	1,284.94	1,284.94	0.13	0.00	1,287.73
Total	**1.63**	**13.55**	**7.19**	**0.01**	**2.64**	**0.65**	**3.29**	**1.10**	**0.65**	**1.75**	**0.00**	**1,284.94**	**1,284.94**	**0.13**	**0.00**	**1,287.73**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.02	0.02	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.77	23.77	0.00	0.00	23.81
Total	**0.02**	**0.02**	**0.19**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**23.77**	**23.77**	**0.00**	**0.00**	**23.81**

3.3 Grading - 2013

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					2.64	0.00	2.64	1.10	0.00	1.10	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	1.55	12.72	6.89	0.01		0.60	0.60		0.60	0.60	0.00	1,284.94	1,284.94	0.13	0.00	1,287.58
Total	**1.55**	**12.72**	**6.89**	**0.01**	**2.64**	**0.60**	**3.24**	**1.10**	**0.60**	**1.70**	**0.00**	**1,284.94**	**1,284.94**	**0.13**	**0.00**	**1,287.58**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.02	0.02	0.17	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	23.27	23.27	0.00	0.00	23.30
Total	**0.02**	**0.02**	**0.17**	**0.00**	**0.03**	**0.00**	**0.03**	**0.00**	**0.00**	**0.00**	**0.00**	**23.27**	**23.27**	**0.00**	**0.00**	**23.30**

3.3 Grading - 2013

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					2.64	0.00	2.64	1.10	0.00	1.10	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	1.55	12.72	6.89	0.01		0.60	0.60		0.60	0.60	0.00	1,284.94	1,284.94	0.13	0.00	1,287.58
Total	**1.55**	**12.72**	**6.89**	**0.01**	**2.64**	**0.60**	**3.24**	**1.10**	**0.60**	**1.70**	**0.00**	**1,284.94**	**1,284.94**	**0.13**	**0.00**	**1,287.58**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.02	0.02	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.27	23.27	0.00	0.00	23.30
Total	**0.02**	**0.02**	**0.17**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**23.27**	**23.27**	**0.00**	**0.00**	**23.30**

3.3 Grading - 2014

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					2.64	0.00	2.64	1.10	0.00	1.10	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.35	2.85	1.60	0.00		0.13	0.13		0.13	0.13	0.00	310.16	310.16	0.03	0.00	310.76
Total	**0.35**	**2.85**	**1.60**	**0.00**	**2.64**	**0.13**	**2.77**	**1.10**	**0.13**	**1.23**	**0.00**	**310.16**	**310.16**	**0.03**	**0.00**	**310.76**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.04	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	5.50	5.50	0.00	0.00	5.51
Total	**0.00**	**0.00**	**0.04**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**5.50**	**5.50**	**0.00**	**0.00**	**5.51**

3.3 Grading - 2014

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					2.64	0.00	2.64	1.10	0.00	1.10	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.35	2.85	1.60	0.00		0.13	0.13		0.13	0.13	0.00	310.16	310.16	0.03	0.00	310.76
Total	**0.35**	**2.85**	**1.60**	**0.00**	**2.64**	**0.13**	**2.77**	**1.10**	**0.13**	**1.23**	**0.00**	**310.16**	**310.16**	**0.03**	**0.00**	**310.76**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.50	5.50	0.00	0.00	5.51
Total	**0.00**	**0.00**	**0.04**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**5.50**	**5.50**	**0.00**	**0.00**	**5.51**

3.4 Building Construction - 2014

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	0.47	3.17	2.30	0.00		0.20	0.20		0.20	0.20	0.00	362.79	362.79	0.04	0.00	363.59
Total	**0.47**	**3.17**	**2.30**	**0.00**		**0.20**	**0.20**		**0.20**	**0.20**	**0.00**	**362.79**	**362.79**	**0.04**	**0.00**	**363.59**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	9.34	103.01	66.17	0.18	5.44	3.52	8.96	0.16	3.24	3.40	0.00	16,604.60	16,604.60	0.42	0.00	16,613.38
Worker	12.07	13.51	132.70	0.22	25.19	1.00	26.19	0.39	0.93	1.32	0.00	19,286.40	19,286.40	1.20	0.00	19,311.53
Total	**21.41**	**116.52**	**198.87**	**0.40**	**30.63**	**4.52**	**35.15**	**0.55**	**4.17**	**4.72**	**0.00**	**35,891.00**	**35,891.00**	**1.62**	**0.00**	**35,924.91**

3.4 Building Construction - 2014

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	0.47	3.17	2.30	0.00		0.20	0.20		0.20	0.20	0.00	362.79	362.79	0.04	0.00	363.59
Total	**0.47**	**3.17**	**2.30**	**0.00**		**0.20**	**0.20**		**0.20**	**0.20**	**0.00**	**362.79**	**362.79**	**0.04**	**0.00**	**363.59**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	9.34	103.01	66.17	0.18	0.48	3.52	4.00	0.16	3.24	3.40	0.00	16,604.60	16,604.60	0.42	0.00	16,613.38
Worker	12.07	13.51	132.70	0.22	1.08	1.00	2.08	0.39	0.93	1.32	0.00	19,286.40	19,286.40	1.20	0.00	19,311.53
Total	**21.41**	**116.52**	**198.87**	**0.40**	**1.56**	**4.52**	**6.08**	**0.55**	**4.17**	**4.72**	**0.00**	**35,891.00**	**35,891.00**	**1.62**	**0.00**	**35,924.91**

3.4 Building Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.57	3.80	3.00	0.01		0.23	0.23		0.23	0.23	0.00	478.23	478.23	0.05	0.00	479.20
Total	**0.57**	**3.80**	**3.00**	**0.01**		**0.23**	**0.23**		**0.23**	**0.23**	**0.00**	**478.23**	**478.23**	**0.05**	**0.00**	**479.20**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	11.39	126.17	80.83	0.23	7.17	4.30	11.46	0.21	3.95	4.16	0.00	21,918.16	21,918.16	0.51	0.00	21,928.85
Worker	14.88	16.35	160.98	0.29	33.20	1.33	34.53	0.51	1.22	1.74	0.00	24,843.32	24,843.32	1.46	0.00	24,873.97
Total	**26.27**	**142.52**	**241.81**	**0.52**	**40.37**	**5.63**	**45.99**	**0.72**	**5.17**	**5.90**	**0.00**	**46,761.48**	**46,761.48**	**1.97**	**0.00**	**46,802.82**

3.4 Building Construction - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.57	3.80	3.00	0.01		0.23	0.23		0.23	0.23	0.00	478.23	478.23	0.05	0.00	479.20
Total	**0.57**	**3.80**	**3.00**	**0.01**		**0.23**	**0.23**		**0.23**	**0.23**	**0.00**	**478.23**	**478.23**	**0.05**	**0.00**	**479.20**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	11.39	126.17	80.83	0.23	0.63	4.30	4.92	0.21	3.95	4.16	0.00	21,918.16	21,918.16	0.51	0.00	21,928.85
Worker	14.88	16.35	160.98	0.29	1.42	1.33	2.75	0.51	1.22	1.74	0.00	24,843.32	24,843.32	1.46	0.00	24,873.97
Total	**26.27**	**142.52**	**241.81**	**0.52**	**2.05**	**5.63**	**7.67**	**0.72**	**5.17**	**5.90**	**0.00**	**46,761.48**	**46,761.48**	**1.97**	**0.00**	**46,802.82**

3.4 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.52	3.46	2.97	0.01		0.21	0.21		0.21	0.21	0.00	478.23	478.23	0.04	0.00	479.11
Total	**0.52**	**3.46**	**2.97**	**0.01**		**0.21**	**0.21**		**0.21**	**0.21**	**0.00**	**478.23**	**478.23**	**0.04**	**0.00**	**479.11**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	10.62	117.86	75.44	0.23	7.17	4.01	11.17	0.21	3.69	3.90	0.00	21,947.04	21,947.04	0.47	0.00	21,956.99
Worker	13.96	15.06	148.54	0.29	33.20	1.33	34.53	0.51	1.23	1.74	0.00	24,244.09	24,244.09	1.36	0.00	24,272.70
Total	**24.58**	**132.92**	**223.98**	**0.52**	**40.37**	**5.34**	**45.70**	**0.72**	**4.92**	**5.64**	**0.00**	**46,191.13**	**46,191.13**	**1.83**	**0.00**	**46,229.69**

3.4 Building Construction - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.52	3.46	2.97	0.01		0.21	0.21		0.21	0.21	0.00	478.23	478.23	0.04	0.00	479.11
Total	**0.52**	**3.46**	**2.97**	**0.01**		**0.21**	**0.21**		**0.21**	**0.21**	**0.00**	**478.23**	**478.23**	**0.04**	**0.00**	**479.11**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	10.62	117.86	75.44	0.23	0.63	4.01	4.63	0.21	3.69	3.90	0.00	21,947.04	21,947.04	0.47	0.00	21,956.99
Worker	13.96	15.06	148.54	0.29	1.42	1.33	2.75	0.51	1.23	1.74	0.00	24,244.09	24,244.09	1.36	0.00	24,272.70
Total	**24.58**	**132.92**	**223.98**	**0.52**	**2.05**	**5.34**	**7.38**	**0.72**	**4.92**	**5.64**	**0.00**	**46,191.13**	**46,191.13**	**1.83**	**0.00**	**46,229.69**

3.4 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	0.48	3.13	2.94	0.01		0.18	0.18		0.18	0.18	0.00	476.40	476.40	0.04	0.00	477.20
Total	**0.48**	**3.13**	**2.94**	**0.01**		**0.18**	**0.18**		**0.18**	**0.18**	**0.00**	**476.40**	**476.40**	**0.04**	**0.00**	**477.20**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	9.91	110.27	70.61	0.23	7.14	3.74	10.88	0.21	3.44	3.65	0.00	21,888.36	21,888.36	0.44	0.00	21,897.63
Worker	13.05	13.83	136.39	0.29	33.08	1.32	34.40	0.51	1.23	1.74	0.00	23,599.96	23,599.96	1.26	0.00	23,626.44
Total	**22.96**	**124.10**	**207.00**	**0.52**	**40.22**	**5.06**	**45.28**	**0.72**	**4.67**	**5.39**	**0.00**	**45,488.32**	**45,488.32**	**1.70**	**0.00**	**45,524.07**

3.4 Building Construction - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.48	3.13	2.94	0.01		0.18	0.18		0.18	0.18	0.00	476.40	476.40	0.04	0.00	477.20
Total	**0.48**	**3.13**	**2.94**	**0.01**		**0.18**	**0.18**		**0.18**	**0.18**	**0.00**	**476.40**	**476.40**	**0.04**	**0.00**	**477.20**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	9.91	110.27	70.61	0.23	0.62	3.74	4.37	0.21	3.44	3.65	0.00	21,888.36	21,888.36	0.44	0.00	21,897.63
Worker	13.05	13.83	136.39	0.29	1.42	1.32	2.74	0.51	1.23	1.74	0.00	23,599.96	23,599.96	1.26	0.00	23,626.44
Total	**22.96**	**124.10**	**207.00**	**0.52**	**2.04**	**5.06**	**7.11**	**0.72**	**4.67**	**5.39**	**0.00**	**45,488.32**	**45,488.32**	**1.70**	**0.00**	**45,524.07**

3.4 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.44	2.84	2.93	0.01		0.16	0.16		0.16	0.16	0.00	478.23	478.23	0.04	0.00	478.97
Total	**0.44**	**2.84**	**2.93**	**0.01**		**0.16**	**0.16**		**0.16**	**0.16**	**0.00**	**478.23**	**478.23**	**0.04**	**0.00**	**478.97**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	9.35	104.41	66.88	0.23	7.17	3.55	10.71	0.21	3.26	3.47	0.00	21,995.44	21,995.44	0.41	0.00	22,004.16
Worker	12.31	12.79	126.45	0.29	33.20	1.33	34.53	0.51	1.23	1.74	0.00	23,174.69	23,174.69	1.18	0.00	23,199.53
Total	**21.66**	**117.20**	**193.33**	**0.52**	**40.37**	**4.88**	**45.24**	**0.72**	**4.49**	**5.21**	**0.00**	**45,170.13**	**45,170.13**	**1.59**	**0.00**	**45,203.69**

3.4 Building Construction - 2018

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	0.44	2.84	2.93	0.01		0.16	0.16		0.16	0.16	0.00	478.23	478.23	0.04	0.00	478.97
Total	**0.44**	**2.84**	**2.93**	**0.01**		**0.16**	**0.16**		**0.16**	**0.16**	**0.00**	**478.23**	**478.23**	**0.04**	**0.00**	**478.97**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	9.35	104.41	66.88	0.23	0.63	3.55	4.17	0.21	3.26	3.47	0.00	21,995.44	21,995.44	0.41	0.00	22,004.16
Worker	12.31	12.79	126.45	0.29	1.42	1.33	2.75	0.51	1.23	1.74	0.00	23,174.69	23,174.69	1.18	0.00	23,199.53
Total	**21.66**	**117.20**	**193.33**	**0.52**	**2.05**	**4.88**	**6.92**	**0.72**	**4.49**	**5.21**	**0.00**	**45,170.13**	**45,170.13**	**1.59**	**0.00**	**45,203.69**

3.4 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.40	2.57	2.92	0.01		0.13	0.13		0.13	0.13	0.00	478.23	478.23	0.03	0.00	478.91
Total	**0.40**	**2.57**	**2.92**	**0.01**		**0.13**	**0.13**		**0.13**	**0.13**	**0.00**	**478.23**	**478.23**	**0.03**	**0.00**	**478.91**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	8.83	99.04	63.07	0.23	7.17	3.36	10.53	0.21	3.09	3.30	0.00	22,020.15	22,020.15	0.39	0.00	22,028.36
Worker	11.72	11.89	118.06	0.29	33.20	1.32	34.53	0.51	1.23	1.74	0.00	22,703.45	22,703.45	1.11	0.00	22,726.82
Total	**20.55**	**110.93**	**181.13**	**0.52**	**40.37**	**4.68**	**45.06**	**0.72**	**4.32**	**5.04**	**0.00**	**44,723.60**	**44,723.60**	**1.50**	**0.00**	**44,755.18**

3.4 Building Construction - 2019

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	0.40	2.57	2.92	0.01		0.13	0.13		0.13	0.13	0.00	478.23	478.23	0.03	0.00	478.91
Total	**0.40**	**2.57**	**2.92**	**0.01**		**0.13**	**0.13**		**0.13**	**0.13**	**0.00**	**478.23**	**478.23**	**0.03**	**0.00**	**478.91**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	8.83	99.04	63.07	0.23	0.63	3.36	3.99	0.21	3.09	3.30	0.00	22,020.15	22,020.15	0.39	0.00	22,028.36
Worker	11.72	11.89	118.06	0.29	1.42	1.32	2.75	0.51	1.23	1.74	0.00	22,703.45	22,703.45	1.11	0.00	22,726.82
Total	**20.55**	**110.93**	**181.13**	**0.52**	**2.05**	**4.68**	**6.74**	**0.72**	**4.32**	**5.04**	**0.00**	**44,723.60**	**44,723.60**	**1.50**	**0.00**	**44,755.18**

3.4 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	0.37	2.34	2.91	0.01		0.11	0.11		0.11	0.11	0.00	480.06	480.06	0.03	0.00	480.68
Total	**0.37**	**2.34**	**2.91**	**0.01**		**0.11**	**0.11**		**0.11**	**0.11**	**0.00**	**480.06**	**480.06**	**0.03**	**0.00**	**480.68**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	8.43	94.86	60.37	0.23	7.20	3.22	10.42	0.21	2.96	3.17	0.00	22,125.34	22,125.34	0.37	0.00	22,133.14
Worker	11.29	11.14	111.27	0.29	33.33	1.33	34.66	0.51	1.23	1.74	0.00	22,357.23	22,357.23	1.05	0.00	22,379.37
Total	**19.72**	**106.00**	**171.64**	**0.52**	**40.53**	**4.55**	**45.08**	**0.72**	**4.19**	**4.91**	**0.00**	**44,482.57**	**44,482.57**	**1.42**	**0.00**	**44,512.51**

3.4 Building Construction - 2020

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	0.37	2.34	2.91	0.01		0.11	0.11		0.11	0.11	0.00	480.06	480.06	0.03	0.00	480.68
Total	**0.37**	**2.34**	**2.91**	**0.01**		**0.11**	**0.11**		**0.11**	**0.11**	**0.00**	**480.06**	**480.06**	**0.03**	**0.00**	**480.68**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	8.43	94.86	60.37	0.23	0.63	3.22	3.85	0.21	2.96	3.17	0.00	22,125.34	22,125.34	0.37	0.00	22,133.14
Worker	11.29	11.14	111.27	0.29	1.43	1.33	2.76	0.51	1.23	1.74	0.00	22,357.23	22,357.23	1.05	0.00	22,379.37
Total	**19.72**	**106.00**	**171.64**	**0.52**	**2.06**	**4.55**	**6.61**	**0.72**	**4.19**	**4.91**	**0.00**	**44,482.57**	**44,482.57**	**1.42**	**0.00**	**44,512.51**

3.4 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	0.33	2.10	2.88	0.01		0.10	0.10		0.10	0.10	0.00	478.23	478.23	0.03	0.00	478.79
Total	**0.33**	**2.10**	**2.88**	**0.01**		**0.10**	**0.10**		**0.10**	**0.10**	**0.00**	**478.23**	**478.23**	**0.03**	**0.00**	**478.79**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	8.01	90.82	57.23	0.23	7.17	3.09	10.26	0.21	2.84	3.05	0.00	22,060.57	22,060.57	0.35	0.00	22,067.96
Worker	10.88	10.43	106.12	0.29	33.20	1.36	34.56	0.51	1.26	1.77	0.00	22,085.59	22,085.59	1.01	0.00	22,106.89
Total	**18.89**	**101.25**	**163.35**	**0.52**	**40.37**	**4.45**	**44.82**	**0.72**	**4.10**	**4.82**	**0.00**	**44,146.16**	**44,146.16**	**1.36**	**0.00**	**44,174.85**

3.4 Building Construction - 2021

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	0.33	2.10	2.88	0.01		0.10	0.10		0.10	0.10	0.00	478.23	478.23	0.03	0.00	478.79
Total	**0.33**	**2.10**	**2.88**	**0.01**		**0.10**	**0.10**		**0.10**	**0.10**	**0.00**	**478.23**	**478.23**	**0.03**	**0.00**	**478.79**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	8.01	90.82	57.23	0.23	0.63	3.09	3.72	0.21	2.84	3.05	0.00	22,060.57	22,060.57	0.35	0.00	22,067.96
Worker	10.88	10.43	106.12	0.29	1.42	1.36	2.78	0.51	1.26	1.77	0.00	22,085.59	22,085.59	1.01	0.00	22,106.89
Total	**18.89**	**101.25**	**163.35**	**0.52**	**2.05**	**4.45**	**6.50**	**0.72**	**4.10**	**4.82**	**0.00**	**44,146.16**	**44,146.16**	**1.36**	**0.00**	**44,174.85**

3.4 Building Construction - 2022

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	0.31	1.89	2.86	0.01		0.08	0.08		0.08	0.08	0.00	476.40	476.40	0.02	0.00	476.92
Total	**0.31**	**1.89**	**2.86**	**0.01**		**0.08**	**0.08**		**0.08**	**0.08**	**0.00**	**476.40**	**476.40**	**0.02**	**0.00**	**476.92**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	7.66	87.39	54.56	0.23	7.14	2.99	10.13	0.21	2.75	2.95	0.00	21,993.60	21,993.60	0.34	0.00	22,000.64
Worker	10.45	9.78	99.99	0.29	33.08	1.35	34.43	0.51	1.25	1.76	0.00	21,639.60	21,639.60	0.96	0.00	21,659.81
Total	**18.11**	**97.17**	**154.55**	**0.52**	**40.22**	**4.34**	**44.56**	**0.72**	**4.00**	**4.71**	**0.00**	**43,633.20**	**43,633.20**	**1.30**	**0.00**	**43,660.45**

3.4 Building Construction - 2022

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	0.31	1.89	2.86	0.01		0.08	0.08		0.08	0.08	0.00	476.40	476.40	0.02	0.00	476.92
Total	**0.31**	**1.89**	**2.86**	**0.01**		**0.08**	**0.08**		**0.08**	**0.08**	**0.00**	**476.40**	**476.40**	**0.02**	**0.00**	**476.92**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	7.66	87.39	54.56	0.23	0.63	2.99	3.61	0.21	2.75	2.95	0.00	21,993.60	21,993.60	0.34	0.00	22,000.64
Worker	10.45	9.78	99.99	0.29	1.42	1.35	2.77	0.51	1.25	1.76	0.00	21,639.60	21,639.60	0.96	0.00	21,659.81
Total	**18.11**	**97.17**	**154.55**	**0.52**	**2.05**	**4.34**	**6.38**	**0.72**	**4.00**	**4.71**	**0.00**	**43,633.20**	**43,633.20**	**1.30**	**0.00**	**43,660.45**

3.4 Building Construction - 2023

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	0.29	1.72	2.86	0.01		0.07	0.07		0.07	0.07	0.00	476.40	476.40	0.02	0.00	476.89
Total	**0.29**	**1.72**	**2.86**	**0.01**		**0.07**	**0.07**		**0.07**	**0.07**	**0.00**	**476.40**	**476.40**	**0.02**	**0.00**	**476.89**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	7.40	84.85	52.54	0.23	7.14	2.91	10.05	0.21	2.67	2.88	0.00	22,009.60	22,009.60	0.32	0.00	22,016.37
Worker	10.05	9.18	94.52	0.29	33.08	1.35	34.43	0.51	1.26	1.77	0.00	21,308.66	21,308.66	0.92	0.00	21,327.99
Total	**17.45**	**94.03**	**147.06**	**0.52**	**40.22**	**4.26**	**44.48**	**0.72**	**3.93**	**4.65**	**0.00**	**43,318.26**	**43,318.26**	**1.24**	**0.00**	**43,344.36**

3.4 Building Construction - 2023

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	0.29	1.72	2.86	0.01		0.07	0.07		0.07	0.07	0.00	476.40	476.40	0.02	0.00	476.89
Total	**0.29**	**1.72**	**2.86**	**0.01**		**0.07**	**0.07**		**0.07**	**0.07**	**0.00**	**476.40**	**476.40**	**0.02**	**0.00**	**476.89**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	7.40	84.85	52.54	0.23	0.63	2.91	3.53	0.21	2.67	2.88	0.00	22,009.60	22,009.60	0.32	0.00	22,016.37
Worker	10.05	9.18	94.52	0.29	1.42	1.35	2.77	0.51	1.26	1.77	0.00	21,308.66	21,308.66	0.92	0.00	21,327.99
Total	**17.45**	**94.03**	**147.06**	**0.52**	**2.05**	**4.26**	**6.30**	**0.72**	**3.93**	**4.65**	**0.00**	**43,318.26**	**43,318.26**	**1.24**	**0.00**	**43,344.36**

3.4 Building Construction - 2024

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	0.28	1.58	2.87	0.01		0.06	0.06		0.06	0.06	0.00	480.06	480.06	0.02	0.00	480.53
Total	**0.28**	**1.58**	**2.87**	**0.01**		**0.06**	**0.06**		**0.06**	**0.06**	**0.00**	**480.06**	**480.06**	**0.02**	**0.00**	**480.53**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	7.21	83.38	50.77	0.23	7.20	2.87	10.06	0.21	2.64	2.84	0.00	22,195.44	22,195.44	0.31	0.00	22,202.04
Worker	9.78	8.73	90.58	0.29	33.33	1.36	34.70	0.51	1.27	1.78	0.00	21,170.64	21,170.64	0.89	0.00	21,189.37
Total	**16.99**	**92.11**	**141.35**	**0.52**	**40.53**	**4.23**	**44.76**	**0.72**	**3.91**	**4.62**	**0.00**	**43,366.08**	**43,366.08**	**1.20**	**0.00**	**43,391.41**

3.4 Building Construction - 2024

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	0.28	1.58	2.87	0.01		0.06	0.06		0.06	0.06	0.00	480.06	480.06	0.02	0.00	480.53
Total	**0.28**	**1.58**	**2.87**	**0.01**		**0.06**	**0.06**		**0.06**	**0.06**	**0.00**	**480.06**	**480.06**	**0.02**	**0.00**	**480.53**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	7.21	83.38	50.77	0.23	0.63	2.87	3.50	0.21	2.64	2.84	0.00	22,195.44	22,195.44	0.31	0.00	22,202.04
Worker	9.78	8.73	90.58	0.29	1.43	1.36	2.79	0.51	1.27	1.78	0.00	21,170.64	21,170.64	0.89	0.00	21,189.37
Total	**16.99**	**92.11**	**141.35**	**0.52**	**2.06**	**4.23**	**6.29**	**0.72**	**3.91**	**4.62**	**0.00**	**43,366.08**	**43,366.08**	**1.20**	**0.00**	**43,391.41**

3.4 Building Construction - 2025

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	0.26	1.44	2.86	0.01		0.05	0.05		0.05	0.05	0.00	478.23	478.23	0.02	0.00	478.66
Total	**0.26**	**1.44**	**2.86**	**0.01**		**0.05**	**0.05**		**0.05**	**0.05**	**0.00**	**478.23**	**478.23**	**0.02**	**0.00**	**478.66**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	7.00	81.32	49.11	0.23	7.17	2.80	9.97	0.21	2.57	2.78	0.00	22,122.55	22,122.55	0.30	0.00	22,128.93
Worker	9.41	8.25	86.21	0.29	33.20	1.36	34.57	0.51	1.26	1.78	0.00	20,820.80	20,820.80	0.85	0.00	20,838.61
Total	**16.41**	**89.57**	**135.32**	**0.52**	**40.37**	**4.16**	**44.54**	**0.72**	**3.83**	**4.56**	**0.00**	**42,943.35**	**42,943.35**	**1.15**	**0.00**	**42,967.54**

3.4 Building Construction - 2025

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	0.26	1.44	2.86	0.01		0.05	0.05		0.05	0.05	0.00	478.23	478.23	0.02	0.00	478.66
Total	**0.26**	**1.44**	**2.86**	**0.01**		**0.05**	**0.05**		**0.05**	**0.05**	**0.00**	**478.23**	**478.23**	**0.02**	**0.00**	**478.66**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	7.00	81.32	49.11	0.23	0.63	2.80	3.43	0.21	2.57	2.78	0.00	22,122.55	22,122.55	0.30	0.00	22,128.93
Worker	9.41	8.25	86.21	0.29	1.42	1.36	2.79	0.51	1.26	1.78	0.00	20,820.80	20,820.80	0.85	0.00	20,838.61
Total	**16.41**	**89.57**	**135.32**	**0.52**	**2.05**	**4.16**	**6.22**	**0.72**	**3.83**	**4.56**	**0.00**	**42,943.35**	**42,943.35**	**1.15**	**0.00**	**42,967.54**

3.4 Building Construction - 2026

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	0.26	1.44	2.86	0.01		0.05	0.05		0.05	0.05	0.00	478.23	478.23	0.02	0.00	478.66
Total	**0.26**	**1.44**	**2.86**	**0.01**		**0.05**	**0.05**		**0.05**	**0.05**	**0.00**	**478.23**	**478.23**	**0.02**	**0.00**	**478.66**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	7.00	81.32	49.11	0.23	7.17	2.80	9.97	0.21	2.57	2.78	0.00	22,122.55	22,122.55	0.30	0.00	22,128.93
Worker	9.41	8.25	86.21	0.29	33.20	1.36	34.57	0.51	1.26	1.78	0.00	20,820.80	20,820.80	0.85	0.00	20,838.61
Total	**16.41**	**89.57**	**135.32**	**0.52**	**40.37**	**4.16**	**44.54**	**0.72**	**3.83**	**4.56**	**0.00**	**42,943.35**	**42,943.35**	**1.15**	**0.00**	**42,967.54**

3.4 Building Construction - 2026

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	0.26	1.44	2.86	0.01		0.05	0.05		0.05	0.05	0.00	478.23	478.23	0.02	0.00	478.66
Total	**0.26**	**1.44**	**2.86**	**0.01**		**0.05**	**0.05**		**0.05**	**0.05**	**0.00**	**478.23**	**478.23**	**0.02**	**0.00**	**478.66**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	7.00	81.32	49.11	0.23	0.63	2.80	3.43	0.21	2.57	2.78	0.00	22,122.55	22,122.55	0.30	0.00	22,128.93
Worker	9.41	8.25	86.21	0.29	1.42	1.36	2.79	0.51	1.26	1.78	0.00	20,820.80	20,820.80	0.85	0.00	20,838.61
Total	**16.41**	**89.57**	**135.32**	**0.52**	**2.05**	**4.16**	**6.22**	**0.72**	**3.83**	**4.56**	**0.00**	**42,943.35**	**42,943.35**	**1.15**	**0.00**	**42,967.54**

3.4 Building Construction - 2027

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	0.26	1.44	2.86	0.01		0.05	0.05		0.05	0.05	0.00	478.23	478.23	0.02	0.00	478.66
Total	**0.26**	**1.44**	**2.86**	**0.01**		**0.05**	**0.05**		**0.05**	**0.05**	**0.00**	**478.23**	**478.23**	**0.02**	**0.00**	**478.66**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	7.00	81.32	49.11	0.23	7.17	2.80	9.97	0.21	2.57	2.78	0.00	22,122.55	22,122.55	0.30	0.00	22,128.93
Worker	9.41	8.25	86.21	0.29	33.20	1.36	34.57	0.51	1.26	1.78	0.00	20,820.80	20,820.80	0.85	0.00	20,838.61
Total	**16.41**	**89.57**	**135.32**	**0.52**	**40.37**	**4.16**	**44.54**	**0.72**	**3.83**	**4.56**	**0.00**	**42,943.35**	**42,943.35**	**1.15**	**0.00**	**42,967.54**

3.4 Building Construction - 2027

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	0.26	1.44	2.86	0.01		0.05	0.05		0.05	0.05	0.00	478.23	478.23	0.02	0.00	478.66
Total	**0.26**	**1.44**	**2.86**	**0.01**		**0.05**	**0.05**		**0.05**	**0.05**	**0.00**	**478.23**	**478.23**	**0.02**	**0.00**	**478.66**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	7.00	81.32	49.11	0.23	0.63	2.80	3.43	0.21	2.57	2.78	0.00	22,122.55	22,122.55	0.30	0.00	22,128.93
Worker	9.41	8.25	86.21	0.29	1.42	1.36	2.79	0.51	1.26	1.78	0.00	20,820.80	20,820.80	0.85	0.00	20,838.61
Total	**16.41**	**89.57**	**135.32**	**0.52**	**2.05**	**4.16**	**6.22**	**0.72**	**3.83**	**4.56**	**0.00**	**42,943.35**	**42,943.35**	**1.15**	**0.00**	**42,967.54**

3.4 Building Construction - 2028

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	0.26	1.44	2.85	0.01		0.05	0.05		0.05	0.05	0.00	476.40	476.40	0.02	0.00	476.83
Total	**0.26**	**1.44**	**2.85**	**0.01**		**0.05**	**0.05**		**0.05**	**0.05**	**0.00**	**476.40**	**476.40**	**0.02**	**0.00**	**476.83**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	6.97	81.01	48.92	0.23	7.14	2.79	9.93	0.21	2.56	2.77	0.00	22,037.79	22,037.79	0.30	0.00	22,044.15
Worker	9.38	8.21	85.88	0.29	33.08	1.36	34.44	0.51	1.26	1.77	0.00	20,741.03	20,741.03	0.84	0.00	20,758.77
Total	**16.35**	**89.22**	**134.80**	**0.52**	**40.22**	**4.15**	**44.37**	**0.72**	**3.82**	**4.54**	**0.00**	**42,778.82**	**42,778.82**	**1.14**	**0.00**	**42,802.92**

3.4 Building Construction - 2028

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	0.26	1.44	2.85	0.01		0.05	0.05		0.05	0.05	0.00	476.40	476.40	0.02	0.00	476.83
Total	**0.26**	**1.44**	**2.85**	**0.01**		**0.05**	**0.05**		**0.05**	**0.05**	**0.00**	**476.40**	**476.40**	**0.02**	**0.00**	**476.83**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	6.97	81.01	48.92	0.23	0.63	2.79	3.41	0.21	2.56	2.77	0.00	22,037.79	22,037.79	0.30	0.00	22,044.15
Worker	9.38	8.21	85.88	0.29	1.42	1.36	2.77	0.51	1.26	1.77	0.00	20,741.03	20,741.03	0.84	0.00	20,758.77
Total	**16.35**	**89.22**	**134.80**	**0.52**	**2.05**	**4.15**	**6.18**	**0.72**	**3.82**	**4.54**	**0.00**	**42,778.82**	**42,778.82**	**1.14**	**0.00**	**42,802.92**

3.4 Building Construction - 2029

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	0.26	1.44	2.86	0.01		0.05	0.05		0.05	0.05	0.00	478.23	478.23	0.02	0.00	478.66
Total	**0.26**	**1.44**	**2.86**	**0.01**		**0.05**	**0.05**		**0.05**	**0.05**	**0.00**	**478.23**	**478.23**	**0.02**	**0.00**	**478.66**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	7.00	81.32	49.11	0.23	7.17	2.80	9.97	0.21	2.57	2.78	0.00	22,122.55	22,122.55	0.30	0.00	22,128.93
Worker	9.41	8.25	86.21	0.29	33.20	1.36	34.57	0.51	1.26	1.78	0.00	20,820.80	20,820.80	0.85	0.00	20,838.61
Total	**16.41**	**89.57**	**135.32**	**0.52**	**40.37**	**4.16**	**44.54**	**0.72**	**3.83**	**4.56**	**0.00**	**42,943.35**	**42,943.35**	**1.15**	**0.00**	**42,967.54**

3.4 Building Construction - 2029

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	0.26	1.44	2.86	0.01		0.05	0.05		0.05	0.05	0.00	478.23	478.23	0.02	0.00	478.66
Total	**0.26**	**1.44**	**2.86**	**0.01**		**0.05**	**0.05**		**0.05**	**0.05**	**0.00**	**478.23**	**478.23**	**0.02**	**0.00**	**478.66**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	7.00	81.32	49.11	0.23	0.63	2.80	3.43	0.21	2.57	2.78	0.00	22,122.55	22,122.55	0.30	0.00	22,128.93
Worker	9.41	8.25	86.21	0.29	1.42	1.36	2.79	0.51	1.26	1.78	0.00	20,820.80	20,820.80	0.85	0.00	20,838.61
Total	**16.41**	**89.57**	**135.32**	**0.52**	**2.05**	**4.16**	**6.22**	**0.72**	**3.83**	**4.56**	**0.00**	**42,943.35**	**42,943.35**	**1.15**	**0.00**	**42,967.54**

3.4 Building Construction - 2030

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	0.22	1.05	2.85	0.01		0.02	0.02		0.02	0.02	0.00	478.23	478.23	0.02	0.00	478.60
Total	**0.22**	**1.05**	**2.85**	**0.01**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**478.23**	**478.23**	**0.02**	**0.00**	**478.60**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	6.42	76.19	44.54	0.23	7.17	2.63	9.80	0.21	2.42	2.63	0.00	22,165.51	22,165.51	0.28	0.00	22,171.32
Worker	8.06	6.57	72.06	0.29	33.20	1.37	34.58	0.51	1.26	1.78	0.00	19,863.44	19,863.44	0.73	0.00	19,878.74
Total	**14.48**	**82.76**	**116.60**	**0.52**	**40.37**	**4.00**	**44.38**	**0.72**	**3.68**	**4.41**	**0.00**	**42,028.95**	**42,028.95**	**1.01**	**0.00**	**42,050.06**

3.4 Building Construction - 2030

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	0.22	1.05	2.85	0.01		0.02	0.02		0.02	0.02	0.00	478.23	478.23	0.02	0.00	478.60
Total	**0.22**	**1.05**	**2.85**	**0.01**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**478.23**	**478.23**	**0.02**	**0.00**	**478.60**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	6.42	76.19	44.54	0.23	0.63	2.63	3.26	0.21	2.42	2.63	0.00	22,165.51	22,165.51	0.28	0.00	22,171.32
Worker	8.06	6.57	72.06	0.29	1.42	1.37	2.79	0.51	1.26	1.78	0.00	19,863.44	19,863.44	0.73	0.00	19,878.74
Total	**14.48**	**82.76**	**116.60**	**0.52**	**2.05**	**4.00**	**6.05**	**0.72**	**3.68**	**4.41**	**0.00**	**42,028.95**	**42,028.95**	**1.01**	**0.00**	**42,050.06**

3.4 Building Construction - 2031

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	0.22	1.05	2.85	0.01		0.02	0.02		0.02	0.02	0.00	478.23	478.23	0.02	0.00	478.60
Total	**0.22**	**1.05**	**2.85**	**0.01**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**478.23**	**478.23**	**0.02**	**0.00**	**478.60**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	6.42	76.19	44.54	0.23	7.17	2.63	9.80	0.21	2.42	2.63	0.00	22,165.51	22,165.51	0.28	0.00	22,171.32
Worker	8.06	6.57	72.06	0.29	33.20	1.37	34.58	0.51	1.26	1.78	0.00	19,863.44	19,863.44	0.73	0.00	19,878.74
Total	**14.48**	**82.76**	**116.60**	**0.52**	**40.37**	**4.00**	**44.38**	**0.72**	**3.68**	**4.41**	**0.00**	**42,028.95**	**42,028.95**	**1.01**	**0.00**	**42,050.06**

3.4 Building Construction - 2031

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	0.22	1.05	2.85	0.01		0.02	0.02		0.02	0.02	0.00	478.23	478.23	0.02	0.00	478.60
Total	**0.22**	**1.05**	**2.85**	**0.01**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**478.23**	**478.23**	**0.02**	**0.00**	**478.60**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	6.42	76.19	44.54	0.23	0.63	2.63	3.26	0.21	2.42	2.63	0.00	22,165.51	22,165.51	0.28	0.00	22,171.32
Worker	8.06	6.57	72.06	0.29	1.42	1.37	2.79	0.51	1.26	1.78	0.00	19,863.44	19,863.44	0.73	0.00	19,878.74
Total	**14.48**	**82.76**	**116.60**	**0.52**	**2.05**	**4.00**	**6.05**	**0.72**	**3.68**	**4.41**	**0.00**	**42,028.95**	**42,028.95**	**1.01**	**0.00**	**42,050.06**

3.4 Building Construction - 2032

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	0.22	1.05	2.86	0.01		0.02	0.02		0.02	0.02	0.00	480.06	480.06	0.02	0.00	480.43
Total	**0.22**	**1.05**	**2.86**	**0.01**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**480.06**	**480.06**	**0.02**	**0.00**	**480.43**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	6.44	76.48	44.71	0.23	7.20	2.64	9.83	0.21	2.43	2.64	0.00	22,250.44	22,250.44	0.28	0.00	22,256.27
Worker	8.09	6.60	72.34	0.29	33.33	1.38	34.71	0.51	1.27	1.78	0.00	19,939.55	19,939.55	0.73	0.00	19,954.90
Total	**14.53**	**83.08**	**117.05**	**0.52**	**40.53**	**4.02**	**44.54**	**0.72**	**3.70**	**4.42**	**0.00**	**42,189.99**	**42,189.99**	**1.01**	**0.00**	**42,211.17**

3.4 Building Construction - 2032

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	0.22	1.05	2.86	0.01		0.02	0.02		0.02	0.02	0.00	480.06	480.06	0.02	0.00	480.43
Total	**0.22**	**1.05**	**2.86**	**0.01**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**480.06**	**480.06**	**0.02**	**0.00**	**480.43**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	6.44	76.48	44.71	0.23	0.63	2.64	3.27	0.21	2.43	2.64	0.00	22,250.44	22,250.44	0.28	0.00	22,256.27
Worker	8.09	6.60	72.34	0.29	1.43	1.38	2.80	0.51	1.27	1.78	0.00	19,939.55	19,939.55	0.73	0.00	19,954.90
Total	**14.53**	**83.08**	**117.05**	**0.52**	**2.06**	**4.02**	**6.07**	**0.72**	**3.70**	**4.42**	**0.00**	**42,189.99**	**42,189.99**	**1.01**	**0.00**	**42,211.17**

3.4 Building Construction - 2033

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	0.22	1.05	2.84	0.01		0.02	0.02		0.02	0.02	0.00	476.40	476.40	0.02	0.00	476.76
Total	**0.22**	**1.05**	**2.84**	**0.01**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**476.40**	**476.40**	**0.02**	**0.00**	**476.76**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	6.40	75.90	44.37	0.23	7.14	2.62	9.76	0.21	2.41	2.62	0.00	22,080.58	22,080.58	0.28	0.00	22,086.37
Worker	8.03	6.55	71.78	0.29	33.08	1.37	34.44	0.51	1.26	1.77	0.00	19,787.34	19,787.34	0.73	0.00	19,802.57
Total	**14.43**	**82.45**	**116.15**	**0.52**	**40.22**	**3.99**	**44.20**	**0.72**	**3.67**	**4.39**	**0.00**	**41,867.92**	**41,867.92**	**1.01**	**0.00**	**41,888.94**

3.4 Building Construction - 2033

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	0.22	1.05	2.84	0.01		0.02	0.02		0.02	0.02	0.00	476.40	476.40	0.02	0.00	476.76
Total	**0.22**	**1.05**	**2.84**	**0.01**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**476.40**	**476.40**	**0.02**	**0.00**	**476.76**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	6.40	75.90	44.37	0.23	0.63	2.62	3.24	0.21	2.41	2.62	0.00	22,080.58	22,080.58	0.28	0.00	22,086.37
Worker	8.03	6.55	71.78	0.29	1.42	1.37	2.78	0.51	1.26	1.77	0.00	19,787.34	19,787.34	0.73	0.00	19,802.57
Total	**14.43**	**82.45**	**116.15**	**0.52**	**2.05**	**3.99**	**6.02**	**0.72**	**3.67**	**4.39**	**0.00**	**41,867.92**	**41,867.92**	**1.01**	**0.00**	**41,888.94**

3.4 Building Construction - 2034

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	0.22	1.05	2.84	0.01		0.02	0.02		0.02	0.02	0.00	476.40	476.40	0.02	0.00	476.76
Total	**0.22**	**1.05**	**2.84**	**0.01**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**476.40**	**476.40**	**0.02**	**0.00**	**476.76**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	6.40	75.90	44.37	0.23	7.14	2.62	9.76	0.21	2.41	2.62	0.00	22,080.58	22,080.58	0.28	0.00	22,086.37
Worker	8.03	6.55	71.78	0.29	33.08	1.37	34.44	0.51	1.26	1.77	0.00	19,787.34	19,787.34	0.73	0.00	19,802.57
Total	**14.43**	**82.45**	**116.15**	**0.52**	**40.22**	**3.99**	**44.20**	**0.72**	**3.67**	**4.39**	**0.00**	**41,867.92**	**41,867.92**	**1.01**	**0.00**	**41,888.94**

3.4 Building Construction - 2034

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	0.22	1.05	2.84	0.01		0.02	0.02		0.02	0.02	0.00	476.40	476.40	0.02	0.00	476.76
Total	**0.22**	**1.05**	**2.84**	**0.01**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**476.40**	**476.40**	**0.02**	**0.00**	**476.76**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	6.40	75.90	44.37	0.23	0.63	2.62	3.24	0.21	2.41	2.62	0.00	22,080.58	22,080.58	0.28	0.00	22,086.37
Worker	8.03	6.55	71.78	0.29	1.42	1.37	2.78	0.51	1.26	1.77	0.00	19,787.34	19,787.34	0.73	0.00	19,802.57
Total	**14.43**	**82.45**	**116.15**	**0.52**	**2.05**	**3.99**	**6.02**	**0.72**	**3.67**	**4.39**	**0.00**	**41,867.92**	**41,867.92**	**1.01**	**0.00**	**41,888.94**

3.4 Building Construction - 2035

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	0.20	0.91	2.84	0.01		0.01	0.01		0.01	0.01	0.00	478.23	478.23	0.02	0.00	478.57
Total	**0.20**	**0.91**	**2.84**	**0.01**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**478.23**	**478.23**	**0.02**	**0.00**	**478.57**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	6.13	74.52	42.38	0.23	7.17	2.55	9.72	0.21	2.34	2.55	0.00	22,212.05	22,212.05	0.26	0.00	22,217.57
Worker	7.05	5.59	63.46	0.29	33.20	1.36	34.57	0.51	1.26	1.78	0.00	19,353.20	19,353.20	0.65	0.00	19,366.88
Total	**13.18**	**80.11**	**105.84**	**0.52**	**40.37**	**3.91**	**44.29**	**0.72**	**3.60**	**4.33**	**0.00**	**41,565.25**	**41,565.25**	**0.91**	**0.00**	**41,584.45**

3.4 Building Construction - 2035

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	0.20	0.91	2.84	0.01		0.01	0.01		0.01	0.01	0.00	478.23	478.23	0.02	0.00	478.57
Total	**0.20**	**0.91**	**2.84**	**0.01**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**478.23**	**478.23**	**0.02**	**0.00**	**478.57**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	6.13	74.52	42.38	0.23	0.63	2.55	3.18	0.21	2.34	2.55	0.00	22,212.05	22,212.05	0.26	0.00	22,217.57
Worker	7.05	5.59	63.46	0.29	1.42	1.36	2.79	0.51	1.26	1.78	0.00	19,353.20	19,353.20	0.65	0.00	19,366.88
Total	**13.18**	**80.11**	**105.84**	**0.52**	**2.05**	**3.91**	**5.97**	**0.72**	**3.60**	**4.33**	**0.00**	**41,565.25**	**41,565.25**	**0.91**	**0.00**	**41,584.45**

3.4 Building Construction - 2036

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	0.20	0.92	2.85	0.01		0.01	0.01		0.01	0.01	0.00	480.06	480.06	0.02	0.00	480.40
Total	**0.20**	**0.92**	**2.85**	**0.01**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**480.06**	**480.06**	**0.02**	**0.00**	**480.40**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	6.16	74.81	42.54	0.24	7.20	2.56	9.75	0.21	2.35	2.56	0.00	22,297.15	22,297.15	0.26	0.00	22,302.70
Worker	7.08	5.61	63.71	0.29	33.33	1.37	34.70	0.51	1.27	1.78	0.00	19,427.35	19,427.35	0.65	0.00	19,441.08
Total	**13.24**	**80.42**	**106.25**	**0.53**	**40.53**	**3.93**	**44.45**	**0.72**	**3.62**	**4.34**	**0.00**	**41,724.50**	**41,724.50**	**0.91**	**0.00**	**41,743.78**

3.4 Building Construction - 2036

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	0.20	0.92	2.85	0.01		0.01	0.01		0.01	0.01	0.00	480.06	480.06	0.02	0.00	480.40
Total	**0.20**	**0.92**	**2.85**	**0.01**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**480.06**	**480.06**	**0.02**	**0.00**	**480.40**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	6.16	74.81	42.54	0.24	0.63	2.56	3.19	0.21	2.35	2.56	0.00	22,297.15	22,297.15	0.26	0.00	22,302.70
Worker	7.08	5.61	63.71	0.29	1.43	1.37	2.80	0.51	1.27	1.78	0.00	19,427.35	19,427.35	0.65	0.00	19,441.08
Total	**13.24**	**80.42**	**106.25**	**0.53**	**2.06**	**3.93**	**5.99**	**0.72**	**3.62**	**4.34**	**0.00**	**41,724.50**	**41,724.50**	**0.91**	**0.00**	**41,743.78**

3.4 Building Construction - 2037

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	0.12	0.53	1.66	0.00		0.01	0.01		0.01	0.01	0.00	280.34	280.34	0.01	0.00	280.54
Total	**0.12**	**0.53**	**1.66**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**280.34**	**280.34**	**0.01**	**0.00**	**280.54**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	3.60	43.68	24.84	0.14	4.20	1.49	5.70	0.12	1.37	1.50	0.00	13,020.86	13,020.86	0.15	0.00	13,024.09
Worker	4.13	3.28	37.20	0.17	19.46	0.80	20.26	0.30	0.74	1.04	0.00	11,344.98	11,344.98	0.38	0.00	11,353.00
Total	**7.73**	**46.96**	**62.04**	**0.31**	**23.66**	**2.29**	**25.96**	**0.42**	**2.11**	**2.54**	**0.00**	**24,365.84**	**24,365.84**	**0.53**	**0.00**	**24,377.09**

3.4 Building Construction - 2037

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	0.12	0.53	1.66	0.00		0.01	0.01		0.01	0.01	0.00	280.34	280.34	0.01	0.00	280.54
Total	**0.12**	**0.53**	**1.66**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**280.34**	**280.34**	**0.01**	**0.00**	**280.54**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	3.60	43.68	24.84	0.14	0.37	1.49	1.86	0.12	1.37	1.50	0.00	13,020.86	13,020.86	0.15	0.00	13,024.09
Worker	4.13	3.28	37.20	0.17	0.83	0.80	1.63	0.30	0.74	1.04	0.00	11,344.98	11,344.98	0.38	0.00	11,353.00
Total	**7.73**	**46.96**	**62.04**	**0.31**	**1.20**	**2.29**	**3.49**	**0.42**	**2.11**	**2.54**	**0.00**	**24,365.84**	**24,365.84**	**0.53**	**0.00**	**24,377.09**

3.5 Paving - 2037

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	0.09	0.52	1.03	0.00		0.02	0.02		0.02	0.02	0.00	142.89	142.89	0.01	0.00	143.04
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.09**	**0.52**	**1.03**	**0.00**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**142.89**	**142.89**	**0.01**	**0.00**	**143.04**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.02	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	5.38	5.38	0.00	0.00	5.39
Total	**0.00**	**0.00**	**0.02**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**5.38**	**5.38**	**0.00**	**0.00**	**5.39**

3.5 Paving - 2037

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	0.09	0.52	1.03	0.00		0.02	0.02		0.02	0.02	0.00	142.89	142.89	0.01	0.00	143.04
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.09**	**0.52**	**1.03**	**0.00**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**142.89**	**142.89**	**0.01**	**0.00**	**143.04**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.38	5.38	0.00	0.00	5.39
Total	**0.00**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**5.38**	**5.38**	**0.00**	**0.00**	**5.39**

3.5 Paving - 2038

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	0.21	1.25	2.49	0.00		0.04	0.04		0.04	0.04	0.00	345.32	345.32	0.02	0.00	345.67
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.21**	**1.25**	**2.49**	**0.00**		**0.04**	**0.04**		**0.04**	**0.04**	**0.00**	**345.32**	**345.32**	**0.02**	**0.00**	**345.67**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.04	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	13.01	13.01	0.00	0.00	13.02
Total	**0.00**	**0.00**	**0.04**	**0.00**	**0.02**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**13.01**	**13.01**	**0.00**	**0.00**	**13.02**

3.5 Paving - 2038

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	0.21	1.25	2.49	0.00		0.04	0.04		0.04	0.04	0.00	345.32	345.32	0.02	0.00	345.67
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.21**	**1.25**	**2.49**	**0.00**		**0.04**	**0.04**		**0.04**	**0.04**	**0.00**	**345.32**	**345.32**	**0.02**	**0.00**	**345.67**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.01	13.01	0.00	0.00	13.02
Total	**0.00**	**0.00**	**0.04**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**13.01**	**13.01**	**0.00**	**0.00**	**13.02**

3.5 Paving - 2039

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	0.05	0.30	0.60	0.00		0.01	0.01		0.01	0.01	0.00	83.35	83.35	0.00	0.00	83.44
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.05**	**0.30**	**0.60**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**83.35**	**83.35**	**0.00**	**0.00**	**83.44**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	3.14	3.14	0.00	0.00	3.14
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**3.14**	**3.14**	**0.00**	**0.00**	**3.14**

3.5 Paving - 2039

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	0.05	0.30	0.60	0.00		0.01	0.01		0.01	0.01	0.00	83.35	83.35	0.00	0.00	83.44
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.05**	**0.30**	**0.60**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**83.35**	**83.35**	**0.00**	**0.00**	**83.44**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.14	3.14	0.00	0.00	3.14
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**3.14**	**3.14**	**0.00**	**0.00**	**3.14**

3.6 Architectural Coating - 2039

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	283.99					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.07	0.18	0.00		0.00	0.00		0.00	0.00	0.00	25.12	25.12	0.00	0.00	25.14
Total	**284.00**	**0.07**	**0.18**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**25.12**	**25.12**	**0.00**	**0.00**	**25.14**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	1.06	0.84	9.58	0.04	5.01	0.21	5.22	0.08	0.19	0.27	0.00	2,921.52	2,921.52	0.10	0.00	2,923.58
Total	**1.06**	**0.84**	**9.58**	**0.04**	**5.01**	**0.21**	**5.22**	**0.08**	**0.19**	**0.27**	**0.00**	**2,921.52**	**2,921.52**	**0.10**	**0.00**	**2,923.58**

3.6 Architectural Coating - 2039

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	283.99					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.07	0.18	0.00		0.00	0.00		0.00	0.00	0.00	25.12	25.12	0.00	0.00	25.14
Total	**284.00**	**0.07**	**0.18**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**25.12**	**25.12**	**0.00**	**0.00**	**25.14**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	1.06	0.84	9.58	0.04	0.21	0.21	0.42	0.08	0.19	0.27	0.00	2,921.52	2,921.52	0.10	0.00	2,923.58
Total	**1.06**	**0.84**	**9.58**	**0.04**	**0.21**	**0.21**	**0.42**	**0.08**	**0.19**	**0.27**	**0.00**	**2,921.52**	**2,921.52**	**0.10**	**0.00**	**2,923.58**

3.6 Architectural Coating - 2040

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	338.77					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.09	0.21	0.00		0.00	0.00		0.00	0.00	0.00	29.97	29.97	0.00	0.00	29.99
Total	**338.78**	**0.09**	**0.21**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**29.97**	**29.97**	**0.00**	**0.00**	**29.99**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	1.14	0.90	10.46	0.05	5.98	0.24	6.22	0.09	0.23	0.32	0.00	3,431.94	3,431.94	0.11	0.00	3,434.22
Total	**1.14**	**0.90**	**10.46**	**0.05**	**5.98**	**0.24**	**6.22**	**0.09**	**0.23**	**0.32**	**0.00**	**3,431.94**	**3,431.94**	**0.11**	**0.00**	**3,434.22**

3.6 Architectural Coating - 2040

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	338.77					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.09	0.21	0.00		0.00	0.00		0.00	0.00	0.00	29.97	29.97	0.00	0.00	29.99
Total	**338.78**	**0.09**	**0.21**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**29.97**	**29.97**	**0.00**	**0.00**	**29.99**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	1.14	0.90	10.46	0.05	0.26	0.24	0.50	0.09	0.23	0.32	0.00	3,431.94	3,431.94	0.11	0.00	3,434.22
Total	**1.14**	**0.90**	**10.46**	**0.05**	**0.26**	**0.24**	**0.50**	**0.09**	**0.23**	**0.32**	**0.00**	**3,431.94**	**3,431.94**	**0.11**	**0.00**	**3,434.22**

4.0 Mobile Detail

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	330.84	640.53	2,985.85	6.16	625.02	34.57	659.59	9.99	33.33	43.32	0.00	467,975.31	467,975.31	21.34	0.00	468,423.54
Unmitigated	330.84	640.53	2,985.85	6.16	625.02	34.57	659.59	9.99	33.33	43.32	0.00	467,975.31	467,975.31	21.34	0.00	468,423.54
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	107,160.00	107,160.00	107160.00	305,974,308	305,974,308
City Park	6,559.80	6,559.80	6559.80	14,004,207	14,004,207
General Light Industry	178,951.45	178,951.45	178951.45	522,450,751	522,450,751
Government Office Building	64,900.04	64,900.04	64900.04	111,295,816	111,295,816
Single Family Housing	14,784.78	14,784.78	14784.78	42,215,032	42,215,032
Strip Mall	125,316.36	125,316.36	125316.36	192,991,340	192,991,340
Total	497,672.44	497,672.44	497,672.44	1,188,931,453	1,188,931,453

4.3 Trip Type Information

	Miles			Trip %		
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
Apartments Mid Rise	10.80	7.30	7.50	41.60	18.80	39.60
City Park	9.50	7.30	7.30	33.00	48.00	19.00
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00
Government Office Building	9.50	7.30	7.30	33.00	62.00	5.00
Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00

5.0 Energy Detail

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						0.00	0.00		0.00	0.00	0.00	152,460.36	152,460.36	5.66	2.15	153,245.12
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	152,460.36	152,460.36	5.66	2.15	153,245.12
NaturalGas Mitigated	3.80	33.94	24.30	0.21		0.00	2.63		0.00	2.63	0.00	37,647.30	37,647.30	0.72	0.69	37,876.42
NaturalGas Unmitigated	3.80	33.94	24.30	0.21		0.00	2.63		0.00	2.63	0.00	37,647.30	37,647.30	0.72	0.69	37,876.42
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	tons/yr										MT/yr					
Apartments Mid Rise	1.49805e+008	0.81	6.90	2.94	0.04		0.00	0.56		0.00	0.56	0.00	7,994.16	7,994.16	0.15	0.15	8,042.82
City Park	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
General Light Industry	2.39838e+008	1.29	11.76	9.88	0.07		0.00	0.89		0.00	0.89	0.00	12,798.66	12,798.66	0.25	0.23	12,876.55
Government Office Building	2.41174e+008	1.30	11.82	9.93	0.07		0.00	0.90		0.00	0.90	0.00	12,869.98	12,869.98	0.25	0.24	12,948.30
Single Family Housing	7.0163e+007	0.38	3.23	1.38	0.02		0.00	0.26		0.00	0.26	0.00	3,744.17	3,744.17	0.07	0.07	3,766.95
Strip Mall	4.50362e+006	0.02	0.22	0.19	0.00		0.00	0.02		0.00	0.02	0.00	240.33	240.33	0.00	0.00	241.79
Total		**3.80**	**33.93**	**24.32**	**0.20**		**0.00**	**2.63**		**0.00**	**2.63**	**0.00**	**37,647.30**	**37,647.30**	**0.72**	**0.69**	**37,876.41**

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	tons/yr										MT/yr					
Apartments Mid Rise	1.49805e+008	0.81	6.90	2.94	0.04		0.00	0.56		0.00	0.56	0.00	7,994.16	7,994.16	0.15	0.15	8,042.82
City Park	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
General Light Industry	2.39838e+008	1.29	11.76	9.88	0.07		0.00	0.89		0.00	0.89	0.00	12,798.66	12,798.66	0.25	0.23	12,876.55
Government Office Building	2.41174e+008	1.30	11.82	9.93	0.07		0.00	0.90		0.00	0.90	0.00	12,869.98	12,869.98	0.25	0.24	12,948.30
Single Family Housing	7.0163e+007	0.38	3.23	1.38	0.02		0.00	0.26		0.00	0.26	0.00	3,744.17	3,744.17	0.07	0.07	3,766.95
Strip Mall	4.50362e+006	0.02	0.22	0.19	0.00		0.00	0.02		0.00	0.02	0.00	240.33	240.33	0.00	0.00	241.79
Total		**3.80**	**33.93**	**24.32**	**0.20**		**0.00**	**2.63**		**0.00**	**2.63**	**0.00**	**37,647.30**	**37,647.30**	**0.72**	**0.69**	**37,876.41**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Apartments Mid Rise	4.76622e+007					16,880.07	0.63	0.24	16,966.96
City Park	0					0.00	0.00	0.00	0.00
General Light Industry	1.8305e+008					64,828.91	2.41	0.91	65,162.61
Government Office Building	1.61124e+008					57,063.77	2.12	0.80	57,357.50
Single Family Housing	1.10097e+007					3,899.19	0.14	0.05	3,919.26
Strip Mall	2.76384e+007					9,788.42	0.36	0.14	9,838.80
Total						**152,460.36**	**5.66**	**2.14**	**153,245.13**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Apartments Mid Rise	4.76622e+007					16,880.07	0.63	0.24	16,966.96
City Park	0					0.00	0.00	0.00	0.00
General Light Industry	1.8305e+008					64,828.91	2.41	0.91	65,162.61
Government Office Building	1.61124e+008					57,063.77	2.12	0.80	57,357.50
Single Family Housing	1.10097e+007					3,899.19	0.14	0.05	3,919.26
Strip Mall	2.76384e+007					9,788.42	0.36	0.14	9,838.80
Total						**152,460.36**	**5.66**	**2.14**	**153,245.13**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1,200.71	14.14	1,279.02	0.46		0.00	165.27		0.00	165.25	15,573.90	19,779.35	35,353.25	14.80	1.46	36,118.10
Unmitigated	1,200.71	14.14	1,279.02	0.46		0.00	165.27		0.00	165.25	15,573.90	19,779.35	35,353.25	14.80	1.46	36,118.10
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	62.28					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	187.63					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	947.34	12.84	1,165.47	0.46		0.00	164.64		0.00	164.63	15,573.90	19,594.40	35,168.31	14.62	1.46	35,929.37
Landscaping	3.46	1.31	113.55	0.01		0.00	0.62		0.00	0.62	0.00	184.94	184.94	0.18	0.00	188.73
Total	**1,200.71**	**14.15**	**1,279.02**	**0.47**		**0.00**	**165.26**		**0.00**	**165.25**	**15,573.90**	**19,779.34**	**35,353.25**	**14.80**	**1.46**	**36,118.10**

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	62.28					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	187.63					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	947.34	12.84	1,165.47	0.46		0.00	164.64		0.00	164.63	15,573.90	19,594.40	35,168.31	14.62	1.46	35,929.37
Landscaping	3.46	1.31	113.55	0.01		0.00	0.62		0.00	0.62	0.00	184.94	184.94	0.18	0.00	188.73
Total	**1,200.71**	**14.15**	**1,279.02**	**0.47**		**0.00**	**165.26**		**0.00**	**165.25**	**15,573.90**	**19,779.34**	**35,353.25**	**14.80**	**1.46**	**36,118.10**

7.0 Water Detail

7.1 Mitigation Measures Water

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					466,504.56	3,042.51	81.58	555,687.40
Unmitigated					466,504.56	3,042.51	81.58	555,687.40
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Apartments Mid Rise	872.738 / 550.205					6,199.34	26.87	0.75	6,995.44
City Park	0 / 172.765					679.78	0.03	0.01	683.28
General Light Industry	95953.6 / 0					443,568.26	2,945.37	78.87	529,871.00
Government Office Building	2033.6 / 1246.4					14,305.04	62.61	1.74	16,159.34
Single Family Housing	109.589 / 69.0888					778.45	3.37	0.09	878.41
Strip Mall	138.421 / 84.8386					973.70	4.26	0.12	1,099.92
Total						**466,504.57**	**3,042.51**	**81.58**	**555,687.39**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Apartments Mid Rise	872.738 / 550.205					6,199.34	26.87	0.75	6,995.44
City Park	0 / 172.765					679.78	0.03	0.01	683.28
General Light Industry	95953.6 / 0					443,568.26	2,945.37	78.87	529,871.00
Government Office Building	2033.6 / 1246.4					14,305.04	62.61	1.74	16,159.34
Single Family Housing	109.589 / 69.0888					778.45	3.37	0.09	878.41
Strip Mall	138.421 / 84.8386					973.70	4.26	0.12	1,099.92
Total						**466,504.57**	**3,042.51**	**81.58**	**555,687.39**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					234,450.53	13,855.63	0.00	525,418.74
Unmitigated					234,450.53	13,855.63	0.00	525,418.74
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Apartments Mid Rise	6161.7					1,250.77	73.92	0.00	2,803.05
City Park	12.47					2.53	0.15	0.00	5.67
General Light Industry	1.13535e+006					230,466.04	13,620.15	0.00	516,489.25
Government Office Building	9520.04					1,932.48	114.21	0.00	4,330.82
Single Family Housing	1972.51					400.40	23.66	0.00	897.33
Strip Mall	1962.16					398.30	23.54	0.00	892.62
Total						**234,450.52**	**13,855.63**	**0.00**	**525,418.74**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Apartments Mid Rise	6161.7					1,250.77	73.92	0.00	2,803.05
City Park	12.47					2.53	0.15	0.00	5.67
General Light Industry	1.13535e+006					230,466.04	13,620.15	0.00	516,489.25
Government Office Building	9520.04					1,932.48	114.21	0.00	4,330.82
Single Family Housing	1972.51					400.40	23.66	0.00	897.33
Strip Mall	1962.16					398.30	23.54	0.00	892.62
Total						**234,450.52**	**13,855.63**	**0.00**	**525,418.74**

9.0 Vegetation

ATTACHMENT 4

CalEEMod Output – CPU Emissions with GHG Reduction Measures

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3957.1 OMCPU - New Development

San Diego County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Government Office Building	10236.6	1000sqft
General Light Industry	19514.88	1000sqft
City Park	145	Acre
Apartments Mid Rise	13395	Dwelling Unit
Single Family Housing	1682	Dwelling Unit
Strip Mall	1868.72	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Utility Company**	San Diego Gas & Electric
Climate Zone	13	**Precipitation Freq (Days)**	40		

1.3 User Entered Comments

Project Characteristics -

Land Use - New Development

Construction Phase - Defaults assumed, but adjusted to 30 year total construction length

Grading -

Vehicle Trips - Urban Systems Associates

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Woodstoves -

Energy Use -

Water Mitigation -

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					
2011	1.47	11.93	6.83	0.01	4.80	0.61	5.41	2.27	0.61	2.88	0.00	996.06	996.06	0.12	0.00	998.58
2012	1.65	13.57	7.38	0.01	2.67	0.65	3.33	1.10	0.65	1.75	0.00	1,308.72	1,308.72	0.13	0.00	1,311.54
2013	1.56	12.73	7.07	0.01	2.67	0.60	3.27	1.10	0.60	1.70	0.00	1,308.22	1,308.22	0.13	0.00	1,310.88
2014	22.23	122.56	202.80	0.40	33.27	4.85	38.13	1.64	4.50	6.14	0.00	36,569.46	36,569.46	1.68	0.00	36,604.77
2015	26.83	146.32	244.80	0.53	40.37	5.86	46.23	0.72	5.41	6.13	0.00	47,239.71	47,239.71	2.02	0.00	47,282.03
2016	25.11	136.38	226.96	0.53	40.37	5.54	45.91	0.72	5.13	5.85	0.00	46,669.36	46,669.36	1.88	0.00	46,708.80
2017	23.43	127.23	209.94	0.52	40.22	5.24	45.46	0.72	4.85	5.57	0.00	45,964.72	45,964.72	1.74	0.00	46,001.27

	ROG	NOx	CO	SO2	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					
2018	22.10	120.04	196.26	0.53	40.37	5.03	45.40	0.72	4.65	5.37	0.00	45,648.36	45,648.36	1.63	0.00	45,682.65
2019	20.94	113.51	184.05	0.53	40.37	4.82	45.19	0.72	4.46	5.18	0.00	45,201.83	45,201.83	1.54	0.00	45,234.08
2020	20.08	108.34	174.55	0.53	40.53	4.67	45.19	0.72	4.31	5.03	0.00	44,962.63	44,962.63	1.46	0.00	44,993.20
2021	19.23	103.34	166.24	0.53	40.37	4.54	44.92	0.72	4.20	4.92	0.00	44,624.39	44,624.39	1.39	0.00	44,653.65
2022	18.42	99.06	157.41	0.52	40.22	4.42	44.64	0.72	4.08	4.80	0.00	44,109.60	44,109.60	1.32	0.00	44,137.36
2023	17.74	95.75	149.92	0.52	40.22	4.33	44.55	0.72	4.00	4.72	0.00	43,794.65	43,794.65	1.27	0.00	43,821.24
2024	17.26	93.69	144.23	0.53	40.53	4.29	44.81	0.72	3.96	4.69	0.00	43,846.14	43,846.14	1.23	0.00	43,871.94
2025	16.67	91.00	138.18	0.53	40.37	4.21	44.59	0.72	3.89	4.61	0.00	43,421.58	43,421.58	1.17	0.00	43,446.20
2026	16.67	91.00	138.18	0.53	40.37	4.21	44.59	0.72	3.89	4.61	0.00	43,421.58	43,421.58	1.17	0.00	43,446.20
2027	16.67	91.00	138.18	0.53	40.37	4.21	44.59	0.72	3.89	4.61	0.00	43,421.58	43,421.58	1.17	0.00	43,446.20
2028	16.60	90.66	137.65	0.52	40.22	4.20	44.42	0.72	3.87	4.59	0.00	43,255.22	43,255.22	1.17	0.00	43,279.74
2029	16.67	91.00	138.18	0.53	40.37	4.21	44.59	0.72	3.89	4.61	0.00	43,421.58	43,421.58	1.17	0.00	43,446.20
2030	14.70	83.81	119.45	0.53	40.37	4.02	44.40	0.72	3.70	4.43	0.00	42,507.18	42,507.18	1.02	0.00	42,528.65
2031	14.70	83.81	119.45	0.53	40.37	4.02	44.40	0.72	3.70	4.43	0.00	42,507.18	42,507.18	1.02	0.00	42,528.65
2032	14.76	84.13	119.90	0.53	40.53	4.04	44.57	0.72	3.72	4.44	0.00	42,670.04	42,670.04	1.03	0.00	42,691.60
2033	14.64	83.49	118.99	0.53	40.22	4.01	44.23	0.72	3.69	4.41	0.00	42,344.32	42,344.32	1.02	0.00	42,365.71
2034	14.64	83.49	118.99	0.53	40.22	4.01	44.23	0.72	3.69	4.41	0.00	42,344.32	42,344.32	1.02	0.00	42,365.71
2035	13.39	81.02	108.68	0.53	40.37	3.93	44.30	0.72	3.62	4.34	0.00	42,043.47	42,043.47	0.93	0.00	42,063.02
2036	13.44	81.33	109.10	0.53	40.53	3.94	44.47	0.72	3.64	4.36	0.00	42,204.56	42,204.56	0.93	0.00	42,224.18
2037	7.93	48.01	64.76	0.31	23.68	2.32	25.99	0.42	2.14	2.56	0.00	24,794.45	24,794.45	0.55	0.00	24,806.05
2038	0.21	1.25	2.53	0.00	0.02	0.04	0.06	0.00	0.04	0.04	0.00	358.33	358.33	0.02	0.00	358.68

	ROG	NOx	CO	SO2	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					
2039	285.12	1.22	10.37	0.04	5.02	0.22	5.23	0.08	0.20	0.28	0.00	3,033.13	3,033.13	0.10	0.00	3,035.30
2040	339.92	0.99	10.67	0.05	5.98	0.24	6.22	0.09	0.23	0.32	0.00	3,461.91	3,461.91	0.11	0.00	3,464.21
Total	**1,054.78**	**2,391.66**	**3,671.70**	**12.45**	**965.99**	**107.28**	**1,073.32**	**22.54**	**99.21**	**121.78**	**0.00**	**1,037,454.28**	**1,037,454.28**	**31.14**	**0.00**	**1,038,108.29**

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					
2011	1.47	11.93	6.83	0.01	4.77	0.61	5.38	2.27	0.61	2.88	0.00	996.06	996.06	0.12	0.00	998.58
2012	1.65	13.57	7.38	0.01	2.64	0.65	3.30	1.10	0.65	1.75	0.00	1,308.72	1,308.72	0.13	0.00	1,311.54
2013	1.56	12.73	7.07	0.01	2.64	0.60	3.24	1.10	0.60	1.70	0.00	1,308.22	1,308.22	0.13	0.00	1,310.88
2014	22.23	122.56	202.80	0.40	4.19	4.85	9.05	1.64	4.50	6.14	0.00	36,569.46	36,569.46	1.68	0.00	36,604.77
2015	26.83	146.32	244.80	0.53	2.05	5.86	7.91	0.72	5.41	6.13	0.00	47,239.71	47,239.71	2.02	0.00	47,282.03
2016	25.11	136.38	226.96	0.53	2.05	5.54	7.59	0.72	5.13	5.85	0.00	46,669.36	46,669.36	1.88	0.00	46,708.80
2017	23.43	127.23	209.94	0.52	2.04	5.24	7.28	0.72	4.85	5.57	0.00	45,964.72	45,964.72	1.74	0.00	46,001.27
2018	22.10	120.04	196.26	0.53	2.05	5.03	7.08	0.72	4.65	5.37	0.00	45,648.36	45,648.36	1.63	0.00	45,682.65
2019	20.94	113.51	184.05	0.53	2.05	4.82	6.87	0.72	4.46	5.18	0.00	45,201.83	45,201.83	1.54	0.00	45,234.08
2020	20.08	108.34	174.55	0.53	2.06	4.67	6.72	0.72	4.31	5.03	0.00	44,962.63	44,962.63	1.46	0.00	44,993.20
2021	19.23	103.34	166.24	0.53	2.05	4.54	6.59	0.72	4.20	4.92	0.00	44,624.39	44,624.39	1.39	0.00	44,653.65

	ROG	NOx	CO	SO2	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					
2022	18.42	99.06	157.41	0.52	2.04	4.42	6.46	0.72	4.08	4.80	0.00	44,109.60	44,109.60	1.32	0.00	44,137.36
2023	17.74	95.75	149.92	0.52	2.04	4.33	6.37	0.72	4.00	4.72	0.00	43,794.65	43,794.65	1.27	0.00	43,821.24
2024	17.26	93.69	144.23	0.53	2.06	4.29	6.34	0.72	3.96	4.69	0.00	43,846.14	43,846.14	1.23	0.00	43,871.94
2025	16.67	91.00	138.18	0.53	2.05	4.21	6.26	0.72	3.89	4.61	0.00	43,421.58	43,421.58	1.17	0.00	43,446.20
2026	16.67	91.00	138.18	0.53	2.05	4.21	6.26	0.72	3.89	4.61	0.00	43,421.58	43,421.58	1.17	0.00	43,446.20
2027	16.67	91.00	138.18	0.53	2.05	4.21	6.26	0.72	3.89	4.61	0.00	43,421.58	43,421.58	1.17	0.00	43,446.20
2028	16.60	90.66	137.65	0.52	2.04	4.20	6.24	0.72	3.87	4.59	0.00	43,255.22	43,255.22	1.17	0.00	43,279.74
2029	16.67	91.00	138.18	0.53	2.05	4.21	6.26	0.72	3.89	4.61	0.00	43,421.58	43,421.58	1.17	0.00	43,446.20
2030	14.70	83.81	119.45	0.53	2.05	4.02	6.07	0.72	3.70	4.43	0.00	42,507.18	42,507.18	1.02	0.00	42,528.65
2031	14.70	83.81	119.45	0.53	2.05	4.02	6.07	0.72	3.70	4.43	0.00	42,507.18	42,507.18	1.02	0.00	42,528.65
2032	14.76	84.13	119.90	0.53	2.06	4.04	6.10	0.72	3.72	4.44	0.00	42,670.04	42,670.04	1.03	0.00	42,691.60
2033	14.64	83.49	118.99	0.53	2.04	4.01	6.05	0.72	3.69	4.41	0.00	42,344.32	42,344.32	1.02	0.00	42,365.71
2034	14.64	83.49	118.99	0.53	2.04	4.01	6.05	0.72	3.69	4.41	0.00	42,344.32	42,344.32	1.02	0.00	42,365.71
2035	13.39	81.02	108.68	0.53	2.05	3.93	5.98	0.72	3.62	4.34	0.00	42,043.47	42,043.47	0.93	0.00	42,063.02
2036	13.44	81.33	109.10	0.53	2.06	3.94	6.00	0.72	3.64	4.36	0.00	42,204.56	42,204.56	0.93	0.00	42,224.18
2037	7.93	48.01	64.76	0.31	1.20	2.32	3.52	0.42	2.14	2.56	0.00	24,794.45	24,794.45	0.55	0.00	24,806.05
2038	0.21	1.25	2.53	0.00	0.00	0.04	0.04	0.00	0.04	0.04	0.00	358.33	358.33	0.02	0.00	358.68
2039	285.12	1.22	10.37	0.04	0.21	0.22	0.43	0.08	0.20	0.28	0.00	3,033.13	3,033.13	0.10	0.00	3,035.30
2040	339.92	0.99	10.67	0.05	0.26	0.24	0.50	0.09	0.23	0.32	0.00	3,461.91	3,461.91	0.11	0.00	3,464.21
Total	**1,054.78**	**2,391.66**	**3,671.70**	**12.45**	**60.99**	**107.28**	**168.27**	**22.54**	**99.21**	**121.78**	**0.00**	**1,037,454.28**	**1,037,454.28**	**31.14**	**0.00**	**1,038,108.29**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1,200.71	14.14	1,279.02	0.46		0.00	165.27		0.00	165.25	15,573.90	19,779.35	35,353.25	14.80	1.46	36,118.10
Energy	3.53	31.50	22.54	0.19		0.00	2.44		0.00	2.44	0.00	181,153.37	181,153.37	6.10	2.70	182,118.63
Mobile	330.84	640.53	2,985.85	6.16	625.02	34.57	659.59	9.99	33.33	43.32	0.00	467,975.31	467,975.31	21.34	0.00	468,423.54
Waste						0.00	0.00		0.00	0.00	234,450.53	0.00	234,450.53	13,855.63	0.00	525,418.74
Water						0.00	0.00		0.00	0.00	0.00	466,504.56	466,504.56	3,042.51	81.58	555,687.40
Total	**1,535.08**	**686.17**	**4,287.41**	**6.81**	**625.02**	**34.57**	**827.30**	**9.99**	**33.33**	**211.01**	**250,024.43**	**1,135,412.59**	**1,385,437.02**	**16,940.38**	**85.74**	**1,767,766.41**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1,200.71	14.14	1,279.02	0.46		0.00	165.27		0.00	165.25	15,573.90	19,779.35	35,353.25	14.80	1.46	36,118.10
Energy	3.53	31.50	22.54	0.19		0.00	2.44		0.00	2.44	0.00	181,153.37	181,153.37	6.10	2.70	182,118.63
Mobile	330.84	640.53	2,985.85	6.16	625.02	34.57	659.59	9.99	33.33	43.32	0.00	467,975.31	467,975.31	21.34	0.00	468,423.54
Waste						0.00	0.00		0.00	0.00	234,450.53	0.00	234,450.53	13,855.63	0.00	525,418.74
Water						0.00	0.00		0.00	0.00	0.00	373,203.65	373,203.65	2,434.00	65.27	444,549.92
Total	**1,535.08**	**686.17**	**4,287.41**	**6.81**	**625.02**	**34.57**	**827.30**	**9.99**	**33.33**	**211.01**	**250,024.43**	**1,042,111.68**	**1,292,136.11**	**16,331.87**	**69.43**	**1,656,628.93**

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2011

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					2.13	0.00	2.13	1.17	0.00	1.17	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	1.30	10.59	5.95	0.01		0.54	0.54		0.54	0.54	0.00	855.90	855.90	0.11	0.00	858.12
Total	**1.30**	**10.59**	**5.95**	**0.01**	**2.13**	**0.54**	**2.67**	**1.17**	**0.54**	**1.71**	**0.00**	**855.90**	**855.90**	**0.11**	**0.00**	**858.12**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.02	0.17	0.00	0.02	0.00	0.03	0.00	0.00	0.00	0.00	19.77	19.77	0.00	0.00	19.80
Total	**0.01**	**0.02**	**0.17**	**0.00**	**0.02**	**0.00**	**0.03**	**0.00**	**0.00**	**0.00**	**0.00**	**19.77**	**19.77**	**0.00**	**0.00**	**19.80**

3.2 Site Preparation - 2011

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					2.13	0.00	2.13	1.17	0.00	1.17	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	1.30	10.59	5.95	0.01		0.54	0.54		0.54	0.54	0.00	855.90	855.90	0.11	0.00	858.12
Total	**1.30**	**10.59**	**5.95**	**0.01**	**2.13**	**0.54**	**2.67**	**1.17**	**0.54**	**1.71**	**0.00**	**855.90**	**855.90**	**0.11**	**0.00**	**858.12**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.02	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.77	19.77	0.00	0.00	19.80
Total	**0.01**	**0.02**	**0.17**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**19.77**	**19.77**	**0.00**	**0.00**	**19.80**

3.3 Grading - 2011

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					2.64	0.00	2.64	1.10	0.00	1.10	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.16	1.33	0.69	0.00		0.07	0.07		0.07	0.07	0.00	118.16	118.16	0.01	0.00	118.43
Total	**0.16**	**1.33**	**0.69**	**0.00**	**2.64**	**0.07**	**2.71**	**1.10**	**0.07**	**1.17**	**0.00**	**118.16**	**118.16**	**0.01**	**0.00**	**118.43**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.23	2.23	0.00	0.00	2.24
Total	**0.00**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.23**	**2.23**	**0.00**	**0.00**	**2.24**

3.3 Grading - 2011

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					2.64	0.00	2.64	1.10	0.00	1.10	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.16	1.33	0.69	0.00		0.07	0.07		0.07	0.07	0.00	118.16	118.16	0.01	0.00	118.43
Total	**0.16**	**1.33**	**0.69**	**0.00**	**2.64**	**0.07**	**2.71**	**1.10**	**0.07**	**1.17**	**0.00**	**118.16**	**118.16**	**0.01**	**0.00**	**118.43**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.23	2.23	0.00	0.00	2.24
Total	**0.00**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.23**	**2.23**	**0.00**	**0.00**	**2.24**

3.3 Grading - 2012

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					2.64	0.00	2.64	1.10	0.00	1.10	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	1.63	13.55	7.19	0.01		0.65	0.65		0.65	0.65	0.00	1,284.94	1,284.94	0.13	0.00	1,287.73
Total	**1.63**	**13.55**	**7.19**	**0.01**	**2.64**	**0.65**	**3.29**	**1.10**	**0.65**	**1.75**	**0.00**	**1,284.94**	**1,284.94**	**0.13**	**0.00**	**1,287.73**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.02	0.02	0.19	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	23.77	23.77	0.00	0.00	23.81
Total	**0.02**	**0.02**	**0.19**	**0.00**	**0.03**	**0.00**	**0.03**	**0.00**	**0.00**	**0.00**	**0.00**	**23.77**	**23.77**	**0.00**	**0.00**	**23.81**

3.3 Grading - 2012

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					2.64	0.00	2.64	1.10	0.00	1.10	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	1.63	13.55	7.19	0.01		0.65	0.65		0.65	0.65	0.00	1,284.94	1,284.94	0.13	0.00	1,287.73
Total	**1.63**	**13.55**	**7.19**	**0.01**	**2.64**	**0.65**	**3.29**	**1.10**	**0.65**	**1.75**	**0.00**	**1,284.94**	**1,284.94**	**0.13**	**0.00**	**1,287.73**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.02	0.02	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.77	23.77	0.00	0.00	23.81
Total	**0.02**	**0.02**	**0.19**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**23.77**	**23.77**	**0.00**	**0.00**	**23.81**

3.3 Grading - 2013

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					2.64	0.00	2.64	1.10	0.00	1.10	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	1.55	12.72	6.89	0.01		0.60	0.60		0.60	0.60	0.00	1,284.94	1,284.94	0.13	0.00	1,287.58
Total	**1.55**	**12.72**	**6.89**	**0.01**	**2.64**	**0.60**	**3.24**	**1.10**	**0.60**	**1.70**	**0.00**	**1,284.94**	**1,284.94**	**0.13**	**0.00**	**1,287.58**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.02	0.02	0.17	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	23.27	23.27	0.00	0.00	23.30
Total	**0.02**	**0.02**	**0.17**	**0.00**	**0.03**	**0.00**	**0.03**	**0.00**	**0.00**	**0.00**	**0.00**	**23.27**	**23.27**	**0.00**	**0.00**	**23.30**

3.3 Grading - 2013

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					2.64	0.00	2.64	1.10	0.00	1.10	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	1.55	12.72	6.89	0.01		0.60	0.60		0.60	0.60	0.00	1,284.94	1,284.94	0.13	0.00	1,287.58
Total	**1.55**	**12.72**	**6.89**	**0.01**	**2.64**	**0.60**	**3.24**	**1.10**	**0.60**	**1.70**	**0.00**	**1,284.94**	**1,284.94**	**0.13**	**0.00**	**1,287.58**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.02	0.02	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.27	23.27	0.00	0.00	23.30
Total	**0.02**	**0.02**	**0.17**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**23.27**	**23.27**	**0.00**	**0.00**	**23.30**

3.3 Grading - 2014

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					2.64	0.00	2.64	1.10	0.00	1.10	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.35	2.85	1.60	0.00		0.13	0.13		0.13	0.13	0.00	310.16	310.16	0.03	0.00	310.76
Total	**0.35**	**2.85**	**1.60**	**0.00**	**2.64**	**0.13**	**2.77**	**1.10**	**0.13**	**1.23**	**0.00**	**310.16**	**310.16**	**0.03**	**0.00**	**310.76**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.04	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	5.50	5.50	0.00	0.00	5.51
Total	**0.00**	**0.00**	**0.04**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**5.50**	**5.50**	**0.00**	**0.00**	**5.51**

3.3 Grading - 2014

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					2.64	0.00	2.64	1.10	0.00	1.10	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.35	2.85	1.60	0.00		0.13	0.13		0.13	0.13	0.00	310.16	310.16	0.03	0.00	310.76
Total	**0.35**	**2.85**	**1.60**	**0.00**	**2.64**	**0.13**	**2.77**	**1.10**	**0.13**	**1.23**	**0.00**	**310.16**	**310.16**	**0.03**	**0.00**	**310.76**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.50	5.50	0.00	0.00	5.51
Total	**0.00**	**0.00**	**0.04**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**5.50**	**5.50**	**0.00**	**0.00**	**5.51**

3.4 Building Construction - 2014

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	0.47	3.17	2.30	0.00		0.20	0.20		0.20	0.20	0.00	362.79	362.79	0.04	0.00	363.59
Total	**0.47**	**3.17**	**2.30**	**0.00**		**0.20**	**0.20**		**0.20**	**0.20**	**0.00**	**362.79**	**362.79**	**0.04**	**0.00**	**363.59**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	9.34	103.01	66.17	0.18	5.44	3.52	8.96	0.16	3.24	3.40	0.00	16,604.60	16,604.60	0.42	0.00	16,613.38
Worker	12.07	13.51	132.70	0.22	25.19	1.00	26.19	0.39	0.93	1.32	0.00	19,286.40	19,286.40	1.20	0.00	19,311.53
Total	**21.41**	**116.52**	**198.87**	**0.40**	**30.63**	**4.52**	**35.15**	**0.55**	**4.17**	**4.72**	**0.00**	**35,891.00**	**35,891.00**	**1.62**	**0.00**	**35,924.91**

3.4 Building Construction - 2014

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	0.47	3.17	2.30	0.00		0.20	0.20		0.20	0.20	0.00	362.79	362.79	0.04	0.00	363.59
Total	**0.47**	**3.17**	**2.30**	**0.00**		**0.20**	**0.20**		**0.20**	**0.20**	**0.00**	**362.79**	**362.79**	**0.04**	**0.00**	**363.59**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	9.34	103.01	66.17	0.18	0.48	3.52	4.00	0.16	3.24	3.40	0.00	16,604.60	16,604.60	0.42	0.00	16,613.38
Worker	12.07	13.51	132.70	0.22	1.08	1.00	2.08	0.39	0.93	1.32	0.00	19,286.40	19,286.40	1.20	0.00	19,311.53
Total	**21.41**	**116.52**	**198.87**	**0.40**	**1.56**	**4.52**	**6.08**	**0.55**	**4.17**	**4.72**	**0.00**	**35,891.00**	**35,891.00**	**1.62**	**0.00**	**35,924.91**

3.4 Building Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.57	3.80	3.00	0.01		0.23	0.23		0.23	0.23	0.00	478.23	478.23	0.05	0.00	479.20
Total	**0.57**	**3.80**	**3.00**	**0.01**		**0.23**	**0.23**		**0.23**	**0.23**	**0.00**	**478.23**	**478.23**	**0.05**	**0.00**	**479.20**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	11.39	126.17	80.83	0.23	7.17	4.30	11.46	0.21	3.95	4.16	0.00	21,918.16	21,918.16	0.51	0.00	21,928.85
Worker	14.88	16.35	160.98	0.29	33.20	1.33	34.53	0.51	1.22	1.74	0.00	24,843.32	24,843.32	1.46	0.00	24,873.97
Total	**26.27**	**142.52**	**241.81**	**0.52**	**40.37**	**5.63**	**45.99**	**0.72**	**5.17**	**5.90**	**0.00**	**46,761.48**	**46,761.48**	**1.97**	**0.00**	**46,802.82**

3.4 Building Construction - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.57	3.80	3.00	0.01		0.23	0.23		0.23	0.23	0.00	478.23	478.23	0.05	0.00	479.20
Total	**0.57**	**3.80**	**3.00**	**0.01**		**0.23**	**0.23**		**0.23**	**0.23**	**0.00**	**478.23**	**478.23**	**0.05**	**0.00**	**479.20**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	11.39	126.17	80.83	0.23	0.63	4.30	4.92	0.21	3.95	4.16	0.00	21,918.16	21,918.16	0.51	0.00	21,928.85
Worker	14.88	16.35	160.98	0.29	1.42	1.33	2.75	0.51	1.22	1.74	0.00	24,843.32	24,843.32	1.46	0.00	24,873.97
Total	**26.27**	**142.52**	**241.81**	**0.52**	**2.05**	**5.63**	**7.67**	**0.72**	**5.17**	**5.90**	**0.00**	**46,761.48**	**46,761.48**	**1.97**	**0.00**	**46,802.82**

3.4 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.52	3.46	2.97	0.01		0.21	0.21		0.21	0.21	0.00	478.23	478.23	0.04	0.00	479.11
Total	**0.52**	**3.46**	**2.97**	**0.01**		**0.21**	**0.21**		**0.21**	**0.21**	**0.00**	**478.23**	**478.23**	**0.04**	**0.00**	**479.11**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	10.62	117.86	75.44	0.23	7.17	4.01	11.17	0.21	3.69	3.90	0.00	21,947.04	21,947.04	0.47	0.00	21,956.99
Worker	13.96	15.06	148.54	0.29	33.20	1.33	34.53	0.51	1.23	1.74	0.00	24,244.09	24,244.09	1.36	0.00	24,272.70
Total	**24.58**	**132.92**	**223.98**	**0.52**	**40.37**	**5.34**	**45.70**	**0.72**	**4.92**	**5.64**	**0.00**	**46,191.13**	**46,191.13**	**1.83**	**0.00**	**46,229.69**

3.4 Building Construction - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.52	3.46	2.97	0.01		0.21	0.21		0.21	0.21	0.00	478.23	478.23	0.04	0.00	479.11
Total	**0.52**	**3.46**	**2.97**	**0.01**		**0.21**	**0.21**		**0.21**	**0.21**	**0.00**	**478.23**	**478.23**	**0.04**	**0.00**	**479.11**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	10.62	117.86	75.44	0.23	0.63	4.01	4.63	0.21	3.69	3.90	0.00	21,947.04	21,947.04	0.47	0.00	21,956.99
Worker	13.96	15.06	148.54	0.29	1.42	1.33	2.75	0.51	1.23	1.74	0.00	24,244.09	24,244.09	1.36	0.00	24,272.70
Total	**24.58**	**132.92**	**223.98**	**0.52**	**2.05**	**5.34**	**7.38**	**0.72**	**4.92**	**5.64**	**0.00**	**46,191.13**	**46,191.13**	**1.83**	**0.00**	**46,229.69**

3.4 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	0.48	3.13	2.94	0.01		0.18	0.18		0.18	0.18	0.00	476.40	476.40	0.04	0.00	477.20
Total	**0.48**	**3.13**	**2.94**	**0.01**		**0.18**	**0.18**		**0.18**	**0.18**	**0.00**	**476.40**	**476.40**	**0.04**	**0.00**	**477.20**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	9.91	110.27	70.61	0.23	7.14	3.74	10.88	0.21	3.44	3.65	0.00	21,888.36	21,888.36	0.44	0.00	21,897.63
Worker	13.05	13.83	136.39	0.29	33.08	1.32	34.40	0.51	1.23	1.74	0.00	23,599.96	23,599.96	1.26	0.00	23,626.44
Total	**22.96**	**124.10**	**207.00**	**0.52**	**40.22**	**5.06**	**45.28**	**0.72**	**4.67**	**5.39**	**0.00**	**45,488.32**	**45,488.32**	**1.70**	**0.00**	**45,524.07**

3.4 Building Construction - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.48	3.13	2.94	0.01		0.18	0.18		0.18	0.18	0.00	476.40	476.40	0.04	0.00	477.20
Total	**0.48**	**3.13**	**2.94**	**0.01**		**0.18**	**0.18**		**0.18**	**0.18**	**0.00**	**476.40**	**476.40**	**0.04**	**0.00**	**477.20**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	9.91	110.27	70.61	0.23	0.62	3.74	4.37	0.21	3.44	3.65	0.00	21,888.36	21,888.36	0.44	0.00	21,897.63
Worker	13.05	13.83	136.39	0.29	1.42	1.32	2.74	0.51	1.23	1.74	0.00	23,599.96	23,599.96	1.26	0.00	23,626.44
Total	**22.96**	**124.10**	**207.00**	**0.52**	**2.04**	**5.06**	**7.11**	**0.72**	**4.67**	**5.39**	**0.00**	**45,488.32**	**45,488.32**	**1.70**	**0.00**	**45,524.07**

3.4 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.44	2.84	2.93	0.01		0.16	0.16		0.16	0.16	0.00	478.23	478.23	0.04	0.00	478.97
Total	**0.44**	**2.84**	**2.93**	**0.01**		**0.16**	**0.16**		**0.16**	**0.16**	**0.00**	**478.23**	**478.23**	**0.04**	**0.00**	**478.97**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	9.35	104.41	66.88	0.23	7.17	3.55	10.71	0.21	3.26	3.47	0.00	21,995.44	21,995.44	0.41	0.00	22,004.16
Worker	12.31	12.79	126.45	0.29	33.20	1.33	34.53	0.51	1.23	1.74	0.00	23,174.69	23,174.69	1.18	0.00	23,199.53
Total	**21.66**	**117.20**	**193.33**	**0.52**	**40.37**	**4.88**	**45.24**	**0.72**	**4.49**	**5.21**	**0.00**	**45,170.13**	**45,170.13**	**1.59**	**0.00**	**45,203.69**

3.4 Building Construction - 2018

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	0.44	2.84	2.93	0.01		0.16	0.16		0.16	0.16	0.00	478.23	478.23	0.04	0.00	478.97
Total	**0.44**	**2.84**	**2.93**	**0.01**		**0.16**	**0.16**		**0.16**	**0.16**	**0.00**	**478.23**	**478.23**	**0.04**	**0.00**	**478.97**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	9.35	104.41	66.88	0.23	0.63	3.55	4.17	0.21	3.26	3.47	0.00	21,995.44	21,995.44	0.41	0.00	22,004.16
Worker	12.31	12.79	126.45	0.29	1.42	1.33	2.75	0.51	1.23	1.74	0.00	23,174.69	23,174.69	1.18	0.00	23,199.53
Total	**21.66**	**117.20**	**193.33**	**0.52**	**2.05**	**4.88**	**6.92**	**0.72**	**4.49**	**5.21**	**0.00**	**45,170.13**	**45,170.13**	**1.59**	**0.00**	**45,203.69**

3.4 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.40	2.57	2.92	0.01		0.13	0.13		0.13	0.13	0.00	478.23	478.23	0.03	0.00	478.91
Total	**0.40**	**2.57**	**2.92**	**0.01**		**0.13**	**0.13**		**0.13**	**0.13**	**0.00**	**478.23**	**478.23**	**0.03**	**0.00**	**478.91**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	8.83	99.04	63.07	0.23	7.17	3.36	10.53	0.21	3.09	3.30	0.00	22,020.15	22,020.15	0.39	0.00	22,028.36
Worker	11.72	11.89	118.06	0.29	33.20	1.32	34.53	0.51	1.23	1.74	0.00	22,703.45	22,703.45	1.11	0.00	22,726.82
Total	**20.55**	**110.93**	**181.13**	**0.52**	**40.37**	**4.68**	**45.06**	**0.72**	**4.32**	**5.04**	**0.00**	**44,723.60**	**44,723.60**	**1.50**	**0.00**	**44,755.18**

3.4 Building Construction - 2019

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	0.40	2.57	2.92	0.01		0.13	0.13		0.13	0.13	0.00	478.23	478.23	0.03	0.00	478.91
Total	**0.40**	**2.57**	**2.92**	**0.01**		**0.13**	**0.13**		**0.13**	**0.13**	**0.00**	**478.23**	**478.23**	**0.03**	**0.00**	**478.91**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	8.83	99.04	63.07	0.23	0.63	3.36	3.99	0.21	3.09	3.30	0.00	22,020.15	22,020.15	0.39	0.00	22,028.36
Worker	11.72	11.89	118.06	0.29	1.42	1.32	2.75	0.51	1.23	1.74	0.00	22,703.45	22,703.45	1.11	0.00	22,726.82
Total	**20.55**	**110.93**	**181.13**	**0.52**	**2.05**	**4.68**	**6.74**	**0.72**	**4.32**	**5.04**	**0.00**	**44,723.60**	**44,723.60**	**1.50**	**0.00**	**44,755.18**

3.4 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	0.37	2.34	2.91	0.01		0.11	0.11		0.11	0.11	0.00	480.06	480.06	0.03	0.00	480.68
Total	**0.37**	**2.34**	**2.91**	**0.01**		**0.11**	**0.11**		**0.11**	**0.11**	**0.00**	**480.06**	**480.06**	**0.03**	**0.00**	**480.68**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	8.43	94.86	60.37	0.23	7.20	3.22	10.42	0.21	2.96	3.17	0.00	22,125.34	22,125.34	0.37	0.00	22,133.14
Worker	11.29	11.14	111.27	0.29	33.33	1.33	34.66	0.51	1.23	1.74	0.00	22,357.23	22,357.23	1.05	0.00	22,379.37
Total	**19.72**	**106.00**	**171.64**	**0.52**	**40.53**	**4.55**	**45.08**	**0.72**	**4.19**	**4.91**	**0.00**	**44,482.57**	**44,482.57**	**1.42**	**0.00**	**44,512.51**

3.4 Building Construction - 2020

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	0.37	2.34	2.91	0.01		0.11	0.11		0.11	0.11	0.00	480.06	480.06	0.03	0.00	480.68
Total	**0.37**	**2.34**	**2.91**	**0.01**		**0.11**	**0.11**		**0.11**	**0.11**	**0.00**	**480.06**	**480.06**	**0.03**	**0.00**	**480.68**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	8.43	94.86	60.37	0.23	0.63	3.22	3.85	0.21	2.96	3.17	0.00	22,125.34	22,125.34	0.37	0.00	22,133.14
Worker	11.29	11.14	111.27	0.29	1.43	1.33	2.76	0.51	1.23	1.74	0.00	22,357.23	22,357.23	1.05	0.00	22,379.37
Total	**19.72**	**106.00**	**171.64**	**0.52**	**2.06**	**4.55**	**6.61**	**0.72**	**4.19**	**4.91**	**0.00**	**44,482.57**	**44,482.57**	**1.42**	**0.00**	**44,512.51**

3.4 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	0.33	2.10	2.88	0.01		0.10	0.10		0.10	0.10	0.00	478.23	478.23	0.03	0.00	478.79
Total	**0.33**	**2.10**	**2.88**	**0.01**		**0.10**	**0.10**		**0.10**	**0.10**	**0.00**	**478.23**	**478.23**	**0.03**	**0.00**	**478.79**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	8.01	90.82	57.23	0.23	7.17	3.09	10.26	0.21	2.84	3.05	0.00	22,060.57	22,060.57	0.35	0.00	22,067.96
Worker	10.88	10.43	106.12	0.29	33.20	1.36	34.56	0.51	1.26	1.77	0.00	22,085.59	22,085.59	1.01	0.00	22,106.89
Total	**18.89**	**101.25**	**163.35**	**0.52**	**40.37**	**4.45**	**44.82**	**0.72**	**4.10**	**4.82**	**0.00**	**44,146.16**	**44,146.16**	**1.36**	**0.00**	**44,174.85**

3.4 Building Construction - 2021

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	0.33	2.10	2.88	0.01		0.10	0.10		0.10	0.10	0.00	478.23	478.23	0.03	0.00	478.79
Total	**0.33**	**2.10**	**2.88**	**0.01**		**0.10**	**0.10**		**0.10**	**0.10**	**0.00**	**478.23**	**478.23**	**0.03**	**0.00**	**478.79**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	8.01	90.82	57.23	0.23	0.63	3.09	3.72	0.21	2.84	3.05	0.00	22,060.57	22,060.57	0.35	0.00	22,067.96
Worker	10.88	10.43	106.12	0.29	1.42	1.36	2.78	0.51	1.26	1.77	0.00	22,085.59	22,085.59	1.01	0.00	22,106.89
Total	**18.89**	**101.25**	**163.35**	**0.52**	**2.05**	**4.45**	**6.50**	**0.72**	**4.10**	**4.82**	**0.00**	**44,146.16**	**44,146.16**	**1.36**	**0.00**	**44,174.85**

3.4 Building Construction - 2022

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	0.31	1.89	2.86	0.01		0.08	0.08		0.08	0.08	0.00	476.40	476.40	0.02	0.00	476.92
Total	**0.31**	**1.89**	**2.86**	**0.01**		**0.08**	**0.08**		**0.08**	**0.08**	**0.00**	**476.40**	**476.40**	**0.02**	**0.00**	**476.92**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	7.66	87.39	54.56	0.23	7.14	2.99	10.13	0.21	2.75	2.95	0.00	21,993.60	21,993.60	0.34	0.00	22,000.64
Worker	10.45	9.78	99.99	0.29	33.08	1.35	34.43	0.51	1.25	1.76	0.00	21,639.60	21,639.60	0.96	0.00	21,659.81
Total	**18.11**	**97.17**	**154.55**	**0.52**	**40.22**	**4.34**	**44.56**	**0.72**	**4.00**	**4.71**	**0.00**	**43,633.20**	**43,633.20**	**1.30**	**0.00**	**43,660.45**

3.4 Building Construction - 2022

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	0.31	1.89	2.86	0.01		0.08	0.08		0.08	0.08	0.00	476.40	476.40	0.02	0.00	476.92
Total	**0.31**	**1.89**	**2.86**	**0.01**		**0.08**	**0.08**		**0.08**	**0.08**	**0.00**	**476.40**	**476.40**	**0.02**	**0.00**	**476.92**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	7.66	87.39	54.56	0.23	0.63	2.99	3.61	0.21	2.75	2.95	0.00	21,993.60	21,993.60	0.34	0.00	22,000.64
Worker	10.45	9.78	99.99	0.29	1.42	1.35	2.77	0.51	1.25	1.76	0.00	21,639.60	21,639.60	0.96	0.00	21,659.81
Total	**18.11**	**97.17**	**154.55**	**0.52**	**2.05**	**4.34**	**6.38**	**0.72**	**4.00**	**4.71**	**0.00**	**43,633.20**	**43,633.20**	**1.30**	**0.00**	**43,660.45**

3.4 Building Construction - 2023

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	0.29	1.72	2.86	0.01		0.07	0.07		0.07	0.07	0.00	476.40	476.40	0.02	0.00	476.89
Total	**0.29**	**1.72**	**2.86**	**0.01**		**0.07**	**0.07**		**0.07**	**0.07**	**0.00**	**476.40**	**476.40**	**0.02**	**0.00**	**476.89**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	7.40	84.85	52.54	0.23	7.14	2.91	10.05	0.21	2.67	2.88	0.00	22,009.60	22,009.60	0.32	0.00	22,016.37
Worker	10.05	9.18	94.52	0.29	33.08	1.35	34.43	0.51	1.26	1.77	0.00	21,308.66	21,308.66	0.92	0.00	21,327.99
Total	**17.45**	**94.03**	**147.06**	**0.52**	**40.22**	**4.26**	**44.48**	**0.72**	**3.93**	**4.65**	**0.00**	**43,318.26**	**43,318.26**	**1.24**	**0.00**	**43,344.36**

3.4 Building Construction - 2023

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	0.29	1.72	2.86	0.01		0.07	0.07		0.07	0.07	0.00	476.40	476.40	0.02	0.00	476.89
Total	**0.29**	**1.72**	**2.86**	**0.01**		**0.07**	**0.07**		**0.07**	**0.07**	**0.00**	**476.40**	**476.40**	**0.02**	**0.00**	**476.89**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	7.40	84.85	52.54	0.23	0.63	2.91	3.53	0.21	2.67	2.88	0.00	22,009.60	22,009.60	0.32	0.00	22,016.37
Worker	10.05	9.18	94.52	0.29	1.42	1.35	2.77	0.51	1.26	1.77	0.00	21,308.66	21,308.66	0.92	0.00	21,327.99
Total	**17.45**	**94.03**	**147.06**	**0.52**	**2.05**	**4.26**	**6.30**	**0.72**	**3.93**	**4.65**	**0.00**	**43,318.26**	**43,318.26**	**1.24**	**0.00**	**43,344.36**

3.4 Building Construction - 2024

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	0.28	1.58	2.87	0.01		0.06	0.06		0.06	0.06	0.00	480.06	480.06	0.02	0.00	480.53
Total	**0.28**	**1.58**	**2.87**	**0.01**		**0.06**	**0.06**		**0.06**	**0.06**	**0.00**	**480.06**	**480.06**	**0.02**	**0.00**	**480.53**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	7.21	83.38	50.77	0.23	7.20	2.87	10.06	0.21	2.64	2.84	0.00	22,195.44	22,195.44	0.31	0.00	22,202.04
Worker	9.78	8.73	90.58	0.29	33.33	1.36	34.70	0.51	1.27	1.78	0.00	21,170.64	21,170.64	0.89	0.00	21,189.37
Total	**16.99**	**92.11**	**141.35**	**0.52**	**40.53**	**4.23**	**44.76**	**0.72**	**3.91**	**4.62**	**0.00**	**43,366.08**	**43,366.08**	**1.20**	**0.00**	**43,391.41**

3.4 Building Construction - 2024

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	0.28	1.58	2.87	0.01		0.06	0.06		0.06	0.06	0.00	480.06	480.06	0.02	0.00	480.53
Total	**0.28**	**1.58**	**2.87**	**0.01**		**0.06**	**0.06**		**0.06**	**0.06**	**0.00**	**480.06**	**480.06**	**0.02**	**0.00**	**480.53**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	7.21	83.38	50.77	0.23	0.63	2.87	3.50	0.21	2.64	2.84	0.00	22,195.44	22,195.44	0.31	0.00	22,202.04
Worker	9.78	8.73	90.58	0.29	1.43	1.36	2.79	0.51	1.27	1.78	0.00	21,170.64	21,170.64	0.89	0.00	21,189.37
Total	**16.99**	**92.11**	**141.35**	**0.52**	**2.06**	**4.23**	**6.29**	**0.72**	**3.91**	**4.62**	**0.00**	**43,366.08**	**43,366.08**	**1.20**	**0.00**	**43,391.41**

3.4 Building Construction - 2025

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	0.26	1.44	2.86	0.01		0.05	0.05		0.05	0.05	0.00	478.23	478.23	0.02	0.00	478.66
Total	**0.26**	**1.44**	**2.86**	**0.01**		**0.05**	**0.05**		**0.05**	**0.05**	**0.00**	**478.23**	**478.23**	**0.02**	**0.00**	**478.66**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	7.00	81.32	49.11	0.23	7.17	2.80	9.97	0.21	2.57	2.78	0.00	22,122.55	22,122.55	0.30	0.00	22,128.93
Worker	9.41	8.25	86.21	0.29	33.20	1.36	34.57	0.51	1.26	1.78	0.00	20,820.80	20,820.80	0.85	0.00	20,838.61
Total	**16.41**	**89.57**	**135.32**	**0.52**	**40.37**	**4.16**	**44.54**	**0.72**	**3.83**	**4.56**	**0.00**	**42,943.35**	**42,943.35**	**1.15**	**0.00**	**42,967.54**

3.4 Building Construction - 2025

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	0.26	1.44	2.86	0.01		0.05	0.05		0.05	0.05	0.00	478.23	478.23	0.02	0.00	478.66
Total	**0.26**	**1.44**	**2.86**	**0.01**		**0.05**	**0.05**		**0.05**	**0.05**	**0.00**	**478.23**	**478.23**	**0.02**	**0.00**	**478.66**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	7.00	81.32	49.11	0.23	0.63	2.80	3.43	0.21	2.57	2.78	0.00	22,122.55	22,122.55	0.30	0.00	22,128.93
Worker	9.41	8.25	86.21	0.29	1.42	1.36	2.79	0.51	1.26	1.78	0.00	20,820.80	20,820.80	0.85	0.00	20,838.61
Total	**16.41**	**89.57**	**135.32**	**0.52**	**2.05**	**4.16**	**6.22**	**0.72**	**3.83**	**4.56**	**0.00**	**42,943.35**	**42,943.35**	**1.15**	**0.00**	**42,967.54**

3.4 Building Construction - 2026

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	0.26	1.44	2.86	0.01		0.05	0.05		0.05	0.05	0.00	478.23	478.23	0.02	0.00	478.66
Total	**0.26**	**1.44**	**2.86**	**0.01**		**0.05**	**0.05**		**0.05**	**0.05**	**0.00**	**478.23**	**478.23**	**0.02**	**0.00**	**478.66**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	7.00	81.32	49.11	0.23	7.17	2.80	9.97	0.21	2.57	2.78	0.00	22,122.55	22,122.55	0.30	0.00	22,128.93
Worker	9.41	8.25	86.21	0.29	33.20	1.36	34.57	0.51	1.26	1.78	0.00	20,820.80	20,820.80	0.85	0.00	20,838.61
Total	**16.41**	**89.57**	**135.32**	**0.52**	**40.37**	**4.16**	**44.54**	**0.72**	**3.83**	**4.56**	**0.00**	**42,943.35**	**42,943.35**	**1.15**	**0.00**	**42,967.54**

3.4 Building Construction - 2026

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	0.26	1.44	2.86	0.01		0.05	0.05		0.05	0.05	0.00	478.23	478.23	0.02	0.00	478.66
Total	**0.26**	**1.44**	**2.86**	**0.01**		**0.05**	**0.05**		**0.05**	**0.05**	**0.00**	**478.23**	**478.23**	**0.02**	**0.00**	**478.66**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	7.00	81.32	49.11	0.23	0.63	2.80	3.43	0.21	2.57	2.78	0.00	22,122.55	22,122.55	0.30	0.00	22,128.93
Worker	9.41	8.25	86.21	0.29	1.42	1.36	2.79	0.51	1.26	1.78	0.00	20,820.80	20,820.80	0.85	0.00	20,838.61
Total	**16.41**	**89.57**	**135.32**	**0.52**	**2.05**	**4.16**	**6.22**	**0.72**	**3.83**	**4.56**	**0.00**	**42,943.35**	**42,943.35**	**1.15**	**0.00**	**42,967.54**

3.4 Building Construction - 2027

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	0.26	1.44	2.86	0.01		0.05	0.05		0.05	0.05	0.00	478.23	478.23	0.02	0.00	478.66
Total	**0.26**	**1.44**	**2.86**	**0.01**		**0.05**	**0.05**		**0.05**	**0.05**	**0.00**	**478.23**	**478.23**	**0.02**	**0.00**	**478.66**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	7.00	81.32	49.11	0.23	7.17	2.80	9.97	0.21	2.57	2.78	0.00	22,122.55	22,122.55	0.30	0.00	22,128.93
Worker	9.41	8.25	86.21	0.29	33.20	1.36	34.57	0.51	1.26	1.78	0.00	20,820.80	20,820.80	0.85	0.00	20,838.61
Total	**16.41**	**89.57**	**135.32**	**0.52**	**40.37**	**4.16**	**44.54**	**0.72**	**3.83**	**4.56**	**0.00**	**42,943.35**	**42,943.35**	**1.15**	**0.00**	**42,967.54**

3.4 Building Construction - 2027

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	0.26	1.44	2.86	0.01		0.05	0.05		0.05	0.05	0.00	478.23	478.23	0.02	0.00	478.66
Total	**0.26**	**1.44**	**2.86**	**0.01**		**0.05**	**0.05**		**0.05**	**0.05**	**0.00**	**478.23**	**478.23**	**0.02**	**0.00**	**478.66**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	7.00	81.32	49.11	0.23	0.63	2.80	3.43	0.21	2.57	2.78	0.00	22,122.55	22,122.55	0.30	0.00	22,128.93
Worker	9.41	8.25	86.21	0.29	1.42	1.36	2.79	0.51	1.26	1.78	0.00	20,820.80	20,820.80	0.85	0.00	20,838.61
Total	**16.41**	**89.57**	**135.32**	**0.52**	**2.05**	**4.16**	**6.22**	**0.72**	**3.83**	**4.56**	**0.00**	**42,943.35**	**42,943.35**	**1.15**	**0.00**	**42,967.54**

3.4 Building Construction - 2028

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	0.26	1.44	2.85	0.01		0.05	0.05		0.05	0.05	0.00	476.40	476.40	0.02	0.00	476.83
Total	**0.26**	**1.44**	**2.85**	**0.01**		**0.05**	**0.05**		**0.05**	**0.05**	**0.00**	**476.40**	**476.40**	**0.02**	**0.00**	**476.83**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	6.97	81.01	48.92	0.23	7.14	2.79	9.93	0.21	2.56	2.77	0.00	22,037.79	22,037.79	0.30	0.00	22,044.15
Worker	9.38	8.21	85.88	0.29	33.08	1.36	34.44	0.51	1.26	1.77	0.00	20,741.03	20,741.03	0.84	0.00	20,758.77
Total	**16.35**	**89.22**	**134.80**	**0.52**	**40.22**	**4.15**	**44.37**	**0.72**	**3.82**	**4.54**	**0.00**	**42,778.82**	**42,778.82**	**1.14**	**0.00**	**42,802.92**

3.4 Building Construction - 2028

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	0.26	1.44	2.85	0.01		0.05	0.05		0.05	0.05	0.00	476.40	476.40	0.02	0.00	476.83
Total	**0.26**	**1.44**	**2.85**	**0.01**		**0.05**	**0.05**		**0.05**	**0.05**	**0.00**	**476.40**	**476.40**	**0.02**	**0.00**	**476.83**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	6.97	81.01	48.92	0.23	0.63	2.79	3.41	0.21	2.56	2.77	0.00	22,037.79	22,037.79	0.30	0.00	22,044.15
Worker	9.38	8.21	85.88	0.29	1.42	1.36	2.77	0.51	1.26	1.77	0.00	20,741.03	20,741.03	0.84	0.00	20,758.77
Total	**16.35**	**89.22**	**134.80**	**0.52**	**2.05**	**4.15**	**6.18**	**0.72**	**3.82**	**4.54**	**0.00**	**42,778.82**	**42,778.82**	**1.14**	**0.00**	**42,802.92**

3.4 Building Construction - 2029

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	0.26	1.44	2.86	0.01		0.05	0.05		0.05	0.05	0.00	478.23	478.23	0.02	0.00	478.66
Total	**0.26**	**1.44**	**2.86**	**0.01**		**0.05**	**0.05**		**0.05**	**0.05**	**0.00**	**478.23**	**478.23**	**0.02**	**0.00**	**478.66**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	7.00	81.32	49.11	0.23	7.17	2.80	9.97	0.21	2.57	2.78	0.00	22,122.55	22,122.55	0.30	0.00	22,128.93
Worker	9.41	8.25	86.21	0.29	33.20	1.36	34.57	0.51	1.26	1.78	0.00	20,820.80	20,820.80	0.85	0.00	20,838.61
Total	**16.41**	**89.57**	**135.32**	**0.52**	**40.37**	**4.16**	**44.54**	**0.72**	**3.83**	**4.56**	**0.00**	**42,943.35**	**42,943.35**	**1.15**	**0.00**	**42,967.54**

3.4 Building Construction - 2029

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	0.26	1.44	2.86	0.01		0.05	0.05		0.05	0.05	0.00	478.23	478.23	0.02	0.00	478.66
Total	**0.26**	**1.44**	**2.86**	**0.01**		**0.05**	**0.05**		**0.05**	**0.05**	**0.00**	**478.23**	**478.23**	**0.02**	**0.00**	**478.66**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	7.00	81.32	49.11	0.23	0.63	2.80	3.43	0.21	2.57	2.78	0.00	22,122.55	22,122.55	0.30	0.00	22,128.93
Worker	9.41	8.25	86.21	0.29	1.42	1.36	2.79	0.51	1.26	1.78	0.00	20,820.80	20,820.80	0.85	0.00	20,838.61
Total	**16.41**	**89.57**	**135.32**	**0.52**	**2.05**	**4.16**	**6.22**	**0.72**	**3.83**	**4.56**	**0.00**	**42,943.35**	**42,943.35**	**1.15**	**0.00**	**42,967.54**

3.4 Building Construction - 2030

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	0.22	1.05	2.85	0.01		0.02	0.02		0.02	0.02	0.00	478.23	478.23	0.02	0.00	478.60
Total	**0.22**	**1.05**	**2.85**	**0.01**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**478.23**	**478.23**	**0.02**	**0.00**	**478.60**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	6.42	76.19	44.54	0.23	7.17	2.63	9.80	0.21	2.42	2.63	0.00	22,165.51	22,165.51	0.28	0.00	22,171.32
Worker	8.06	6.57	72.06	0.29	33.20	1.37	34.58	0.51	1.26	1.78	0.00	19,863.44	19,863.44	0.73	0.00	19,878.74
Total	**14.48**	**82.76**	**116.60**	**0.52**	**40.37**	**4.00**	**44.38**	**0.72**	**3.68**	**4.41**	**0.00**	**42,028.95**	**42,028.95**	**1.01**	**0.00**	**42,050.06**

3.4 Building Construction - 2030

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	0.22	1.05	2.85	0.01		0.02	0.02		0.02	0.02	0.00	478.23	478.23	0.02	0.00	478.60
Total	**0.22**	**1.05**	**2.85**	**0.01**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**478.23**	**478.23**	**0.02**	**0.00**	**478.60**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	6.42	76.19	44.54	0.23	0.63	2.63	3.26	0.21	2.42	2.63	0.00	22,165.51	22,165.51	0.28	0.00	22,171.32
Worker	8.06	6.57	72.06	0.29	1.42	1.37	2.79	0.51	1.26	1.78	0.00	19,863.44	19,863.44	0.73	0.00	19,878.74
Total	**14.48**	**82.76**	**116.60**	**0.52**	**2.05**	**4.00**	**6.05**	**0.72**	**3.68**	**4.41**	**0.00**	**42,028.95**	**42,028.95**	**1.01**	**0.00**	**42,050.06**

3.4 Building Construction - 2031

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	0.22	1.05	2.85	0.01		0.02	0.02		0.02	0.02	0.00	478.23	478.23	0.02	0.00	478.60
Total	**0.22**	**1.05**	**2.85**	**0.01**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**478.23**	**478.23**	**0.02**	**0.00**	**478.60**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	6.42	76.19	44.54	0.23	7.17	2.63	9.80	0.21	2.42	2.63	0.00	22,165.51	22,165.51	0.28	0.00	22,171.32
Worker	8.06	6.57	72.06	0.29	33.20	1.37	34.58	0.51	1.26	1.78	0.00	19,863.44	19,863.44	0.73	0.00	19,878.74
Total	**14.48**	**82.76**	**116.60**	**0.52**	**40.37**	**4.00**	**44.38**	**0.72**	**3.68**	**4.41**	**0.00**	**42,028.95**	**42,028.95**	**1.01**	**0.00**	**42,050.06**

3.4 Building Construction - 2031

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	0.22	1.05	2.85	0.01		0.02	0.02		0.02	0.02	0.00	478.23	478.23	0.02	0.00	478.60
Total	**0.22**	**1.05**	**2.85**	**0.01**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**478.23**	**478.23**	**0.02**	**0.00**	**478.60**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	6.42	76.19	44.54	0.23	0.63	2.63	3.26	0.21	2.42	2.63	0.00	22,165.51	22,165.51	0.28	0.00	22,171.32
Worker	8.06	6.57	72.06	0.29	1.42	1.37	2.79	0.51	1.26	1.78	0.00	19,863.44	19,863.44	0.73	0.00	19,878.74
Total	**14.48**	**82.76**	**116.60**	**0.52**	**2.05**	**4.00**	**6.05**	**0.72**	**3.68**	**4.41**	**0.00**	**42,028.95**	**42,028.95**	**1.01**	**0.00**	**42,050.06**

3.4 Building Construction - 2032

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	0.22	1.05	2.86	0.01		0.02	0.02		0.02	0.02	0.00	480.06	480.06	0.02	0.00	480.43
Total	**0.22**	**1.05**	**2.86**	**0.01**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**480.06**	**480.06**	**0.02**	**0.00**	**480.43**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	6.44	76.48	44.71	0.23	7.20	2.64	9.83	0.21	2.43	2.64	0.00	22,250.44	22,250.44	0.28	0.00	22,256.27
Worker	8.09	6.60	72.34	0.29	33.33	1.38	34.71	0.51	1.27	1.78	0.00	19,939.55	19,939.55	0.73	0.00	19,954.90
Total	**14.53**	**83.08**	**117.05**	**0.52**	**40.53**	**4.02**	**44.54**	**0.72**	**3.70**	**4.42**	**0.00**	**42,189.99**	**42,189.99**	**1.01**	**0.00**	**42,211.17**

3.4 Building Construction - 2032

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	0.22	1.05	2.86	0.01		0.02	0.02		0.02	0.02	0.00	480.06	480.06	0.02	0.00	480.43
Total	**0.22**	**1.05**	**2.86**	**0.01**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**480.06**	**480.06**	**0.02**	**0.00**	**480.43**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	6.44	76.48	44.71	0.23	0.63	2.64	3.27	0.21	2.43	2.64	0.00	22,250.44	22,250.44	0.28	0.00	22,256.27
Worker	8.09	6.60	72.34	0.29	1.43	1.38	2.80	0.51	1.27	1.78	0.00	19,939.55	19,939.55	0.73	0.00	19,954.90
Total	**14.53**	**83.08**	**117.05**	**0.52**	**2.06**	**4.02**	**6.07**	**0.72**	**3.70**	**4.42**	**0.00**	**42,189.99**	**42,189.99**	**1.01**	**0.00**	**42,211.17**

3.4 Building Construction - 2033

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	0.22	1.05	2.84	0.01		0.02	0.02		0.02	0.02	0.00	476.40	476.40	0.02	0.00	476.76
Total	**0.22**	**1.05**	**2.84**	**0.01**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**476.40**	**476.40**	**0.02**	**0.00**	**476.76**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	6.40	75.90	44.37	0.23	7.14	2.62	9.76	0.21	2.41	2.62	0.00	22,080.58	22,080.58	0.28	0.00	22,086.37
Worker	8.03	6.55	71.78	0.29	33.08	1.37	34.44	0.51	1.26	1.77	0.00	19,787.34	19,787.34	0.73	0.00	19,802.57
Total	**14.43**	**82.45**	**116.15**	**0.52**	**40.22**	**3.99**	**44.20**	**0.72**	**3.67**	**4.39**	**0.00**	**41,867.92**	**41,867.92**	**1.01**	**0.00**	**41,888.94**

3.4 Building Construction - 2033

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	0.22	1.05	2.84	0.01		0.02	0.02		0.02	0.02	0.00	476.40	476.40	0.02	0.00	476.76
Total	**0.22**	**1.05**	**2.84**	**0.01**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**476.40**	**476.40**	**0.02**	**0.00**	**476.76**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	6.40	75.90	44.37	0.23	0.63	2.62	3.24	0.21	2.41	2.62	0.00	22,080.58	22,080.58	0.28	0.00	22,086.37
Worker	8.03	6.55	71.78	0.29	1.42	1.37	2.78	0.51	1.26	1.77	0.00	19,787.34	19,787.34	0.73	0.00	19,802.57
Total	**14.43**	**82.45**	**116.15**	**0.52**	**2.05**	**3.99**	**6.02**	**0.72**	**3.67**	**4.39**	**0.00**	**41,867.92**	**41,867.92**	**1.01**	**0.00**	**41,888.94**

3.4 Building Construction - 2034

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	0.22	1.05	2.84	0.01		0.02	0.02		0.02	0.02	0.00	476.40	476.40	0.02	0.00	476.76
Total	**0.22**	**1.05**	**2.84**	**0.01**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**476.40**	**476.40**	**0.02**	**0.00**	**476.76**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	6.40	75.90	44.37	0.23	7.14	2.62	9.76	0.21	2.41	2.62	0.00	22,080.58	22,080.58	0.28	0.00	22,086.37
Worker	8.03	6.55	71.78	0.29	33.08	1.37	34.44	0.51	1.26	1.77	0.00	19,787.34	19,787.34	0.73	0.00	19,802.57
Total	**14.43**	**82.45**	**116.15**	**0.52**	**40.22**	**3.99**	**44.20**	**0.72**	**3.67**	**4.39**	**0.00**	**41,867.92**	**41,867.92**	**1.01**	**0.00**	**41,888.94**

3.4 Building Construction - 2034

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	0.22	1.05	2.84	0.01		0.02	0.02		0.02	0.02	0.00	476.40	476.40	0.02	0.00	476.76
Total	**0.22**	**1.05**	**2.84**	**0.01**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**476.40**	**476.40**	**0.02**	**0.00**	**476.76**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	6.40	75.90	44.37	0.23	0.63	2.62	3.24	0.21	2.41	2.62	0.00	22,080.58	22,080.58	0.28	0.00	22,086.37
Worker	8.03	6.55	71.78	0.29	1.42	1.37	2.78	0.51	1.26	1.77	0.00	19,787.34	19,787.34	0.73	0.00	19,802.57
Total	**14.43**	**82.45**	**116.15**	**0.52**	**2.05**	**3.99**	**6.02**	**0.72**	**3.67**	**4.39**	**0.00**	**41,867.92**	**41,867.92**	**1.01**	**0.00**	**41,888.94**

3.4 Building Construction - 2035

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	0.20	0.91	2.84	0.01		0.01	0.01		0.01	0.01	0.00	478.23	478.23	0.02	0.00	478.57
Total	**0.20**	**0.91**	**2.84**	**0.01**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**478.23**	**478.23**	**0.02**	**0.00**	**478.57**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	6.13	74.52	42.38	0.23	7.17	2.55	9.72	0.21	2.34	2.55	0.00	22,212.05	22,212.05	0.26	0.00	22,217.57
Worker	7.05	5.59	63.46	0.29	33.20	1.36	34.57	0.51	1.26	1.78	0.00	19,353.20	19,353.20	0.65	0.00	19,366.88
Total	**13.18**	**80.11**	**105.84**	**0.52**	**40.37**	**3.91**	**44.29**	**0.72**	**3.60**	**4.33**	**0.00**	**41,565.25**	**41,565.25**	**0.91**	**0.00**	**41,584.45**

3.4 Building Construction - 2035

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	0.20	0.91	2.84	0.01		0.01	0.01		0.01	0.01	0.00	478.23	478.23	0.02	0.00	478.57
Total	**0.20**	**0.91**	**2.84**	**0.01**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**478.23**	**478.23**	**0.02**	**0.00**	**478.57**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	6.13	74.52	42.38	0.23	0.63	2.55	3.18	0.21	2.34	2.55	0.00	22,212.05	22,212.05	0.26	0.00	22,217.57
Worker	7.05	5.59	63.46	0.29	1.42	1.36	2.79	0.51	1.26	1.78	0.00	19,353.20	19,353.20	0.65	0.00	19,366.88
Total	**13.18**	**80.11**	**105.84**	**0.52**	**2.05**	**3.91**	**5.97**	**0.72**	**3.60**	**4.33**	**0.00**	**41,565.25**	**41,565.25**	**0.91**	**0.00**	**41,584.45**

3.4 Building Construction - 2036

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	0.20	0.92	2.85	0.01		0.01	0.01		0.01	0.01	0.00	480.06	480.06	0.02	0.00	480.40
Total	**0.20**	**0.92**	**2.85**	**0.01**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**480.06**	**480.06**	**0.02**	**0.00**	**480.40**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	6.16	74.81	42.54	0.24	7.20	2.56	9.75	0.21	2.35	2.56	0.00	22,297.15	22,297.15	0.26	0.00	22,302.70
Worker	7.08	5.61	63.71	0.29	33.33	1.37	34.70	0.51	1.27	1.78	0.00	19,427.35	19,427.35	0.65	0.00	19,441.08
Total	**13.24**	**80.42**	**106.25**	**0.53**	**40.53**	**3.93**	**44.45**	**0.72**	**3.62**	**4.34**	**0.00**	**41,724.50**	**41,724.50**	**0.91**	**0.00**	**41,743.78**

3.4 Building Construction - 2036

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	0.20	0.92	2.85	0.01		0.01	0.01		0.01	0.01	0.00	480.06	480.06	0.02	0.00	480.40
Total	**0.20**	**0.92**	**2.85**	**0.01**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**480.06**	**480.06**	**0.02**	**0.00**	**480.40**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	6.16	74.81	42.54	0.24	0.63	2.56	3.19	0.21	2.35	2.56	0.00	22,297.15	22,297.15	0.26	0.00	22,302.70
Worker	7.08	5.61	63.71	0.29	1.43	1.37	2.80	0.51	1.27	1.78	0.00	19,427.35	19,427.35	0.65	0.00	19,441.08
Total	**13.24**	**80.42**	**106.25**	**0.53**	**2.06**	**3.93**	**5.99**	**0.72**	**3.62**	**4.34**	**0.00**	**41,724.50**	**41,724.50**	**0.91**	**0.00**	**41,743.78**

3.4 Building Construction - 2037

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	0.12	0.53	1.66	0.00		0.01	0.01		0.01	0.01	0.00	280.34	280.34	0.01	0.00	280.54
Total	**0.12**	**0.53**	**1.66**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**280.34**	**280.34**	**0.01**	**0.00**	**280.54**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	3.60	43.68	24.84	0.14	4.20	1.49	5.70	0.12	1.37	1.50	0.00	13,020.86	13,020.86	0.15	0.00	13,024.09
Worker	4.13	3.28	37.20	0.17	19.46	0.80	20.26	0.30	0.74	1.04	0.00	11,344.98	11,344.98	0.38	0.00	11,353.00
Total	**7.73**	**46.96**	**62.04**	**0.31**	**23.66**	**2.29**	**25.96**	**0.42**	**2.11**	**2.54**	**0.00**	**24,365.84**	**24,365.84**	**0.53**	**0.00**	**24,377.09**

3.4 Building Construction - 2037

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	0.12	0.53	1.66	0.00		0.01	0.01		0.01	0.01	0.00	280.34	280.34	0.01	0.00	280.54
Total	**0.12**	**0.53**	**1.66**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**280.34**	**280.34**	**0.01**	**0.00**	**280.54**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	3.60	43.68	24.84	0.14	0.37	1.49	1.86	0.12	1.37	1.50	0.00	13,020.86	13,020.86	0.15	0.00	13,024.09
Worker	4.13	3.28	37.20	0.17	0.83	0.80	1.63	0.30	0.74	1.04	0.00	11,344.98	11,344.98	0.38	0.00	11,353.00
Total	**7.73**	**46.96**	**62.04**	**0.31**	**1.20**	**2.29**	**3.49**	**0.42**	**2.11**	**2.54**	**0.00**	**24,365.84**	**24,365.84**	**0.53**	**0.00**	**24,377.09**

3.5 Paving - 2037

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	0.09	0.52	1.03	0.00		0.02	0.02		0.02	0.02	0.00	142.89	142.89	0.01	0.00	143.04
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.09**	**0.52**	**1.03**	**0.00**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**142.89**	**142.89**	**0.01**	**0.00**	**143.04**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.02	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	5.38	5.38	0.00	0.00	5.39
Total	**0.00**	**0.00**	**0.02**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**5.38**	**5.38**	**0.00**	**0.00**	**5.39**

3.5 Paving - 2037

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	0.09	0.52	1.03	0.00		0.02	0.02		0.02	0.02	0.00	142.89	142.89	0.01	0.00	143.04
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.09**	**0.52**	**1.03**	**0.00**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**142.89**	**142.89**	**0.01**	**0.00**	**143.04**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.38	5.38	0.00	0.00	5.39
Total	**0.00**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**5.38**	**5.38**	**0.00**	**0.00**	**5.39**

3.5 Paving - 2038

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	0.21	1.25	2.49	0.00		0.04	0.04		0.04	0.04	0.00	345.32	345.32	0.02	0.00	345.67
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.21**	**1.25**	**2.49**	**0.00**		**0.04**	**0.04**		**0.04**	**0.04**	**0.00**	**345.32**	**345.32**	**0.02**	**0.00**	**345.67**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.04	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	13.01	13.01	0.00	0.00	13.02
Total	**0.00**	**0.00**	**0.04**	**0.00**	**0.02**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**13.01**	**13.01**	**0.00**	**0.00**	**13.02**

3.5 Paving - 2038

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	0.21	1.25	2.49	0.00		0.04	0.04		0.04	0.04	0.00	345.32	345.32	0.02	0.00	345.67
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.21**	**1.25**	**2.49**	**0.00**		**0.04**	**0.04**		**0.04**	**0.04**	**0.00**	**345.32**	**345.32**	**0.02**	**0.00**	**345.67**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.01	13.01	0.00	0.00	13.02
Total	**0.00**	**0.00**	**0.04**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**13.01**	**13.01**	**0.00**	**0.00**	**13.02**

3.5 Paving - 2039

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	0.05	0.30	0.60	0.00		0.01	0.01		0.01	0.01	0.00	83.35	83.35	0.00	0.00	83.44
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.05**	**0.30**	**0.60**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**83.35**	**83.35**	**0.00**	**0.00**	**83.44**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	3.14	3.14	0.00	0.00	3.14
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**3.14**	**3.14**	**0.00**	**0.00**	**3.14**

3.5 Paving - 2039

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	0.05	0.30	0.60	0.00		0.01	0.01		0.01	0.01	0.00	83.35	83.35	0.00	0.00	83.44
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.05**	**0.30**	**0.60**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**83.35**	**83.35**	**0.00**	**0.00**	**83.44**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.14	3.14	0.00	0.00	3.14
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**3.14**	**3.14**	**0.00**	**0.00**	**3.14**

3.6 Architectural Coating - 2039

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	283.99					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.07	0.18	0.00		0.00	0.00		0.00	0.00	0.00	25.12	25.12	0.00	0.00	25.14
Total	**284.00**	**0.07**	**0.18**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**25.12**	**25.12**	**0.00**	**0.00**	**25.14**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	1.06	0.84	9.58	0.04	5.01	0.21	5.22	0.08	0.19	0.27	0.00	2,921.52	2,921.52	0.10	0.00	2,923.58
Total	**1.06**	**0.84**	**9.58**	**0.04**	**5.01**	**0.21**	**5.22**	**0.08**	**0.19**	**0.27**	**0.00**	**2,921.52**	**2,921.52**	**0.10**	**0.00**	**2,923.58**

3.6 Architectural Coating - 2039

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	283.99					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.07	0.18	0.00		0.00	0.00		0.00	0.00	0.00	25.12	25.12	0.00	0.00	25.14
Total	**284.00**	**0.07**	**0.18**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**25.12**	**25.12**	**0.00**	**0.00**	**25.14**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	1.06	0.84	9.58	0.04	0.21	0.21	0.42	0.08	0.19	0.27	0.00	2,921.52	2,921.52	0.10	0.00	2,923.58
Total	**1.06**	**0.84**	**9.58**	**0.04**	**0.21**	**0.21**	**0.42**	**0.08**	**0.19**	**0.27**	**0.00**	**2,921.52**	**2,921.52**	**0.10**	**0.00**	**2,923.58**

3.6 Architectural Coating - 2040

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	338.77					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.09	0.21	0.00		0.00	0.00		0.00	0.00	0.00	29.97	29.97	0.00	0.00	29.99
Total	**338.78**	**0.09**	**0.21**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**29.97**	**29.97**	**0.00**	**0.00**	**29.99**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	1.14	0.90	10.46	0.05	5.98	0.24	6.22	0.09	0.23	0.32	0.00	3,431.94	3,431.94	0.11	0.00	3,434.22
Total	**1.14**	**0.90**	**10.46**	**0.05**	**5.98**	**0.24**	**6.22**	**0.09**	**0.23**	**0.32**	**0.00**	**3,431.94**	**3,431.94**	**0.11**	**0.00**	**3,434.22**

3.6 Architectural Coating - 2040

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	338.77					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.09	0.21	0.00		0.00	0.00		0.00	0.00	0.00	29.97	29.97	0.00	0.00	29.99
Total	**338.78**	**0.09**	**0.21**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**29.97**	**29.97**	**0.00**	**0.00**	**29.99**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	1.14	0.90	10.46	0.05	0.26	0.24	0.50	0.09	0.23	0.32	0.00	3,431.94	3,431.94	0.11	0.00	3,434.22
Total	**1.14**	**0.90**	**10.46**	**0.05**	**0.26**	**0.24**	**0.50**	**0.09**	**0.23**	**0.32**	**0.00**	**3,431.94**	**3,431.94**	**0.11**	**0.00**	**3,434.22**

4.0 Mobile Detail

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	330.84	640.53	2,985.85	6.16	625.02	34.57	659.59	9.99	33.33	43.32	0.00	467,975.31	467,975.31	21.34	0.00	468,423.54
Unmitigated	330.84	640.53	2,985.85	6.16	625.02	34.57	659.59	9.99	33.33	43.32	0.00	467,975.31	467,975.31	21.34	0.00	468,423.54
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	107,160.00	107,160.00	107160.00	305,974,308	305,974,308
City Park	6,559.80	6,559.80	6559.80	14,004,207	14,004,207
General Light Industry	178,951.45	178,951.45	178951.45	522,450,751	522,450,751
Government Office Building	64,900.04	64,900.04	64900.04	111,295,816	111,295,816
Single Family Housing	14,784.78	14,784.78	14784.78	42,215,032	42,215,032
Strip Mall	125,316.36	125,316.36	125316.36	192,991,340	192,991,340
Total	497,672.44	497,672.44	497,672.44	1,188,931,453	1,188,931,453

4.3 Trip Type Information

	Miles			Trip %		
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
Apartments Mid Rise	10.80	7.30	7.50	41.60	18.80	39.60
City Park	9.50	7.30	7.30	33.00	48.00	19.00
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00
Government Office Building	9.50	7.30	7.30	33.00	62.00	5.00
Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00

5.0 Energy Detail

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						0.00	0.00		0.00	0.00	0.00	146,201.88	146,201.88	5.43	2.06	146,954.44
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	146,201.88	146,201.88	5.43	2.06	146,954.44
NaturalGas Mitigated	3.53	31.50	22.54	0.19		0.00	2.44		0.00	2.44	0.00	34,951.49	34,951.49	0.67	0.64	35,164.20
NaturalGas Unmitigated	3.53	31.50	22.54	0.19		0.00	2.44		0.00	2.44	0.00	34,951.49	34,951.49	0.67	0.64	35,164.20
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	tons/yr										MT/yr					
Apartments Mid Rise	1.41182e+008	0.76	6.51	2.77	0.04		0.00	0.53		0.00	0.53	0.00	7,534.01	7,534.01	0.14	0.14	7,579.86
City Park	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
General Light Industry	2.3008e+008	1.24	11.28	9.47	0.07		0.00	0.86		0.00	0.86	0.00	12,277.97	12,277.97	0.24	0.23	12,352.69
Government Office Building	2.15276e+008	1.16	10.55	8.86	0.06		0.00	0.80		0.00	0.80	0.00	11,487.93	11,487.93	0.22	0.21	11,557.84
Single Family Housing	6.41487e+007	0.35	2.96	1.26	0.02		0.00	0.24		0.00	0.24	0.00	3,423.22	3,423.22	0.07	0.06	3,444.05
Strip Mall	4.27937e+006	0.02	0.21	0.18	0.00		0.00	0.02		0.00	0.02	0.00	228.36	228.36	0.00	0.00	229.75
Total		**3.53**	**31.51**	**22.54**	**0.19**		**0.00**	**2.45**		**0.00**	**2.45**	**0.00**	**34,951.49**	**34,951.49**	**0.67**	**0.64**	**35,164.19**

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	tons/yr										MT/yr					
Apartments Mid Rise	1.41182e+008	0.76	6.51	2.77	0.04		0.00	0.53		0.00	0.53	0.00	7,534.01	7,534.01	0.14	0.14	7,579.86
City Park	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
General Light Industry	2.3008e+008	1.24	11.28	9.47	0.07		0.00	0.86		0.00	0.86	0.00	12,277.97	12,277.97	0.24	0.23	12,352.69
Government Office Building	2.15276e+008	1.16	10.55	8.86	0.06		0.00	0.80		0.00	0.80	0.00	11,487.93	11,487.93	0.22	0.21	11,557.84
Single Family Housing	6.41487e+007	0.35	2.96	1.26	0.02		0.00	0.24		0.00	0.24	0.00	3,423.22	3,423.22	0.07	0.06	3,444.05
Strip Mall	4.27937e+006	0.02	0.21	0.18	0.00		0.00	0.02		0.00	0.02	0.00	228.36	228.36	0.00	0.00	229.75
Total		**3.53**	**31.51**	**22.54**	**0.19**		**0.00**	**2.45**		**0.00**	**2.45**	**0.00**	**34,951.49**	**34,951.49**	**0.67**	**0.64**	**35,164.19**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Apartments Mid Rise	4.67112e+007					16,543.25	0.61	0.23	16,628.40
City Park	0					0.00	0.00	0.00	0.00
General Light Industry	1.75634e+008					62,202.58	2.31	0.88	62,522.76
Government Office Building	1.53447e+008					54,344.72	2.02	0.77	54,624.45
Single Family Housing	1.07841e+007					3,819.29	0.14	0.05	3,838.95
Strip Mall	2.62368e+007					9,292.05	0.35	0.13	9,339.87
Total						**146,201.89**	**5.43**	**2.06**	**146,954.43**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Apartments Mid Rise	4.67112e+007					16,543.25	0.61	0.23	16,628.40
City Park	0					0.00	0.00	0.00	0.00
General Light Industry	1.75634e+008					62,202.58	2.31	0.88	62,522.76
Government Office Building	1.53447e+008					54,344.72	2.02	0.77	54,624.45
Single Family Housing	1.07841e+007					3,819.29	0.14	0.05	3,838.95
Strip Mall	2.62368e+007					9,292.05	0.35	0.13	9,339.87
Total						**146,201.89**	**5.43**	**2.06**	**146,954.43**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1,200.71	14.14	1,279.02	0.46		0.00	165.27		0.00	165.25	15,573.90	19,779.35	35,353.25	14.80	1.46	36,118.10
Unmitigated	1,200.71	14.14	1,279.02	0.46		0.00	165.27		0.00	165.25	15,573.90	19,779.35	35,353.25	14.80	1.46	36,118.10
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	62.28					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	187.63					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	947.34	12.84	1,165.47	0.46		0.00	164.64		0.00	164.63	15,573.90	19,594.40	35,168.31	14.62	1.46	35,929.37
Landscaping	3.46	1.31	113.55	0.01		0.00	0.62		0.00	0.62	0.00	184.94	184.94	0.18	0.00	188.73
Total	**1,200.71**	**14.15**	**1,279.02**	**0.47**		**0.00**	**165.26**		**0.00**	**165.25**	**15,573.90**	**19,779.34**	**35,353.25**	**14.80**	**1.46**	**36,118.10**

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	62.28					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	187.63					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	947.34	12.84	1,165.47	0.46		0.00	164.64		0.00	164.63	15,573.90	19,594.40	35,168.31	14.62	1.46	35,929.37
Landscaping	3.46	1.31	113.55	0.01		0.00	0.62		0.00	0.62	0.00	184.94	184.94	0.18	0.00	188.73
Total	**1,200.71**	**14.15**	**1,279.02**	**0.47**		**0.00**	**165.26**		**0.00**	**165.25**	**15,573.90**	**19,779.34**	**35,353.25**	**14.80**	**1.46**	**36,118.10**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					373,203.65	2,434.00	65.27	444,549.92
Unmitigated					466,504.56	3,042.51	81.58	555,687.40
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Apartments Mid Rise	872.738 / 550.205					6,199.34	26.87	0.75	6,995.44
City Park	0 / 172.765					679.78	0.03	0.01	683.28
General Light Industry	95953.6 / 0					443,568.26	2,945.37	78.87	529,871.00
Government Office Building	2033.6 / 1246.4					14,305.04	62.61	1.74	16,159.34
Single Family Housing	109.589 / 69.0888					778.45	3.37	0.09	878.41
Strip Mall	138.421 / 84.8386					973.70	4.26	0.12	1,099.92
Total						**466,504.57**	**3,042.51**	**81.58**	**555,687.39**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Apartments Mid Rise	698.191 / 440.164					4,959.47	21.50	0.60	5,596.36
City Park	0 / 138.212					543.83	0.02	0.01	546.62
General Light Industry	76762.9 / 0					354,854.61	2,356.30	63.10	423,896.80
Government Office Building	1626.88 / 997.12					11,444.03	50.08	1.39	12,927.47
Single Family Housing	87.6713 / 55.271					622.76	2.70	0.08	702.73
Strip Mall	110.737 / 67.8708					778.96	3.41	0.09	879.93
Total						**373,203.66**	**2,434.01**	**65.27**	**444,549.91**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					234,450.53	13,855.63	0.00	525,418.74
Unmitigated					234,450.53	13,855.63	0.00	525,418.74
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Apartments Mid Rise	6161.7					1,250.77	73.92	0.00	2,803.05
City Park	12.47					2.53	0.15	0.00	5.67
General Light Industry	1.13535e+006					230,466.04	13,620.15	0.00	516,489.25
Government Office Building	9520.04					1,932.48	114.21	0.00	4,330.82
Single Family Housing	1972.51					400.40	23.66	0.00	897.33
Strip Mall	1962.16					398.30	23.54	0.00	892.62
Total						**234,450.52**	**13,855.63**	**0.00**	**525,418.74**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Apartments Mid Rise	6161.7					1,250.77	73.92	0.00	2,803.05
City Park	12.47					2.53	0.15	0.00	5.67
General Light Industry	1.13535e+006					230,466.04	13,620.15	0.00	516,489.25
Government Office Building	9520.04					1,932.48	114.21	0.00	4,330.82
Single Family Housing	1972.51					400.40	23.66	0.00	897.33
Strip Mall	1962.16					398.30	23.54	0.00	892.62
Total						**234,450.52**	**13,855.63**	**0.00**	**525,418.74**

9.0 Vegetation

ATTACHMENT 5

GHG Emissions Reduction Calculations

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	New Development BAU (2020)				New Development (2020)				% Reduction
	CO2	**CH4**	**N2O**	**CO2E**	**CO2**	**CH4**	**N2O**	**CO2E**	
Vehicles	668,536.16	30.49	0.00	669,176.49	467,975.31	21.34	0.00	468,423.54	30.0%
Energy	190,107.66	6.38	2.84	191,121.54	181,153.37	6.10	2.70	182,188.63	4.7%
Area	35,353.25	14.80	1.46	36,118.10	35,353.25	14.80	1.46	36,118.10	0.0%
Water	466,504.56	3,042.51	81.58	555,687.40	373,203.65	2,434.00	65.27	444,549.92	20.0%
Waste	234,450.53	13,855.63	0.00	525,418.74	234,450.53	13,855.63	0.00	525,418.74	0.0%
Construction	1,037,454.28	31.14	0.00	1,038,108.29	1,037,454.28	31.14	0.00	1,038,108.29	0.0%
Construction (Amortized Over 30 Years)	34,581.81	1.04	0.00	34,603.61	34,581.81	1.04	0.00	34,603.61	0.0%
TOTAL	1,629,533.97	16,950.84	85.88	**2,012,125.88**	1,326,717.92	16,332.91	69.43	**1,691,302.54**	**15.9%**