GLOBAL CLIMATE CHANGE ANALYSIS

ACE Self Storage Development
PDS2016-MUP-16-010 AND PDS2016-ER-16-18-002
Bonita, CA

Lead Agency:

County of San Diego
Department of Planning and Land Use
Contact: Ben Mills
5510 Overland Avenue, Suite 110
San Diego, CA 92123
858-495-5234

Prepared By:

Jeremy Louden
Ldn Consulting, Inc.
42428 Chisolm Trail
Murrieta, CA 92562
760-473-1253

Prepared For:

BSB Co.
10035 Prospect Ave. Suite 201
Santee, CA 92071

July 24, 2018

SDC PDS RCVD 08-17-18
MUP16-010

TABLE OF CONTENTS

List of Figures

List of Tables

Appendix

LIST OF ACRONYMS

Assembly Bill 32 (AB32)

Business as Usual (BAU)

California Air Pollution Control Officers Association's (CAPCOA)

California Air Resource Board (CARB)

California Climate Action Registry General Reporting Protocol Version 3.1 (CCARGRPV3.1)

California Energy Commission (CEC)

California Environmental Quality Act (CEQA)

Carbon Dioxide (CO2)

Cubic Yards (CY)

Environmental Protection Agency (EPA)

Green House Gas (GHG)

International Residential Code (IRC)

Low Carbon Fuel Standard (LCFS)

Methane (CH4)

Nitrous Oxide (N2O)

San Diego Air Basin (SDAB)

San Diego Air Pollution Control District (SDAPCD)

Senate Bill 97 (SB97)

Vehicle Miles Traveled (VMT)

EXECUTIVE SUMMARY

This analysis has been completed in order to quantify Greenhouse Gas (GHG) emissions from the project site and was prepared according to guidelines established within the California Global Warming Solutions Act of 2006 – Assembly Bill 32 (AB32), Senate Bill 97 (SB97) and the California Environmental Quality Act (CEQA). Greenhouse Gasses analyzed in this study are Carbon Dioxide (CO_2), Methane (CH_4), and Nitrous Oxide (N_2O). To simplify greenhouse gas calculations, both CH_4 and N_2O are converted to equivalent amounts of CO_2 and are identified as CO_2e.

The proposed development is located at 32° 39′ 59″ N and 117° 01′ 21″ W, southeast of Bonita Road in the unincorporated community of Bonita in eastern San Diego County, CA. The project development plan calls for the construction of three separate buildings with a total floor area of 140,129 SF and will be used for storage and office space for the onsite operations. The project would likely be operated by no more than 4 employees onsite at any given time. Construction of the project is proposed in early 2017 with full buildout expected late 2017 and full buildout operations in 2018.

Adding both annual construction emissions and the expected operational emissions including design features from Area, Energy, Mobile, Waste and Water sources, the project would generate emissions of 549.39 MT. Given this, the project would not exceed the CAPCOA's 900 MT screening threshold and would not be considered significant under CEQA or require GHG mitigation to move forward.

1.0 INTRODUCTION

1.1 Purpose of this Study

The purpose of this Green House Gas Assessment (GHG) is to show conformance to the California Global Warming Solutions Act of 2006 – Assembly Bill 32 (AB32) and Senate Bill 97 (SB97). AB32 requires that by 2020 the state's greenhouse gas emissions be reduced to 1990 levels and SB97 a "companion" bill directed amendments to the California Environmental Quality Act (CEQA) statute to specifically establish that GHG emissions and their impacts are appropriate subjects for CEQA analysis. Should impacts be determined, the intent of this study would be to recommend suitable design measures to bring the project to a level considered less than significant.

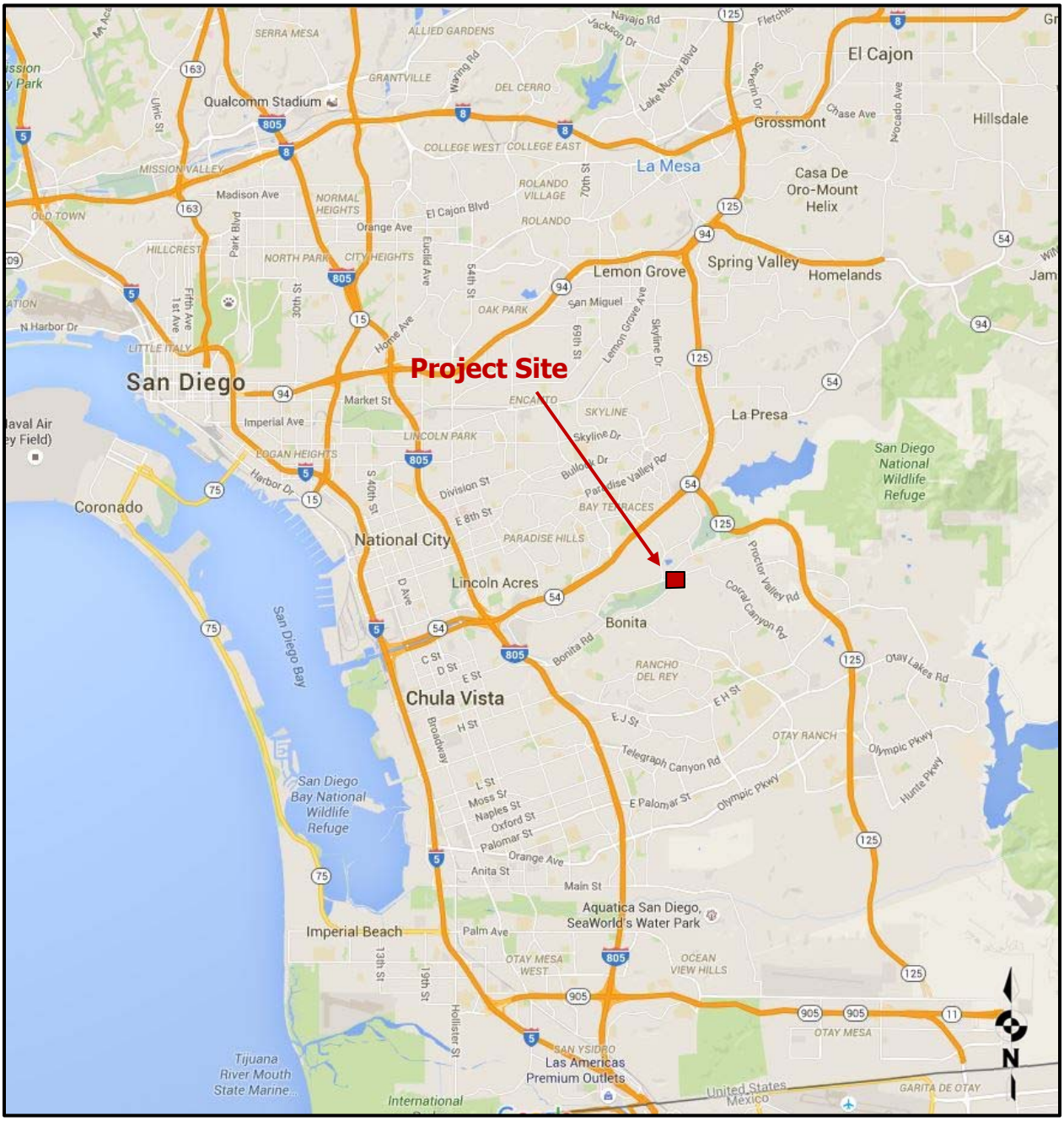
1.2 Project Location

The proposed development is located at 32° 39′ 59″ N and 117° 01′ 21″ W, southeast of Bonita Road in the unincorporated community of Bonita in eastern San Diego County, CA. A general project vicinity map is shown in Figure 1–A on the following page.

1.3 Project Description

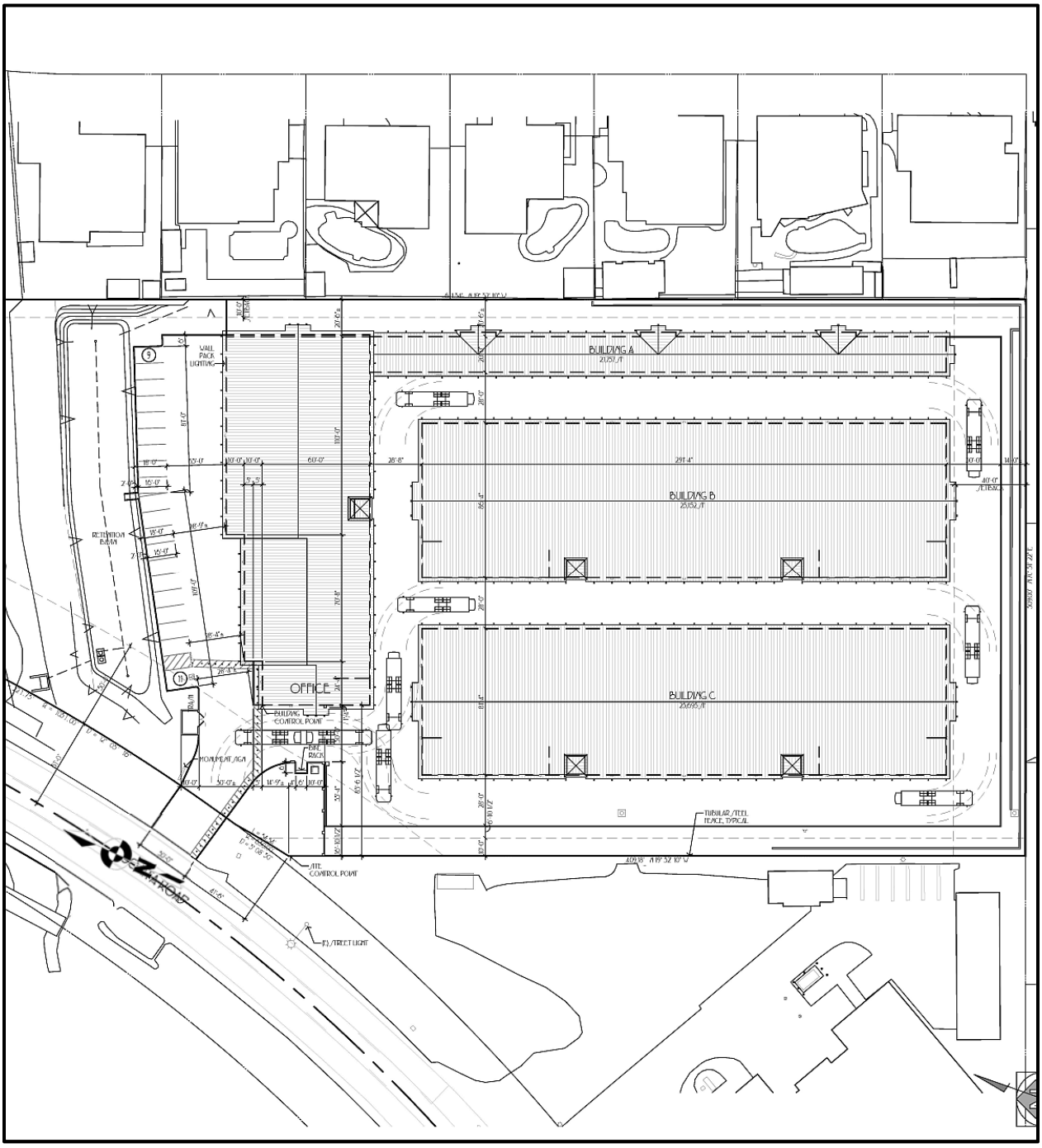
The project development plan calls for the construction of three separate buildings with a total floor area of 140,129 SF and will be used for storage and office space for the onsite operations. The project would likely be operated by no more than 4 employees onsite at any given time. Construction of the project is proposed in early 2017 with full buildout expected late 2017 and full buildout operations in 2018. The project site plan is shown on in Figure 1-B on Page 3 of this report.

Figure 1-A: Project Vicinity Map



Source: (Google, 2016)

Figure 1-B: Proposed Project Site Plan



Source: (ARE Associates, 2016)

2.0 EXISTING ENVIRONMENTAL SETTING

2.1 Understanding Greenhouse Gasses

Greenhouse gases such as water vapor and carbon dioxide are abundant in the earth's atmosphere. These gases are called "Greenhouse Gases" because they absorb and emit thermal infrared radiation which acts like an insulator to the planet. Without these gases, the earth ambient temperature would either be extremely hot during the day or blistering cold at night. However, because these gases can both absorb and emit heat, the earth's temperature does not sway too far in either direction.

Over the years as human activities require the use of burning fossil fuels stored carbon is released into the air in the form of CO_2 and to a much lesser extent CO. Additionally, over the years scientist have measured this rise in Carbon Dioxide and fear that it may be heating the planet too. Additionally, it is thought that other greenhouse gases such as Methane and Nitrous Oxide are to blame.

Greenhouse Gasses of concern as analyzed in this study are Carbon Dioxide (CO_2), Methane (CH_4), and Nitrous Oxide (N_2O). To simply greenhouse gas calculations, both CH_4 and N_2O can be converted to an equivalent amount of CO_2 or CO_2e. CO_2e is calculated by multiplying the calculated levels of CH_4 and N_2O by a Global Warming Potential (GWP). The U.S. Environmental Protection Agency publishes GWPs for various GHGs and reports that the GWP for CH_4 and N_2O is 21 and 310, respectively.

2.2 Existing Setting

The project site is surrounded by mostly residential to the east on south and the Bonita Sunnyside Fire Protection District is located to the west. To the north exists the Kinderland Montessori school. The general location of the project is shown on the Vicinity Map.

The subject property is generally flat vacant lot and appears to have been disturbed in the past. The project site has no observed existing structures onsite. Currently the site is generally devoid of significant vegetation with the exception of parse grass and shrubs and palm trees on the frontage to Bonita Road. Elevations onsite average about 85 feet above mean sea level (AMSL).

2.3 Climate and Meteorology

Climate within the San Diego Air Basin (SDAB) area varies dramatically over short geographical distances due to size and topography. Most of southern California is dominated by high-pressure systems for much of the year, which keeps the high desert mostly sunny and warm. Typically, during the winter months, the high pressure system drops to the south and brings cooler, moister weather from the north. Prevailing winds are generally westerly flowing towards the east for most of the year; however, during the autumn and winter, it is common for strong warm dry winds originating in the desert having a more easterly flow characteristic.

Meteorological trends within the Bonita area produce daytime highs that range between 68ºF in the winter to approximately 80ºF in the summer with August usually being the hottest month. Median temperatures range from approximately 56ºF in the winter to approximately 72ºF in the summer. The average humidity is approximately 64% in the winter and about 75% in the summer (City-Data, 2016). Bonita usually receives approximately 9.8 inches of rain per year with February usually being the wettest month (weather.com, 2016).

3.0 CLIMATE CHANGE REGULATORY ENVIRONMENT

3.1 Regulatory Standards (Assembly Bill 32)

The Global Warming Solutions Act of 2006 (AB 32), requires that by 2020 the state's greenhouse gas emissions be reduced to 1990 levels or roughly a 28.3% reduction. Significance thresholds have not been adopted but are currently being discussed. AB 32 is specific as to when thresholds shall be defined. The pertinent Sections are referenced within Part 4 of AB 32 Titled *Greenhouse Gas Emissions Reductions* are shown below:

Section 38560.5 (b) states:

On or before January 1, 2010, the state board shall adopt regulations to implement the measures identified on the list published pursuant to subdivision (a).

Section 38562 states:

(A) On or before January 1, 2011, the state board shall adopt greenhouse gas emission limits and emission reduction measures by regulation to achieve the maximum technologically feasible and cost-effective reductions in greenhouse gas emissions in furtherance of achieving the statewide greenhouse gas emissions limit, to become operative beginning on January 1, 2012.

(B) In adopting regulations pursuant to this Section and Part 5 (commencing with Section (38570), to the extent feasible and in furtherance of achieving the statewide greenhouse gas emissions limit, the state board shall do all of the following:

1. *Design the regulations, including distribution of emissions allowances where appropriate, in a manner that is equitable, seeks to minimize costs and maximize the total benefits to California, and encourages early action to reduce greenhouse gas emissions.*
2. *Ensure that activities undertaken to comply with the regulations do not disproportionately impact low-income communities.*
3. *Ensure that entities that have voluntarily reduced their greenhouse gas emissions prior to the implementation of this Section receive appropriate credit for early voluntary reductions.*
4. *Ensure that activities undertaken pursuant to the regulations complement, and do not interfere with, efforts to achieve and maintain federal and state ambient air quality standards and to reduce toxic air contaminant emissions.*
5. *Consider cost-effectiveness of these regulations.*
6. *Consider overall societal benefits, including reductions in other air pollutants, diversification of energy sources, and other benefits to the economy, environment, and public health.*
7. *Minimize the administrative burden of implementing and complying with these regulations.*
8. *Minimize leakage.*

9. *Consider the significance of the contribution of each source or category of sources to statewide emissions of greenhouse gases.*

(C) In furtherance of achieving the statewide greenhouse gas emissions limit, by January 1, 2011, the state board may adopt a regulation that establishes a system of market-based declining annual aggregate emission limits for sources or categories of sources that emit greenhouse gas emissions, applicable from January 1, 2012, to December 31, 2020, inclusive, that the state board determines will achieve the maximum technologically feasible and cost-effective reductions in greenhouse gas emissions, in the aggregate, from those sources or categories of sources.

(D) Any regulation adopted by the state board pursuant to this part or Part 5 (commencing with Section 38570) shall ensure all of the following:

1. *The greenhouse gas emission reductions achieved are real, permanent, quantifiable, verifiable, and enforceable by the state board.*
2. *For regulations pursuant to Part 5 (commencing with Section 38570), the reduction is in addition to any greenhouse gas emission reduction otherwise required by law or regulation, and any other greenhouse gas emission reduction that otherwise would occur.*
3. *If applicable, the greenhouse gas emission reduction occurs over the same time period and is equivalent in amount to any direct emission reduction required pursuant to this division.*

3.2 Regulatory Standards (Assembly Bill 341)

This bill makes a legislative declaration that it is the policy goal of the state that not less than 75% of solid waste generated be source reduced, recycled, or composted by the year 2020, and would require the California Department of Resources Recycling and Recovery (CalRecycle), by January 1, 2014, to provide a report to the Legislature that provides strategies to achieve that policy goal and also includes other specified information and recommendations.

This bill will increase diversion requirements by an additional 25% over Business as Usual as was defined under AB 939 and SB 1322 which were signed into law as the Integrated Waste Management Act of 1989, which as of the year 2000 only required 50 percent diversion.

3.3 Regulatory Standards (Senate Bill 97)

SB 97 requires the Office of Planning and Research (OPR) to prepare and transmit to the Resources Agency, guidelines and directed amendments to the CEQA statute specifically for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions.

3.4 AB 1493 (Pavley Standards)

AB 1493 regulations are similar to CAFE Standards however are expected to produce a Greenhouse Gas Benefit greater to that of the CAFE Standard and would be expected to double the amount of GHGs saved under CAFE. The Pavley rules or also referred to as California Standards are designed to regulate GHG emissions while the federal standards are aimed at reducing the nation's fuel consumption.

Under Pavley starting with vehicles produced in 2009, manufactures have the flexibility in meeting California standards through a combination of reducing tailpipe emissions of Carbon Dioxide, Nitrous Oxide, Methane and hydrofluorocarbons from vehicle air conditions systems. Furthermore, the California standards are estimated to increase fuel efficiency to 35.7 miles per gallon by (California Air Resourrce Board, 2013).

3.5 Advanced Clean Car Program

Pavley II along with other low-Emission Vehicle (LEV) regulations including new approaches to increase zero emission vehicles and hybrids have since been combined into a single effort program termed Advanced Clean Cars (California Air Resource Board, 2014). The new effort uses a number of emission control programs to control smog, soot and global warming and would be in effect from 2017 to 2025. This program is estimated to reduce GHGs by 4.0 Million or roughly 2.47% beyond that of Pavley I (California Air Resource Board, 2011).

3.6 Vehicle Efficiency Measures

Additional vehicle efficiency measures within the Scoping Plan include Low Friction Oil, Tire Pressure Regulation, Tire Tread Program, and Solar Reflective Automotive Paint and specialized window glazing and according to the scooping plan will reduce GHGs by 4.5 MMTCO2e in 2020. To date however, some of the reduction measures under Vehicle Efficacy are still under review with the exception of the Tire Pressure Regulations which estimate to remove 0.6 MMTCO2e by 2020.

3.7 Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007 (P.L. 110-140, H.R. 6) is an energy policy law adopted by congress which consists mainly of provisions designed to increase energy efficiency and the availability of renewable energy. The law will require automakers to boost fleet wide gas mileage averages from the current 25 miles per gallon (mpg) to 35 mpg by 2020. The rule was updated in 2010 which required fleet-wide fuel economy standard to be set at 34.1 mpg by 2016 and affect cars built in 2012 through 2016. Also, in

October 2012, the rules were further changed to 54.5 mpg for cars and light-duty trucks by Model Year 2025. This fleet wide average is known as the Corporate Average Fuel Economy (CAFE) standard.

3.8 Executive Order S-3-05

Executive Order S-3-05 was signed by Governor Arnold Schwarzenegger in June 2005. That the following greenhouse gas emission reduction targets are hereby established for 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.

3.9 Executive Order S-01-07

Executive Order S-01-07 was signed by Governor Arnold Schwarzenegger in January 2007 and is effectively known as the Low Carbon Fuel Standard or LCFS. The executive order seeks to reduce the carbon intensity of California's passenger vehicle fuels by at least 10% by 2020. The LCFS will require fuel providers in California to ensure that the mix of fuel they sell into the California market meet, on average, a declining standard for GHG emissions measured in CO_2e grams per unit of fuel energy sold.

3.10 Executive Order B-30-15

Executive Order B-30-15 established a statewide emissions reduction target of 40% below 1990 levels by 2030. This interim measure was identified by the Governor as one way to keep the State on a trajectory needed to meet the 2050 goal of reducing GHG emissions to 80% below 1990 levels by 2050 pursuant to Executive Order S-3-05. The 2030 and 2050 goals described in both these Executive Orders are an expression of executive policy and have not been adopted through legislative or regulatory action as of this writing. (Office of Governor Edmund G. Brown Jr., 2015).

3.11 Executive Order S-14-08

Executive Order S-14-08 was signed by Governor Arnold Schwarzenegger and is effectively known as the Renewable Portfolio Standard (RPS). According to S-14-08, the RPS will require that all retail sellers of electricity shall serve 33 percent of their load with renewable energy by 2020. State government agencies are hereby directed to take all appropriate actions to implement this target in all regulatory proceedings, including siting, permitting, and procurement for renewable energy power plants and transmission lines.

It should be noted that Governor Jerry Brown is committed to increasing this regulation such that the renewable portfolio in 2030 would be at least 50%. This commitment was entered into agreement with multiple international states signed on May 19, 2015 by California. (Subnational Global Climate Leadership Memorandum of Understanding, 2015). For purposes of the post-2020 analysis, the emission reduction benefits of achieving a 50 percent RPS by 2030 has been quantified as a 17 percent increase over RPS in 2020 or 30 percent over the 20% which has already been achieved in the baseline year.

3.12 Title 24 Standards

The California Energy Code, or Title 24, Part 6 of the California Code of Regulations, also titled The Energy Efficiency Standards for Residential and Nonresidential Buildings, were established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods (California Energy Code, 2015)

The Energy Commission adopted the 2008 changes to the Building Energy Efficiency Standards for some of the following reasons and would reduce both Natural Gas and Electrical demand:

1. *To provide California with an adequate, reasonably-priced, and environmentally-sound supply of energy.*
2. *To respond to Assembly Bill 32, the Global Warming Solutions Act of 2006, which mandates that California must reduce its greenhouse gas emissions to 1990 levels by 2020.*
3. *To pursue California energy policy that energy efficiency is the resource of first choice for meeting California's energy needs.*
4. *To act on the findings of California's Integrated Energy Policy Report (IEPR) that Standards are the most cost effective means to achieve energy efficiency, expects the Building Energy Efficiency Standards to continue to be upgraded over time to reduce electricity and peak demand, and recognizes the role of the Standards in reducing energy related to meeting California's water needs and in reducing greenhouse gas emissions.*
5. *To meet the West Coast Governors' Global Warming Initiative commitment to include aggressive energy efficiency measures into updates of state building codes.*
6. *To meet the Executive Order in the Green Building Initiative to improve the energy efficiency of nonresidential buildings through aggressive standards.*

Title 24 2008 has been found reduce electrical emissions by 22.7% when comparing prototype buildings built to the minimum standards in 2005 and then comparing the

prototypes within duplicate models built to standards in 2008. (Architectural Energy Corporation for California Energy Commission, November 7, 2007)

Title 24 2010 incorporated Cal Green standards and added a voluntary tiered approach which compared efficiency over Title 24 2008. (California Building Standards Commission, June 2010).

The latest standards are Title 24 2013 and are effective as of July 1, 2014. Looking at the entire construction outlook for low-rise single-family detached homes, electricity use is reduced by 36.4 percent and 23.3 percent for multi-family uses and natural gas consumption is reduced by 6.5 percent for single family developments and 3.8% for multi-family structures (Architectural Energy Corporation (AEC), 2013). Nonresidential Newly Constructed Buildings would have a reduction from the 2008 Standards of 21.8 percent for electricity and 16.8 percent for natural gas. It should be noted that these reductions would be for Title 24 energy sources such as heating, cooling and lighting.

In addition, the CEC currently anticipates adopting the 2016 Title 24 standards in 2015, and assigning those standards with an effective date of January 1, 2017 Further, both the CEC and CPUC remain committed to their goal that all new residential construction in California achieves zero net energy standards by 2020 It is likely that a subsequent, more rigorous iteration of the Title 24 standards will apply to the project at the time of building permit issuance. The GHG emission and energy savings associated with those standards have not been quantified at this time because the savings are unknown. Furthermore, it should be noted that energy the CEC indicated that Title 24 reductions would include lighting as well.

3.13 California Environmental Quality Act (CEQA) Requirements

As directed by SB 97, the Natural Resources Agency adopted Amendments to Title 14 Division 6 Chapter 3 CEQA Guidelines for greenhouse gas emissions on December 30, 2009. On February 16, 2010, the Office of Administrative Law approved the Amendments, and filed them with the Secretary of State for inclusion in the California Code of Regulations. The amendments became effective on March 18, 2010. The pertinent Sections are shown below:

Section 15064.4 - Determining the Significance of Impacts from Greenhouse Gas

(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 greenhouse gas 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.*

(B) A lead agency should consider the following factors, among others, when assessing the significance of impacts from greenhouse gas emissions on the environment:

1. *The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;*
2. *Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.*
3. *The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.*

General Questions recommended within the environmental checklist are:

(a) Will the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

(b) Will the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

3.14 ARB Scoping Plan Measures

In response to AB 32, California Air Resource Board (ARB) developed the Climate Change Scoping Plan. In that plan, the Board developed GHG emission reduction strategies which expanded energy efficiency programs, increased utility renewable energy requirements, developed clean car and Low Carbon Fuel Standards (LCFS), developed the cap-and-trade program and identified adopted discretionary measures to assist the state in meeting the 2020 limits established by AB 32.

In May 2014, the ARB adopted the first update to the original scoping plan which was necessary to help establish long-term GHG policies to make deep GHG emission reductions to put the state on a trajectory to help achieve goals established in S-3-05. The update includes key recommendations for six key economic sectors (energy, transportation,

agriculture, water, waste management, and natural and working lands) as well as short-lived climate pollutants, green buildings, and the Cap-and-Trade Program. The findings largely affect regulatory measures that will indirectly reduce GHG emissions and generate a need to update local policies.

3.15 Project Specific Guidelines

For projects that exceed the CAPCOA threshold of 900 MT CO_2e, CARB recommends that CEQA Lead Agencies "…quantify the GHG emissions, apportion the forecast emissions to relevant source categories, and develop GHG mitigation measures to reduce their emissions" the California Air Pollution Control Officers Association (CAPCOA) for determining the need for additional analysis and mitigation for GHG-related impacts under CEQA. The CAPCOA white paper recommends a 900 MT CO_2e/year screening level to determine the size of projects that would be likely to have a less than considerable contribution to the cumulative impact of climate change. Project exceeding this would require further analysis and mitigation, as necessary (California Air Pollution Control Officers Association, 2008).

A number of air districts in the State of California have recommended or adopted efficiency metric or "service population" thresholds as a method for analyzing cumulative GHG emissions and significance of impacts under CEQA. A project's "service population" refers to a project's residents plus employees that would be generated by the proposed project's development. This efficiency metric is expressed as MT CO_2e per service population per year (MT CO_2e/year/service population).

4.0 METHODOLOGY

4.1 Construction CO_2e Emissions Calculation Methodology

The Project construction dates were estimated based a hypothetical construction kickoff in starting in 2017 with grading expected to last about one month. Once the earthwork is complete, the project would pave the site and start building construction. Construction of the project would be expected in late 2017 as a worst case assumption.

Table 4.1 shows the expected timeframes for the construction processes for all the project infrastructure, facilities, improvements and commercial structures at the proposed project location as well as the expected number of pieces of equipment.

Table 4.1: Expected Construction Equipment

Equipment Identification	Proposed Start	Proposed Complete	Quantity
Site Preparation	1/1/2017	1/7/2017	
Rubber Tired Dozers			1
Tractors/Loaders/Backhoes			2
Grading	1/8/2017	1/30/2017	
Excavators			1
Graders			1
Rubber Tired Dozers			1
Tractors/Loaders/Backhoes			2
Paving	1/31/2017	2/15/2017	
Cement and Mortar Mixers			2
Pavers			1
Paving Equipment			2
Rollers			2
Tractors/Loaders/Backhoes			1
Building Construction	2/16/2017	12/31/2017	
Cranes			1
Forklifts			3
Generator Sets			1
Tractors/Loaders/Backhoes			3
Welders			1
Architectural Coating	6/1/2017	12/31/2017	
Generator Sets			1
Tractors/Loaders/Backhoes			3
Welders			1
Architectural Coating			
This equipment list is based upon equipment inventory within CalEEMod. The quantity and types are based upon assumptions from Projects of similar size and scope in the County of San Diego.			

4.2 Operational Emissions Calculation Methodology

Once construction is completed the proposed project would generate air pollutant and GHG emissions from daily operations which would include sources such as Area, Energy, Mobile, Solid waste and Water uses, which are calculated within CalEEMod. Area Sources include usage of landscaping and architectural coatings as part of regular maintenance. Energy sources would be from uses such as electricity and natural gas. Solid waste generated in the form of trash is also considered as decomposition of organic material breaks down to form GHGs. GHGs from water are also indirectly generated through the conveyance of the resource via pumping throughout the state and as necessary for wastewater treatment. Finally, the project would also generate air emissions and GHGs through the use of carbon fuel burning vehicles for transportation. The annual CalEEMod inputs are shown in ***Attachments A*** at the end of this report.

4.3 CalEEMod Mobile Calculations

CalEEMod calculates the emissions associated with on-road mobile sources. These are associated with customers visiting the storage lot to suit their needs. The emissions associated with on-road mobile sources includes running and starting exhaust emissions, evaporative emissions, brake and tire wear, and fugitive dust from paved and unpaved roads. Starting and evaporative emissions are associated with the number of starts or time between vehicle uses and the assumptions used in determining these values are described below. The Traffic inputs for CalEEMod were modified to reflect estimates by the traffic engineer (LOS Engineering, 2016). The analysis determined that the project would generate 123 daily trips and 11 peak hour trips. The analysis determined that the project would generate 123 daily trips and 11 peak hour trips.

4.4 CalEEMod Area Calculations

The area source module is used to calculate direct sources of air emissions located at the project site and includes architectural coatings and landscape maintenance equipment. The area source model does not include the emissions associated with natural gas usage for space heating or water heating as these are calculated in the building energy use module (CAPCOA, 2013).

4.5 CalEEMod Energy Usage Calculations

GHGs are emitted as a result of activities in buildings for which electricity and natural gas are used as energy sources. Combustion of any type of fuel emits criteria pollutants and GHGs directly into the atmosphere. Electricity generation typically takes place offsite at the

power plant therefore the GHG emissions will be calculated from electricity generation from the Utility provider or San Diego Gas and Electric. CalEEMod utilizes input sources recommended for the prosed uses for both Natural Gas and Electricity. Based on current law, the project applicant would be required to utilize Title 24 (2016). Energy reductions for these requirements were not included in the GHG model and this is acceptable since this would be worst-case.

4.6 CalEEMod Sold Waste Usage Calculations

Municipal solid waste (MSW) is the amount of material that is disposed of by land filling, recycling, or composting. CalEEMod calculates the indirect GHG emissions associated with waste that is disposed of at a landfill. The program uses annual waste disposal rates from the California Department of Resources Recycling and Recovery (CalRecycle) data for individual land uses.

4.7 Water Use Emission Calculation Methodology

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. It will often be the case that the water treatment and wastewater treatment occur outside of the project area. In this case, it is still important to quantify the energy and associated GHG emissions attributable to the water use. In addition to the indirect GHG emissions associated with energy use, wastewater treatment can directly emit both methane and nitrous oxide. These emissions are calculated within the model.

5.0 FINDINGS

5.1 Project Related Construction Emissions

Utilizing the CALEEMOD 2013.2.2 inputs for the model as shown in Table 4.1 above, we find that grading and construction of the project will produce approximately 300.16 metric tons of CO_2e over the construction life of the project for an average of 15.01 MT. The CALEEMOD model outputs are provided as ***Attachment A*** to this report. Given the fact that the total emissions will ultimately contribute to 2020 cumulative levels, it is acceptable to average the total construction emission over a 20-year period. A summary of the construction emissions is shown in Table 5.1 below.

Table 5.1: Expected Annual Construction CO_2e Emissions Summary

Year	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e (MT)
2017	0.00	299.29	299.29	0.04	0.00	300.16
Total	**0.00**	**299.29**	**299.29**	**0.04**	**0.00**	**300.16**
Yearly Average Construction Emissions (Metric Tons/year over 20 years)						**15.01**
Expected Construction emissions are based upon CalEEMod modeling assumptions for equipment and durations listed in Table 4.1 above.						

5.2 Project-Related Operational Emissions

As previously discussed, emissions generated from area, energy, mobile, solid waste and water uses are calculated within CalEEMod. These settings, which are automatically populated throughout the model, are based storage facility. Statewide averages for utility emissions were utilized for the calculations throughout the model. The calculated operational emissions for the 2020 scenario are shown on the following page in Table 5.2.

Adding both annual construction emissions and the expected operational emissions including design features from Area, Energy, Mobile, Waste and Water sources, the project would generate emissions of 550.25 MT. Since this is less than screening thresholds of 900 MT as identified by CAPCOA. Therefore, CEQA impacts related to project-generated GHGs would be less than significant.

Table 5.2: 2020 Operational Emissions Summary MT/Year

Year	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e (MT/Yr)
Area	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.00	177.63	177.63	0.01	0.00	178.28
Natural Gas	0.00	136.36	136.36	0.01	0.00	136.47
Mobile	26.74	0.00	26.74	1.58	0.00	59.92
Waste	10.28	119.97	130.25	1.06	0.03	160.56
Water	0.00	0.00	0.00	0.00	0.00	0.00
Sub Total (MT/Year)						535.24
Amortized Construction Emissions (Table 5.1 above)						15.01
Total Operations (MT/Year)						550.25

Data is presented in decimal format and may have rounding errors.

6.0 References

Architectural Energy Corporation (AEC). (2013, July). Retrieved 2015, from http://www.energy.ca.gov/2013publications/CEC-400-2013-008/CEC-400-2013-008.pdf

Architectural Energy Corporation for California Energy Commission. (November 7, 2007). *2008 Update to the California Energy Efficiency Standards for Residential and Nonresidential Buildings.* Sacramento, California. Retrieved from http://www.energy.ca.gov/title24/2008standards/rulemaking/documents/2007-11-07_IMPACT_ANALYSIS.PDF

ARE Associates. (2016). *Bonita Road Self Storage.*

California Air Pollution Control Officers Association. (2008). *CAPCOA*. Retrieved from http://www.capcoa.org/wp-content/uploads/downloads/2010/05/CAPCOA-White-Paper.pdf

California Air Resource Board. (2011). *STATUS OF SCOPING PLAN RECOMMENDED MEASURES*. Retrieved 2015, from http://www.arb.ca.gov/cc/scopingplan/sp_measures_implementation_timeline.pdf

California Air Resource Board. (2014, June 2). *Amendments to the Low-Emission Vehicle Program - LEV III*. Retrieved March 2015, from http://www.arb.ca.gov/msprog/levprog/leviii/leviii.htm

California Air Resourrce Board. (2013, May 6). *Clean Car Standards - Pavely, Assembly BIll 1493*. Retrieved 2015, from http://www.arb.ca.gov/cc/ccms/ccms.htm

California Building Standards Commission. (June 2010). *California Green Building Standards Code .* Sacramento: California Building Standards Commission. Retrieved from http://www.documents.dgs.ca.gov/bsc/CALGreen/2010_CA_Green_Bldg.pdf

California Energy Code. (2015). Retrieved from http://en.wikipedia.org/wiki/California_Energy_Code

CAPCOA. (2013). *Appendix A - Calculation Details for CalEEMod.*

City-Data. (2016). *Bonita City Data*. Retrieved 2015, from http://www.city-data.com/city/Bonita-California.html

Google. (2016). Retrieved 2015, from maps.google.com

LOS Engineering. (2016). *Trip Generation Analysis for ACE Self Storage on Bonita Road (MPA 16-004.*

Office of Governor Edmund G. Brown Jr. (2015, April 29). *gov.ca.gov*. Retrieved June 7, 2015, from http://gov.ca.gov/news.php?id=18938

Subnational Global Climate Leadership Memorandum of Understanding. (2015, May). *http://under2mou.org*. Retrieved June 2015, from California - Appendix to MOU - Specific Actions and Commitments: http://under2mou.org/?page_id=146

weather.com. (2016, 1 10). *monthly averages and record temperatures*. Retrieved from http://www.weather.com/weather/monthly/l/USCA0588:1:US

7.0 CERTIFICATIONS

The contents of this report represent an accurate depiction of the projected CO_2e emissions from the proposed project development based upon the best available information at the time of preparation. The report was prepared by Jeremy Louden; a County approved CEQA Consultant for Air Quality and Greenhouse Gas.

Jeremy Louden, Principal
Ldn Consulting, Inc.
(760) 473-1253
jlouden@ldnconsulting.net

Date July 24, 2018

ATTACHMENT A

CALEEMOD 2013.2.2 - Annual (2020)

Bonita Road Self Storage (2020 Operations)

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	140.13	1000sqft	4.18	140,129.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2020
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	626.8263	**CH4 Intensity (lb/MWhr)**	0.02523	**N2O Intensity (lb/MWhr)**	0.00522

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CALEE Intensity Factor was updated to reflect a 13% reduction do to RPS

Land Use - 4.18 acre self storage site. Most similar would be unrefrigerated warehouse area. Traffic to be modified per proejct trip generation study

Construction Phase - Proposed Construction

Off-road Equipment -

Off-road Equipment - CS

Off-road Equipment - CE

Off-road Equipment -

Off-road Equipment - Proposed Equipment

Grading - 4.18 acres

Architectural Coating - 150 g/l VOC Paint Max

Vehicle Trips - Traffic Study indicates that the project will generate .877 trips per 1000 SF

Area Coating - 150 g/l VOC Paint Max

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	150.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	150	250
tblConstructionPhase	NumDays	18.00	152.00
tblConstructionPhase	NumDays	230.00	227.00
tblConstructionPhase	NumDays	8.00	16.00
tblConstructionPhase	NumDays	18.00	12.00
tblConstructionPhase	PhaseEndDate	7/31/2018	12/31/2017
tblConstructionPhase	PhaseEndDate	12/29/2017	12/31/2017
tblConstructionPhase	PhaseEndDate	1/6/2017	1/7/2017
tblConstructionPhase	PhaseStartDate	1/1/2018	6/1/2017

tblGrading	AcresOfGrading	6.00	4.18
tblGrading	AcresOfGrading	0.00	4.18
tblLandUse	LandUseSquareFeet	140,130.00	140,129.00
tblLandUse	LotAcreage	3.22	4.18
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	UsageHours	7.00	2.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	7.00	2.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.02523
tblProjectCharacteristics	CO2IntensityFactor	720.49	626.8263
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.00522
tblProjectCharacteristics	OperationalYear	2014	2020
tblVehicleTrips	ST_TR	2.59	0.88
tblVehicleTrips	SU_TR	2.59	0.88
tblVehicleTrips	WD_TR	2.59	0.88

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	1.2601	2.1790	2.0760	3.5200e-003	0.1356	0.1336	0.2692	0.0502	0.1273	0.1775	0.0000	299.2876	299.2876	0.0413	0.0000	300.1555
Total	**1.2601**	**2.1790**	**2.0760**	**3.5200e-003**	**0.1356**	**0.1336**	**0.2692**	**0.0502**	**0.1273**	**0.1775**	**0.0000**	**299.2876**	**299.2876**	**0.0413**	**0.0000**	**300.1555**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	1.2601	2.1790	2.0760	3.5200e-003	0.1356	0.1336	0.2692	0.0502	0.1273	0.1775	0.0000	299.2874	299.2874	0.0413	0.0000	300.1553
Total	**1.2601**	**2.1790**	**2.0760**	**3.5200e-003**	**0.1356**	**0.1336**	**0.2692**	**0.0502**	**0.1273**	**0.1775**	**0.0000**	**299.2874**	**299.2874**	**0.0413**	**0.0000**	**300.1553**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.6935	1.0000e-005	1.3000e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5000e-003	2.5000e-003	1.0000e-005	0.0000	2.6400e-003
Energy	1.3200e-003	0.0120	0.0101	7.0000e-005		9.1000e-004	9.1000e-004		9.1000e-004	9.1000e-004	0.0000	177.6336	177.6336	6.8700e-003	1.6100e-003	178.2771
Mobile	0.0677	0.1516	0.7070	1.9600e-003	0.1354	2.2500e-003	0.1376	0.0362	2.0700e-003	0.0383	0.0000	136.3627	136.3627	5.2600e-003	0.0000	136.4730
Waste						0.0000	0.0000		0.0000	0.0000	26.7380	0.0000	26.7380	1.5802	0.0000	59.9215
Water						0.0000	0.0000		0.0000	0.0000	10.2806	119.9693	130.2499	1.0608	0.0259	160.5645
Total	**0.7626**	**0.1636**	**0.7184**	**2.0300e-003**	**0.1354**	**3.1600e-003**	**0.1385**	**0.0362**	**2.9800e-003**	**0.0392**	**37.0186**	**433.9681**	**470.9867**	**2.6531**	**0.0275**	**535.2387**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.6935	1.0000e-005	1.3000e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5000e-003	2.5000e-003	1.0000e-005	0.0000	2.6400e-003
Energy	1.3200e-003	0.0120	0.0101	7.0000e-005		9.1000e-004	9.1000e-004		9.1000e-004	9.1000e-004	0.0000	177.6336	177.6336	6.8700e-003	1.6100e-003	178.2771
Mobile	0.0677	0.1516	0.7070	1.9600e-003	0.1354	2.2500e-003	0.1376	0.0362	2.0700e-003	0.0383	0.0000	136.3627	136.3627	5.2600e-003	0.0000	136.4730
Waste						0.0000	0.0000		0.0000	0.0000	26.7380	0.0000	26.7380	1.5802	0.0000	59.9215
Water						0.0000	0.0000		0.0000	0.0000	10.2806	119.9693	130.2499	1.0606	0.0259	160.5502
Total	**0.7626**	**0.1636**	**0.7184**	**2.0300e-003**	**0.1354**	**3.1600e-003**	**0.1385**	**0.0362**	**2.9800e-003**	**0.0392**	**37.0186**	**433.9681**	**470.9867**	**2.6529**	**0.0275**	**535.2245**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.01**	**0.11**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2017	1/7/2017	5	5	
2	Grading	Grading	1/8/2017	1/30/2017	5	16	
3	Paving	Paving	1/31/2017	2/15/2017	5	12	
4	Building Construction	Building Construction	2/16/2017	12/31/2017	5	227	
5	Architectural Coating	Architectural Coating	6/1/2017	12/31/2017	5	152	

Acres of Grading (Site Preparation Phase): 4.18

Acres of Grading (Grading Phase): 4.18

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 210,194; Non-Residential Outdoor: 70,065 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	1	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Excavators	1	6.00	162	0.38
Grading	Graders	1	6.00	174	0.41
Grading	Rubber Tired Dozers	1	6.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	125	0.42
Paving	Paving Equipment	2	6.00	130	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	1	2.00	226	0.29
Building Construction	Forklifts	3	4.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	2.00	97	0.37
Building Construction	Welders	1	4.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	59.00	23.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	12.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0173	0.0000	0.0173	8.5100e-003	0.0000	8.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.5600e-003	0.0482	0.0368	4.0000e-005		2.6800e-003	2.6800e-003		2.4600e-003	2.4600e-003	0.0000	3.5075	3.5075	1.0700e-003	0.0000	3.5301
Total	**4.5600e-003**	**0.0482**	**0.0368**	**4.0000e-005**	**0.0173**	**2.6800e-003**	**0.0200**	**8.5100e-003**	**2.4600e-003**	**0.0110**	**0.0000**	**3.5075**	**3.5075**	**1.0700e-003**	**0.0000**	**3.5301**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	8.0000e-005	7.8000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1437	0.1437	1.0000e-005	0.0000	0.1438
Total	**6.0000e-005**	**8.0000e-005**	**7.8000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1437**	**0.1437**	**1.0000e-005**	**0.0000**	**0.1438**

3.2 Site Preparation - 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					
Fugitive Dust					0.0173	0.0000	0.0173	8.5100e-003	0.0000	8.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.5600e-003	0.0482	0.0368	4.0000e-005		2.6800e-003	2.6800e-003		2.4600e-003	2.4600e-003	0.0000	3.5075	3.5075	1.0700e-003	0.0000	3.5301
Total	**4.5600e-003**	**0.0482**	**0.0368**	**4.0000e-005**	**0.0173**	**2.6800e-003**	**0.0200**	**8.5100e-003**	**2.4600e-003**	**0.0110**	**0.0000**	**3.5075**	**3.5075**	**1.0700e-003**	**0.0000**	**3.5301**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	8.0000e-005	7.8000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1437	0.1437	1.0000e-005	0.0000	0.1438
Total	**6.0000e-005**	**8.0000e-005**	**7.8000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1437**	**0.1437**	**1.0000e-005**	**0.0000**	**0.1438**

3.3 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0384	0.0000	0.0384	0.0201	0.0000	0.0201	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0201	0.2098	0.1475	1.7000e-004		0.0118	0.0118		0.0108	0.0108	0.0000	15.9896	15.9896	4.9000e-003	0.0000	16.0924
Total	**0.0201**	**0.2098**	**0.1475**	**1.7000e-004**	**0.0384**	**0.0118**	**0.0501**	**0.0201**	**0.0108**	**0.0309**	**0.0000**	**15.9896**	**15.9896**	**4.9000e-003**	**0.0000**	**16.0924**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	4.3000e-004	4.0500e-003	1.0000e-005	8.3000e-004	1.0000e-005	8.4000e-004	2.2000e-004	1.0000e-005	2.3000e-004	0.0000	0.7472	0.7472	4.0000e-005	0.0000	0.7480
Total	**3.2000e-004**	**4.3000e-004**	**4.0500e-003**	**1.0000e-005**	**8.3000e-004**	**1.0000e-005**	**8.4000e-004**	**2.2000e-004**	**1.0000e-005**	**2.3000e-004**	**0.0000**	**0.7472**	**0.7472**	**4.0000e-005**	**0.0000**	**0.7480**

3.3 Grading - 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					
Fugitive Dust					0.0384	0.0000	0.0384	0.0201	0.0000	0.0201	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0201	0.2098	0.1475	1.7000e-004		0.0118	0.0118		0.0108	0.0108	0.0000	15.9895	15.9895	4.9000e-003	0.0000	16.0924
Total	**0.0201**	**0.2098**	**0.1475**	**1.7000e-004**	**0.0384**	**0.0118**	**0.0501**	**0.0201**	**0.0108**	**0.0309**	**0.0000**	**15.9895**	**15.9895**	**4.9000e-003**	**0.0000**	**16.0924**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	4.3000e-004	4.0500e-003	1.0000e-005	8.3000e-004	1.0000e-005	8.4000e-004	2.2000e-004	1.0000e-005	2.3000e-004	0.0000	0.7472	0.7472	4.0000e-005	0.0000	0.7480
Total	**3.2000e-004**	**4.3000e-004**	**4.0500e-003**	**1.0000e-005**	**8.3000e-004**	**1.0000e-005**	**8.4000e-004**	**2.2000e-004**	**1.0000e-005**	**2.3000e-004**	**0.0000**	**0.7472**	**0.7472**	**4.0000e-005**	**0.0000**	**0.7480**

3.4 Paving - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.9300e-003	0.1008	0.0749	1.1000e-004		6.0300e-003	6.0300e-003		5.5600e-003	5.5600e-003	0.0000	10.1994	10.1994	3.0400e-003	0.0000	10.2633
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.9300e-003**	**0.1008**	**0.0749**	**1.1000e-004**		**6.0300e-003**	**6.0300e-003**		**5.5600e-003**	**5.5600e-003**	**0.0000**	**10.1994**	**10.1994**	**3.0400e-003**	**0.0000**	**10.2633**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7000e-004	4.9000e-004	4.6700e-003	1.0000e-005	9.6000e-004	1.0000e-005	9.7000e-004	2.6000e-004	1.0000e-005	2.6000e-004	0.0000	0.8621	0.8621	4.0000e-005	0.0000	0.8630
Total	**3.7000e-004**	**4.9000e-004**	**4.6700e-003**	**1.0000e-005**	**9.6000e-004**	**1.0000e-005**	**9.7000e-004**	**2.6000e-004**	**1.0000e-005**	**2.6000e-004**	**0.0000**	**0.8621**	**0.8621**	**4.0000e-005**	**0.0000**	**0.8630**

3.4 Paving - 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	9.9300e-003	0.1008	0.0749	1.1000e-004		6.0300e-003	6.0300e-003		5.5600e-003	5.5600e-003	0.0000	10.1994	10.1994	3.0400e-003	0.0000	10.2633
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.9300e-003**	**0.1008**	**0.0749**	**1.1000e-004**		**6.0300e-003**	**6.0300e-003**		**5.5600e-003**	**5.5600e-003**	**0.0000**	**10.1994**	**10.1994**	**3.0400e-003**	**0.0000**	**10.2633**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7000e-004	4.9000e-004	4.6700e-003	1.0000e-005	9.6000e-004	1.0000e-005	9.7000e-004	2.6000e-004	1.0000e-005	2.6000e-004	0.0000	0.8621	0.8621	4.0000e-005	0.0000	0.8630
Total	**3.7000e-004**	**4.9000e-004**	**4.6700e-003**	**1.0000e-005**	**9.6000e-004**	**1.0000e-005**	**9.7000e-004**	**2.6000e-004**	**1.0000e-005**	**2.6000e-004**	**0.0000**	**0.8621**	**0.8621**	**4.0000e-005**	**0.0000**	**0.8630**

3.5 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1744	1.3938	1.0315	1.5800e-003		0.0962	0.0962		0.0918	0.0918	0.0000	138.4025	138.4025	0.0270	0.0000	138.9691
Total	**0.1744**	**1.3938**	**1.0315**	**1.5800e-003**		**0.0962**	**0.0962**		**0.0918**	**0.0918**	**0.0000**	**138.4025**	**138.4025**	**0.0270**	**0.0000**	**138.9691**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0272	0.2280	0.3376	6.2000e-004	0.0170	3.2600e-003	0.0202	4.8600e-003	3.0000e-003	7.8600e-003	0.0000	55.3687	55.3687	4.2000e-004	0.0000	55.3775
Worker	0.0208	0.0276	0.2607	6.6000e-004	0.0537	4.0000e-004	0.0541	0.0143	3.7000e-004	0.0146	0.0000	48.1101	48.1101	2.4500e-003	0.0000	48.1615
Total	**0.0480**	**0.2556**	**0.5983**	**1.2800e-003**	**0.0707**	**3.6600e-003**	**0.0743**	**0.0191**	**3.3700e-003**	**0.0225**	**0.0000**	**103.4788**	**103.4788**	**2.8700e-003**	**0.0000**	**103.5389**

3.5 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	0.1744	1.3938	1.0315	1.5800e-003		0.0962	0.0962		0.0918	0.0918	0.0000	138.4023	138.4023	0.0270	0.0000	138.9689
Total	**0.1744**	**1.3938**	**1.0315**	**1.5800e-003**		**0.0962**	**0.0962**		**0.0918**	**0.0918**	**0.0000**	**138.4023**	**138.4023**	**0.0270**	**0.0000**	**138.9689**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0272	0.2280	0.3376	6.2000e-004	0.0170	3.2600e-003	0.0202	4.8600e-003	3.0000e-003	7.8600e-003	0.0000	55.3687	55.3687	4.2000e-004	0.0000	55.3775
Worker	0.0208	0.0276	0.2607	6.6000e-004	0.0537	4.0000e-004	0.0541	0.0143	3.7000e-004	0.0146	0.0000	48.1101	48.1101	2.4500e-003	0.0000	48.1615
Total	**0.0480**	**0.2556**	**0.5983**	**1.2800e-003**	**0.0707**	**3.6600e-003**	**0.0743**	**0.0191**	**3.3700e-003**	**0.0225**	**0.0000**	**103.4788**	**103.4788**	**2.8700e-003**	**0.0000**	**103.5389**

3.6 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.9743					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0253	0.1661	0.1420	2.3000e-004		0.0132	0.0132		0.0132	0.0132	0.0000	19.4047	19.4047	2.0500e-003	0.0000	19.4478
Total	**0.9995**	**0.1661**	**0.1420**	**2.3000e-004**		**0.0132**	**0.0132**		**0.0132**	**0.0132**	**0.0000**	**19.4047**	**19.4047**	**2.0500e-003**	**0.0000**	**19.4478**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8300e-003	3.7600e-003	0.0355	9.0000e-005	7.3100e-003	5.0000e-005	7.3700e-003	1.9400e-003	5.0000e-005	1.9900e-003	0.0000	6.5521	6.5521	3.3000e-004	0.0000	6.5591
Total	**2.8300e-003**	**3.7600e-003**	**0.0355**	**9.0000e-005**	**7.3100e-003**	**5.0000e-005**	**7.3700e-003**	**1.9400e-003**	**5.0000e-005**	**1.9900e-003**	**0.0000**	**6.5521**	**6.5521**	**3.3000e-004**	**0.0000**	**6.5591**

3.6 Architectural Coating - 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					
Archit. Coating	0.9743					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0253	0.1661	0.1420	2.3000e-004		0.0132	0.0132		0.0132	0.0132	0.0000	19.4047	19.4047	2.0500e-003	0.0000	19.4477
Total	**0.9995**	**0.1661**	**0.1420**	**2.3000e-004**		**0.0132**	**0.0132**		**0.0132**	**0.0132**	**0.0000**	**19.4047**	**19.4047**	**2.0500e-003**	**0.0000**	**19.4477**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8300e-003	3.7600e-003	0.0355	9.0000e-005	7.3100e-003	5.0000e-005	7.3700e-003	1.9400e-003	5.0000e-005	1.9900e-003	0.0000	6.5521	6.5521	3.3000e-004	0.0000	6.5591
Total	**2.8300e-003**	**3.7600e-003**	**0.0355**	**9.0000e-005**	**7.3100e-003**	**5.0000e-005**	**7.3700e-003**	**1.9400e-003**	**5.0000e-005**	**1.9900e-003**	**0.0000**	**6.5521**	**6.5521**	**3.3000e-004**	**0.0000**	**6.5591**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0677	0.1516	0.7070	1.9600e-003	0.1354	2.2500e-003	0.1376	0.0362	2.0700e-003	0.0383	0.0000	136.3627	136.3627	5.2600e-003	0.0000	136.4730
Unmitigated	0.0677	0.1516	0.7070	1.9600e-003	0.1354	2.2500e-003	0.1376	0.0362	2.0700e-003	0.0383	0.0000	136.3627	136.3627	5.2600e-003	0.0000	136.4730

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	123.31	123.31	123.31	360,018	360,018
Total	123.31	123.31	123.31	360,018	360,018

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Unrefrigerated Warehouse-No Rail	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.513300	0.073549	0.191092	0.130830	0.036094	0.005140	0.012550	0.022916	0.001871	0.002062	0.006564	0.000586	0.003446

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	164.5474	164.5474	6.6200e-003	1.3700e-003	165.1113
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	164.5474	164.5474	6.6200e-003	1.3700e-003	165.1113
NaturalGas Mitigated	1.3200e-003	0.0120	0.0101	7.0000e-005		9.1000e-004	9.1000e-004		9.1000e-004	9.1000e-004	0.0000	13.0862	13.0862	2.5000e-004	2.4000e-004	13.1658
NaturalGas Unmitigated	1.3200e-003	0.0120	0.0101	7.0000e-005		9.1000e-004	9.1000e-004		9.1000e-004	9.1000e-004	0.0000	13.0862	13.0862	2.5000e-004	2.4000e-004	13.1658

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Unrefrigerated Warehouse-No Rail	245226	1.3200e-003	0.0120	0.0101	7.0000e-005		9.1000e-004	9.1000e-004		9.1000e-004	9.1000e-004	0.0000	13.0862	13.0862	2.5000e-004	2.4000e-004	13.1658
Total		**1.3200e-003**	**0.0120**	**0.0101**	**7.0000e-005**		**9.1000e-004**	**9.1000e-004**		**9.1000e-004**	**9.1000e-004**	**0.0000**	**13.0862**	**13.0862**	**2.5000e-004**	**2.4000e-004**	**13.1658**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Unrefrigerated Warehouse-No Rail	245226	1.3200e-003	0.0120	0.0101	7.0000e-005		9.1000e-004	9.1000e-004		9.1000e-004	9.1000e-004	0.0000	13.0862	13.0862	2.5000e-004	2.4000e-004	13.1658
Total		**1.3200e-003**	**0.0120**	**0.0101**	**7.0000e-005**		**9.1000e-004**	**9.1000e-004**		**9.1000e-004**	**9.1000e-004**	**0.0000**	**13.0862**	**13.0862**	**2.5000e-004**	**2.4000e-004**	**13.1658**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	578733	164.5474	6.6200e-003	1.3700e-003	165.1113
Total		**164.5474**	**6.6200e-003**	**1.3700e-003**	**165.1113**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	578733	164.5474	6.6200e-003	1.3700e-003	165.1113
Total		**164.5474**	**6.6200e-003**	**1.3700e-003**	**165.1113**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.6935	1.0000e-005	1.3000e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5000e-003	2.5000e-003	1.0000e-005	0.0000	2.6400e-003
Unmitigated	0.6935	1.0000e-005	1.3000e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5000e-003	2.5000e-003	1.0000e-005	0.0000	2.6400e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1461					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5473					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.2000e-004	1.0000e-005	1.3000e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5000e-003	2.5000e-003	1.0000e-005	0.0000	2.6400e-003
Total	**0.6935**	**1.0000e-005**	**1.3000e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.5000e-003**	**2.5000e-003**	**1.0000e-005**	**0.0000**	**2.6400e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1461					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5473					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.2000e-004	1.0000e-005	1.3000e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5000e-003	2.5000e-003	1.0000e-005	0.0000	2.6400e-003
Total	**0.6935**	**1.0000e-005**	**1.3000e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.5000e-003**	**2.5000e-003**	**1.0000e-005**	**0.0000**	**2.6400e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	130.2499	1.0606	0.0259	160.5502
Unmitigated	130.2499	1.0608	0.0259	160.5645

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Rail	32.4051 / 0	130.2499	1.0608	0.0259	160.5645
Total		**130.2499**	**1.0608**	**0.0259**	**160.5645**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Rail	32.4051 / 0	130.2499	1.0606	0.0259	160.5502
Total		**130.2499**	**1.0606**	**0.0259**	**160.5502**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	26.7380	1.5802	0.0000	59.9215
Unmitigated	26.7380	1.5802	0.0000	59.9215

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Rail	131.72	26.7380	1.5802	0.0000	59.9215
Total		**26.7380**	**1.5802**	**0.0000**	**59.9215**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Rail	131.72	26.7380	1.5802	0.0000	59.9215
Total		**26.7380**	**1.5802**	**0.0000**	**59.9215**

9.0 Operational Offroad

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

10.0 Vegetation