RECON

Greenhouse Gas Analysis for the National City CarMax Project National City, California

Prepared for
Centerpoint Integrated Solutions
355 Union Boulevard, Suite 301
Lakewood, CO 80228
Contact: John Thatcher

Prepared by
RECON Environmental, Inc.
3111 Camino del Rio North, Suite 600
San Diego, CA 92108
P 619.308.9333

RECON Number 7761
~~October 14, 2020~~September 1, 2021

Jessica Fleming, Senior Environmental Analyst

TABLE OF CONTENTS

FIGURES

TABLES

ATTACHMENT

Acronyms

AB	Assembly Bill
BAU	business as usual
CAFE	Corporate Average Fuel Economy
CalEEMod	California Emissions Estimator Model
CalGreen	California Green Building Standards Code,
CalRecycle	California Department of Resources Recycling and Recovery
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CBC	California Building Code
CEC	California Energy Commission
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CH_4	methane
City	City of National City
CO_2	carbon dioxide
CUP	Conditional Use Permit
EO	Executive Order
EPA	Environmental Protection Agency
GHG	greenhouse gas
GWP	Global warming potential
lbs.	pounds
LUC	Land Use Code
MMT CO_2E	million metric tons carbon dioxide equivalent
mpg	miles per gallon
MPO	Metropolitan Planning Organizations
MT CO_2E	metric tons carbon dioxide equivalent
MWh	megawatt hour
N_2O	nitrous oxide
project	National City CarMax Project
RPS	Renewable Portfolio Standard
SANDAG	San Diego Association of Governments
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District
SDAPCD	San Diego Air Pollution Control District
SDG&E	San Diego Gas & Electric
SR-54	State Route 54
U.S. EPA	U.S. Environmental Protection Agency

Executive Summary

The proposed National City CarMax Project (project) is located at the southwest corner of the intersection of Sweetwater Road and Plaza Bonita Road in National City, California. The project includes a General Plan Amendment, Rezone, Land Use Code (LUC) Amendment, Tentative Parcel Map, and Conditional Use Permit to allow development of a CarMax pre-owned automobile dealership, service building and non-public carwash with associated access drives, parking lots and landscaped areas.

In accordance with California Environmental Quality Act and City guidance, this analysis evaluates the significance of the project in terms of (1) its contribution of greenhouse gases (GHGs) to cumulative statewide emissions, and (2) whether the project would conflict with local and/or state regulations, plans, and policies adopted to reduce GHG emissions.

No GHG emission thresholds have been adopted by the City or the San Diego Air Pollution Control District (SDAPCD) for land development projects. Thus, in the absence of thresholds of significance for GHG emissions, the project is evaluated based on the South Coast Air Quality Management District's (SCAQMD) recommended/preferred option threshold for all land use types of 3,000 metric tons of carbon dioxide equivalent (MT CO_2E) per year (SCAQMD 2008).

The emissions sources include construction (off-road vehicles); mobile (on-road vehicles); energy (electricity and natural gas); area sources (landscape maintenance equipment); water and wastewater; and solid waste. Based on emissions estimates, the project would generate 558 MT CO_2E annually. Emissions are projected to be less than the City's 3,000 MT CO_2E screening criterion. Therefore, the level of impacts associated with contribution of GHGs to cumulative statewide emissions would be less than cumulatively considerable. The project would not conflict with the goals and strategies of local and state plans, policies, and regulations adopted to reduce GHG emissions including the National City Climate Action Plan. Thus, impacts related to applicable policies, plans, and regulations would be less than significant.

1.0 Introduction

This report evaluates the significance of the proposed National City CarMax Project (project) and its contribution of greenhouse gas (GHG) emissions to statewide GHG emissions and GHG reduction targets. To evaluate the incremental effect of project development on statewide emissions and global climate change, it is important to have a basic understanding of the nature of the global climate change problem.

1.1 Understanding Global Climate Change

To evaluate the incremental effect of the project on statewide GHG emissions and global climate change, it is important to have a basic understanding of the nature of the global climate change problem. 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. Recently observed increased concentrations of GHGs in the atmosphere appear to be related to increases in human activity. Therefore, the current cycle of "global warming" is 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 believed that the increased GHG concentrations around the world are related to human activity and the collective of human actions taking place throughout the world, it is quintessentially a global or cumulative issue.

1.2 Greenhouse Gases of Primary Concern

There are numerous GHGs, both naturally occurring and manmade. Each GHG has variable atmospheric lifetime and global warming potential (GWP). The atmospheric lifetime of the gas is the average time a molecule stays stable in the atmosphere. Most GHGs have long atmospheric lifetimes, staying in the atmosphere hundreds or thousands of years. GWP is a measure of the potential for a gas to trap heat and warm the atmosphere. Although GWP is related to its atmospheric lifetime, many other factors including chemical reactivity of the

gas also influence GWP. GWP is reported as a unitless factor representing the potential for the gas to affect global climate relative to the potential of carbon dioxide (CO_2). Because CO_2 is the reference gas for establishing GWP, by definition its GWP is 1. Although methane (CH_4) has a shorter atmospheric lifetime than CO_2, it has a 100-year GWP of 28; this means that CH_4 has 28 times more effect on global warming than CO_2 on a molecule-by-molecule basis.

The GWP is officially defined as (U.S. Environmental Protection Agency [U.S. 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.

GHG emissions estimates are typically represented in terms of equivalent metric tons of CO_2 (MT CO_2E). CO_2E emissions are the product of the amount of each gas by its GWP. The effects of several GHGs may be discussed in terms of MT CO_2E and can be summed to represent the total potential of these gases to warm the global climate. Table 1 summarizes some of the most common GHGs.

Table 1
Global Warming Potentials and Atmospheric Lifetimes (years)

Gas	Atmospheric Lifetime (years)	100-year GWP	20-year GWP
Carbon dioxide (CO_2)	50–200	1	1
Methane (CH_4)*	12.4	28	84
Nitrous oxide (N_2O)	121	265	264
HFC-23	222	12,400	10,800
HFC-32	5.2	677	2,430
HFC-125	28.2	3,170	6,090
HFC-134a	13.4	1,300	3,710
HFC-143a	47.1	4,800	6,940
HFC-152a	1.5	138	506
HFC-227ea	38.9	3,350	5,360
HFC-236fa	242	8,060	6,940
HFC-43-10mee	16.1	1,650	4,310
CF_4	50,000	6,630	4,880
C_2F_6	10,000	11,100	8,210
C_3F_8	2,600	8,900	6,640
C_4F_{10}	2,600	9,200	6,870
c-C_4F_8	3,200	9,540	7,110
C_5F_{12}	4,100	8,550	6,350
C_6F_{14}	3,100	7,910	5,890
SF_6	3,200	23,500	17,500
SOURCE: Intergovernmental Panel on Climate Change (IPCC) 2014.			

It should be noted that the U.S. EPA and other organizations will update the GWP values they use occasionally. This change can be due to updated scientific estimates of the energy

absorption or lifetime of the gases or to changing atmospheric concentrations of GHGs that result in a change in the energy absorption of one additional ton of a gas relative to another. The GWPs shown in Table 1 are the most current. However, it should be noted that in the California Emissions Estimator Model (CalEEMod), which is the model used in this analysis to calculate emissions, CH_4 has a GWP of 21 and nitrous oxide (N_2O) has a GWP of 310, consistent with the Scoping Plan.

All of the gases in Table 1 are produced by both biogenic (natural) and anthropogenic (human) sources. These are the GHGs of primary concern in this analysis. CO_2 would be emitted by the project due to the combustion of fossil fuels in vehicles (including construction), from electricity generation and natural gas consumption, water use, and from solid waste disposal. Smaller amounts of CH_4 and N_2O would be emitted from the same project operations.

2.0 Project Description

The project site is located at the southwest corner of the intersection of Sweetwater Road and Plaza Bonita Road in National City, California. The project site is situated along the Sweetwater River channel and is bordered to the west by Interstate 805, to the north by State Route 54 (SR-54) and Sweetwater Road, to the east by Plaza Bonita Road and Westfield Plaza Bonita Mall, and to the south by the vegetated channel of the Sweetwater River. Figures 1 and 2 show the regional location of the project site and an aerial photograph of the project site. Sensitive receptors in the vicinity of the project include residential uses northeast of Sweetwater Road and north of SR-54.

~~The project site would consist of two distinct pieces of land: the 15.08-acre project parcel and the 2.90-acre Offsite Area.~~ The proposed CarMax facility and earthen channel would be constructed on the 15.08-acre project parcel (assessor's parcel number 564-471-11)~~, while the 2.90-acre Offsite Area consists of California Department of Transportation and City right-of-way that would be temporarily impacted during construction~~. On the project parcel, the project proposes to construct a CarMax pre-owned automobile dealership, service building, non-public carwash, a customer/employee parking lot, a sales inventory lot, a staging lot, two public access driveways, one restricted access driveway, and landscaped areas within approximately 7.19 acres. The CarMax facility buildings would total approximately 18,774 square feet and include 157 parking spaces for customers and employees. The CarMax facility would also include 401 vehicle stalls in a sales inventory lot, and the facility reserves 0.9 acre for vehicle staging where cars are stored while waiting to be serviced. The project would also make frontage improvements to add a sidewalk along Plaza Bonita Road and would relocate an existing sewer line that traverses the project site into the centerline of Plaza Bonita Road.

Project Location

FIGURE 1
Regional Location

RECON

M:\JOBS4\7761\common_gis\fig1.mxd 8/12/2016 fmm

Image Source: Nearmap (flown May 2020)

RECON

M:\JOBS4\7761\common_gis\fig2.mxd 09/01/2021 bma

FIGURE 2

Project Location on Aerial Photograph

~~Due to the elevation and adjacency to the unnamed creek, development of the project parcel would require grading of the property, resulting in a net import of approximately 166,379 cubic yards (5,536 cubic yards of cut, 171,915 cubic yards of fill)~~Site grading would require up to approximately 5,536 cubic yards of cut and up to approximately 171,915 cubic yards of fill, resulting in a net import of up to approximately 166,379 cubic yards. Additionally, the project would recontour and redirect approximately 2,012 linear feet of the unnamed creek located on the project parcel by constructing an earthen channel that would traverse the northwestern boundary of the property. Figure 3 presents the proposed site plan.

The project includes a General Plan Amendment, Rezone, Land Use Code (LUC) Amendment, tentative parcel map, and Conditional Use Permit (CUP) to allow development of a CarMax pre-owned automobile dealership, service building and non-public carwash with associated access drives, parking lots, and landscaped areas.

The proposed General Plan Amendment and Rezone would change the existing General Plan Designation and Zoning of the CarMax Facility portion of the project parcel from the Major Mixed-Use designation and the Major Mixed-Use District (MXD-2) zone to the Service Commercial (CS) General Plan designation and zone. The proposed General Plan Amendment and Rezone would also change the existing land use designation and zoning of the earthen channel portion of the project parcel and the Offsite Area from the Major Mixed-Use designation and the MXD-2 zone to the Open Space land use designation and zone. The LUC amendment is proposed to make automobile sales an allowed use in the Service Commercial (CS) zone subject to approval of a CUP. The project includes a CUP for the proposed CarMax. A tentative parcel map is also proposed to subdivide the project parcel into two lots so the proposed CarMax facility and the earthen channel would be located on separate parcels.

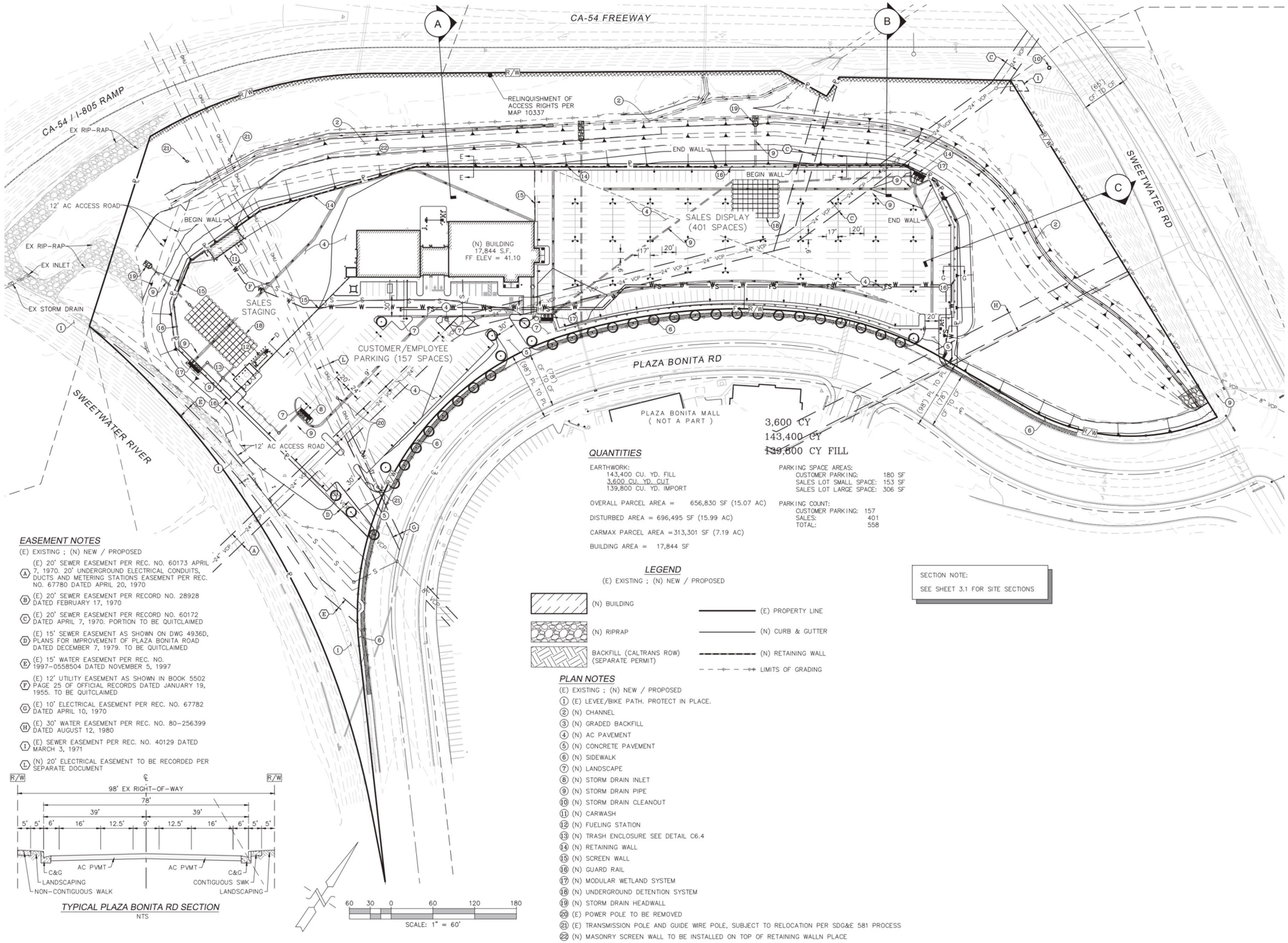
3.0 Existing Conditions

3.1 Environmental Setting

3.1.1 State and Regional GHG Inventories

The California Air Resources Board (CARB) performs statewide GHG inventories. The inventory is divided into nine broad sectors of economic activity: agriculture, commercial, electricity generation, forestry, high GWP emitters, industrial, recycling and waste, residential, and transportation. Emissions are quantified in million metric tons of CO_2 equivalent (MMT CO_2E). Table 2 shows the estimated statewide GHG emissions for the years 1990, the baseline year for established statewide reduction targets, and 2017, the year of the most recent available data.

Map Source: REC Consultants



RECON

M:\JOBS4\7761\env\graphics\air\fig3.afdesign 09/01/21 bma

FIGURE 3
Site Plan

Table 2 California GHG Emissions by Sector in 1990 and 2017		
Sector	1990[1] Emissions in MMT CO_2E (% total)[2]	2017[3] Emissions in MMT CO_2E (% total)[2]
Electricity Generation	110.5 (25.7%)	62.6 (14.8%)
Transportation	150.6 (35.0%)	174.3 (41.1%)
Industrial	105.3 (24.4%)	101.1 (23.8%)
Commercial	14.4 (3.4%)	23.3 (5.5%)
Residential	29.7 (6.9%)	30.4 (7.2%)
Agriculture & Forestry	18.9 (4.4%)	32.4 (7.6%)
Not Specified	1.3 (0.3%)	--
TOTAL[4]	**430.7**	**424.1**

SOURCE: CARB 2007 and 2019.
[1]1990 data was obtained from the CARB 2007 source and are based on IPCC fourth assessment report GWPs.
[2]Percentages may not total 100 due to rounding.
[3]2017 data was retrieved from the CARB 2019 source and are based on IPCC fourth assessment report GWPs.
[4]Totals may vary due to independent rounding.

As shown in Table 2, statewide GHG source emissions totaled approximately 430.7 MMT CO_2E in 1990, and 424.1 MMT CO_2E in 2017. Many factors affect year-to-year changes in GHG emissions, including economic activity, demographic influences, environmental conditions such as drought, and the impact of regulatory efforts to control GHG emissions. As shown in Table 2, transportation-related emissions consistently contribute to the most GHG emissions.

A 2005 GHG emissions inventory was prepared as a part of preparation of the City's Climate Action Plan (CAP). The inventory was conducted using the International Council on Environmental Initiatives Cities for Climate Protection inventory methodology. Table 3 summarizes the inventory. As shown, the primary sources of GHG emissions in National City are energy (electricity and natural gas) and transportation.

Table 3 National City 2005 Community-wide GHG Emission Inventory		
Category	MT CO_2E	Percent of Total
Residential Energy	35,082	6.4%
Commercial/Industrial Energy	139,026	25.2%
Transportation	359,029	65.2%
Solid Waste	14,308	2.6%
Water and Wastewater	3,269	0.6%
TOTAL	**550,714**	**100.0%**

SOURCE: City of National City 2011a.

An additional GHG emissions inventory was prepared in 2019 for the years 2012 through 2014. Table 4 summarizes the year 2012 through 2014 inventories.

Table 4 National City 2012-2014 Community-wide GHG Emission Inventory						
	2012		2013		2014	
Category	MT CO_2E	Percent of Total	MT CO_2E	Percent of Total	MT CO_2E	Percent of Total
On-Road Transportation	213,200	62.2%	211,500	62.6%	208,900	64.3%
Electricity	84,000	24.5%	81,200	24.0%	72,700	22.4%
Natural Gas	35,000	10.2%	34,500	10.2%	31,200	9.6%
Solid Waste	8,600	2.5%	8,600	2.5%	8,600	2.6%
Water	1,300	0.4%	1,600	0.5%	2,900	0.9%
Wastewater	600	0.2%	500	0.1%	700	0.2%
TOTAL	**342,700**	**100.0%**	**337,900**	**100.0%**	**325,000**	**100.0%**
SOURCE: Energy Policy Initiative Center 2019						

3.1.2 On-Site GHG Emissions

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

3.2 Regulatory Background

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

3.2.1 Federal

The federal government, U.S. EPA, and other federal agencies have many federal level programs and projects to reduce GHG emissions. In June 2012, the Council on Environmental Quality (CEQ) revised the Federal Greenhouse Gas Accounting and Reporting Guidance originally issued in October 2010. The CEQ guidance identifies ways in which Federal agencies can improve consideration of GHG emissions and climate change for Federal actions. The guidance states that National Environmental Policy Act documents should provide decision makers with relevant and timely information and should consider (1) GHG emissions of a Proposed Action and alternative actions, and (2) the relationship of climate change effects to a Proposed Action or alternatives. Specifically, if a Proposed Action would be reasonably anticipated to cause direct emissions of 25,000 MT CO_2E GHG emissions on an annual basis, agencies should consider this as an indicator that a quantitative assessment may be meaningful to decision makers and the public (CEQ 2012).

3.2.1.1 Environmental Protection Agency

The U.S. EPA has many federal level programs and projects to reduce GHG emissions. The U.S. EPA provides technical expertise and encourages voluntary reductions from the private sector. One of the voluntary programs applicable to the proposed project is the Energy Star program. Energy Star products such as appliances, building products, heating and cooling equipment, and other energy-efficient equipment may be utilized by the project.

Energy Star is a joint program of U.S. EPA and the U.S. Department of Energy, which promotes energy efficient products and practices. Tools and initiatives include the Energy Star Portfolio Manager, which helps track and assess energy and water consumption across an entire portfolio of buildings, and the Energy Star Most Efficient 2020, which provides information on exceptional products which represent the leading edge in energy efficient products in the year 2020 (U.S. EPA 2020a).

The U.S. EPA also collaborates with the public sector, including states, tribes, localities, and resource managers, to encourage smart growth, sustainability preparation, and renewable energy and climate change preparation. These initiatives include the Clean Energy-Environment State Partnership Program, the Climate Ready Water Utilities Initiative, the Climate Ready Estuaries Program, and the Sustainable Communities Partnership (U.S. EPA 2020b).

3.2.1.2 Corporate Average Fuel Economy Standards

The project would generate additional vehicle trips. These vehicles would consume fuel and would result in GHG emissions. The federal Corporate Average Fuel Economy (CAFE) standards determine the fuel efficiency of certain vehicle classes in the U.S. The first phase of the program applied to passenger cars, new light-duty trucks, and medium-duty passenger cars with model years 2012 through 2016, and required these vehicles to achieve a standard equivalent to 35.5 miles per gallon (mpg). The second phase of the program applies to model years 2017 through 2025 and increased the standards to 54.5 mpg. Separate standards were also established for medium- and heavy-duty vehicles. The first phase applied to model years 2014 through 2018 and the second phase applies to model years 2018 through 2027. With improved gas mileage, fewer gallons of transportation fuel would be combusted to travel the same distance, thereby reducing nationwide GHG emissions associated with vehicle travel.

3.2.2 State

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

3.2.2.1 Executive Orders and Statewide GHG Emission Targets

Executive Order S-3-05

This Executive Order (EO) established the following GHG emission reduction targets for the State of California:

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

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

Executive Order B-30-15

This EO, issued on April 29, 2015, establishes an interim GHG emission reduction goal for the state of California by 2030 of 40 percent below 1990 levels. This EO also directed all state agencies with jurisdiction over GHG emitting sources to implement measures designed to achieve the new interim 2030 goal, as well as the pre-existing, long-term 2050 goal identified in EO S-3-05. Additionally, this EO directed CARB to update its Climate Change Scoping Plan to address the 2030 goal.

3.2.2.2 California Global Warming Solutions Act

In response to EO S-3-05, the California Legislature passed Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006, and thereby enacted Sections 38500–38599 of the California Health and Safety Code. The heart of AB 32 is its requirement that CARB establish an emissions cap and adopt rules and regulations that would reduce GHG emissions to 1990 levels by 2020. AB 32 also required CARB to adopt a plan by January 1, 2009 indicating how emission reductions would be achieved from significant GHG sources via regulations, market mechanisms, and other actions.

In 2008, CARB estimated that annual statewide GHG emissions were 427 MMT CO_2E in 1990 and would reach 596 MMT CO_2E by 2020 under a business as usual (BAU) condition (CARB 2008). To achieve the mandate of AB 32, CARB determined that a 169 MMTCO_2E (or approximate 28.5 percent) reduction in BAU emissions was needed by 2020. In 2010, CARB prepared an updated 2020 forecast to account for the recession and slower forecasted growth. CARB determined that the economic downturn reduced the 2020 BAU by 55 MMT CO_2E; as a result, achieving the 1990 emissions level by 2020 would require a reduction in GHG emissions of 21.7 (not 28.5) percent from the 2020 BAU. California has been on track to achieve 1990 levels, and based on the GHG inventories shown in Table 2, achieved the goal by 2017.

Approved in September 2016, Senate Bill (SB) 32 updates the California Global Warming Solutions Act of 2006 and enacts EO B-30-15. Under SB 32, the state would reduce its GHG emissions to 40 percent below 1990 levels by 2030. This is equivalent to an emissions level of approximately 260 MMT CO_2E for 2030. In implementing the 40 percent reduction goal, CARB is required to prioritize emissions reductions to consider the social costs of the emissions of GHGs; where "social costs" is defined as "an estimate of the economic damages, including, but not limited to, changes in net agricultural productivity; impacts to public

health; climate adaptation impacts, such as property damages from increased flood risk; and changes in energy system costs, per metric ton of greenhouse gas emission per year."

3.2.2.3 Climate Change Scoping Plan

As directed by the California Global Warming Solutions Act of 2006, in 2008, CARB adopted the *Climate Change Scoping Plan: A Framework* for Change (2008 Scoping Plan). The 2008 Scoping Plan identifies the main strategies the State of California will implement to achieve the GHG reductions necessary to reduce statewide forecasted BAU GHG emissions in 2020 to the state's historic 1990 emissions level (CARB 2008). In November 2017, CARB released the 2017 Climate Change Scoping Plan Update, the Strategy for Achieving California's 2030 Greenhouse Gas Target (2017 Scoping Plan; CARB 2017a). The 2017 Scoping Plan identifies state strategies for achieving the state's 2030 interim GHG emissions reduction target codified by SB 32. Measures under the 2017 Scoping Plan Scenario build on existing programs such as the Low Carbon Fuel Standard, Advanced Clean Cars Program, Renewables Portfolio Standard (RPS), Sustainable Communities Strategy, Short-Lived Climate Pollutant Reduction Strategy, and the Cap-and-Trade Program. Additionally, the 2017 Scoping Plan proposes new policies to address GHG emissions from natural and working lands.

3.2.2.4 Regional Emissions Targets – Senate Bill 375

SB 375, the 2008 Sustainable Communities and Climate Protection Act, was signed into law in September 2008 and requires CARB to set regional targets for reducing passenger vehicle GHG emissions in accordance with the Scoping Plan. The purpose of SB 375 is to align regional transportation planning efforts, regional GHG reduction targets, and fair-share housing allocations under state housing law. SB 375 requires Metropolitan Planning Organizations (MPOs) to adopt a Sustainable Communities Strategy or Alternative Planning Strategy to address GHG reduction targets from cars and light-duty trucks in the context of that MPO's Regional Transportation Plan. San Diego Association of Governments (SANDAG) is the San Diego region's MPO. The CARB targets for the SANDAG region require a 15 percent reduction in GHG emissions per capita from automobiles and light duty trucks compared to 2005 levels by 2020, and a 19 percent reduction by 2035.

3.2.2.5 Renewables Portfolio Standard

~~The RPS promotes diversification of the state's electricity supply and decreased reliance on fossil fuel energy sources. Originally adopted in 2002 with a goal to achieve a 20 percent renewable energy mix by 2020 (referred to as the "Initial RPS"), the goal has been accelerated and increased by EOs S-14-08 and S-21-09 to a goal of 33 percent by 2020. In April 2011, SB 2 (1X) codified California's 33 percent RPS goal. In September 2015, the California Legislature passed SB 350, which increases California's renewable energy mix goal to 50 percent by year 2030. Renewable energy includes (but is not limited to) wind, solar, geothermal, small hydroelectric, biomass, anaerobic digestion, and landfill gas.~~The RPS promotes diversification of the state's electricity supply and decreased reliance on fossil fuel energy sources. Renewable energy includes (but is not limited to) wind, solar, geothermal,

small hydroelectric, biomass, anaerobic digestion, and landfill gas. Originally adopted in 2002 with a goal to achieve a 20 percent renewable energy mix by 2020 (referred to as the "Initial RPS"), the goal has been accelerated and increased by EOs S-14-08 and S-21-09 to a goal of 33 percent by 2020. In April 2011, SB 2 (1X) codified California's 33 percent RPS goal. SB 350 (2015) increased California's renewable energy mix goal to 50 percent by year 2030. SB 100 (2018) further increased the standard set by SB 350 establishing the RPS goal of 44 percent by the end of 2024, 52 percent by the end of 2027, and 60 percent by 2030.

3.2.2.6 Assembly Bill 341 – Solid Waste Diversion

The Commercial Recycling Requirements mandate that businesses (including public entities) that generate 4 cubic yards or more of commercial solid waste per week and multi-family residential with five units or more arrange for recycling services. Businesses can take one or any combination of the following in order to reuse, recycle, compost, or otherwise divert solid waste from disposal. Additionally, AB 341 mandates that 75 percent of the solid waste generated be reduced, recycled, or composted by 2020.

3.2.2.7 California Code of Regulations, Title 24 – California Building Code

The California Code of Regulations, Title 24, is referred to as the California Building Code (CBC). It consists of a compilation of several distinct standards and codes related to building construction including plumbing, electrical, interior acoustics, energy efficiency, handicap accessibility, and so on. Of particular relevance to GHG reductions are the CBC's energy efficiency and green building standards.

a. Title 24, Part 6 – Energy Efficiency Standards

The California Code of Regulations, Title 24, Part 6 is the California Energy Efficiency Standards for Residential and Nonresidential Buildings (also known as the California Energy Code). This code, originally enacted in 1978, 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-efficient technologies and methodologies as they become available, and incentives in the form of rebates and tax breaks are provided on a sliding scale for buildings achieving energy efficiency above the minimum standards.

The current version of the Energy Code, known as 2019 Title 24, or the 2019 Energy Code, became effective January 1, 2020. The Energy Code provides mandatory energy-efficiency measures as well as voluntary tiers for increased energy efficiency. The California Energy Commission (CEC), in conjunction with the California Public Utilities Commission, has adopted a goal that all new residential and commercial construction achieve zero net energy by 2020 and 2030, respectively. It is expected that achievement of the zero net energy goal will occur via revisions to the Title 24 standards.

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 the selection of various heating, ventilation, and air conditioning; sealing; glazing; insulation; and other components related to the building envelope.

b. Title 24, Part 11 – California Green Building Standards

The California Green Building Standards Code, referred to as CalGreen, was added to Title 24 as Part 11 first in 2009 as a voluntary code, which then became mandatory effective January 1, 2011 (as part of the 2010 CBC). The most recent 2019 CalGreen institutes mandatory minimum environmental performance standards for all ground-up new construction of non-residential and residential structures. Local jurisdictions must enforce the minimum mandatory Green Building Standards and may adopt additional amendments for stricter requirements.

The mandatory standards require:

- Outdoor water use requirements as outlined in local water efficient landscaping ordinances or current model water efficient landscape ordinance standards, whichever is more stringent;
- Requirements for water conserving plumbing fixtures and fittings;
- 65 percent construction/demolition waste diverted from landfills;
- Infrastructure requirements for electric vehicle charging stations;
- Mandatory inspections of energy systems to ensure optimal working efficiency; 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 for demonstrating Energy Code compliance in new buildings and major renovations, compliance with the CalGreen mandatory requirements must be demonstrated through completion of compliance forms and worksheets.

3.2.3 Local

3.2.3.1 National City General Plan

The National City General Plan contains policies that are intended to support and promote GHG emissions reductions and local initiatives and programs to encourage sustainability (City of National City 2011b). Policies in the Land Use and Community Character Element promote smart growth consistent with statewide and regional planning goals and policies, encourage a mix of land uses and the development of complete neighborhoods that reduce vehicle usage, encourage the development of community green

space, and encourage pedestrian and bicycle use through high-quality streetscape design. The Circulation Element provides policies to encourage transit-oriented development, promote use of public transit, and provide a safe environment for walking and biking. Policies in the Safety Element are intended to prepare the City for natural disasters that may increase as a result of climate change. The Open Space and Agriculture Element includes policies to preserve existing open space, develop a city-wide urban agriculture program, manage the urban forest and provide adequate park space for all residents. Policies in the Health and Environment Element are intended to provide all residents with access to healthy food and opportunities to lead healthy lifestyles. The Conservation and Sustainability Element contains policies to reduce the City's carbon footprint, energy usage, and waste generation.

3.2.3.2 National City Climate Action Plan

The National City CAP addresses major sources of GHG emissions in National City and sets forth a detailed and long-term strategy that the City and community can implement to achieve GHG emissions reduction targets. Implementation of the CAP supports the State's emission reduction targets. National City has adopted a reduction target of 15 percent below 2005 baseline emission levels by the year 2020, with additional reductions by the year 2030, for both community-wide and government operations. To reach this target, National City must reduce annual community-wide emissions by 119,279 MT CO_2E from 2020 BAU levels and government operations emissions must be reduced by 1,459 MT CO_2E from 2020 BAU levels. The CAP includes community-wide GHG reduction measures for the energy, transportation and land use, solid waste, and water and wastewater sectors. In total, implementation of the measures would reduce GHG emissions by 137,137 MT CO_2E from the 2020 BAU forecast. By 2030, implementation of the CAP measures will reduce GHG emissions by 156,127 MT CO_2E from the 2030 BAU forecast (City of National City 2011a).

The 2020 GHG emission target from the CAP was 468,107 MT CO_2E. Based on the updated year 2012 through 2014 inventories summarized in Table 4, the City achieved their 2020 target.

4.0 Significance Criteria and Analysis Methodologies

4.1 Determining Significance

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

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

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

As stated in the CEQA Guidelines, these questions are "intended to encourage thoughtful assessment of impacts and do not necessarily represent thresholds of significance" (Title 14, Division 6, Chapter 3 Guidelines for Implementation of the CEQA, Appendix G, Environmental Checklist Form).

The CEQA Guidelines require Lead Agencies to adopt GHG thresholds of significance. When adopting these thresholds, the amended Guidelines allow Lead Agencies to develop their own significance thresholds and/or 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.

No GHG emission thresholds have been adopted by the City for land development projects. The SDAPCD is considered the most appropriate agency with special knowledge in the subject area as the City is located within the SDAPCD jurisdiction. However, the SDAPCD has not issued guidance for assessing GHG impacts from land use development projects. Thus, in the absence of a threshold of significance for GHG emissions for the SDAPCD, the project is evaluated based on the recommendation from the next closest air district, the South Coast Air Quality Management District (SCAQMD), which recommends a threshold of 3,000 MT CO_2E per year for assessing land use development projects (SCAQMD 2008). It should be noted that this threshold has been used in other cities throughout the Southern California region and given the global nature of GHG emissions and the resulting impacts, it is considered appropriate for addressing potential impacts associated with climate change. According to the SCAQMD, this screening threshold should be used for determining when additional analysis is required to determine significance under CEQA. In other words, a project that emits GHG emissions less than 3,000 MT CO_2E is considered to have a less than significant impact on global GHG emissions. According to the SCAQMD, this screening threshold is based on an emission capture rate of 90 percent for all new or modified projects. The capture of 90 percent of new development establishes a strong basis for demonstrating that cumulative reductions are being achieved across the state (California Air Pollution Control Officers [CAPCOA] 2008). Thus, for the purposes of this analysis, the City is using a screening level threshold of 3,000 MT CO_2E annually. The project was also evaluated for consistency with the City's CAP implementation measures.

4.2 Methodology and Assumptions

The project's GHG emissions were calculated using the CalEEMod Version 2016.3.2 (CAPCOA 2017). The CalEEMod program is a tool used to estimate air emissions resulting from land development projects based on California-specific emission factors. CalEEMod can be used to calculate emissions from mobile (on-road vehicles), area (fireplaces, consumer products [cleansers, aerosols, and solvents], landscape maintenance equipment, architectural coatings), water and wastewater, and solid waste sources. GHG emissions are estimated in terms of total MT CO_2E.

The analysis methodology and input data are described in the following sections. Where project-specific data was not available, model inputs were based on information provided in

the CalEEMod User's Guide (CAPCOA 2017). Operational emissions were calculated for the projected soonest project operational year of 2022.

4.2.1 Construction Emissions

Construction activities emit GHGs primarily though combustion of fuels (mostly diesel) in the engines of off-road construction equipment and through combustion of diesel and gasoline in on-road construction vehicles and the commute vehicles of the construction workers. Smaller amounts of GHGs are also emitted through the energy use embodied in water use for fugitive dust control.

Every phase of the construction process, including demolition, grading, paving, and building, emits GHGs in volumes directly related to the quantity and type of construction equipment used. GHG emissions associated with each phase of project construction are calculated by multiplying the total fuel consumed by the construction equipment and worker trips by applicable emission factors. The number and pieces of construction equipment are calculated based on the project-specific design. In the absence of project-specific construction information, equipment for all phases of construction is estimated based on the size of the land use.

Construction emissions were modeled assuming construction would begin in January 2021 and last for approximately 18 months. Construction emissions are calculated for construction activity based on the construction equipment profile and other factors determined as needed to complete all phases of construction. Based on guidance from the SCAQMD, total construction GHG emissions resulting from a project should be amortized over 30 years and added to operational GHG emissions to account for their contribution to GHG emissions over the lifetime of a project (SCAQMD 2009).

4.2.2 Vehicle Emissions

GHG emissions from vehicles come from the combustion of fossil fuels in vehicle engines. The vehicle emissions are calculated based on the vehicle type and the trip rate for each land use. The vehicle emission factors and fleet mix used in the current version of CalEEMod are derived from CARB's 2014 Emission Factors model (EMFAC2014; CARB 2014). The U.S. EPA recently approved the use of CARB's 2017 Emission Factor model (EMFAC2017). However, this has not yet been incorporated into CalEEMod, and there is no standardized approach to modifying the emission factors included in CalEEMod. Generally, vehicles have become cleaner over time; therefore, the mobile emissions would not be higher if CalEEMod were adjusted using EMFAC2017 emission factors.

Based on a trip rate of 50 trips per 1,000 square feet (SANDAG 2002), the 18,774-square-foot facility would generate 939 daily trips. Based on regional data compiled by CARB as part of the emission factor model (EMFAC2017), the average regional trip length for all trips in San Diego County for the soonest operational year of 2022 is 7.48 miles (CARB 2017b). Default vehicle emission factors for year 2022 were used.

4.2.3 Energy Emissions

GHGs are emitted as a result of activities in buildings for which electricity and natural gas are used as energy sources. GHGs are emitted during the generation of electricity from fossil fuels off-site in power plants. These emissions are considered indirect but are calculated in association with a building's operation. Electric power generation accounts for the second largest sector contributing to both inventoried and projected statewide GHG emissions. 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. CalEEMod estimates emissions from the direct combustion of natural gas for space and water heating.

CalEEMod estimates GHG emissions from energy use by multiplying average rates of residential and non-residential energy consumption by the quantities of residential units and non-residential square footage entered in the land use module to obtain total projected energy use. This value is then multiplied by electricity and natural gas GHG emission factors applicable to the project location and utility provider.

Energy consumption values are based on the CEC sponsored California Commercial End Use Survey and Residential Appliance Saturation Survey studies, which identify energy use by building type and climate zone. Because these studies are based on older buildings, adjustments have been made in CalEEMod to account for changes to Title 24 Building Codes. CalEEMod 2016.3.2 is based on the 2016 Title 24 energy code (Part 6 of the Building Code). The next version of the energy code, 2019 Title 24, goes into effect on January 1, 2020. For non-residential buildings, it is estimated that the 2019 standards will decrease energy consumption by 30 percent (CEC 2018). The project would be subject to the 2019 Title 24 energy code standards, however, as a conservative analysis, GHG emissions were calculated using 2016 Title 24 energy code standards.

The project would be served by San Diego Gas & Electric (SDG&E). Therefore, SDG&E's specific energy-intensity factors (i.e., the amount of CO_2, CH_4, and N_2O per kilowatt-hour) are used in the calculations of GHG emissions. As discussed in Section 3.2.2.5, the state mandate for renewable energy is 33 percent by 2020. Based on the most recent annual report, SDG&E has already procured 44 percent (CPUC 2019). However, the energy-intensity factors included in CalEEMod by default only represent a 10.2 percent procurement of renewable energy (SDG&E 2011). To account for the continuing effects of RPS, the energy-intensity factors included in CalEEMod were adjusted to reflect the current procurement of 44 percent renewable energy. SDG&E energy intensity factors are shown in Table 5.

Table 5 San Diego Gas & Electric Intensity Factors		
GHG	2009 (lbs/MWh)	2020 (lbs/MWh)
Carbon Dioxide (CO_2)	720.49	449.30
Methane (CH_4)	0.029	0.018
Nitrous Oxide (N_2O)	0.006	0.004
SOURCE: SDG&E 2011. lbs = pounds; MWh = megawatt hour		

4.2.4 Area Source Emissions

Area sources include GHG emissions that would occur from the use of landscaping equipment. The use of landscape equipment emits GHGs associated with the equipment's fuel combustion. The landscaping equipment emission values were derived from the 2011 In-Use Off-Road Equipment Inventory Model (CARB 2011).

4.2.5 Water and Wastewater Emissions

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

The indoor and outdoor water use consumption data for each land use subtype comes from the Pacific Institute's *Waste Not, Want Not: The Potential for Urban Water Conservation in California* 2003 (as cited in CAPCOA 2017). Based on that report, a percentage of total water consumption was dedicated to landscape irrigation, which is used to determine outdoor water use. Wastewater generation was similarly based on a reported percentage of total indoor water use (CAPCOA 2017).

The project would be subject to CalGreen, which requires a 20 percent increase in indoor water use efficiency. Thus, in order to demonstrate compliance with CalGreen, a 20 percent reduction in indoor water use was included in the water consumption calculations for the project.

Additional water use would be associated with the proposed carwash. Carwash water use was calculated assuming each wash would use 35 gallons per vehicle (International Carwash Association 2002), and 100 vehicles would be washed per day.

In addition to water reductions under CalGreen, the GHG emissions from the energy used to transport the water are affected by RPS. As discussed previously, to account for the effects of RPS through 2020, the energy-intensity factors included in CalEEMod were adjusted to reflect 44 percent renewable energy (see Table 5).

4.2.6 Solid Waste Emissions

The disposal of solid waste produces GHG emissions from anaerobic decomposition in landfills, incineration, and transportation of waste. To calculate the GHG emissions generated by disposing of solid waste for the project, the total volume of solid waste was calculated using waste disposal rates identified by California Department of Resources Recycling and Recovery. The methods for quantifying GHG emissions from solid waste are based on the Intergovernmental Panel on Climate Change method, using the degradable organic content of waste. GHG emissions associated with the project's waste disposal were calculated using these parameters. According to a California Department of Resources Recycling and Recovery (CalRecycle) report to the Legislature, as of 2013 California has achieved a statewide 50 percent diversion of solid waste from landfills through "reduce/recycle/compost" programs (CalRecycle 2015). However, AB 341 mandates that 75 percent of the solid waste generated be reduced, recycled, or composted by 2020. As a conservative analysis, no reduction in solid waste GHG emissions was assumed. Therefore, to account for the continuing actions of recycling requirements under state law (i.e., AB 341), a 25 percent solid waste diversion rate was included in the model.

4.2.7 GHG Emissions Modeling Summary

Table 6 provides a summary of the calculation methodology for each emission source calculated.

Table 6
Summary of GHG Emission Calculation Methodology

Source	Project Emission Calculation
Construction	Construction emissions were amortized over 30 years and added to operational emissions.
Vehicles	Vehicle emissions were calculated using vehicle emission factors for year 2022, 892 average daily trips, and a 7.48-mile trip length.
Energy	As a conservative analysis, GHG emissions were calculated using 2016 Title 24 energy code standards. Additionally, to account for the effects of RPS through 2020, the SDG&E energy-intensity factors were adjusted to reflect the current procurement of 44 percent renewable energy.
Area	Area-source emissions were calculated based on standard landscaping equipment and quantities and consumer product emission factors. The project would not include woodstoves or fireplaces.
Water	A 20 percent increase in indoor water use efficiency was included in the water consumption calculations in accordance with CalGreen standards. Carwash water use was calculated assuming each wash would use 35 gallons per vehicle, and 100 vehicles would be washed per day. Additionally, to account for the effects of RPS through 2020, the SDG&E energy-intensity factors were adjusted to reflect the current procurement of 44 percent renewable energy.
Solid Waste	Emissions were calculated using standard generation rates and emission factors, which are based on CalRecycle waste generation rates.

5.0 GHG Impact Analysis

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

5.1 GHG Emissions

5.1.1 Impacts

The City has determined that new development projects emitting less than 3,000 MT CO_2E annual GHG would not contribute considerably to cumulative climate change impacts. For project's that exceed the 3,000 MT CO_2E screening threshold, further analysis is required.

Based on the methodology summarized in Section 4.2, Methodology and Assumptions, the primary sources of direct and indirect GHG emissions have been calculated. Table 7 summarizes the project emissions. The complete model outputs for the project are included in Attachment 1.

Table 7
Project GHG Emissions
(MT CO_2E per Year)

Emission Source	Project GHG Emissions
Vehicles	384
Energy Use	71
Area Sources	<1
Water Use	13
Solid Waste Disposal	36
Construction	53
TOTAL	**558**
NOTE: Totals may vary due to independent rounding.	

5.1.2 Significance of Impacts

As demonstrated, the project would result in a total of 558 MT CO_2E annually. Emissions are projected to be less than the 3,000 MT CO_2E screening level. By emitting less than 3,000 MT CO_2E the project's contribution of GHGs to cumulative statewide emissions would be less than cumulatively considerable. Therefore, the project's direct and indirect GHG emissions would have a less than significant impact on the environment.

5.2 Applicable Adopted Plans, Policies, and Regulations Intended to Reduce GHG Emissions

5.2.1 Impacts

5.2.1.1 National City Climate Action Plan

As discussed in Section 3.2.3.2, the CAP includes community-wide GHG reduction measures for the energy, transportation and land use, solid waste, and water and wastewater sectors. Table 8 summarizes the project's consistency with CAP policies applicable to the project. Additionally, based on the updated year 2012 through 2014 inventories summarized in Table 4 above, the City achieved their 2020 target. Since the project is consistent with CAP policies, the project would not interfere with community-wide GHG reductions post 2020.

5.2.1.2 State Plans, Policies, and Regulations

As discussed in Section 3.2.2, State Climate Change Regulations above, EO S-3-05 and EO B-30-15 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 the 2020 target, which the state has achieved. As required by SB 32, CARB's 2017 Climate Change Scoping Plan outlines reduction measures needed to achieve the interim 2030 target.

As noted in Section 3.2.2.3, the 2017 Scoping Plan identifies state strategies for achieving the state's 2030 interim GHG emissions reduction target codified by SB 32. Measures under the 2017 Scoping Plan scenario build on existing programs such as the Low Carbon Fuel Standard, Advanced Clean Cars Program, RPS, Sustainable Communities Strategy, Short-Lived Climate Pollutant Reduction Strategy, and the Cap-and-Trade Program. The project would comply with all applicable provisions contained in the 2017 Scoping Plan since the adopted regulations would apply to new development or the emission sectors associated with new development.

- **Transportation** – State regulations and 2017 Scoping Plan measures that would reduce the project's mobile source emissions include the California Light-Duty Vehicle GHG Standards (AB 1493/Pavley I and II), and the Low Carbon Fuel Standard, and the heavy-duty truck regulations. These measures are implemented at the state level and would result in a reduction of project-related mobile source GHG emissions.

Table 8 Project Consistency with CAP Policies		
Sector	Policies	Project Consistency
Energy	New Construction A1.b.1 Encourage private development projects to exceed the energy efficiency requirements of CalGreen by providing technical assistance, financial assistance and other incentives. A1.b.2 Encourage LEED certification for all new commercial and industrial buildings. A1.b.3 Increase enforcement of building energy requirements to reduce the rate of noncompliance. Peak Electricity Demand A1.e.1 Provide information and resources about peak demand and climate change, as well as environmental and monetary costs associated with peak electricity demand.	The project would be constructed in accordance with energy efficiency standards effective at the time building permits are issued. The current 2019 Energy Code is estimated to decrease energy consumption by 30 percent for non-residential buildings when compared to the 2016 Title 24 Energy Code. GHG emissions associated with energy use would also decrease due to SANDAG's continued implementation of RPS. Additionally, the CarMax facility would utilize an Energy Management System to manage operating times, use efficiency, and cost efficiency for lighting, heating, ventilation, and air conditioning systems and computer systems. The Energy Management System would also manage power load during peak hours to minimize energy use to prevent utilities from having to provide temporary additional power during peak time).
Transportation and Land Use	Smart Growth A2.a.1 Foster land use intensity near, along with connectivity to, retail and employment centers and services to reduce vehicle miles traveled (VMT) and increase the efficiency of delivery of services. Low Carbon Transportation A2.b.2 Implement bicycle corridor improvements and supportive infrastructure. A2.b.3 Implement strategies that prioritize parking for high occupancy vehicles (HOVs) – carpools, vanpools and transit vehicles.	The project site is located within an area developed with a mix of residential and commercial uses, including the Westfield Plaza Bonita Mall. The Metropolitan Transit System provides bus service near the project site with routes 705, 961, and 963. Bus routes 961 and 963 serve bus stops at the intersection of Sweetwater Road and Plaza Bonita Road, located approximately 1,300 feet from the center of the project site. Bus route 705 serves a bus stop on the east side of the Westfield Plaza Bonita Mall, which is about 2,900 feet from the center of the project site. Additionally, the Sweetwater Loop and River Trail which is used for walking and biking is located near the project's southern boundary

Table 8 Project Consistency with CAP Policies		
Sector	Policies	Project Consistency
Solid Waste	A3.a.1 Implement a program to reduce, reuse and recycle community construction and demolition waste. A3.a.2 Establish incentives for residents to participate in green waste recycling programs.	Construction of the project would not require demolition of any permanent buildings, concrete, or asphalt that would generate a substantial amount of waste. Recycling would be conducted during construction, and project design would include recycling bins and dedicated trash enclosures which would be serviced by EDCO. In addition, the project would comply with all applicable regulations pertaining to solid waste during both the construction and operational phases of the project including AB 341, which mandates that 75 percent of the solid waste generated be reduced, recycled, or composted by 2020. Additionally, the CarMax facility would implement operational recycling for oil, anti-freeze, oil filters, tires, battery cores, scrap metal on a case-by-case basis, paint waste.
Water and Wastewater	A4.a.1 Adopt water efficiency principles similar to the Ahwahnee Water Principles for Resource Efficient Land Use for new and existing residential and commercial developments. A4.a.2 Support landscape design educational programs to help residential and commercial customers install low water use landscaping, thereby reducing water-related energy use. A4.a.3 Encourage water efficiency audits at point of sale for commercial and residential properties.	The project would be subject to CalGreen, which requires a 20 percent increase in indoor water use efficiency. The CarMax facility would utilize low-flow plumbing fixtures and conduct water use monitoring. The CarMax facility would also utilize water reclaim tanks for the carwash and oil/water separators. Eighty-five percent of the carwash water would be recycled.

- **Energy** – State regulations and 2017 Scoping Plan measures that would reduce the project's energy-related GHG emissions include RPS, Title 24 Energy Efficiency Standards, and CalGreen. The project would be served by SDG&E. GHG emissions associated with energy use would decrease due to SANDAG's continued implementation of RPS. The project's energy related GHG emissions would decrease as SDG&E increases its renewables procurement towards the 2030 goal of 60 percent. Additionally, the project would be constructed in accordance with energy efficiency standards effective at the time building permits are issued. The current 2019 Energy Code is estimated to decrease energy consumption by 30 percent for non-residential buildings when compared to the 2016 Title 24 Energy Code.

- **Water** – State regulations and 2017 Scoping Plan measures that would reduce the project's electricity consumption associated with water supply, treatment, and distribution, and wastewater treatment include RPS, CalGreen, and the Model Water Efficient Landscape Ordinance. The project would be required to reduce indoor water consumption by 20 percent in accordance with CalGreen. Additionally, the project would be subject to all City landscaping ordinance requirements.

- **Waste** – State regulations and 2017 Scoping Plan measures that would reduce the project's solid waste-related GHG emissions are related to landfill methane control, increases efficiency of landfill methane capture, and high recycling/zero waste. The project would be subject to CalGreen, which requires a diversion of construction and demolition waste from landfills. Additionally, the project would include recycling storage and would divert waste from landfills in accordance with AB 341.

The project would not exceed the 3,000 MT CO_2E screening threshold for GHG emissions. This threshold is based on the concept of establishing a 90 percent GHG emission capture rate. A 90 percent emission capture rate means that 90 percent of total emissions from all new or modified stationary source projects would be subject to a CEQA analysis, which includes analyzing feasible alternatives and imposing feasible mitigation measures. The market capture rate is based on guidance from the CAPCOA report *CEQA & Climate Change*, dated January 2008, which identifies several potential approaches for assessing a project's GHG emissions (CAPCOA 2008). Following the market capture rate approach, a lead agency defines an acceptable capture rate and identifies the corresponding emissions level. Following rationale presented in the CAPCOA Guidance, the aggregate emissions from all projects with individual annual emissions that are equal to or less than the identified market capture rate would not impede achievement of the state GHG emissions reduction targets codified by AB 32 (2006) and SB 32 (2016), and therefore would be considered less than cumulatively considerable under CEQA. A 90 percent emission capture rate sets the emission threshold low enough to capture a substantial fraction of future stationary source projects that would be constructed to accommodate future statewide population and economic growth, while setting the emission threshold high enough to exclude small projects that will in aggregate contribute a relatively small fraction of the cumulative statewide GHG emissions.

Project GHG emissions would be less than the 3,000 MT CO_2E screening threshold. Furthermore, project emissions would decline beyond the buildout year of the project due to continued implementation of federal, state, and local reduction measures, such as increased

federal and state vehicle efficiency standards, and SDG&E's increased renewable sources of energy in accordance with RPS goals. Based on currently available models and regulatory forecasting, project emissions would continue to decline through at least 2050. Given the reasonably anticipated decline in project emissions that would occur post-construction, the project is in line with the GHG reductions needed to achieve the 2050 GHG emission reduction targets identified by EO S-3-05.

5.2.2 Significance of Impacts

The project would not conflict with any local or state plan, policy, or regulation aimed at reducing GHG emissions from land use and development, and impacts would be less than significant.

6.0 Conclusions

As summarized in Table 6, the project would result in a total of 558 MT CO_2E per year. Emissions are projected to be less than the 3,000 MT CO_2E screening criterion. Therefore, the level of impacts associated with contribution of GHGs to cumulative emissions would be less than cumulatively considerable. The project would not conflict with the goals and strategies of local and state plans, policies, and regulations adopted to reduce GHG emissions including the National City CAP. Therefore, the project would not conflict with any local or state plan, policy, or regulation aimed at reducing GHG emissions, and impacts would be less than significant.

7.0 References Cited

California Air Pollution Control Officers Association (CAPCOA)

2008 *CEQA & Climate Change, Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act.* January.

2017 California Emissions Estimator model (CalEEMod). User's Guide Version

California Air Resources Board (CARB)

2007 California Greenhouse Gas Inventory – Summary by Economic Sector. Last updated November, 19 2007. Accessed April, 2014.

2008 Climate Change Scoping Plan: A Framework for Change. http://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf. December.

2011 In-Use Off-Road Equipment (Construction, Industrial, Ground Support, and Oil Drilling) 2011 Inventory Model.

2014 2014 EMission FACtors (EMFAC) model, version 1.07, update March 15, 2015.

2017a The 2017 Climate Change Scoping Plan Update: The Proposed Strategy for Achieving California's 2030 Greenhouse Gas Target. January 20.

2017b 2017 Emission FACtors (EMFAC) model, version 1.02.

2019 Greenhouse Gas Inventory Data—2000 to 2017 (last updated August 12, 2019). https://ww2.arb.ca.gov/ghg-inventory-data.

California Energy Commission (CEC)

2018 An Overview of the 2019 Building Energy Efficiency Standards. Accessed at 2019 Building Energy Efficiency Standards. March 2018.

California Department of Resources Recycling and Recovery (CalRecycle)

2015 AB 341 Report to the Legislature. August 2015.

California Public Utilities Commission (CPUC)

2019 Renewables Portfolio Standard Annual Report. November 2019.

Council on Environmental Quality (CEQ)

2012 Federal Greenhouse Gas Accounting and Reporting Guidance, June 4. Website accessed on June 24, 2016 at: https://www.whitehouse.gov/sites/default/files/microsites/ceq/revised_federal_greenhouse_gas_accounting_and_reporting_guidance_060412.pdf .

Energy Policy Initiative Center (EPIC)

2019 City of National City Greenhouse Gas Emissions Inventory and Projections. January 2019.

Intergovernmental Panel on Climate Change (IPCC)

2014 Fifth Assessment Report (AR4), Climate Change 2014: Synthesis Report.

International Carwash Association

2002 Water Use in the Professional Car Wash Industry. A Report for the International Carwash Association. September 2002.

National City, City of

2011a City of National City Final Climate Action Plan. May 2011.

2011b National City General Plan. Adopted June 7, 2011.

San Diego Association of Governments (SANDAG)

2002 *(Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region.* April 2002.

San Diego Gas and Electric (SDG&E)

2011 March 2011 Semi-Annual Compliance Report Pursuant to the California Renewables Portfolio Standard. Filed March.

South Coast Air Quality Management District (SCAQMD)

2008 Interim CEQA GHG Significance Threshold for Stationary Sources, Rule and Plans. Board Meeting Date December 5, 2008. Agenda No. 31. Accessed at http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ghg-significance-thresholds

2009 Greenhouse Gas CEQA Significance Threshold Stakeholder Working Group 14. http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-14/ghg-meeting-14-main-presentation.pdf?sfvrsn=2. November 19, 2009.

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

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.

2020a Energy Star. http://www.energystar.gov Accessed June 17, 2020.

2020b U.S. EPA State and Local Climate and Energy Program. http://www.epa.gov/statelocalclimate/index.html. Accessed June 17, 2020.

ATTACHMENT 1

CalEEMod Output – Project Emissions

7761 Carmax

San Diego County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	8.68	Acre	8.68	378,100.80	0
Automobile Care Center	18.77	1000sqft	0.43	18,774.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2022
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	449.3	**CH4 Intensity (lb/MWhr)**	0.018	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

7761 Carmax - San Diego County APCD Air District, Annual

Project Characteristics - Energy intensity factors updated based on SDG&E renewable procurement
(449.3, 0.018, 0.004)

Land Use - 18,774 sf Carmax
9.11 acres disturbed (7.19 acre Carmax, 1.92 acres off-site)

Construction Phase - Grading phase increased to 6 months due to amount of cut/fill

Grading -

Architectural Coating - SDAPCD Rule 67.0.1

Vehicle Trips - 50 trips/ksf
7.48 miles trip length

Area Coating - SDAPCD Rule 67.0.1

Energy Use -

Water And Wastewater - CalGreen requires 20% decrease in indoor water use that is not included in model (1,412,721.91 gallons)
Carwash water use added - 35 gallons/car, 100 cars/day = 1,277,500 gallons
Total 2,690,221.91 gallons

Trips and VMT -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblAreaCoating	Area_EF_Parking	250	100
tblConstructionPhase	NumDays	20.00	130.00
tblConstructionPhase	PhaseEndDate	2/25/2022	8/1/2022
tblConstructionPhase	PhaseEndDate	12/31/2021	6/3/2022
tblConstructionPhase	PhaseEndDate	2/12/2021	7/16/2021
tblConstructionPhase	PhaseEndDate	1/28/2022	7/1/2022
tblConstructionPhase	PhaseStartDate	1/29/2022	7/5/2022
tblConstructionPhase	PhaseStartDate	2/13/2021	7/19/2021

tblConstructionPhase	PhaseStartDate	1/1/2022	6/6/2022
tblGrading	MaterialImported	0.00	166,379.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.018
tblProjectCharacteristics	CO2IntensityFactor	720.49	449.3
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblVehicleTrips	CC_TL	7.30	7.48
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	7.48
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CW_TL	9.50	7.48
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	ST_TR	23.72	50.00
tblVehicleTrips	SU_TR	11.88	50.00
tblVehicleTrips	WD_TR	23.72	50.00
tblWater	IndoorWaterUseRate	1,765,902.39	2,690,221.91

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					
2021	0.4106	6.0000	3.1817	0.0136	0.8197	0.1528	0.9725	0.3500	0.1421	0.4921	0.0000	1,295.7950	1,295.7950	0.1750	0.0000	1,300.1688
2022	0.3105	1.3527	1.3783	3.4000e-003	0.1004	0.0522	0.1525	0.0272	0.0490	0.0763	0.0000	307.0906	307.0906	0.0457	0.0000	308.2320
Maximum	**0.4106**	**6.0000**	**3.1817**	**0.0136**	**0.8197**	**0.1528**	**0.9725**	**0.3500**	**0.1421**	**0.4921**	**0.0000**	**1,295.7950**	**1,295.7950**	**0.1750**	**0.0000**	**1,300.1688**

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					
2021	0.4106	6.0000	3.1817	0.0136	0.8197	0.1528	0.9725	0.3500	0.1421	0.4921	0.0000	1,295.7946	1,295.7946	0.1750	0.0000	1,300.1684
2022	0.3105	1.3527	1.3783	3.4000e-003	0.1004	0.0522	0.1525	0.0272	0.0490	0.0763	0.0000	307.0905	307.0905	0.0457	0.0000	308.2318
Maximum	**0.4106**	**6.0000**	**3.1817**	**0.0136**	**0.8197**	**0.1528**	**0.9725**	**0.3500**	**0.1421**	**0.4921**	**0.0000**	**1,295.7946**	**1,295.7946**	**0.1750**	**0.0000**	**1,300.1684**

	ROG	NOx	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**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-4-2021	4-3-2021	2.1321	2.1321
2	4-4-2021	7-3-2021	2.2525	2.2525
3	7-4-2021	10-3-2021	1.0669	1.0669
4	10-4-2021	1-3-2022	0.8912	0.8912
5	1-4-2022	4-3-2022	0.7951	0.7951
6	4-4-2022	7-3-2022	0.6616	0.6616
7	7-4-2022	9-30-2022	0.1684	0.1684
		Highest	2.2525	2.2525

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	0.1128	0.0000	2.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.9000e-004	4.9000e-004	0.0000	0.0000	5.2000e-004
Energy	1.1700e-003	0.0106	8.9400e-003	6.0000e-005		8.1000e-004	8.1000e-004		8.1000e-004	8.1000e-004	0.0000	70.3463	70.3463	2.5800e-003	7.4000e-004	70.6299
Mobile	0.1899	0.7265	1.5450	4.1500e-003	0.3287	3.7900e-003	0.3325	0.0880	3.5300e-003	0.0916	0.0000	383.8263	383.8263	0.0250	0.0000	384.4506
Waste						0.0000	0.0000		0.0000	0.0000	14.5545	0.0000	14.5545	0.8601	0.0000	36.0580
Water						0.0000	0.0000		0.0000	0.0000	0.8535	9.5896	10.4431	0.0881	2.1600e-003	13.2864
Total	**0.3039**	**0.7372**	**1.5542**	**4.2100e-003**	**0.3287**	**4.6000e-003**	**0.3333**	**0.0880**	**4.3400e-003**	**0.0924**	**15.4079**	**463.7626**	**479.1706**	**0.9757**	**2.9000e-003**	**504.4255**

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	0.1128	0.0000	2.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.9000e-004	4.9000e-004	0.0000	0.0000	5.2000e-004
Energy	1.1700e-003	0.0106	8.9400e-003	6.0000e-005		8.1000e-004	8.1000e-004		8.1000e-004	8.1000e-004	0.0000	70.3463	70.3463	2.5800e-003	7.4000e-004	70.6299
Mobile	0.1899	0.7265	1.5450	4.1500e-003	0.3287	3.7900e-003	0.3325	0.0880	3.5300e-003	0.0916	0.0000	383.8263	383.8263	0.0250	0.0000	384.4506
Waste						0.0000	0.0000		0.0000	0.0000	14.5545	0.0000	14.5545	0.8601	0.0000	36.0580
Water						0.0000	0.0000		0.0000	0.0000	0.8535	9.5896	10.4431	0.0881	2.1600e-003	13.2864
Total	**0.3039**	**0.7372**	**1.5542**	**4.2100e-003**	**0.3287**	**4.6000e-003**	**0.3333**	**0.0880**	**4.3400e-003**	**0.0924**	**15.4079**	**463.7626**	**479.1706**	**0.9757**	**2.9000e-003**	**504.4255**

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

3.0 Construction Detail

Construction Phase

7761 Carmax - San Diego County APCD Air District, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/4/2021	1/15/2021	5	10	
2	Grading	Grading	1/16/2021	7/16/2021	5	130	
3	Building Construction	Building Construction	7/19/2021	6/3/2022	5	230	
4	Paving	Paving	6/6/2022	7/1/2022	5	20	
5	Architectural Coating	Architectural Coating	7/5/2022	8/1/2022	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 65

Acres of Paving: 8.68

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 28,161; Non-Residential Outdoor: 9,387; Striped Parking Area: 22,686 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
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	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	20,797.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	165.00	65.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	33.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 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					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.2025	0.1058	1.9000e-004		0.0102	0.0102		9.4000e-003	9.4000e-003	0.0000	16.7179	16.7179	5.4100e-003	0.0000	16.8530
Total	**0.0194**	**0.2025**	**0.1058**	**1.9000e-004**	**0.0903**	**0.0102**	**0.1006**	**0.0497**	**9.4000e-003**	**0.0591**	**0.0000**	**16.7179**	**16.7179**	**5.4100e-003**	**0.0000**	**16.8530**

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	3.1000e-004	2.2000e-004	2.2500e-003	1.0000e-005	7.2000e-004	1.0000e-005	7.3000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.6305	0.6305	2.0000e-005	0.0000	0.6309
Total	**3.1000e-004**	**2.2000e-004**	**2.2500e-003**	**1.0000e-005**	**7.2000e-004**	**1.0000e-005**	**7.3000e-004**	**1.9000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.6305**	**0.6305**	**2.0000e-005**	**0.0000**	**0.6309**

3.2 Site Preparation - 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					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.2025	0.1058	1.9000e-004		0.0102	0.0102		9.4000e-003	9.4000e-003	0.0000	16.7178	16.7178	5.4100e-003	0.0000	16.8530
Total	**0.0194**	**0.2025**	**0.1058**	**1.9000e-004**	**0.0903**	**0.0102**	**0.1006**	**0.0497**	**9.4000e-003**	**0.0591**	**0.0000**	**16.7178**	**16.7178**	**5.4100e-003**	**0.0000**	**16.8530**

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	3.1000e-004	2.2000e-004	2.2500e-003	1.0000e-005	7.2000e-004	1.0000e-005	7.3000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.6305	0.6305	2.0000e-005	0.0000	0.6309
Total	**3.1000e-004**	**2.2000e-004**	**2.2500e-003**	**1.0000e-005**	**7.2000e-004**	**1.0000e-005**	**7.3000e-004**	**1.9000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.6305**	**0.6305**	**2.0000e-005**	**0.0000**	**0.6309**

3.3 Grading - 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					
Fugitive Dust					0.4376	0.0000	0.4376	0.2207	0.0000	0.2207	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1489	1.6079	1.0307	1.9300e-003		0.0754	0.0754		0.0694	0.0694	0.0000	169.3490	169.3490	0.0548	0.0000	170.7183
Total	**0.1489**	**1.6079**	**1.0307**	**1.9300e-003**	**0.4376**	**0.0754**	**0.5130**	**0.2207**	**0.0694**	**0.2900**	**0.0000**	**169.3490**	**169.3490**	**0.0548**	**0.0000**	**170.7183**

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	0.0781	2.7157	0.6699	7.9600e-003	0.1779	8.2100e-003	0.1861	0.0489	7.8500e-003	0.0567	0.0000	791.9718	791.9718	0.0715	0.0000	793.7587
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	3.3900e-003	2.4200e-003	0.0244	8.0000e-005	7.8200e-003	6.0000e-005	7.8700e-003	2.0800e-003	5.0000e-005	2.1300e-003	0.0000	6.8301	6.8301	2.0000e-004	0.0000	6.8350
Total	**0.0815**	**2.7182**	**0.6942**	**8.0400e-003**	**0.1858**	**8.2700e-003**	**0.1940**	**0.0510**	**7.9000e-003**	**0.0589**	**0.0000**	**798.8019**	**798.8019**	**0.0717**	**0.0000**	**800.5937**

3.3 Grading - 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					
Fugitive Dust					0.4376	0.0000	0.4376	0.2207	0.0000	0.2207	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1489	1.6079	1.0307	1.9300e-003		0.0754	0.0754		0.0694	0.0694	0.0000	169.3488	169.3488	0.0548	0.0000	170.7181
Total	**0.1489**	**1.6079**	**1.0307**	**1.9300e-003**	**0.4376**	**0.0754**	**0.5130**	**0.2207**	**0.0694**	**0.2900**	**0.0000**	**169.3488**	**169.3488**	**0.0548**	**0.0000**	**170.7181**

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	0.0781	2.7157	0.6699	7.9600e-003	0.1779	8.2100e-003	0.1861	0.0489	7.8500e-003	0.0567	0.0000	791.9718	791.9718	0.0715	0.0000	793.7587
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	3.3900e-003	2.4200e-003	0.0244	8.0000e-005	7.8200e-003	6.0000e-005	7.8700e-003	2.0800e-003	5.0000e-005	2.1300e-003	0.0000	6.8301	6.8301	2.0000e-004	0.0000	6.8350
Total	**0.0815**	**2.7182**	**0.6942**	**8.0400e-003**	**0.1858**	**8.2700e-003**	**0.1940**	**0.0510**	**7.9000e-003**	**0.0589**	**0.0000**	**798.8019**	**798.8019**	**0.0717**	**0.0000**	**800.5937**

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	0.1141	1.0459	0.9945	1.6200e-003		0.0575	0.0575		0.0541	0.0541	0.0000	138.9824	138.9824	0.0335	0.0000	139.8206
Total	**0.1141**	**1.0459**	**0.9945**	**1.6200e-003**		**0.0575**	**0.0575**		**0.0541**	**0.0541**	**0.0000**	**138.9824**	**138.9824**	**0.0335**	**0.0000**	**139.8206**

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	0.0121	0.4008	0.1069	1.0400e-003	0.0259	8.5000e-004	0.0267	7.4700e-003	8.1000e-004	8.2800e-003	0.0000	101.9616	101.9616	7.5700e-003	0.0000	102.1508
Worker	0.0344	0.0246	0.2473	7.7000e-004	0.0794	5.6000e-004	0.0800	0.0211	5.2000e-004	0.0216	0.0000	69.3517	69.3517	1.9900e-003	0.0000	69.4014
Total	**0.0465**	**0.4253**	**0.3542**	**1.8100e-003**	**0.1053**	**1.4100e-003**	**0.1067**	**0.0286**	**1.3300e-003**	**0.0299**	**0.0000**	**171.3134**	**171.3134**	**9.5600e-003**	**0.0000**	**171.5522**

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	0.1141	1.0459	0.9945	1.6200e-003		0.0575	0.0575		0.0541	0.0541	0.0000	138.9822	138.9822	0.0335	0.0000	139.8205
Total	**0.1141**	**1.0459**	**0.9945**	**1.6200e-003**		**0.0575**	**0.0575**		**0.0541**	**0.0541**	**0.0000**	**138.9822**	**138.9822**	**0.0335**	**0.0000**	**139.8205**

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	0.0121	0.4008	0.1069	1.0400e-003	0.0259	8.5000e-004	0.0267	7.4700e-003	8.1000e-004	8.2800e-003	0.0000	101.9616	101.9616	7.5700e-003	0.0000	102.1508
Worker	0.0344	0.0246	0.2473	7.7000e-004	0.0794	5.6000e-004	0.0800	0.0211	5.2000e-004	0.0216	0.0000	69.3517	69.3517	1.9900e-003	0.0000	69.4014
Total	**0.0465**	**0.4253**	**0.3542**	**1.8100e-003**	**0.1053**	**1.4100e-003**	**0.1067**	**0.0286**	**1.3300e-003**	**0.0299**	**0.0000**	**171.3134**	**171.3134**	**9.5600e-003**	**0.0000**	**171.5522**

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	0.0938	0.8589	0.9000	1.4800e-003		0.0445	0.0445		0.0419	0.0419	0.0000	127.4489	127.4489	0.0305	0.0000	128.2122
Total	**0.0938**	**0.8589**	**0.9000**	**1.4800e-003**		**0.0445**	**0.0445**		**0.0419**	**0.0419**	**0.0000**	**127.4489**	**127.4489**	**0.0305**	**0.0000**	**128.2122**

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	0.0103	0.3469	0.0928	9.5000e-004	0.0237	6.7000e-004	0.0244	6.8500e-003	6.4000e-004	7.4900e-003	0.0000	92.5797	92.5797	6.7200e-003	0.0000	92.7477
Worker	0.0299	0.0205	0.2105	6.8000e-004	0.0728	5.0000e-004	0.0733	0.0193	4.6000e-004	0.0198	0.0000	61.2420	61.2420	1.6700e-003	0.0000	61.2837
Total	**0.0401**	**0.3675**	**0.3033**	**1.6300e-003**	**0.0965**	**1.1700e-003**	**0.0977**	**0.0262**	**1.1000e-003**	**0.0273**	**0.0000**	**153.8217**	**153.8217**	**8.3900e-003**	**0.0000**	**154.0314**

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	0.0938	0.8589	0.9000	1.4800e-003		0.0445	0.0445		0.0419	0.0419	0.0000	127.4487	127.4487	0.0305	0.0000	128.2121
Total	**0.0938**	**0.8589**	**0.9000**	**1.4800e-003**		**0.0445**	**0.0445**		**0.0419**	**0.0419**	**0.0000**	**127.4487**	**127.4487**	**0.0305**	**0.0000**	**128.2121**

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	0.0103	0.3469	0.0928	9.5000e-004	0.0237	6.7000e-004	0.0244	6.8500e-003	6.4000e-004	7.4900e-003	0.0000	92.5797	92.5797	6.7200e-003	0.0000	92.7477
Worker	0.0299	0.0205	0.2105	6.8000e-004	0.0728	5.0000e-004	0.0733	0.0193	4.6000e-004	0.0198	0.0000	61.2420	61.2420	1.6700e-003	0.0000	61.2837
Total	**0.0401**	**0.3675**	**0.3033**	**1.6300e-003**	**0.0965**	**1.1700e-003**	**0.0977**	**0.0262**	**1.1000e-003**	**0.0273**	**0.0000**	**153.8217**	**153.8217**	**8.3900e-003**	**0.0000**	**154.0314**

3.5 Paving - 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	0.0110	0.1113	0.1458	2.3000e-004		5.6800e-003	5.6800e-003		5.2200e-003	5.2200e-003	0.0000	20.0276	20.0276	6.4800e-003	0.0000	20.1895
Paving	0.0114					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0224**	**0.1113**	**0.1458**	**2.3000e-004**		**5.6800e-003**	**5.6800e-003**		**5.2200e-003**	**5.2200e-003**	**0.0000**	**20.0276**	**20.0276**	**6.4800e-003**	**0.0000**	**20.1895**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.9000e-004	3.4000e-004	3.4800e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0123	1.0123	3.0000e-005	0.0000	1.0130
Total	**4.9000e-004**	**3.4000e-004**	**3.4800e-003**	**1.0000e-005**	**1.2000e-003**	**1.0000e-005**	**1.2100e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**1.0123**	**1.0123**	**3.0000e-005**	**0.0000**	**1.0130**

3.5 Paving - 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	0.0110	0.1113	0.1458	2.3000e-004		5.6800e-003	5.6800e-003		5.2200e-003	5.2200e-003	0.0000	20.0275	20.0275	6.4800e-003	0.0000	20.1895
Paving	0.0114					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0224**	**0.1113**	**0.1458**	**2.3000e-004**		**5.6800e-003**	**5.6800e-003**		**5.2200e-003**	**5.2200e-003**	**0.0000**	**20.0275**	**20.0275**	**6.4800e-003**	**0.0000**	**20.1895**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.9000e-004	3.4000e-004	3.4800e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0123	1.0123	3.0000e-005	0.0000	1.0130
Total	**4.9000e-004**	**3.4000e-004**	**3.4800e-003**	**1.0000e-005**	**1.2000e-003**	**1.0000e-005**	**1.2100e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**1.0123**	**1.0123**	**3.0000e-005**	**0.0000**	**1.0130**

3.6 Architectural Coating - 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					
Archit. Coating	0.1505					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0500e-003	0.0141	0.0181	3.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574
Total	**0.1525**	**0.0141**	**0.0181**	**3.0000e-005**		**8.2000e-004**	**8.2000e-004**		**8.2000e-004**	**8.2000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.7000e-004**	**0.0000**	**2.5574**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0900e-003	7.5000e-004	7.6500e-003	2.0000e-005	2.6500e-003	2.0000e-005	2.6600e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.2270	2.2270	6.0000e-005	0.0000	2.2285
Total	**1.0900e-003**	**7.5000e-004**	**7.6500e-003**	**2.0000e-005**	**2.6500e-003**	**2.0000e-005**	**2.6600e-003**	**7.0000e-004**	**2.0000e-005**	**7.2000e-004**	**0.0000**	**2.2270**	**2.2270**	**6.0000e-005**	**0.0000**	**2.2285**

3.6 Architectural Coating - 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					
Archit. Coating	0.1505					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0500e-003	0.0141	0.0181	3.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574
Total	**0.1525**	**0.0141**	**0.0181**	**3.0000e-005**		**8.2000e-004**	**8.2000e-004**		**8.2000e-004**	**8.2000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.7000e-004**	**0.0000**	**2.5574**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0900e-003	7.5000e-004	7.6500e-003	2.0000e-005	2.6500e-003	2.0000e-005	2.6600e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.2270	2.2270	6.0000e-005	0.0000	2.2285
Total	**1.0900e-003**	**7.5000e-004**	**7.6500e-003**	**2.0000e-005**	**2.6500e-003**	**2.0000e-005**	**2.6600e-003**	**7.0000e-004**	**2.0000e-005**	**7.2000e-004**	**0.0000**	**2.2270**	**2.2270**	**6.0000e-005**	**0.0000**	**2.2285**

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	0.1899	0.7265	1.5450	4.1500e-003	0.3287	3.7900e-003	0.3325	0.0880	3.5300e-003	0.0916	0.0000	383.8263	383.8263	0.0250	0.0000	384.4506
Unmitigated	0.1899	0.7265	1.5450	4.1500e-003	0.3287	3.7900e-003	0.3325	0.0880	3.5300e-003	0.0916	0.0000	383.8263	383.8263	0.0250	0.0000	384.4506

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	938.70	938.70	938.70	872,156	872,156
Parking Lot	0.00	0.00	0.00		
Total	938.70	938.70	938.70	872,156	872,156

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
Automobile Care Center	7.48	7.48	7.48	33.00	48.00	19.00	21	51	28
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122
Parking Lot	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

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	58.7649	58.7649	2.3500e-003	5.2000e-004	58.9797
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	58.7649	58.7649	2.3500e-003	5.2000e-004	58.9797
NaturalGas Mitigated	1.1700e-003	0.0106	8.9400e-003	6.0000e-005		8.1000e-004	8.1000e-004		8.1000e-004	8.1000e-004	0.0000	11.5814	11.5814	2.2000e-004	2.1000e-004	11.6502
NaturalGas Unmitigated	1.1700e-003	0.0106	8.9400e-003	6.0000e-005		8.1000e-004	8.1000e-004		8.1000e-004	8.1000e-004	0.0000	11.5814	11.5814	2.2000e-004	2.1000e-004	11.6502

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					
Automobile Care Center	217027	1.1700e-003	0.0106	8.9400e-003	6.0000e-005		8.1000e-004	8.1000e-004		8.1000e-004	8.1000e-004	0.0000	11.5814	11.5814	2.2000e-004	2.1000e-004	11.6502
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**1.1700e-003**	**0.0106**	**8.9400e-003**	**6.0000e-005**		**8.1000e-004**	**8.1000e-004**		**8.1000e-004**	**8.1000e-004**	**0.0000**	**11.5814**	**11.5814**	**2.2000e-004**	**2.1000e-004**	**11.6502**

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					
Automobile Care Center	217027	1.1700e-003	0.0106	8.9400e-003	6.0000e-005		8.1000e-004	8.1000e-004		8.1000e-004	8.1000e-004	0.0000	11.5814	11.5814	2.2000e-004	2.1000e-004	11.6502
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**1.1700e-003**	**0.0106**	**8.9400e-003**	**6.0000e-005**		**8.1000e-004**	**8.1000e-004**		**8.1000e-004**	**8.1000e-004**	**0.0000**	**11.5814**	**11.5814**	**2.2000e-004**	**2.1000e-004**	**11.6502**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Automobile Care Center	156012	31.7951	1.2700e-003	2.8000e-004	31.9113
Parking Lot	132335	26.9698	1.0800e-003	2.4000e-004	27.0684
Total		**58.7649**	**2.3500e-003**	**5.2000e-004**	**58.9797**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Automobile Care Center	156012	31.7951	1.2700e-003	2.8000e-004	31.9113
Parking Lot	132335	26.9698	1.0800e-003	2.4000e-004	27.0684
Total		**58.7649**	**2.3500e-003**	**5.2000e-004**	**58.9797**

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	0.1128	0.0000	2.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.9000e-004	4.9000e-004	0.0000	0.0000	5.2000e-004
Unmitigated	0.1128	0.0000	2.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.9000e-004	4.9000e-004	0.0000	0.0000	5.2000e-004

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	0.0151					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0978					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.9000e-004	4.9000e-004	0.0000	0.0000	5.2000e-004
Total	**0.1128**	**0.0000**	**2.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**4.9000e-004**	**4.9000e-004**	**0.0000**	**0.0000**	**5.2000e-004**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0151					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0978					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.9000e-004	4.9000e-004	0.0000	0.0000	5.2000e-004
Total	**0.1128**	**0.0000**	**2.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**4.9000e-004**	**4.9000e-004**	**0.0000**	**0.0000**	**5.2000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	10.4431	0.0881	2.1600e-003	13.2864
Unmitigated	10.4431	0.0881	2.1600e-003	13.2864

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Automobile Care Center	2.69022 / 1.08233	10.4431	0.0881	2.1600e-003	13.2864
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**10.4431**	**0.0881**	**2.1600e-003**	**13.2864**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Automobile Care Center	2.69022 / 1.08233	10.4431	0.0881	2.1600e-003	13.2864
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**10.4431**	**0.0881**	**2.1600e-003**	**13.2864**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	14.5545	0.8601	0.0000	36.0580
Unmitigated	14.5545	0.8601	0.0000	36.0580

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Automobile Care Center	71.7	14.5545	0.8601	0.0000	36.0580
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**14.5545**	**0.8601**	**0.0000**	**36.0580**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Automobile Care Center	71.7	14.5545	0.8601	0.0000	36.0580
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**14.5545**	**0.8601**	**0.0000**	**36.0580**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation