RAMBOLL ENVIRON

DRAFT

ENVIRONMENT & HEALTH

MEMORANDUM

To: JR Beard, LHB & Associates

From: Shari Libicki & David Kim, Ramboll Environ

RE: ROTTEN ROBBIE #67 GREENHOUSE GAS TECHNICAL ANALYSIS 1202 OAKLAND ROAD, SAN JOSE, CALIFORNIA

Date: September 1, 2016

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At the request of the LHB & Associates, Ramboll Environ US Corporation (Ramboll Environ) has prepared a technical memorandum evaluating greenhouse gas (GHG) emissions associated with the proposed construction and operation of the proposed Rotten Robbie convenience store and gas station development located in San Jose, California ("Project").

INTRODUCTION

Ramboll Environ followed California Environmental Quality Act (CEQA) Guidelines released by the Bay Area Air Quality Management District (BAAQMD or District) in May 2012 (BAAQMD 2012). The May 2012 CEQA Air Quality Guidelines do not prescribe specific significance thresholds. In this assessment, as a conservative measure, Ramboll Environ has compared the results to the prior thresholds presented in the May 2010 and 2011 Guidelines, referred to herein as the 2011 CEQA significance thresholds (BAAQMD 2011). On August 13, 2013, the California First District Court of Appeal reinstated the significance thresholds, including numeric GHG thresholds of significance, indicating that they were based upon substantial evidence.[1] The analyses described in this report were performed to support the Project's CEQA documentation as per the request of the City of San Jose. The results of the analyses herein indicate that the net increase in GHG emissions as a result of the proposed project does not exceed the applicable significance threshold.

Project Understanding

The proposed Project, at 1202 Oakland Rd, San Jose, includes demolition of existing gas pumps, a convenience store, a truck service station, and subsequent development of twelve fuel pumps, a new convenience store, a car wash structure, and associated parking spots. Six of the twelve pumps will service gasoline and diesel for retail use, and the remaining six pumps will be dedicated to commercial diesel fuel. **Table 1a** shows the Proposed Land Uses for the Project.

[1] The Court of Appeal's decision was appealed to the California Supreme Court, which granted limited review not related to the GHG thresholds discussed in this report

Objective and Methodology

The BAAQMD 2011 CEQA Guidelines contain recommended thresholds for GHG emissions from an individual project undergoing environmental review pursuant to CEQA. Construction and operational GHGs are included in this technical report.

The evaluation compares Project-related GHG emissions to BAAQMD's 2011 CEQA thresholds of significance for operational GHG emissions: 1,100 metric tons (MT) of carbon dioxide equivalents per year (CO_2e/yr) or 4.6 MT CO_2e/service population/yr.

EMISSION ESTIMATES

This analysis evaluates incremental Project impacts by netting out emissions from existing land uses on the parcel. Actual net impacts from the Project may be much lower than estimated here as existing older buildings are not nearly as efficient as new buildings. As previously mentioned, **Table 1a** shows the proposed land uses for the Project. **Table 1b** shows the land uses considered for the Baseline evaluation. The parcel currently has four gas pumps, a small convenience store, and a truck service station.

The methodology used to calculate emissions from the proposed Project and the net Project impacts are presented and summarized in each of the following sub-sections.

Calculation Methodologies for Construction Emissions

Consistent with the approach for estimating operational GHG emissions, the total GHG emissions from construction activities[2] were estimated for each building using the California Emissions Estimator Model (CalEEMod®).[3] Emissions from on-site construction equipment were estimated using information on equipment inventory, equipment specifications and construction phase scheduling, generated using CalEEMod® default assumptions. **Table 2** shows the demolition quantities and a potential Construction Schedule that results in Project completion in 2017. **Table 3** shows the default construction equipment needed to develop the Project. The CalEEMod® construction equipment emissions were calculated as the product of the equipment emission factor, load factor, horsepower, and period of usage. **Table 4** shows a list of on-road mobile trips during the construction phases. Construction emission calculation methodologies were consistent with the BAAQMD CEQA Guidelines (BAAQMD 2012).

Calculation Methodologies for Operational Emissions

Sources of GHG emissions at the proposed Project include area sources, Project-generated traffic, and other indirect emissions such as emissions associated with electricity generation and distribution, water and wastewater treatment, and solid waste disposal. The emissions calculation methodologies for each of these sources are discussed below.

Area Sources

Ramboll Environ assumes that direct area source emissions are based on CalEEMod® defaults for the building type (see **Table 1a** and **1b** for Land Use Types). Ramboll Environ used CalEEMod® defaults based on building square footage and operational year to calculate equipment activity and emissions. Project area source GHG emissions only include those from landscaping equipment.

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[2] CalEEMod™ GHG construction emissions include construction equipment activity and mobile emissions associated with worker, vendor, and hauling trips.

[3] CalEEMod™ 2013.2.2. http://caleemod.com/

Emergency Generators

The proposed Project will not include any emergency generators.

Project Traffic

Project-generated traffic that contributes to the operational GHG emissions includes commercial vehicles as well as employee trips. **Table 5** summarizes Proposed Daily Trip Generation, Average Trip Length, and Daily/Annual vehicle miles traveled (VMT), as estimated by CalEEMod® for the Project traffic impact analysis. The CalEEMod® default trip lengths were used to model customer and worker trips to and from the proposed project. A non-default trip value was used for the traffic analysis of the car wash. The CalEEMod® land-use category that most closely matches the car wash facility is an Automobile Care Center. Ramboll Environ doubled the daily trip rate of the Automobile Care Center, to more closely align with trip data provided in the Institute of Transportation Engineers' Trip Generation Publication (9th Edition) for car washes.

The twelve fuel pumps were not differentiated into retail / commercial categories. The retail portion of the fueling station will service passenger cars, dispensing both gasoline and diesel fuel. The commercial portion of the fueling station will service trucks and will dispense only diesel fuel. We assume the default trip generation and resulting GHG emission calculations from CalEEMod are conservative for the commercial fueling stations. The station is near the Bayshore Highway (approximately 400 meters) and commercial trucks will likely travel only the distance from the freeway and back, whereas cars may travel longer distances roundtrip from a residence.

The CalEEMod® carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O) emission factors, based on the county-wide annual average emission factors obtained from EMFAC2011 for calendar year 2015, were used to estimate traffic emissions.

Indirect Sources

In addition, other indirect emissions such as emissions associated with electricity generation and distribution, water and wastewater treatment, and solid waste disposal will contribute to GHG emissions. For the majority of these, Ramboll Environ used CalEEMod® defaults based on building square footage and operational year to calculate indirect GHG emissions. An exception is the water usage and wastewater treatment associated with the car wash facility. For this, Ramboll Environ referenced a report from the International Carwash Association, wherein the most conservative (highest value) scenario for in-bay car wash stations, with a value of 72.5 gallons per vehicle, was used.

RESULTS FOR PROJECT ANALYSIS

In this Section, the Project results are compared to the BAAQMD thresholds.

Construction GHGs

Table 6 presents the total GHG emissions associated with Project construction. The total Construction GHG emissions are 68 MT CO_2e. There are no CEQA thresholds for comparison for construction emissions.

Operational GHGs

Table 7 presents the total GHG emissions associated with Project operation starting in 2015, Baseline emissions in 2015, and net Project emissions. The net GHG emissions from Project-generated traffic, energy, waste, and water result in emissions of 608 MT CO_2e/yr. This value is below the BAAQMD 2011 CEQA significance threshold of 1,100 MT CO_2e/yr.

REFERENCES

BAAQMD. 2011. California Environmental Quality Act Air Quality Guidelines. May. Available online at: http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CEQA/BAAQMD%20CEQA%20Guidelines_May%202011_5_3_11.ashx. Accessed August 2016.

BAAQMD. 2012. Recommended Methods for Screening and Modeling Local Risks and Hazards. May.

California Air Pollution Control Officers Association (CAPCOA). 2010. Quantifying Greenhouse Gas Mitigation Measures. August.

Institute of Transportation Engineers. Trip Generation. 9th Edition.

International Car Wash Association. Water Use in the Professional Car Wash Industry. 2002.

Pacific Gas & Electric Company. 2016. http://www.pgecurrents.com/2016/02/05/pge%E2%80%99s-carbon-emissions-remain-among-nation%E2%80%99s-lowest. Accessed August, 2016.

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TABLES

Table 1a
Layout of Proposed Project
1202 Oakland Rd.
San Jose, California

Proposed Layout			
Proposed Land Use	**CalEEMod Land Use Type[1]**	**Proposed Size**	**Unit**
Convenience Store	Convenience Store (24 Hour)	3,750	Square Feet
Fuel Pumps[2]	Gasoline/Service Station w/ Convenience Store	12	Pumps
Car Wash	Automobile Care Center	1,410	Square Feet
Parking	Parking Lot	38	Spaces

Notes:

1. Best CalEEMod land-use type fits used.

2. The twelve fuel pumps were not differentiated into retail / commercial categories. The station is near the Bayshore Highway (approximately 400 meters). Trucks will likely travel only the distance from the freeway and back, whereas cars may travel roundtrip from a residence.

Abbreviations:

CalEEMod: CALifornia Emissions Estimator MODel

Table 1a
Layout of Existing Project
1202 Oakland Rd.
San Jose, California

Layout of Existing Project			
Baseline Land Use	**CalEEMod Land Use Type[1]**	**Size**	**Unit**
Truck Service Station	Automobile Care Center	10,400	Square Feet
Convenience Store	Convenience Store (24 Hour)	1,253	Square Feet
Fuel Pumps	Gasoline/Service Station	4	Pumps
Parking Lot	Parking Lot	38	Spaces

Notes:
1. Best CalEEMod land-use type fits used.

Abbreviations:
CalEEMod: CALifornia Emissions Estimator MODel

Table 2
CalEEMod Demolition Quantities and Construction Phasing
1202 Oakland Rd.
San Jose, California

Demolition Quantities	
Structures	**Existing Building Area (Square Feet)**
Truck Service Station	10,400
Convenience Store	1,253

Construction Schedule				
Phase	**Start Date**	**End Date**	**Number of Days per Week**	**Total Construction Days**
Demolition	1/1/2017	1/1/2017	5	10
Site Prep	1/14/2017	1/14/2017	5	1
Grading	1/17/2017	1/17/2017	5	2
Building Construction	1/19/2017	1/19/2017	5	100
Paving	6/8/2017	6/8/2017	5	5
Architectural Coating	6/15/2017	6/15/2017	5	5

Abbreviations:

CalEEMod: CALifornia Emissions Estimator MODel

References:

CalEEMod Version 2013.2.2. Available Online at: http://www.caleemod.com.

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Table 3
CalEEMod Construction Equipment List
1202 Oakland Rd.
San Jose, California

Equipment List					
Phase	**Equipment**	**Quantity**	**Usage Hours per Day**	**Horsepower**	**Load Factor**
Demolition	Concrete/Industrial Saws	1	8	81	0.73
	Rubber Tired Dozers	1	1	255	0.4
	Tractors/Loaders/Backhoes	2	6	97	0.37
Site Preparation	Graders	1	8	174	0.41
	Tractors/Loaders/Backhoes	1	8	97	0.37
Grading	Concrete/Industrial Saws	1	8	81	0.73
	Rubber Tired Dozers	1	1	255	0.4
	Tractors/Loaders/Backhoes	2	6	97	0.37
Building Construction	Cranes	1	4	226	0.29
	Forklifts	2	6	89	0.2
	Tractors/Loaders/Backhoes	2	8	97	0.37
Paving	Cement and Mortar Mixers	4	6	9	0.56
	Pavers	1	7	125	0.42
	Rollers	1	7	80	0.38
	Tractors/Loaders/Backhoes	1	7	97	0.37
Architectural Coating	Air Compressors	1	6	78	0.48

Abbreviations:
CalEEMod: CALifornia Emissions Estimator MODel

References:
CalEEMod Version 2013.2.2. Available Online at: http://www.caleemod.com.

Table 4
CalEEMod Construction On-Road Trips
1202 Oakland Rd.
San Jose, California

On-Road Trips						
Phase Name	**Worker Trip Number (trips/day)**	**Vendor Trip Number (trips/day)**	**Hauling Trip Number (total trips)**	**Worker Trip Length (miles/trip)**	**Vendor Trip Length (miles/trip)**	**Hauling Trip Length (miles/trip)**
Demolition	10	0	53	12.4	7.3	20
Site Preparation	5	0	0	12.4	7.3	20
Grading	10	0	0	12.4	7.3	20
Building Construction	7	3	0	12.4	7.3	20
Paving	18	0	0	12.4	7.3	20
Architectural Coating	1	0	0	12.4	7.3	20

Abbreviations:
CalEEMod: CALifornia Emissions Estimator MODel

References:
CalEEMod Version 2013.2.2. Available Online at: http://www.caleemod.com.

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Table 5a
Proposed Project Daily Trip Generation
1202 Oakland Rd.
San Jose, California

Proposed Project Daily Trip Generation						
Land Use	**CalEEMod Land Use Type**	**Average Daily Trip Rate**	**Average Trip Length (miles)[2]**	**Daily VMT[1]**	**Annual VMT**	**% of Total VMT**
Car Wash	Automobile Care Center	174	2.74	477	174,173	6%
Fuel Pumps & Convenience Store	Gasoline/ Service Station w/ Convenience Store	5,287	1.47	7,770	2,836,214	94%
Parking Lot	Parking Lot	0	0	0	0	0%
Total				**8,248**	**3,010,387**	**100%**

Notes:

[1] The VMT data in this table is based on the following percentage breakdown by trip type for residential and commercial land uses. Percentage of trips
Commercial -- worker: Default 9.5 miles (Average 1-2% of trips)
Commercial -- customer: Default 7.3 miles (Average 79-80% of trips)
Commercial -- non-worker: Default 7.3 miles (19% of trips)

[2] Average trip length is a weighted average determined by land use type, and trip type.

Average Primary Trip Length i =

(C-W miles x C-W *Trip* %) + (C-C *miles x C-C Trip* %) + (C-NW *miles x* C-NW *Trip* %)

Where

C-Wmiles	= Worker trip length
C-Wtrip%	= % of the total primary trips that are Worker Trips
C-Cmiles	= Customer trip length
C-Ctrip%	= % of the total primary trips that are Customer Trips
C-NWmiles	= Non-worker trip length (e.g. delivery trips)
C-NWtrip%	= % of the total primary trips that are Non-worker Trips
i	= land use type.

Average Overall Trip Length i =

(Link % primary x TripLengthAvg Primary) + (Link % Diverted x 0.25 x TripLengthAvg Primary) + (Link % Passby x 0.1mile)

Where

Link %	= percentage of link types
Trip Length AvgPrimary	= Average primary trip length for each trip type

Abbreviations:

CalEEMod: CALifornia Emissions Estimator MODel
VMT: Vehicle Miles Traveled

References:

CalEEMod Version 2013.2.2 Appendix A Available Online at: http://www.caleemod.com

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Table 5b
Existing Layout (Baseline) Daily Trip Generation
1202 Oakland Rd.
San Jose, California

Existing Layout (Baseline) Daily Trip Generation						
Land Use	**CalEEMod Land Use Type**	**Average Daily Trip Rate**	**Average Trip Length (miles)[2]**	**Daily VMT[1]**	**Annual VMT**	**% of Total VMT**
Truck Service Station	Automobile Care Center	645	2.73	1,760	642,341	40%
Fuel Pumps & Convenience Store	Gasoline/ Service Station w/ Convenience Store	1,762	1.47	2,590	945,405	60%
Parking Lot	Parking Lot	0	0	0	0	0%
Total				**4,350**	**1,587,746**	**100%**

Notes:

[1] The VMT data in this table is based on the following percentage breakdown by trip type for residential and commercial land uses. Percentage of trips
Commercial -- worker: Default 9.5 miles (Average 1-2% of trips)
Commercial -- customer: Default 7.3 miles (Average 79-80% of trips)
Commercial -- non-worker: Default 7.3 miles (19% of trips)

[2] Average trip length is a weighted average determined by land use type, and trip type.

Average Primary Trip Length i =

(C-W miles x C-W *Trip* %) + (C-C *miles x C-C Trip* %) + (C-NW *miles x* C-NW *Trip* %)

Where

C-Wmiles	= Worker trip length
C-Wtrip%	= % of the total primary trips that are Worker Trips
C-Cmiles	= Customer trip length
C-Ctrip%	= % of the total primary trips that are Customer Trips
C-NWmiles	= Non-worker trip length (e.g. delivery trips)
C-NWtrip%	= % of the total primary trips that are Non-worker Trips
i	= land use type.

Average Overall Trip Length i =

(Link % primary x TripLengthAvg Primary) + (Link % Diverted x 0.25 x TripLengthAvg Primary) + (Link % Passby x 0.1mile)

Where

Link %	= percentage of link types
Trip Length AvgPrimary	= Average primary trip length for each trip type

Abbreviations:

CalEEMod: CALifornia Emissions Estimator MODel
VMT: Vehicle Miles Traveled

References:

CalEEMod Version 2013.2.2 Appendix A Available Online at: http://www.caleemod.com

Table 6
Summary of Project Construction Greenhouse Gas Emissions
1202 Oakland Rd.
San Jose, California

Summary of Project Construction Greenhouse Gas Emissions			
Pollutant	**Construction Emissions[1]**	**Construction Threshold**	**Above Threshold?**
	[MT]	**[MT]**	**[MT]**
Total GHG (CO2e) for 2015	72	None	No

Notes:
1. All emissions estimated using methodologies consistent with CalEEMod version 2013.2.2.

Abbreviations:
CalEEMod: CALifornia Emissions Estimator MODel
CO_2e: carbon dioxide equivalents
GHG: greenhouse gas
MT: metric tons

References:
CalEEMod Version 2013.2.2 Available Online at: http://www.caleemod.com

Table 7
Summary of Project Operational Greenhouse Gas Emissions
1202 Oakland Rd.
San Jose, California

Summary of Project Operational Greenhouse Gas Emissions				
Source[1]	**Units**	**2017 GHG Emissions (Project)**	**2017 GHG Emissions (Baseline)**	**Incremental Project Emissions**
Area[2]	[MT CO_2e/yr]	0.0010	0.0010	**0**
Energy[2]		16	40	**-24**
Mobile[2]		1,325	683	**642**
Waste[2]		2.5	18	**-16**
Water[2]		8.0	2.79	**5**
Project Total	**[MT CO_2e]**	**1,352**	**744**	**608**
BAAQMD Threshold[3]	**[MT CO_2e]**			**1,100**
Exceeds Threshold?	**--**			**No**

Notes:

1. Total operational emissions include yearly emissions from area, energy, mobile, waste, and water sources. It is assumed that carbon sequestration associated with vegetation change will be minimal and hence not included.

2. Emissions estimated using CalEEMod version 2013.2.2.

3. BAAQMD significance threshold outlined in the May 2011 BAAQMD CEQA Guidelines.

Abbreviations:

BAAQMD: Bay Area Air Quality Management District
CalEEMod: California Emissions Estimator Model
CEQA: California Environmental Quality Act
CO_2e: carbon dioxide equivalents
GHG: greenhouse gases
MT: metric tons

References:

ARB. 2013. Documentation of California's 2000-2010 GHG Inventory — Index. Available online at: http://www.arb.ca.gov/cc/inventory/doc/doc_index.php
http://www.arb.ca.gov/msprog/clean_cars/acc%20summary-final.pdf
BAAQMD. 2011. CEQA Air Quality Guidelines. May.
California Emissions Estimator Model (CalEEMod) Version 2013.2.2. Available online at: http://caleemod.com/

ATTACHMENT A
CALEEMOD® OPERATIONAL OUTPUT FILES

Rotten Robbie Existing

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	38.00	Space	0.34	15,200.00	0
Automobile Care Center	10.40	1000sqft	0.24	10,400.00	0
Convenience Market With Gas Pumps	4.00	Pump	0.01	1,253.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2017
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	435	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E projection for 2017

Land Use - Client data

Architectural Coating -

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Energy Use - .

Table Name	Column Name	Default Value	New Value

tblLandUse	LandUseSquareFeet	564.70	1,253.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	435
tblProjectCharacteristics	OperationalYear	2014	2017

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017											0.0000	71.5120	71.5120	0.0185	0.0000	71.9012
Total											**0.0000**	**71.5120**	**71.5120**	**0.0185**	**0.0000**	**71.9012**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017											0.0000	71.5119	71.5119	0.0185	0.0000	71.9011
Total											**0.0000**	**71.5119**	**71.5119**	**0.0185**	**0.0000**	**71.9011**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area											0.0000	9.4000e-004	9.4000e-004	0.0000	0.0000	9.9000e-004
Energy											0.0000	39.4380	39.4380	1.9000e-003	6.1000e-004	39.6682
Mobile											0.0000	682.4944	682.4944	0.0341	0.0000	683.2095
Waste											8.0648	0.0000	8.0648	0.4766	0.0000	18.0738
Water											0.3237	1.5212	1.8448	0.0334	8.1000e-004	2.7950
Total											**8.3885**	**723.4545**	**731.8430**	**0.5459**	**1.4200e-003**	**743.7475**

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											0.0000	9.4000e-004	9.4000e-004	0.0000	0.0000	9.9000e-004
Energy											0.0000	39.4380	39.4380	1.9000e-003	6.1000e-004	39.6682

Mobile											0.0000	682.4944	682.4944	0.0341	0.0000	683.2095
Waste											8.0648	0.0000	8.0648	0.4766	0.0000	18.0738
Water											0.3237	1.5212	1.8448	0.0333	8.0000e-004	2.7945
Total											**8.3885**	**723.4545**	**731.8430**	**0.5459**	**1.4100e-003**	**743.7470**

	ROG	NOx	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**	**0.70**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2017	1/13/2017	5	10	
2	Site Preparation	Site Preparation	1/14/2017	1/16/2017	5	1	
3	Grading	Grading	1/17/2017	1/18/2017	5	2	
4	Building Construction	Building Construction	1/19/2017	6/7/2017	5	100	
5	Paving	Paving	6/8/2017	6/14/2017	5	5	
6	Architectural Coating	Architectural Coating	6/15/2017	6/21/2017	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 18,164; Non-Residential Outdoor: 6,055 (Architectural Coating –

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73

Demolition	Rubber Tired Dozers	1	1.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	10.00	4.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2017

Unmitigated Construction On-Site

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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											0.0000	5.3697	5.3697	1.0600e-003	0.0000	5.3919
Total											**0.0000**	**5.3697**	**5.3697**	**1.0600e-003**	**0.0000**	**5.3919**

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
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	0.3858	0.3858	2.0000e-005	0.0000	0.3862
Total											**0.0000**	**0.3858**	**0.3858**	**2.0000e-005**	**0.0000**	**0.3862**

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											0.0000	5.3697	5.3697	1.0600e-003	0.0000	5.3919
Total											**0.0000**	**5.3697**	**5.3697**	**1.0600e-003**	**0.0000**	**5.3919**

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
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	0.3858	0.3858	2.0000e-005	0.0000	0.3862
Total											**0.0000**	**0.3858**	**0.3858**	**2.0000e-005**	**0.0000**	**0.3862**

3.3 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	0.4336	0.4336	1.3000e-004	0.0000	0.4364
Total											**0.0000**	**0.4336**	**0.4336**	**1.3000e-004**	**0.0000**	**0.4364**

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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
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	0.0193	0.0193	0.0000	0.0000	0.0193
Total											**0.0000**	**0.0193**	**0.0193**	**0.0000**	**0.0000**	**0.0193**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	0.4336	0.4336	1.3000e-004	0.0000	0.4364
Total											**0.0000**	**0.4336**	**0.4336**	**1.3000e-004**	**0.0000**	**0.4364**

Mitigated Construction Off-Site

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	0.0193	0.0193	0.0000	0.0000	0.0193
Total											**0.0000**	**0.0193**	**0.0193**	**0.0000**	**0.0000**	**0.0193**

3.4 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	1.0739	1.0739	2.1000e-004	0.0000	1.0784
Total											**0.0000**	**1.0739**	**1.0739**	**2.1000e-004**	**0.0000**	**1.0784**

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

Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	0.0772	0.0772	0.0000	0.0000	0.0772
Total											**0.0000**	**0.0772**	**0.0772**	**0.0000**	**0.0000**	**0.0772**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	1.0739	1.0739	2.1000e-004	0.0000	1.0784
Total											**0.0000**	**1.0739**	**1.0739**	**2.1000e-004**	**0.0000**	**1.0784**

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
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	0.0772	0.0772	0.0000	0.0000	0.0772
Total											**0.0000**	**0.0772**	**0.0772**	**0.0000**	**0.0000**	**0.0772**

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3.5 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road											0.0000	52.5954	52.5954	0.0161	0.0000	52.9339
Total											**0.0000**	**52.5954**	**52.5954**	**0.0161**	**0.0000**	**52.9339**

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
Vendor											0.0000	4.2509	4.2509	3.0000e-005	0.0000	4.2516
Worker											0.0000	3.8578	3.8578	2.0000e-004	0.0000	3.8619
Total											**0.0000**	**8.1087**	**8.1087**	**2.3000e-004**	**0.0000**	**8.1135**

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											0.0000	52.5954	52.5954	0.0161	0.0000	52.9338
Total											**0.0000**	**52.5954**	**52.5954**	**0.0161**	**0.0000**	**52.9338**

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
Vendor											0.0000	4.2509	4.2509	3.0000e-005	0.0000	4.2516
Worker											0.0000	3.8578	3.8578	2.0000e-004	0.0000	3.8619
Total											**0.0000**	**8.1087**	**8.1087**	**2.3000e-004**	**0.0000**	**8.1135**

3.6 Paving - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road											0.0000	2.4243	2.4243	6.7000e-004	0.0000	2.4384

Paving											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total											**0.0000**	**2.4243**	**2.4243**	**6.7000e-004**	**0.0000**	**2.4384**

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
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	0.3472	0.3472	2.0000e-005	0.0000	0.3476
Total											**0.0000**	**0.3472**	**0.3472**	**2.0000e-005**	**0.0000**	**0.3476**

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											0.0000	2.4243	2.4243	6.7000e-004	0.0000	2.4384
Paving											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total											**0.0000**	**2.4243**	**2.4243**	**6.7000e-004**	**0.0000**	**2.4384**

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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
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	0.3472	0.3472	2.0000e-005	0.0000	0.3476
Total											**0.0000**	**0.3472**	**0.3472**	**2.0000e-005**	**0.0000**	**0.3476**

3.7 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	0.6383	0.6383	7.0000e-005	0.0000	0.6397
Total											**0.0000**	**0.6383**	**0.6383**	**7.0000e-005**	**0.0000**	**0.6397**

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

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Category	tons/yr										MT/yr					
Hauling											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
Worker											0.0000	0.0386	0.0386	0.0000	0.0000	0.0386
Total											**0.0000**	**0.0386**	**0.0386**	**0.0000**	**0.0000**	**0.0386**

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											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	0.6383	0.6383	7.0000e-005	0.0000	0.6397
Total											**0.0000**	**0.6383**	**0.6383**	**7.0000e-005**	**0.0000**	**0.6397**

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
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Worker											0.0000	0.0386	0.0386	0.0000	0.0000	0.0386
Total											**0.0000**	**0.0386**	**0.0386**	**0.0000**	**0.0000**	**0.0386**

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											0.0000	682.4944	682.4944	0.0341	0.0000	683.2095
Unmitigated											0.0000	682.4944	682.4944	0.0341	0.0000	683.2095

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	644.80	644.80	644.80	642,341	642,341
Convenience Market With Gas Pumps	2,170.40	817.88	667.52	945,405	945,405
Parking Lot	0.00	0.00	0.00		
Total	2,815.20	1,462.68	1,312.32	1,587,746	1,587,746

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-...	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Automobile Care Center	9.50	7.30	7.30	33.00	48.00	19.00	21	51	28
Convenience Market With Gas	9.50	7.30	7.30	0.80	80.20	19.00	14	21	65
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.551854	0.058218	0.185395	0.123453	0.029544	0.004438	0.012761	0.022956	0.001780	0.001269	0.006045	0.000523	0.001763

5.0 Energy Detail

4.4 Fleet Mix

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	24.0594	24.0594	1.6000e-003	3.3000e-004	24.1960
Electricity Unmitigated											0.0000	24.0594	24.0594	1.6000e-003	3.3000e-004	24.1960
NaturalGas Mitigated											0.0000	15.3786	15.3786	2.9000e-004	2.8000e-004	15.4722
NaturalGas Unmitigated											0.0000	15.3786	15.3786	2.9000e-004	2.8000e-004	15.4722

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					

Convenience Market With Gas Pumps	3119.97											0.0000	0.1665	0.1665	0.0000	0.0000	0.1675
Parking Lot	0											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Automobile Care Center	285064											0.0000	15.2121	15.2121	2.9000e-004	2.8000e-004	15.3047
Total												**0.0000**	**15.3786**	**15.3786**	**2.9000e-004**	**2.8000e-004**	**15.4722**

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					
Convenience Market With Gas Pumps	3119.97											0.0000	0.1665	0.1665	0.0000	0.0000	0.1675
Parking Lot	0											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Automobile Care Center	285064											0.0000	15.2121	15.2121	2.9000e-004	2.8000e-004	15.3047
Total												**0.0000**	**15.3786**	**15.3786**	**2.9000e-004**	**2.8000e-004**	**15.4722**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Automobile Care Center	93912	18.5300	1.2400e-003	2.6000e-004	18.6352
Convenience Market With Gas Pumps	14647.6	2.8902	1.9000e-004	4.0000e-005	2.9066
Parking Lot	13376	2.6393	1.8000e-004	4.0000e-005	2.6542

Total		**24.0594**	**1.6100e-003**	**3.4000e-004**	**24.1960**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Automobile Care Center	93912	18.5300	1.2400e-003	2.6000e-004	18.6352
Convenience Market With Gas Pumps	14647.6	2.8902	1.9000e-004	4.0000e-005	2.9066
Parking Lot	13376	2.6393	1.8000e-004	4.0000e-005	2.6542
Total		**24.0594**	**1.6100e-003**	**3.4000e-004**	**24.1960**

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											0.0000	9.4000e-004	9.4000e-004	0.0000	0.0000	9.9000e-004
Unmitigated											0.0000	9.4000e-004	9.4000e-004	0.0000	0.0000	9.9000e-004

6.2 Area by SubCategory

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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											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping											0.0000	9.4000e-004	9.4000e-004	0.0000	0.0000	9.9000e-004
Total											**0.0000**	**9.4000e-004**	**9.4000e-004**	**0.0000**	**0.0000**	**9.9000e-004**

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											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping											0.0000	9.4000e-004	9.4000e-004	0.0000	0.0000	9.9000e-004
Total											**0.0000**	**9.4000e-004**	**9.4000e-004**	**0.0000**	**0.0000**	**9.9000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.8448	0.0333	8.0000e-004	2.7945
Unmitigated	1.8448	0.0334	8.1000e-004	2.7950

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Automobile Care Center	0.978444 / 0.599691	1.7692	0.0320	7.7000e-004	2.6804
Convenience Market With Gas Pumps	0.0418287 / 0.026607	0.0756	1.3700e-003	3.0000e-005	0.1146
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**1.8448**	**0.0334**	**8.0000e-004**	**2.7950**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			

Automobile Care Center	0.978444 / 0.599691	1.7692	0.0320	7.7000e-004	2.6799
Convenience Market With Gas Pumps	0.0418287 / 0.025627	0.0756	1.3700e-003	3.0000e-005	0.1146
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**1.8448**	**0.0333**	**8.0000e-004**	**2.7945**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	8.0648	0.4766	0.0000	18.0738
Unmitigated	8.0648	0.4766	0.0000	18.0738

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Automobile Care Center	39.73	8.0648	0.4766	0.0000	18.0738
Parking Lot	0	0.0000	0.0000	0.0000	0.0000

Total		**8.0648**	**0.4766**	**0.0000**	**18.0738**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Automobile Care Center	39.73	8.0648	0.4766	0.0000	18.0738
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**8.0648**	**0.4766**	**0.0000**	**18.0738**

9.0 Operational Offroad

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

10.0 Vegetation

Rotten Robbie Project

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Automobile Care Center	1.41	1000sqft	0.03	1,410.00	0
Convenience Market With Gas Pumps	12.00	Pump	0.04	3,750.00	0
Parking Lot	38.00	Space	0.34	15,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2017
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	435	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - new data

Land Use - site map shows building percentages of total site square footage.

Demolition - 10,400 +1253

Architectural Coating -

Vehicle Trips - ITE

Energy Use - .

Water And Wastewater -

Trips and VMT -

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Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	1,694.10	3,750.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	435
tblProjectCharacteristics	OperationalYear	2014	2017
tblVehicleTrips	ST_TR	62.00	124.00
tblVehicleTrips	SU_TR	62.00	124.00
tblVehicleTrips	WD_TR	62.00	124.00
tblWater	IndoorWaterUseRate	132,654.36	3,281,350.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017											0.0000	71.4623	71.4623	0.0185	0.0000	71.8508
Total											**0.0000**	**71.4623**	**71.4623**	**0.0185**	**0.0000**	**71.8508**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					

2017											0.0000	71.4623	71.4623	0.0185	0.0000	71.8507
Total											**0.0000**	**71.4623**	**71.4623**	**0.0185**	**0.0000**	**71.8507**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area											0.0000	9.2000e-004	9.2000e-004	0.0000	0.0000	9.70E-04
Energy											0.0000	16.3619	16.3619	9.7000e-004	2.4000e-004	16.4558
Mobile											0.0000	1,324.2191	1,324.2191	0.0689	0.0000	1,325.6667
Waste											1.0941	0.0000	1.0941	0.0647	0.0000	2.4520
Water											1.0808	3.7466	4.8274	0.1113	2.6700e-003	7.9925
Total											**2.1750**	**1,344.3285**	**1,346.5035**	**0.2458**	**2.9100e-003**	**1,352.5680**

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

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Category	tons/yr										MT/yr					
Area											0.0000	9.2000e-004	9.2000e-004	0.0000	0.0000	9.7000e-004
Energy											0.0000	16.3619	16.3619	9.7000e-004	2.4000e-004	16.4558
Mobile											0.0000	1,324.2191	1,324.2191	0.0689	0.0000	1,325.6667
Waste											1.0941	0.0000	1.0941	0.0647	0.0000	2.4520
Water											1.0808	3.7466	4.8274	0.1112	2.6700e-003	7.9908
Total											**2.1750**	**1,344.3285**	**1,346.5035**	**0.2458**	**2.9100e-003**	**1,352.5663**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2017	1/13/2017	5	10	
2	Site Preparation	Site Preparation	1/14/2017	1/16/2017	5	1	
3	Grading	Grading	1/17/2017	1/18/2017	5	2	
4	Building Construction	Building Construction	1/19/2017	6/7/2017	5	100	
5	Paving	Paving	6/8/2017	6/14/2017	5	5	
6	Architectural Coating	Architectural Coating	6/15/2017	6/21/2017	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 8,424; Non-Residential Outdoor: 2,808 (Architectural Coating –

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Site Preparation	Graders	1	8.00	174	0.41
Paving	Pavers	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	1.00	255	0.40
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	53.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	8.00	3.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	5.3697	5.3697	1.0600e-003	0.0000	5.3919
Total											**0.0000**	**5.3697**	**5.3697**	**1.0600e-003**	**0.0000**	**5.3919**

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	1.7846	1.7846	1.0000e-005	0.0000	1.7849
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	0.3858	0.3858	2.0000e-005	0.0000	0.3862
Total											**0.0000**	**2.1704**	**2.1704**	**3.0000e-005**	**0.0000**	**2.1711**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	5.3697	5.3697	1.0600e-003	0.0000	5.3919
Total											**0.0000**	**5.3697**	**5.3697**	**1.0600e-003**	**0.0000**	**5.3919**

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	1.7846	1.7846	1.0000e-005	0.0000	1.7849
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	0.3858	0.3858	2.0000e-005	0.0000	0.3862
Total											**0.0000**	**2.1704**	**2.1704**	**3.0000e-005**	**0.0000**	**2.1711**

3.3 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

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Fugitive Dust											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	0.4336	0.4336	1.3000e-004	0.0000	0.4364
Total											**0.0000**	**0.4336**	**0.4336**	**1.3000e-004**	**0.0000**	**0.4364**

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
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	0.0193	0.0193	0.0000	0.0000	0.0193
Total											**0.0000**	**0.0193**	**0.0193**	**0.0000**	**0.0000**	**0.0193**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	0.4336	0.4336	1.3000e-004	0.0000	0.4364
Total											**0.0000**	**0.4336**	**0.4336**	**1.3000e-004**	**0.0000**	**0.4364**

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
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	0.0193	0.0193	0.0000	0.0000	0.0193
Total											**0.0000**	**0.0193**	**0.0193**	**0.0000**	**0.0000**	**0.0193**

3.4 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	1.0739	1.0739	2.1000e-004	0.0000	1.0784
Total											**0.0000**	**1.0739**	**1.0739**	**2.1000e-004**	**0.0000**	**1.0784**

Unmitigated Construction Off-Site

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	0.0772	0.0772	0.0000	0.0000	0.0772
Total											**0.0000**	**0.0772**	**0.0772**	**0.0000**	**0.0000**	**0.0772**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	1.0739	1.0739	2.1000e-004	0.0000	1.0784
Total											**0.0000**	**1.0739**	**1.0739**	**2.1000e-004**	**0.0000**	**1.0784**

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

Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	0.0772	0.0772	0.0000	0.0000	0.0772
Total											**0.0000**	**0.0772**	**0.0772**	**0.0000**	**0.0000**	**0.0772**

3.5 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road											0.0000	52.5954	52.5954	0.0161	0.0000	52.9339
Total											**0.0000**	**52.5954**	**52.5954**	**0.0161**	**0.0000**	**52.9339**

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
Vendor											0.0000	3.1882	3.1882	2.0000e-005	0.0000	3.1887
Worker											0.0000	3.0863	3.0863	1.6000e-004	0.0000	3.0896
Total											**0.0000**	**6.2744**	**6.2744**	**1.8000e-004**	**0.0000**	**6.2783**

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											0.0000	52.5954	52.5954	0.0161	0.0000	52.9338
Total											**0.0000**	**52.5954**	**52.5954**	**0.0161**	**0.0000**	**52.9338**

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
Vendor											0.0000	3.1882	3.1882	2.0000e-005	0.0000	3.1887
Worker											0.0000	3.0863	3.0863	1.6000e-004	0.0000	3.0896
Total											**0.0000**	**6.2744**	**6.2744**	**1.8000e-004**	**0.0000**	**6.2783**

3.6 Paving - 2017

Unmitigated Construction On-Site

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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											0.0000	2.4243	2.4243	6.7000e-004	0.0000	2.4384
Paving											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total											**0.0000**	**2.4243**	**2.4243**	**6.7000e-004**	**0.0000**	**2.4384**

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
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	0.3472	0.3472	2.0000e-005	0.0000	0.3476
Total											**0.0000**	**0.3472**	**0.3472**	**2.0000e-005**	**0.0000**	**0.3476**

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											0.0000	2.4243	2.4243	6.7000e-004	0.0000	2.4384

Paving											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total											**0.0000**	**2.4243**	**2.4243**	**6.7000e-004**	**0.0000**	**2.4384**

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
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	0.3472	0.3472	2.0000e-005	0.0000	0.3476
Total											**0.0000**	**0.3472**	**0.3472**	**2.0000e-005**	**0.0000**	**0.3476**

3.7 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	0.6383	0.6383	7.0000e-005	0.0000	0.6397
Total											**0.0000**	**0.6383**	**0.6383**	**7.0000e-005**	**0.0000**	**0.6397**

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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
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	0.0386	0.0386	0.0000	0.0000	0.0386
Total											**0.0000**	**0.0386**	**0.0386**	**0.0000**	**0.0000**	**0.0386**

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											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	0.6383	0.6383	7.0000e-005	0.0000	0.6397
Total											**0.0000**	**0.6383**	**0.6383**	**7.0000e-005**	**0.0000**	**0.6397**

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
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	0.0386	0.0386	0.0000	0.0000	0.0386
Total											**0.0000**	**0.0386**	**0.0386**	**0.0000**	**0.0000**	**0.0386**

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											0.0000	1,324.2191	1,324.2191	0.0689	0.0000	1,325.6667
Unmitigated											0.0000	1,324.2191	1,324.2191	0.0689	0.0000	1,325.6667

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	174.84	174.84	174.84	174,173	174,173
Convenience Market With Gas Pumps	6,511.20	2,453.64	2002.56	2,836,214	2,836,214
Parking Lot	0.00	0.00	0.00		
Total	6,686.04	2,628.48	2,177.40	3,010,388	3,010,388

4.3 Trip Type Information

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	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	9.50	7.30	7.30	33.00	48.00	19.00	21	51	28
Convenience Market With Gas	9.50	7.30	7.30	0.80	80.20	19.00	14	21	65
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.551854	0.058218	0.185395	0.123453	0.029544	0.004438	0.012761	0.022956	0.001780	0.001269	0.006045	0.000523	0.001763

5.0 Energy Detail

4.4 Fleet Mix

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	13.8012	13.8012	9.2000e-004	1.9000e-004	13.8795
Electricity Unmitigated											0.0000	13.8012	13.8012	9.2000e-004	1.9000e-004	13.8795
NaturalGas Mitigated											0.0000	2.5607	2.5607	5.0000e-005	5.0000e-005	2.5763
NaturalGas Unmitigated											0.0000	2.5607	2.5607	5.0000e-005	5.0000e-005	2.5763

5.2 Energy by Land Use - NaturalGas

Unmitigated

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	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					
Parking Lot	0											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Automobile Care Center	38648.1											0.0000	2.0624	2.0624	4.0000e-005	4.0000e-005	2.0750
Convenience Market With Gas Pumps	9337.5											0.0000	0.4983	0.4983	1.0000e-005	1.0000e-005	0.5013
Total												**0.0000**	**2.5607**	**2.5607**	**5.0000e-005**	**5.0000e-005**	**2.5763**

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					
Parking Lot	0											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Automobile Care Center	38648.1											0.0000	2.0624	2.0624	4.0000e-005	4.0000e-005	2.0750
Convenience Market With Gas Pumps	9337.5											0.0000	0.4983	0.4983	1.0000e-005	1.0000e-005	0.5013
Total												**0.0000**	**2.5607**	**2.5607**	**5.0000e-005**	**5.0000e-005**	**2.5763**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e

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Land Use	kWh/yr	MT/yr			
Automobile Care Center	12732.3	2.5122	1.7000e-004	3.0000e-005	2.5265
Convenience Market With Gas Pumps	43837.5	8.6497	5.8000e-004	1.2000e-004	8.6988
Parking Lot	13376	2.6393	1.8000e-004	4.0000e-005	2.6542
Total		**13.8012**	**9.3000e-004**	**1.9000e-004**	**13.8795**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Automobile Care Center	12732.3	2.5122	1.7000e-004	3.0000e-005	2.5265
Convenience Market With Gas Pumps	43837.5	8.6497	5.8000e-004	1.2000e-004	8.6988
Parking Lot	13376	2.6393	1.8000e-004	4.0000e-005	2.6542
Total		**13.8012**	**9.3000e-004**	**1.9000e-004**	**13.8795**

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											0.0000	9.2000e-004	9.2000e-004	0.0000	0.0000	9.7000e-004
Unmitigated											0.0000	9.2000e-004	9.2000e-004	0.0000	0.0000	9.7000e-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											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping											0.0000	9.2000e-004	9.2000e-004	0.0000	0.0000	9.7000e-004
Total											**0.0000**	**9.2000e-004**	**9.2000e-004**	**0.0000**	**0.0000**	**9.7000e-004**

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											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping											0.0000	9.2000e-004	9.2000e-004	0.0000	0.0000	9.7000e-004
Total											**0.0000**	**9.2000e-004**	**9.2000e-004**	**0.0000**	**0.0000**	**9.7000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	4.8274	0.1112	2.6700e-003	7.9908
Unmitigated	4.8274	0.1113	2.6700e-003	7.9925

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Automobile Care Center	3.28135 / 0.0813043	4.6005	0.1072	2.5700e-003	7.6488
Convenience Market With Gas Pumps	0.125486 / 0.0760100	0.2269	4.1000e-003	1.0000e-004	0.3438
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**4.8274**	**0.1113**	**2.6700e-003**	**7.9925**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Automobile Care Center	3.28135 / 0.0813043	4.6005	0.1071	2.5700e-003	7.6471
Convenience Market With Gas Pumps	0.125486 / 0.076249	0.2269	4.1000e-003	1.0000e-004	0.3437
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**4.8274**	**0.1112**	**2.6700e-003**	**7.9908**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1.0941	0.0647	0.0000	2.4520
Unmitigated	1.0941	0.0647	0.0000	2.4520

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Automobile Care Center	5.39	1.0941	0.0647	0.0000	2.4520
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**1.0941**	**0.0647**	**0.0000**	**2.4520**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Automobile Care Center	5.39	1.0941	0.0647	0.0000	2.4520
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**1.0941**	**0.0647**	**0.0000**	**2.4520**

9.0 Operational Offroad

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

10.0 Vegetation