

SMALL PROJECT ANALYSIS LEVEL ASSESSMENT

SASD Medical Office Building Bakersfield, CA



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July 2020 (revised October 2020)

Project 200505.0156



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1. EXECUTIVE SUMMARY

1.1 Executive Summary

Trinity Consultants has completed a limited air quality assessment for an outpatient clinic to be located on APNs 365-020-30 and 365-020-28 (Project) near the intersection of Knudsen Drive and Olive Drive in Bakersfield, California. The Project includes the construction of a 39, 648 square foot outpatient clinic that provides basic clinical services from 7:00 am to 5:00 pm, Monday through Friday.

This limited air quality assessment uses the San Joaquin Valley Air Pollution Control District's (SJVAPCD) screening tool, Small Project Analysis Level (SPAL) (SJVAPCD 2017). This SPAL assessment was prepared pursuant to the SJVAPCD's Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI) (SJVAPCD 2015), the California Environmental Quality Act (CEQA) (Public Resources Code 21000 to 21189), and the CEQA Guidelines (California Code of Regulations Title 14, Division 6, Chapter 3, Sections 15000 – 15387).

1.2 Statement of Finding

Based on the SPAL established by the SJVAPCD's GAMAQI, the emissions estimates prepared pursuant to this SPAL assessment do not exceed the SJVAPCD's established emissions thresholds and significance thresholds for all CEQA air quality determinations; this Project would therefore not pose a significant impact to the San Joaquin Valley Air Basin and would have a *less than significant* air quality impact.

2. PROJECT INFORMATION

2.1 Introduction

The Project site is located in the City of Bakersfield south of the southeast corner of Knudsen Drive and Olive Drive on APNs 365-020-30 and 365-020-28. The Project includes the construction of a 39,648 square foot outpatient clinic that provides basic clinical services from 7:00 am to 5:00 pm, Monday through Friday. The Project was assessed as if it would be developed in one phase. This assessment examines the projected gross impacts to air quality posed by this Project to the San Joaquin Valley Air Basin to determine whether or not the Project remains below established air quality thresholds of significance.

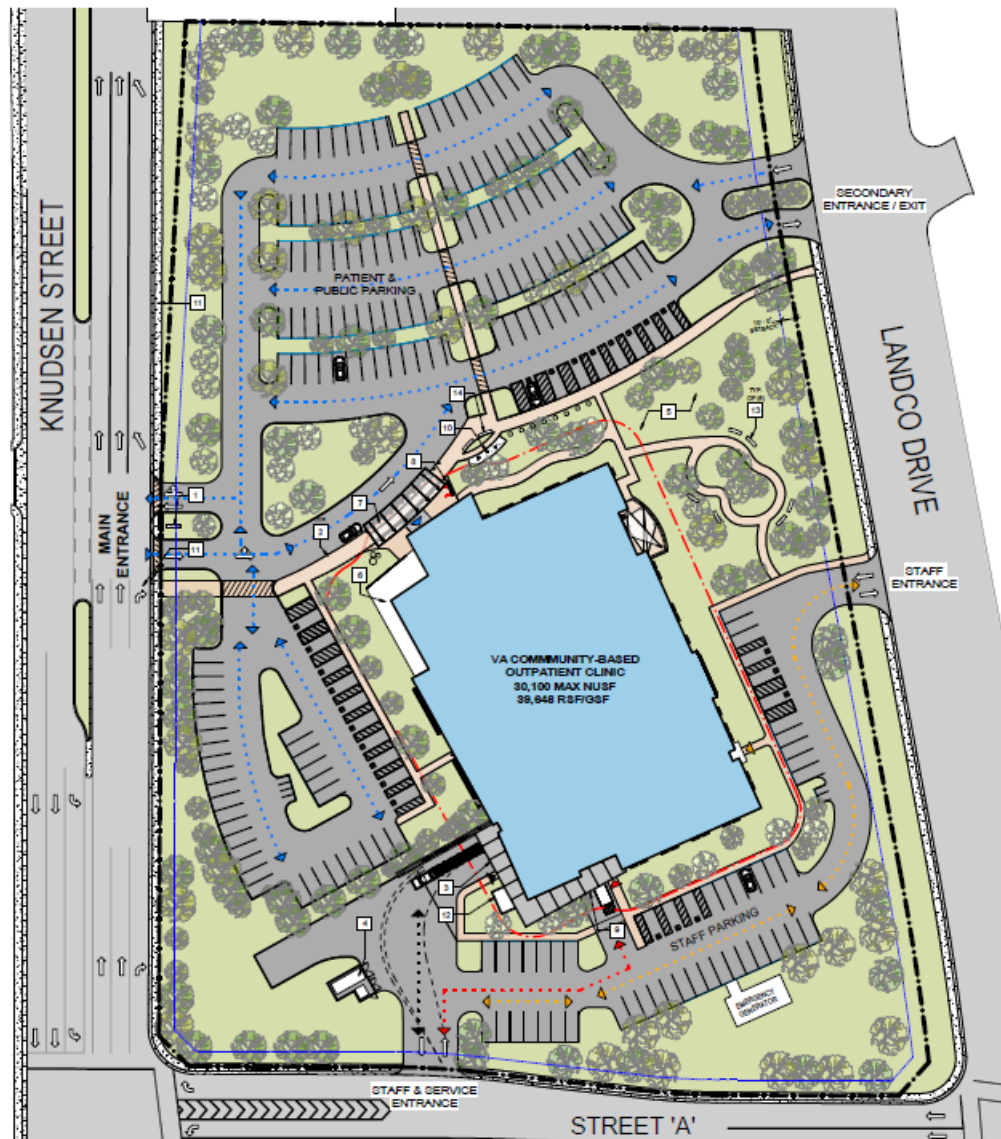
2.2 Project Location

The Project is located in the City of Bakersfield, California south of the southeast corner of Knudsen Drive and Olive Drive. **Figure 2-1** depicts the Project location within the City of Bakersfield and **Figure 2-2** depicts the proposed site plan.

Figure 2-1. Project Location



Figure 2-2. Proposed Site Plan



3. SMALL PROJECT ANALYSIS LEVEL QUALIFICATION

This assessment was prepared pursuant to the SJVAPCD's GAMAQI (SJVAPCD 2015), the CEQA (Public Resources Code 21000 to 21189), and CEQA Guidelines (California Code of Regulations Title 14, Division 6, Chapter 3, Sections 15000 – 15387). The SJVAPCD created the SPAL screening tool to streamline air quality assessments of commonly encountered projects. According to GAMAQI, the SJVAPCD "pre-calculated the emissions on a large number and types of projects to identify the level at which they have no possibility of exceeding the emissions thresholds"¹.

The SJVAPCD SPAL process established review parameters to determine whether a project qualifies as a "small project." A project that is found to be "less than" the established parameters has "no possibility of exceeding criteria pollutant emissions thresholds." **Table 3-1** presents the SPAL size parameters for commercial office projects.

Table 3-1. Small Project Analysis Level in Units for Office (Commercial)

Land Use Category - Office	Project Size (square feet)*
General Office Building	110,000
Office Park	106,000
Government (Civic Center)	57,000
Government Office Building	23,000
Medical Office Building	52,000
Proposed Project – Medical Office Building	39,648
SPAL Exceeded?	No
*Project size based on SPAL Table 5-3(b), as posted on SJVAPCD webpage: http://www.valleyair.org/transportation/CEQA Rules/GAMAQI-SPAL.pdf	

As shown in **Table 3-1**, the proposed Project would not exceed the established SPAL limits for a "Medical Office Building" commercial project. The Project would construct a 39,648 square foot medical office building compared to the allowable project size for a Medical Office Building project which is 52,000 square feet. Based on the above information, this Project qualifies for a limited air quality analysis applying the SPAL guidance to determine air quality impacts.

¹ SJVAPCD GAMAQI, Section 8.3.4, Page 85.

4. AIR QUALITY IMPACTS THRESHOLDS AND EVALUATION METHODOLOGY

Significance thresholds are based on the CEQA Appendix G Environmental Checklist Form (not included herein) and SJVAPCD air quality thresholds (SJVAPCD 2015). A potentially significant impact to air quality, as defined by the CEQA Checklist, would occur if the project caused one or more of the following to occur:

- ▶ Conflict with or obstruct implementation of the applicable air quality plan;
- ▶ Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard;
- ▶ Expose sensitive receptors to substantial pollutant concentrations; and/or
- ▶ Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

The SJVAPCD has identified quantitative emission thresholds to determine whether the potential air quality impacts of a project require analysis in the form of an Environmental Impact Report. The SJVAPCD air quality thresholds from the GAMAQI are presented in **Table 4-1** (SJVAPCD 2015). The SJVAPCD separates construction emissions from operational emissions, and further separates permitted operational emissions from non-permitted operational emissions, for determining significance thresholds for air pollutant emissions.

Table 4-1. SJVAPCD Air Quality Thresholds of Significance - Criteria Pollutants

Pollutant/ Precursor	Construction Emissions	Operational Emissions	
		Permitted Equipment and Activities	Non-Permitted Equipment and Activities
	Emissions (tpy)	Emissions (tpy)	Emissions (tpy)
CO	100	100	100
NO _x	10	10	10
ROG	10	10	10
SO _x	27	27	27
PM ₁₀	15	15	15
PM _{2.5}	15	15	15

Source: SJVAPCD 2015

Criteria pollutant emissions were estimated using the California Emissions Estimator Model (CalEEMod) version 2016.3.2 (California Air Pollution Control Officers Association (CAPCOA) 2016). This project would generate short-term construction emissions and long-term operational emissions.

An air quality evaluation also considers: 1) exposure of sensitive receptors to substantial pollutant concentrations; and 2) the creation of other emissions (such as those leading to odors) adversely affecting a substantial number of people. The criteria for this evaluation are based on the Lead Agency's determination of the proximity of the proposed Project to sensitive receptors. A sensitive receptor is a location where human populations, especially children, senior citizens and sick persons, are present, and where there is a reasonable expectation of continuous human exposure to pollutants, according to the averaging period for ambient air quality standards, i.e. the 24-hour, 8-hour, or 1-hour standards. Commercial and industrial sources are not considered sensitive receptors.

5. PROJECT-RELATED EMISSIONS

This document was prepared pursuant to the SJVAPCD's GAMAQI and SPAL guidelines and provides a cursory review of the Project emissions to demonstrate that it would not exceed established air quality emissions thresholds.

5.1 Short-Term Emissions

Table 5-1 shows the construction emission levels using default CalEEMod factors for construction of a 39,648 square foot outpatient clinic. The construction timeline was adjusted to match the developer timeline of October 2020 to October 2022.

Construction emission estimates also included the following SJVAPCD's required measures for all projects:

- ▶ Water exposed area 3 times per day; and
- ▶ Reduce vehicle speed to less than 15 miles per hour.

Based on these anticipated activity levels, the Project construction activities would not exceed construction thresholds (**Table 4-1**). Therefore, construction emissions were found to be *less than significant*, and no further evaluation is required.

Table 5-1. Construction Emissions

Emissions Source	Pollutant					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
	(tons/year)					
2020 Construction Emissions	0.10	0.97	0.60	0.001	0.16	0.10
2021 Construction Emissions	0.28	2.56	2.36	0.005	0.19	0.14
2022 Construction Emissions	0.37	1.33	1.40	0.003	0.10	0.07
Max Annual Construction Emissions	0.37	2.56	2.36	0.005	0.19	0.14
SJVAPCD Construction Emissions Thresholds	10	10	100	27	15	15
Is Threshold Exceeded?	No	No	No	No	No	No

5.2 Long-Term Emissions

Table 5-2 presents the Project's long-term operational emissions generated from mobile, energy, and area sources as well as from water use and waste generation. Most of these emissions are from mobile sources traveling to and from the Project area. The following changes to default values were incorporated during the CalEEMod analysis:

- ▶ Daily trip rate was updated to 1,511 trips per day according to the trip generation letter (Ruetters & Schuler October 2020)
- ▶ Fleet mix was adjusted to account for zero heavy-heavy duty (HHD) truck trips per Project developer. Trips were reallocated to Light-Duty Auto (LDA), Light Duty Truck 1 (LDT1), and Light Duty Truck 2 (LDT2) vehicle categories. The fleet mix adjustment can be found in **Appendix B**.

Operational emission estimates also included the following mitigation measures, even though the Project was less than significant before mitigation:

- ▶ Increased Diversity;
- ▶ Improved Walkability Design;
- ▶ Improved Destination Accessibility;
- ▶ Increased Transit Accessibility;
- ▶ Improved Pedestrian Network;
- ▶ Use electric lawnmower, leaf blower, and chainsaw (3% per SJVAPCD).

Table 5-2. Total Project Operational Emissions

Emissions Source	Pollutant					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
	(tons/year)					
Unmitigated						
Operational Emissions	0.45	0.63	2.64	0.009	0.81	0.22
SJVAPCD Operational Emissions Thresholds	10	10	100	27	15	15
Is Threshold Exceeded Before Mitigation?	No	No	No	No	No	No
Mitigated						
Operational Emissions	0.44	0.60	2.51	0.008	0.75	0.21
SJVAPCD Operational Emissions Thresholds	10	10	100	27	15	15
Is Threshold Exceeded?	No	No	No	No	No	No

As calculated in CalEEMod (see **Appendix A**), the long-term operational emissions associated with the proposed Project would be less than SJVAPCD significance threshold levels and would therefore not pose a significant impact to criteria air pollutants. This finding is consistent with the SPAL screening thresholds.

5.3 Greenhouse Gas Emissions

The Project's greenhouse gas (GHG) emissions are primarily from mobile source activities. Not all GHGs exhibit the same ability to induce climate change; as a result, GHG contributions are commonly quantified as carbon dioxide equivalents (CO₂e) (see **Appendix A**). The proposed Project's operational CO₂e emissions were estimated using CalEEMod. These emissions are summarized in **Table 5-3**.

Table 5-3. Estimated Annual Greenhouse Gas Emissions

	CO ₂ Emissions metric tons	CH ₄ Emissions metric tons	N ₂ O Emissions metric tons	CO ₂ e Emissions metric tons
2022 Project Operations	941.92	4.05	0.005	1,044.64
2005 BAU	2,004.84	4.80	0.005	2,126.28
BAU Less Project Emissions				50.9 %

The current inventory and forecast for GHG emissions in the California Air Resources Board's 2017 Climate Change Scoping Plan supports the 2014 IPPC estimates. The 2017 Climate Change Scoping Plan also indicates that GHG emissions will decrease to 389 million metric tons (MMT) of CO₂e by 2030. It is widely understood that climate change is a "global" issue and, as such, GHG emissions are a cumulative problem and can only be evaluated as such.

The amount of CO₂ that would be generated by the Project is so small in relation to the California CO₂e estimates for 2030 (389 MMT CO₂e) that it's not possible for the contribution of the project to be cumulatively considerable. Additionally, the Project's GHG emissions are less than the 2005 business as usual emissions for the Project by 1,081.64 metric tons per year of CO₂e, which is a 50.9% reduction. Therefore, the Project

would not generate a cumulatively considerable GHG impact, nor would it conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. The Project will also not conflict with any elements of the California Air Resources Board's 2017 Climate Change Scoping Plan. Therefore, this potential impact is *less than significant*.

5.4 Potential Impact on Sensitive Receptors

The proposed Project is located south of the southeast corner of Knudsen Drive and Olive Drive. Sensitive receptors are defined as areas where young children, chronically ill individuals, the elderly, or people who are more sensitive than the general population reside. Schools, hospitals, nursing homes, and daycare centers are locations where sensitive receptors would likely reside. The closest schools are San Lauren Elementary School at 0.09 miles to the southwest, Beardsley Elementary School and Beardsley Junior High School at 0.82 miles to the east, North Beardsley Primary School at 0.83 miles to northeast, Discovery Elementary School at 1.53 miles to the southwest, and Olive Drive Elementary School at 1.69 miles to the northwest. The closest hospital is Good Samaritan Hospital at 0.98 miles east. The closest daycare facility is the Little Red School House at 1.05 miles to the southwest, and the closest nursing home is The Palms at San Lauren located at 0.39 miles to the south. There are no other known schools, hospitals, or nursing homes within a two-mile radius of the Project.

Based on the predicted operational emissions and activity types, the proposed Project is not expected to affect any on-site or off-site sensitive receptors and is not expected to have any adverse impacts on any known sensitive receptor.

5.5 Potential Impacts to Visibility to Nearby Class 1 Areas

It should be noted that visibility impact analyses are not usually conducted for area sources. The recommended analysis methodology was initially intended for stationary sources of emissions which were subject to the Prevention of Significant Deterioration (PSD) requirements in 40 CFR Part 60. Since the Project's emissions are predicted to be significantly less than the PSD threshold levels, an impact at either the Dome Land Wilderness or the Sequoia National Park Areas (the two nearest Class 1 areas to the Project) is extremely unlikely. Therefore, based on the Project's predicted emissions, the Project is not expected to have any adverse impact to visibility at any Class 1 Area.

5.6 Potential Odor Impacts

The proposed Project is a medical office building located near residential neighborhoods. Expected uses are not known to be a source of nuisance odors and are not listed in Table 6 of the SJVAPCD's GAMAQI. The Project is therefore not anticipated to have substantial odor impacts. The Project is therefore anticipated to have a *less than significant* odor impact.

5.7 Ambient Air Quality Impacts

As stated in the of GAMAQI (2015, p 96-97), SJVAPCD has developed screening levels for requiring an Ambient Air Quality Analysis (AAQA). The SJVAPCD recommends that an AAQA be performed for all criteria pollutants when emissions of any criteria pollutant resulting from project construction or operational activities exceed the 100 pounds per day screening level, after compliance with Rule 9510 requirements and implementation of all enforceable mitigation measures.

As shown above in **Table 5-1** and **Table 5-2**, average daily emissions for construction and operational activities associated with this Project would not exceed 100 pounds per day. Therefore, an AAQA is not required for this Project.

5.8 Toxic Air Contaminant (TAC) Impacts

TACs, as defined by the California Health & Safety Code (CH&SC) §44321, are listed in Appendices AI and AII in AB 2588 Air Toxic “Hot Spots” and Assessment Act’s Emissions Inventory Criteria and Guideline Regulation document. SJVAPCD’s risk management objectives for permitting and CEQA are as follows:

- ▶ Minimize health risks from new and modified sources of air pollution.
- ▶ Health risks from new and modified sources shall not be significant relative to the background risk levels and other risk levels that are typically accepted throughout the community.
- ▶ Avoid unreasonable restrictions on permitting.

The proposed Project is a medical office building and is not expected to generate any TAC emissions. The Project would therefore not generate a health risk impact due to TAC emissions. Its potential health risk impacts would therefore be considered *less than significant*, and no further health risk assessment is required.

6. CONCLUSIONS

Based on the criteria established by the SJVAPCD's GAMAQI and SPAL guidelines, the proposed Project does not meet the minimum standards to require a full Air Quality Impact Analysis. Furthermore, the Project as proposed would not exceed the SJVAPCD's criteria air pollutant emission levels and would generate *less than significant air quality impacts*.

7. REFERENCES

- California Environmental Quality Act (CEQA). 2020. (Public Resources Code 21000 - 21189) and CEQA Guidelines (California Code of Regulations Title 14, Division 6, Chapter 3, Sections 15000 – 15387).
- . 2020. CEQA, Appendix G – Environmental Checklist Form, Final Text.
- California Air Pollution Control Officers Association (CAPCOA). 2016. California Emissions Estimator Model tm (CalEEMod), version 2016.3.2.
- . 2016. "Air Toxic Hot Spots" Facility Prioritization Guidelines, Revised 2016.
- Ruettgers & Schuler. 2020. Trip Generation Analysis for a Proposed VA Community Based Outpatient Clinic Located on Knudsen Drive.
- San Joaquin Valley Air Pollution Control District (SJVAPCD). 2017. Small Project Analysis Level (SPAL) Memorandum. March 1, 2017.
- . 2015. Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI). March 19, 2015. https://www.valleyair.org/transportation/GAMAQI_12-26-19.pdf
- . 2009. Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA. December 17, 2009.

APPENDIX A. CALEEMOD EMISSIONS ESTIMATES OUTPUT FILES

VA Community Based Outpatient Clinic - Kern-San Joaquin County, Annual

VA Community Based Outpatient Clinic

Kern-San Joaquin County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Medical Office Building	39.65	1000sqft	5.97	39,648.00	0
Parking Lot	214.00	Space	1.93	85,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.7	Precipitation Freq (Days)	32
Climate Zone	3			Operational Year	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

VA Community Based Outpatient Clinic - Kern-San Joaquin County, Annual

Project Characteristics -

Land Use - Total site acreage is approximately 7.9

Construction Phase - Construction schedule scaled to match timeline 10/1/2020-10/1/2022

Vehicle Trips - Per traffic generation analysis provided by Ruetters & Schuler

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation -

Fleet Mix - Adjusted fleet mix to account for zero HHD trips.

Grading -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	35.00
tblConstructionPhase	NumDays	230.00	400.00
tblConstructionPhase	NumDays	20.00	35.00
tblConstructionPhase	NumDays	20.00	35.00
tblConstructionPhase	NumDays	10.00	17.00
tblFleetMix	HHD	0.15	0.00
tblFleetMix	LDA	0.48	0.59
tblFleetMix	LDT1	0.03	0.04
tblFleetMix	LDT2	0.17	0.21
tblLandUse	LotAcreage	0.91	5.97
tblVehicleTrips	ST_TR	8.96	0.00
tblVehicleTrips	SU_TR	1.55	0.00
tblVehicleTrips	WD_TR	36.13	38.16

2.0 Emissions Summary

VA Community Based Outpatient Clinic - Kern-San Joaquin County, Annual

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					
2020	0.0954	0.9748	0.6040	1.1300e-003	0.2751	0.0489	0.3240	0.1452	0.0452	0.1903	0.0000	99.3420	99.3420	0.0283	0.0000	100.0502
2021	0.2775	2.5621	2.3557	4.7000e-003	0.0649	0.1262	0.1911	0.0176	0.1186	0.1363	0.0000	412.7118	412.7118	0.0791	0.0000	414.6898
2022	0.3736	1.3259	1.4032	2.7200e-003	0.0345	0.0624	0.0969	9.3400e-003	0.0586	0.0679	0.0000	239.0781	239.0781	0.0492	0.0000	240.3081
Maximum	0.3736	2.5621	2.3557	4.7000e-003	0.2751	0.1262	0.3240	0.1452	0.1186	0.1903	0.0000	412.7118	412.7118	0.0791	0.0000	414.6898

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					
2020	0.0954	0.9748	0.6040	1.1300e-003	0.1114	0.0489	0.1604	0.0577	0.0452	0.1029	0.0000	99.3419	99.3419	0.0283	0.0000	100.0501
2021	0.2775	2.5621	2.3557	4.7000e-003	0.0649	0.1262	0.1911	0.0176	0.1186	0.1363	0.0000	412.7115	412.7115	0.0791	0.0000	414.6895
2022	0.3736	1.3259	1.4032	2.7200e-003	0.0345	0.0624	0.0969	9.3400e-003	0.0586	0.0679	0.0000	239.0779	239.0779	0.0492	0.0000	240.3079
Maximum	0.3736	2.5621	2.3557	4.7000e-003	0.1114	0.1262	0.1911	0.0577	0.1186	0.1363	0.0000	412.7115	412.7115	0.0791	0.0000	414.6895

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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
Percent Reduction	0.00	0.00	0.00	0.00	43.69	0.00	26.74	50.79	0.00	22.16	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	10-1-2020	12-31-2020	1.0606	1.0606
2	1-1-2021	3-31-2021	0.6997	0.6997
3	4-1-2021	6-30-2021	0.7068	0.7068
4	7-1-2021	9-30-2021	0.7146	0.7146
5	10-1-2021	12-31-2021	0.7153	0.7153
6	1-1-2022	3-31-2022	0.6304	0.6304
7	4-1-2022	6-30-2022	0.6216	0.6216
8	7-1-2022	9-30-2022	0.4476	0.4476
		Highest	1.0606	1.0606

VA Community Based Outpatient Clinic - Kern-San Joaquin County, Annual

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	0.1833	2.0000e-005	2.3300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.5300e-003	4.5300e-003	1.0000e-005	0.0000	4.8300e-003
Energy	2.7900e-003	0.0254	0.0213	1.5000e-004		1.9300e-003	1.9300e-003		1.9300e-003	1.9300e-003	0.0000	141.5171	141.5171	5.6800e-003	1.5700e-003	142.1275
Mobile	0.2630	0.5997	2.6164	8.5500e-003	0.7989	7.4300e-003	0.8063	0.2138	6.9200e-003	0.2207	0.0000	778.2880	778.2880	0.0274	0.0000	778.9718
Waste						0.0000	0.0000		0.0000	0.0000	65.9883	0.0000	65.9883	3.8998	0.0000	163.4832
Water						0.0000	0.0000		0.0000	0.0000	1.1983	6.6779	7.8762	0.1234	2.9700e-003	11.8451
Total	0.4491	0.6250	2.6400	8.7000e-003	0.7989	9.3700e-003	0.8083	0.2138	8.8600e-003	0.2227	67.1866	926.4876	993.6741	4.0562	4.5400e-003	1,096.4324

VA Community Based Outpatient Clinic - Kern-San Joaquin County, Annual

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	0.1833	2.0000e-005	2.3000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.4700e-003	4.4700e-003	1.0000e-005	0.0000	4.7600e-003
Energy	2.7900e-003	0.0254	0.0213	1.5000e-004		1.9300e-003	1.9300e-003		1.9300e-003	1.9300e-003	0.0000	141.5171	141.5171	5.6800e-003	1.5700e-003	142.1275
Mobile	0.2576	0.5719	2.4861	7.9800e-003	0.7438	6.9900e-003	0.7508	0.1990	6.5100e-003	0.2055	0.0000	726.5332	726.5332	0.0258	0.0000	727.1771
Waste						0.0000	0.0000		0.0000	0.0000	65.9883	0.0000	65.9883	3.8998	0.0000	163.4832
Water						0.0000	0.0000		0.0000	0.0000	1.1983	6.6779	7.8762	0.1234	2.9700e-003	11.8451
Total	0.4437	0.5973	2.5097	8.1300e-003	0.7438	8.9300e-003	0.7527	0.1990	8.4500e-003	0.2075	67.1866	874.7326	941.9192	4.0546	4.5400e-003	1,044.6377

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	1.21	4.44	4.94	6.55	6.90	4.70	6.88	6.90	4.63	6.81	0.00	5.59	5.21	0.04	0.00	4.72

3.0 Construction Detail**Construction Phase**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	10/1/2020	10/23/2020	5	17	
2	Grading	Grading	10/24/2020	12/11/2020	5	35	
3	Building Construction	Building Construction	12/12/2020	6/24/2022	5	400	
4	Paving	Paving	6/25/2022	8/12/2022	5	35	
5	Architectural Coating	Architectural Coating	8/13/2022	9/30/2022	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 17.5

Acres of Paving: 1.93

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 45,150; Non-Residential Outdoor: 15,050; Striped Parking Area: 5,136 (Architectural Coating – sqft)

OffRoad Equipment

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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	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	46.00	19.00	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	9.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1536	0.0000	0.1536	0.0844	0.0000	0.0844	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0347	0.3606	0.1829	3.2000e-004		0.0187	0.0187		0.0172	0.0172	0.0000	28.4161	28.4161	9.1900e-003	0.0000	28.6458
Total	0.0347	0.3606	0.1829	3.2000e-004	0.1536	0.0187	0.1722	0.0844	0.0172	0.1016	0.0000	28.4161	28.4161	9.1900e-003	0.0000	28.6458

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3.2 Site Preparation - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	4.0000e-004	3.9600e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.1306	1.1306	3.0000e-005	0.0000	1.1313
Total	5.9000e-004	4.0000e-004	3.9600e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.1306	1.1306	3.0000e-005	0.0000	1.1313

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					0.0599	0.0000	0.0599	0.0329	0.0000	0.0329	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0347	0.3606	0.1829	3.2000e-004		0.0187	0.0187		0.0172	0.0172	0.0000	28.4160	28.4160	9.1900e-003	0.0000	28.6458
Total	0.0347	0.3606	0.1829	3.2000e-004	0.0599	0.0187	0.0786	0.0329	0.0172	0.0501	0.0000	28.4160	28.4160	9.1900e-003	0.0000	28.6458

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3.2 Site Preparation - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	4.0000e-004	3.9600e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.1306	1.1306	3.0000e-005	0.0000	1.1313
Total	5.9000e-004	4.0000e-004	3.9600e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.1306	1.1306	3.0000e-005	0.0000	1.1313

3.3 Grading - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1147	0.0000	0.1147	0.0589	0.0000	0.0589	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0425	0.4618	0.2809	5.2000e-004		0.0223	0.0223		0.0205	0.0205	0.0000	45.6028	45.6028	0.0148	0.0000	45.9715
Total	0.0425	0.4618	0.2809	5.2000e-004	0.1147	0.0223	0.1370	0.0589	0.0205	0.0794	0.0000	45.6028	45.6028	0.0148	0.0000	45.9715

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3.3 Grading - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0100e-003	6.8000e-004	6.7900e-003	2.0000e-005	2.1200e-003	1.0000e-005	2.1300e-003	5.6000e-004	1.0000e-005	5.8000e-004	0.0000	1.9397	1.9397	5.0000e-005	0.0000	1.9410
Total	1.0100e-003	6.8000e-004	6.7900e-003	2.0000e-005	2.1200e-003	1.0000e-005	2.1300e-003	5.6000e-004	1.0000e-005	5.8000e-004	0.0000	1.9397	1.9397	5.0000e-005	0.0000	1.9410

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					0.0447	0.0000	0.0447	0.0230	0.0000	0.0230	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0425	0.4618	0.2809	5.2000e-004		0.0223	0.0223		0.0205	0.0205	0.0000	45.6028	45.6028	0.0148	0.0000	45.9715
Total	0.0425	0.4618	0.2809	5.2000e-004	0.0447	0.0223	0.0670	0.0230	0.0205	0.0435	0.0000	45.6028	45.6028	0.0148	0.0000	45.9715

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3.3 Grading - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0100e-003	6.8000e-004	6.7900e-003	2.0000e-005	2.1200e-003	1.0000e-005	2.1300e-003	5.6000e-004	1.0000e-005	5.8000e-004	0.0000	1.9397	1.9397	5.0000e-005	0.0000	1.9410
Total	1.0100e-003	6.8000e-004	6.7900e-003	2.0000e-005	2.1200e-003	1.0000e-005	2.1300e-003	5.6000e-004	1.0000e-005	5.8000e-004	0.0000	1.9397	1.9397	5.0000e-005	0.0000	1.9410

3.4 Building Construction - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0148	0.1343	0.1179	1.9000e-004		7.8200e-003	7.8200e-003		7.3500e-003	7.3500e-003	0.0000	16.2127	16.2127	3.9600e-003	0.0000	16.3116
Total	0.0148	0.1343	0.1179	1.9000e-004		7.8200e-003	7.8200e-003		7.3500e-003	7.3500e-003	0.0000	16.2127	16.2127	3.9600e-003	0.0000	16.3116

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3.4 Building Construction - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.4000e-004	0.0163	3.1500e-003	4.0000e-005	8.9000e-004	9.0000e-005	9.8000e-004	2.6000e-004	9.0000e-005	3.4000e-004	0.0000	3.6607	3.6607	2.9000e-004	0.0000	3.6681
Worker	1.2400e-003	8.4000e-004	8.3300e-003	3.0000e-005	2.5900e-003	2.0000e-005	2.6100e-003	6.9000e-004	2.0000e-005	7.1000e-004	0.0000	2.3794	2.3794	6.0000e-005	0.0000	2.3809
Total	1.7800e-003	0.0171	0.0115	7.0000e-005	3.4800e-003	1.1000e-004	3.5900e-003	9.5000e-004	1.1000e-004	1.0500e-003	0.0000	6.0401	6.0401	3.5000e-004	0.0000	6.0490

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	0.0148	0.1343	0.1179	1.9000e-004		7.8200e-003	7.8200e-003		7.3500e-003	7.3500e-003	0.0000	16.2127	16.2127	3.9600e-003	0.0000	16.3116
Total	0.0148	0.1343	0.1179	1.9000e-004		7.8200e-003	7.8200e-003		7.3500e-003	7.3500e-003	0.0000	16.2127	16.2127	3.9600e-003	0.0000	16.3116

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3.4 Building Construction - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.4000e-004	0.0163	3.1500e-003	4.0000e-005	8.9000e-004	9.0000e-005	9.8000e-004	2.6000e-004	9.0000e-005	3.4000e-004	0.0000	3.6607	3.6607	2.9000e-004	0.0000	3.6681
Worker	1.2400e-003	8.4000e-004	8.3300e-003	3.0000e-005	2.5900e-003	2.0000e-005	2.6100e-003	6.9000e-004	2.0000e-005	7.1000e-004	0.0000	2.3794	2.3794	6.0000e-005	0.0000	2.3809
Total	1.7800e-003	0.0171	0.0115	7.0000e-005	3.4800e-003	1.1000e-004	3.5900e-003	9.5000e-004	1.1000e-004	1.0500e-003	0.0000	6.0401	6.0401	3.5000e-004	0.0000	6.0490

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	0.2481	2.2749	2.1631	3.5100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	302.2867	302.2867	0.0729	0.0000	304.1099
Total	0.2481	2.2749	2.1631	3.5100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	302.2867	302.2867	0.0729	0.0000	304.1099

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3.4 Building Construction - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.1500e-003	0.2733	0.0514	7.1000e-004	0.0166	7.3000e-004	0.0173	4.7800e-003	7.0000e-004	5.4700e-003	0.0000	67.6123	67.6123	5.1700e-003	0.0000	67.7416
Worker	0.0213	0.0139	0.1413	4.7000e-004	0.0484	3.3000e-004	0.0487	0.0129	3.1000e-004	0.0132	0.0000	42.8129	42.8129	1.0200e-003	0.0000	42.8383
Total	0.0294	0.2872	0.1926	1.1800e-003	0.0649	1.0600e-003	0.0660	0.0176	1.0100e-003	0.0186	0.0000	110.4252	110.4252	6.1900e-003	0.0000	110.5800

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	0.2481	2.2749	2.1631	3.5100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	302.2863	302.2863	0.0729	0.0000	304.1095
Total	0.2481	2.2749	2.1631	3.5100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	302.2863	302.2863	0.0729	0.0000	304.1095

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3.4 Building Construction - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.1500e-003	0.2733	0.0514	7.1000e-004	0.0166	7.3000e-004	0.0173	4.7800e-003	7.0000e-004	5.4700e-003	0.0000	67.6123	67.6123	5.1700e-003	0.0000	67.7416
Worker	0.0213	0.0139	0.1413	4.7000e-004	0.0484	3.3000e-004	0.0487	0.0129	3.1000e-004	0.0132	0.0000	42.8129	42.8129	1.0200e-003	0.0000	42.8383
Total	0.0294	0.2872	0.1926	1.1800e-003	0.0649	1.0600e-003	0.0660	0.0176	1.0100e-003	0.0186	0.0000	110.4252	110.4252	6.1900e-003	0.0000	110.5800

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	0.1066	0.9760	1.0227	1.6800e-003		0.0506	0.0506		0.0476	0.0476	0.0000	144.8283	144.8283	0.0347	0.0000	145.6957
Total	0.1066	0.9760	1.0227	1.6800e-003		0.0506	0.0506		0.0476	0.0476	0.0000	144.8283	144.8283	0.0347	0.0000	145.6957

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3.4 Building Construction - 2022**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	3.6400e-003	0.1238	0.0228	3.4000e-004	7.9300e-003	3.0000e-004	8.2300e-003	2.2900e-003	2.9000e-004	2.5800e-003	0.0000	32.0875	32.0875	2.3800e-003	0.0000	32.1470
Worker	9.4400e-003	5.9300e-003	0.0617	2.2000e-004	0.0232	1.5000e-004	0.0233	6.1500e-003	1.4000e-004	6.3000e-003	0.0000	19.7593	19.7593	4.3000e-004	0.0000	19.7702
Total	0.0131	0.1297	0.0845	5.6000e-004	0.0311	4.5000e-004	0.0316	8.4400e-003	4.3000e-004	8.8800e-003	0.0000	51.8469	51.8469	2.8100e-003	0.0000	51.9172

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	0.1066	0.9760	1.0227	1.6800e-003		0.0506	0.0506		0.0476	0.0476	0.0000	144.8281	144.8281	0.0347	0.0000	145.6955
Total	0.1066	0.9760	1.0227	1.6800e-003		0.0506	0.0506		0.0476	0.0476	0.0000	144.8281	144.8281	0.0347	0.0000	145.6955

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3.4 Building Construction - 2022**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	3.6400e-003	0.1238	0.0228	3.4000e-004	7.9300e-003	3.0000e-004	8.2300e-003	2.2900e-003	2.9000e-004	2.5800e-003	0.0000	32.0875	32.0875	2.3800e-003	0.0000	32.1470
Worker	9.4400e-003	5.9300e-003	0.0617	2.2000e-004	0.0232	1.5000e-004	0.0233	6.1500e-003	1.4000e-004	6.3000e-003	0.0000	19.7593	19.7593	4.3000e-004	0.0000	19.7702
Total	0.0131	0.1297	0.0845	5.6000e-004	0.0311	4.5000e-004	0.0316	8.4400e-003	4.3000e-004	8.8800e-003	0.0000	51.8469	51.8469	2.8100e-003	0.0000	51.9172

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	0.0193	0.1947	0.2552	4.0000e-004		9.9400e-003	9.9400e-003		9.1400e-003	9.1400e-003	0.0000	35.0482	35.0482	0.0113	0.0000	35.3316
Paving	2.5300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0218	0.1947	0.2552	4.0000e-004		9.9400e-003	9.9400e-003		9.1400e-003	9.1400e-003	0.0000	35.0482	35.0482	0.0113	0.0000	35.3316

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3.5 Paving - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.6000e-004	5.4000e-004	5.6400e-003	2.0000e-005	2.1200e-003	1.0000e-005	2.1300e-003	5.6000e-004	1.0000e-005	5.7000e-004	0.0000	1.8041	1.8041	4.0000e-005	0.0000	1.8051
Total	8.6000e-004	5.4000e-004	5.6400e-003	2.0000e-005	2.1200e-003	1.0000e-005	2.1300e-003	5.6000e-004	1.0000e-005	5.7000e-004	0.0000	1.8041	1.8041	4.0000e-005	0.0000	1.8051

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	0.0193	0.1947	0.2552	4.0000e-004		9.9400e-003	9.9400e-003		9.1400e-003	9.1400e-003	0.0000	35.0482	35.0482	0.0113	0.0000	35.3316
Paving	2.5300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0218	0.1947	0.2552	4.0000e-004		9.9400e-003	9.9400e-003		9.1400e-003	9.1400e-003	0.0000	35.0482	35.0482	0.0113	0.0000	35.3316

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3.5 Paving - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.6000e-004	5.4000e-004	5.6400e-003	2.0000e-005	2.1200e-003	1.0000e-005	2.1300e-003	5.6000e-004	1.0000e-005	5.7000e-004	0.0000	1.8041	1.8041	4.0000e-005	0.0000	1.8051
Total	8.6000e-004	5.4000e-004	5.6400e-003	2.0000e-005	2.1200e-003	1.0000e-005	2.1300e-003	5.6000e-004	1.0000e-005	5.7000e-004	0.0000	1.8041	1.8041	4.0000e-005	0.0000	1.8051

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	0.2271					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5800e-003	0.0247	0.0317	5.0000e-005		1.4300e-003	1.4300e-003		1.4300e-003	1.4300e-003	0.0000	4.4682	4.4682	2.9000e-004	0.0000	4.4755
Total	0.2307	0.0247	0.0317	5.0000e-005		1.4300e-003	1.4300e-003		1.4300e-003	1.4300e-003	0.0000	4.4682	4.4682	2.9000e-004	0.0000	4.4755

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3.6 Architectural Coating - 2022**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	5.2000e-004	3.2000e-004	3.3800e-003	1.0000e-005	1.2700e-003	1.0000e-005	1.2800e-003	3.4000e-004	1.0000e-005	3.4000e-004	0.0000	1.0825	1.0825	2.0000e-005	0.0000	1.0831
Total	5.2000e-004	3.2000e-004	3.3800e-003	1.0000e-005	1.2700e-003	1.0000e-005	1.2800e-003	3.4000e-004	1.0000e-005	3.4000e-004	0.0000	1.0825	1.0825	2.0000e-005	0.0000	1.0831

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	0.2271					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5800e-003	0.0247	0.0317	5.0000e-005		1.4300e-003	1.4300e-003		1.4300e-003	1.4300e-003	0.0000	4.4682	4.4682	2.9000e-004	0.0000	4.4755
Total	0.2307	0.0247	0.0317	5.0000e-005		1.4300e-003	1.4300e-003		1.4300e-003	1.4300e-003	0.0000	4.4682	4.4682	2.9000e-004	0.0000	4.4755

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3.6 Architectural Coating - 2022**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	5.2000e-004	3.2000e-004	3.3800e-003	1.0000e-005	1.2700e-003	1.0000e-005	1.2800e-003	3.4000e-004	1.0000e-005	3.4000e-004	0.0000	1.0825	1.0825	2.0000e-005	0.0000	1.0831
Total	5.2000e-004	3.2000e-004	3.3800e-003	1.0000e-005	1.2700e-003	1.0000e-005	1.2800e-003	3.4000e-004	1.0000e-005	3.4000e-004	0.0000	1.0825	1.0825	2.0000e-005	0.0000	1.0831

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Increase Diversity

Improve Walkability Design

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

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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					
Mitigated	0.2576	0.5719	2.4861	7.9800e-003	0.7438	6.9900e-003	0.7508	0.1990	6.5100e-003	0.2055	0.0000	726.5332	726.5332	0.0258	0.0000	727.1771
Unmitigated	0.2630	0.5997	2.6164	8.5500e-003	0.7989	7.4300e-003	0.8063	0.2138	6.9200e-003	0.2207	0.0000	778.2880	778.2880	0.0274	0.0000	778.9718

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Medical Office Building	1,512.97	0.00	0.00	2,115,183	1,969,235
Parking Lot	0.00	0.00	0.00		
Total	1,512.97	0.00	0.00	2,115,183	1,969,235

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
Medical Office Building	9.50	7.30	7.30	29.60	51.40	19.00	60	30	10
Parking Lot	9.50	7.30	7.30	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
Medical Office Building	0.586880	0.036886	0.205598	0.116038	0.018013	0.005928	0.019788	0.000000	0.001620	0.001664	0.005839	0.000931	0.000816
Parking Lot	0.483371	0.030380	0.169336	0.116038	0.018013	0.005928	0.019788	0.146278	0.001620	0.001664	0.005839	0.000931	0.000816

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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	113.9063	113.9063	5.1500e-003	1.0700e-003	114.3526
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	113.9063	113.9063	5.1500e-003	1.0700e-003	114.3526
NaturalGas Mitigated	2.7900e-003	0.0254	0.0213	1.5000e-004		1.9300e-003	1.9300e-003		1.9300e-003	1.9300e-003	0.0000	27.6108	27.6108	5.3000e-004	5.1000e-004	27.7749
NaturalGas Unmitigated	2.7900e-003	0.0254	0.0213	1.5000e-004		1.9300e-003	1.9300e-003		1.9300e-003	1.9300e-003	0.0000	27.6108	27.6108	5.3000e-004	5.1000e-004	27.7749

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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					
Medical Office Building	517406	2.7900e-003	0.0254	0.0213	1.5000e-004		1.9300e-003	1.9300e-003		1.9300e-003	1.9300e-003	0.0000	27.6108	27.6108	5.3000e-004	5.1000e-004	27.7749
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		2.7900e-003	0.0254	0.0213	1.5000e-004		1.9300e-003	1.9300e-003		1.9300e-003	1.9300e-003	0.0000	27.6108	27.6108	5.3000e-004	5.1000e-004	27.7749

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					
Medical Office Building	517406	2.7900e-003	0.0254	0.0213	1.5000e-004		1.9300e-003	1.9300e-003		1.9300e-003	1.9300e-003	0.0000	27.6108	27.6108	5.3000e-004	5.1000e-004	27.7749
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		2.7900e-003	0.0254	0.0213	1.5000e-004		1.9300e-003	1.9300e-003		1.9300e-003	1.9300e-003	0.0000	27.6108	27.6108	5.3000e-004	5.1000e-004	27.7749

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5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Medical Office Building	361590	105.1906	4.7600e-003	9.8000e-004	105.6028
Parking Lot	29960	8.7157	3.9000e-004	8.0000e-005	8.7499
Total		113.9063	5.1500e-003	1.0600e-003	114.3526

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Medical Office Building	361590	105.1906	4.7600e-003	9.8000e-004	105.6028
Parking Lot	29960	8.7157	3.9000e-004	8.0000e-005	8.7499
Total		113.9063	5.1500e-003	1.0600e-003	114.3526

6.0 Area Detail**6.1 Mitigation Measures Area**

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Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.1833	2.0000e-005	2.3000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.4700e-003	4.4700e-003	1.0000e-005	0.0000	4.7600e-003
Unmitigated	0.1833	2.0000e-005	2.3300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.5300e-003	4.5300e-003	1.0000e-005	0.0000	4.8300e-003

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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	0.0227					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1604					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.2000e-004	2.0000e-005	2.3300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.5300e-003	4.5300e-003	1.0000e-005	0.0000	4.8300e-003
Total	0.1833	2.0000e-005	2.3300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.5300e-003	4.5300e-003	1.0000e-005	0.0000	4.8300e-003

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0227					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1604					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.1000e-004	2.0000e-005	2.3000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.4700e-003	4.4700e-003	1.0000e-005	0.0000	4.7600e-003
Total	0.1833	2.0000e-005	2.3000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.4700e-003	4.4700e-003	1.0000e-005	0.0000	4.7600e-003

7.0 Water Detail

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7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	7.8762	0.1234	2.9700e-003	11.8451
Unmitigated	7.8762	0.1234	2.9700e-003	11.8451

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Medical Office Building	3.77696 / 0.719422	7.8762	0.1234	2.9700e-003	11.8451
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		7.8762	0.1234	2.9700e-003	11.8451

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7.2 Water by Land Use**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Medical Office Building	3.77696 / 0.719422	7.8762	0.1234	2.9700e-003	11.8451
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		7.8762	0.1234	2.9700e-003	11.8451

8.0 Waste Detail**8.1 Mitigation Measures Waste****Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	65.9883	3.8998	0.0000	163.4832
Unmitigated	65.9883	3.8998	0.0000	163.4832

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8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Medical Office Building	325.08	65.9883	3.8998	0.0000	163.4832
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		65.9883	3.8998	0.0000	163.4832

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Medical Office Building	325.08	65.9883	3.8998	0.0000	163.4832
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		65.9883	3.8998	0.0000	163.4832

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

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1.0 Project Characteristics**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Medical Office Building	39.65	1000sqft	5.97	39,648.00	0
Parking Lot	214.00	Space	1.93	85,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.7	Precipitation Freq (Days)	32
Climate Zone	3			Operational Year	2005
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

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Project Characteristics -

Land Use - Total site acreage is approximately 7.9

Construction Phase -

Vehicle Trips -

Vehicle Emission Factors -

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation -

Fleet Mix - Adjusted fleet mix to account for zero HHD trips.

Grading -

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	0.91	5.97

2.0 Emissions Summary

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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					
2003	0.3391	2.0285	1.1658	0.0123	0.1667	0.1356	0.3023	0.0863	0.1354	0.2216	0.0000	118.3121	118.3121	0.0295	0.0000	119.0484
2004	1.4948	6.0571	4.1488	0.0380	0.0502	0.4260	0.4762	0.0136	0.4248	0.4385	0.0000	378.5138	378.5138	0.1021	0.0000	381.0668
Maximum	1.4948	6.0571	4.1488	0.0380	0.1667	0.4260	0.4762	0.0863	0.4248	0.4385	0.0000	378.5138	378.5138	0.1021	0.0000	381.0668

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					
2003	0.3391	2.0285	1.1658	0.0123	0.1667	0.1356	0.3023	0.0863	0.1354	0.2216	0.0000	118.3120	118.3120	0.0295	0.0000	119.0483
2004	1.4948	6.0571	4.1488	0.0380	0.0502	0.4260	0.4762	0.0136	0.4248	0.4385	0.0000	378.5135	378.5135	0.1021	0.0000	381.0664
Maximum	1.4948	6.0571	4.1488	0.0380	0.1667	0.4260	0.4762	0.0863	0.4248	0.4385	0.0000	378.5135	378.5135	0.1021	0.0000	381.0664

[illegible]

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	10-1-2003	12-31-2003	2.3623	2.3623
2	1-1-2004	3-31-2004	2.2060	2.2060
3	4-1-2004	6-30-2004	2.1921	2.1921
4	7-1-2004	9-30-2004	2.2077	2.2077
		Highest	2.3623	2.3623

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	0.1974	4.0000e-005	2.9700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.5300e-003	4.5300e-003	2.0000e-005	0.0000	5.0600e-003
Energy	2.7900e-003	0.0254	0.0213	1.5000e-004		1.9300e-003	1.9300e-003		1.9300e-003	1.9300e-003	0.0000	141.5171	141.5171	5.6800e-003	1.5700e-003	142.1275
Mobile	2.0953	14.8642	17.4867	0.1019	0.8215	0.3245	1.1460	0.2216	0.3100	0.5316	0.0000	1,789.4514	1,789.4514	0.7747	0.0000	1,808.8183
Waste						0.0000	0.0000		0.0000	0.0000	65.9883	0.0000	65.9883	3.8998	0.0000	163.4832
Water						0.0000	0.0000		0.0000	0.0000	1.1983	6.6779	7.8762	0.1234	2.9700e-003	11.8451
Total	2.2956	14.8896	17.5110	0.1021	0.8215	0.3264	1.1479	0.2216	0.3119	0.5335	67.1866	1,937.6509	2,004.8375	4.8036	4.5400e-003	2,126.2793

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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	0.1974	4.0000e-005	2.9700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.5300e-003	4.5300e-003	2.0000e-005	0.0000	5.0600e-003
Energy	2.7900e-003	0.0254	0.0213	1.5000e-004		1.9300e-003	1.9300e-003		1.9300e-003	1.9300e-003	0.0000	141.5171	141.5171	5.6800e-003	1.5700e-003	142.1275
Mobile	2.0953	14.8642	17.4867	0.1019	0.8215	0.3245	1.1460	0.2216	0.3100	0.5316	0.0000	1,789.4514	1,789.4514	0.7747	0.0000	1,808.8183
Waste						0.0000	0.0000		0.0000	0.0000	65.9883	0.0000	65.9883	3.8998	0.0000	163.4832
Water						0.0000	0.0000		0.0000	0.0000	1.1983	6.6779	7.8762	0.1234	2.9700e-003	11.8451
Total	2.2956	14.8896	17.5110	0.1021	0.8215	0.3264	1.1479	0.2216	0.3119	0.5335	67.1866	1,937.6509	2,004.8375	4.8036	4.5400e-003	2,126.2793

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	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**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	10/1/2003	10/14/2003	5	10	
2	Grading	Grading	10/15/2003	11/11/2003	5	20	
3	Building Construction	Building Construction	11/12/2003	9/28/2004	5	230	
4	Paving	Paving	9/29/2004	10/26/2004	5	20	
5	Architectural Coating	Architectural Coating	10/27/2004	11/23/2004	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 1.93

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 45,150; Non-Residential Outdoor: 15,050; Striped Parking Area: 5,136 (Architectural Coating – sqft)

OffRoad Equipment

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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	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	46.00	19.00	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	9.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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3.2 Site Preparation - 2003**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	0.0561	0.4016	0.1539	2.2500e-003		0.0252	0.0252		0.0252	0.0252	0.0000	20.0023	20.0023	4.5700e-003	0.0000	20.1165
Total	0.0561	0.4016	0.1539	2.2500e-003	0.0903	0.0252	0.1156	0.0497	0.0252	0.0749	0.0000	20.0023	20.0023	4.5700e-003	0.0000	20.1165

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3200e-003	2.7000e-003	0.0243	1.0000e-005	7.3000e-004	3.0000e-005	7.6000e-004	1.9000e-004	3.0000e-005	2.2000e-004	0.0000	0.8340	0.8340	1.4000e-004	0.0000	0.8376
Total	2.3200e-003	2.7000e-003	0.0243	1.0000e-005	7.3000e-004	3.0000e-005	7.6000e-004	1.9000e-004	3.0000e-005	2.2000e-004	0.0000	0.8340	0.8340	1.4000e-004	0.0000	0.8376

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3.2 Site Preparation - 2003**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	0.0561	0.4016	0.1539	2.2500e-003		0.0252	0.0252		0.0252	0.0252	0.0000	20.0023	20.0023	4.5700e-003	0.0000	20.1164
Total	0.0561	0.4016	0.1539	2.2500e-003	0.0903	0.0252	0.1156	0.0497	0.0252	0.0749	0.0000	20.0023	20.0023	4.5700e-003	0.0000	20.1164

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3200e-003	2.7000e-003	0.0243	1.0000e-005	7.3000e-004	3.0000e-005	7.6000e-004	1.9000e-004	3.0000e-005	2.2000e-004	0.0000	0.8340	0.8340	1.4000e-004	0.0000	0.8376
Total	2.3200e-003	2.7000e-003	0.0243	1.0000e-005	7.3000e-004	3.0000e-005	7.6000e-004	1.9000e-004	3.0000e-005	2.2000e-004	0.0000	0.8340	0.8340	1.4000e-004	0.0000	0.8376

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3.3 Grading - 2003**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					0.0655	0.0000	0.0655	0.0337	0.0000	0.0337	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0831	0.5952	0.2295	3.5100e-003		0.0374	0.0374		0.0374	0.0374	0.0000	31.2046	31.2046	6.7700e-003	0.0000	31.3738
Total	0.0831	0.5952	0.2295	3.5100e-003	0.0655	0.0374	0.1029	0.0337	0.0374	0.0711	0.0000	31.2046	31.2046	6.7700e-003	0.0000	31.3738

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	3.8700e-003	4.5000e-003	0.0405	2.0000e-005	1.2100e-003	5.0000e-005	1.2600e-003	3.2000e-004	5.0000e-005	3.7000e-004	0.0000	1.3900	1.3900	2.4000e-004	0.0000	1.3960
Total	3.8700e-003	4.5000e-003	0.0405	2.0000e-005	1.2100e-003	5.0000e-005	1.2600e-003	3.2000e-004	5.0000e-005	3.7000e-004	0.0000	1.3900	1.3900	2.4000e-004	0.0000	1.3960

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3.3 Grading - 2003**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					0.0655	0.0000	0.0655	0.0337	0.0000	0.0337	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0831	0.5952	0.2295	3.5100e-003		0.0374	0.0374		0.0374	0.0374	0.0000	31.2046	31.2046	6.7700e-003	0.0000	31.3738
Total	0.0831	0.5952	0.2295	3.5100e-003	0.0655	0.0374	0.1029	0.0337	0.0374	0.0711	0.0000	31.2046	31.2046	6.7700e-003	0.0000	31.3738

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	3.8700e-003	4.5000e-003	0.0405	2.0000e-005	1.2100e-003	5.0000e-005	1.2600e-003	3.2000e-004	5.0000e-005	3.7000e-004	0.0000	1.3900	1.3900	2.4000e-004	0.0000	1.3960
Total	3.8700e-003	4.5000e-003	0.0405	2.0000e-005	1.2100e-003	5.0000e-005	1.2600e-003	3.2000e-004	5.0000e-005	3.7000e-004	0.0000	1.3900	1.3900	2.4000e-004	0.0000	1.3960

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3.4 Building Construction - 2003**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	0.1571	0.8687	0.4025	5.4700e-003		0.0683	0.0683		0.0683	0.0683	0.0000	47.3150	47.3150	0.0128	0.0000	47.6347
Total	0.1571	0.8687	0.4025	5.4700e-003		0.0683	0.0683		0.0683	0.0683	0.0000	47.3150	47.3150	0.0128	0.0000	47.6347

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	0.0153	0.1310	0.0919	8.9000e-004	2.2800e-003	4.2800e-003	6.5600e-003	6.6000e-004	4.1000e-003	4.7600e-003	0.0000	9.8931	9.8931	3.6300e-003	0.0000	9.9839
Worker	0.0214	0.0249	0.2233	1.3000e-004	6.6700e-003	2.9000e-004	6.9600e-003	1.7700e-003	2.7000e-004	2.0400e-003	0.0000	7.6730	7.6730	1.3200e-003	0.0000	7.7059
Total	0.0367	0.1558	0.3152	1.0200e-003	8.9500e-003	4.5700e-003	0.0135	2.4300e-003	4.3700e-003	6.8000e-003	0.0000	17.5661	17.5661	4.9500e-003	0.0000	17.6898

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3.4 Building Construction - 2003**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	0.1571	0.8687	0.4025	5.4700e-003		0.0683	0.0683		0.0683	0.0683	0.0000	47.3149	47.3149	0.0128	0.0000	47.6347
Total	0.1571	0.8687	0.4025	5.4700e-003		0.0683	0.0683		0.0683	0.0683	0.0000	47.3149	47.3149	0.0128	0.0000	47.6347

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	0.0153	0.1310	0.0919	8.9000e-004	2.2800e-003	4.2800e-003	6.5600e-003	6.6000e-004	4.1000e-003	4.7600e-003	0.0000	9.8931	9.8931	3.6300e-003	0.0000	9.9839
Worker	0.0214	0.0249	0.2233	1.3000e-004	6.6700e-003	2.9000e-004	6.9600e-003	1.7700e-003	2.7000e-004	2.0400e-003	0.0000	7.6730	7.6730	1.3200e-003	0.0000	7.7059
Total	0.0367	0.1558	0.3152	1.0200e-003	8.9500e-003	4.5700e-003	0.0135	2.4300e-003	4.3700e-003	6.8000e-003	0.0000	17.5661	17.5661	4.9500e-003	0.0000	17.6898

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3.4 Building Construction - 2004**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	0.8463	4.6814	2.1688	0.0295		0.3680	0.3680		0.3680	0.3680	0.0000	254.9752	254.9752	0.0689	0.0000	256.6983
Total	0.8463	4.6814	2.1688	0.0295		0.3680	0.3680		0.3680	0.3680	0.0000	254.9752	254.9752	0.0689	0.0000	256.6983

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	0.0824	0.7058	0.4955	4.8000e-003	0.0123	0.0231	0.0354	3.5500e-003	0.0221	0.0256	0.0000	53.3129	53.3129	0.0196	0.0000	53.8019
Worker	0.1151	0.1339	1.2034	7.0000e-004	0.0360	1.5700e-003	0.0375	9.5500e-003	1.4600e-003	0.0110	0.0000	41.3489	41.3489	7.1000e-003	0.0000	41.5264
Total	0.1976	0.8398	1.6988	5.5000e-003	0.0483	0.0246	0.0729	0.0131	0.0235	0.0366	0.0000	94.6618	94.6618	0.0267	0.0000	95.3283

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3.4 Building Construction - 2004**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	0.8463	4.6814	2.1688	0.0295		0.3680	0.3680		0.3680	0.3680	0.0000	254.9749	254.9749	0.0689	0.0000	256.6980
Total	0.8463	4.6814	2.1688	0.0295		0.3680	0.3680		0.3680	0.3680	0.0000	254.9749	254.9749	0.0689	0.0000	256.6980

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	0.0824	0.7058	0.4955	4.8000e-003	0.0123	0.0231	0.0354	3.5500e-003	0.0221	0.0256	0.0000	53.3129	53.3129	0.0196	0.0000	53.8019
Worker	0.1151	0.1339	1.2034	7.0000e-004	0.0360	1.5700e-003	0.0375	9.5500e-003	1.4600e-003	0.0110	0.0000	41.3489	41.3489	7.1000e-003	0.0000	41.5264
Total	0.1976	0.8398	1.6988	5.5000e-003	0.0483	0.0246	0.0729	0.0131	0.0235	0.0366	0.0000	94.6618	94.6618	0.0267	0.0000	95.3283

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3.5 Paving - 2004**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	0.0668	0.4778	0.1940	2.7000e-003		0.0291	0.0291		0.0291	0.0291	0.0000	24.0995	24.0995	5.4400e-003	0.0000	24.2355
Paving	2.5300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0693	0.4778	0.1940	2.7000e-003		0.0291	0.0291		0.0291	0.0291	0.0000	24.0995	24.0995	5.4400e-003	0.0000	24.2355

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	3.8700e-003	4.5000e-003	0.0405	2.0000e-005	1.2100e-003	5.0000e-005	1.2600e-003	3.2000e-004	5.0000e-005	3.7000e-004	0.0000	1.3900	1.3900	2.4000e-004	0.0000	1.3960
Total	3.8700e-003	4.5000e-003	0.0405	2.0000e-005	1.2100e-003	5.0000e-005	1.2600e-003	3.2000e-004	5.0000e-005	3.7000e-004	0.0000	1.3900	1.3900	2.4000e-004	0.0000	1.3960

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3.5 Paving - 2004**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	0.0668	0.4778	0.1940	2.7000e-003		0.0291	0.0291		0.0291	0.0291	0.0000	24.0995	24.0995	5.4400e-003	0.0000	24.2355
Paving	2.5300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0693	0.4778	0.1940	2.7000e-003		0.0291	0.0291		0.0291	0.0291	0.0000	24.0995	24.0995	5.4400e-003	0.0000	24.2355

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	3.8700e-003	4.5000e-003	0.0405	2.0000e-005	1.2100e-003	5.0000e-005	1.2600e-003	3.2000e-004	5.0000e-005	3.7000e-004	0.0000	1.3900	1.3900	2.4000e-004	0.0000	1.3960
Total	3.8700e-003	4.5000e-003	0.0405	2.0000e-005	1.2100e-003	5.0000e-005	1.2600e-003	3.2000e-004	5.0000e-005	3.7000e-004	0.0000	1.3900	1.3900	2.4000e-004	0.0000	1.3960

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3.6 Architectural Coating - 2004**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	0.3666					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.7700e-003	0.0509	0.0225	3.0000e-004		4.1400e-003	4.1400e-003		4.1400e-003	4.1400e-003	0.0000	2.5533	2.5533	7.1000e-004	0.0000	2.5711
Total	0.3754	0.0509	0.0225	3.0000e-004		4.1400e-003	4.1400e-003		4.1400e-003	4.1400e-003	0.0000	2.5533	2.5533	7.1000e-004	0.0000	2.5711

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3200e-003	2.7000e-003	0.0243	1.0000e-005	7.3000e-004	3.0000e-005	7.6000e-004	1.9000e-004	3.0000e-005	2.2000e-004	0.0000	0.8340	0.8340	1.4000e-004	0.0000	0.8376
Total	2.3200e-003	2.7000e-003	0.0243	1.0000e-005	7.3000e-004	3.0000e-005	7.6000e-004	1.9000e-004	3.0000e-005	2.2000e-004	0.0000	0.8340	0.8340	1.4000e-004	0.0000	0.8376

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3.6 Architectural Coating - 2004**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	0.3666					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.7700e-003	0.0509	0.0225	3.0000e-004		4.1400e-003	4.1400e-003		4.1400e-003	4.1400e-003	0.0000	2.5533	2.5533	7.1000e-004	0.0000	2.5711
Total	0.3754	0.0509	0.0225	3.0000e-004		4.1400e-003	4.1400e-003		4.1400e-003	4.1400e-003	0.0000	2.5533	2.5533	7.1000e-004	0.0000	2.5711

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3200e-003	2.7000e-003	0.0243	1.0000e-005	7.3000e-004	3.0000e-005	7.6000e-004	1.9000e-004	3.0000e-005	2.2000e-004	0.0000	0.8340	0.8340	1.4000e-004	0.0000	0.8376
Total	2.3200e-003	2.7000e-003	0.0243	1.0000e-005	7.3000e-004	3.0000e-005	7.6000e-004	1.9000e-004	3.0000e-005	2.2000e-004	0.0000	0.8340	0.8340	1.4000e-004	0.0000	0.8376

4.0 Operational Detail - Mobile

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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	2.0953	14.8642	17.4867	0.1019	0.8215	0.3245	1.1460	0.2216	0.3100	0.5316	0.0000	1,789.4514	1,789.4514	0.7747	0.0000	1,808.8183
Unmitigated	2.0953	14.8642	17.4867	0.1019	0.8215	0.3245	1.1460	0.2216	0.3100	0.5316	0.0000	1,789.4514	1,789.4514	0.7747	0.0000	1,808.8183

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Medical Office Building	1,432.48	355.25	61.45	2,119,174	2,119,174
Parking Lot	0.00	0.00	0.00		
Total	1,432.48	355.25	61.45	2,119,174	2,119,174

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
Medical Office Building	9.50	7.30	7.30	29.60	51.40	19.00	60	30	10
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

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Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Medical Office Building	0.394323	0.055127	0.150223	0.171506	0.046756	0.008777	0.022924	0.138429	0.001266	0.001220	0.006103	0.000952	0.002392
Parking Lot	0.394323	0.055127	0.150223	0.171506	0.046756	0.008777	0.022924	0.138429	0.001266	0.001220	0.006103	0.000952	0.002392

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	113.9063	113.9063	5.1500e-003	1.0700e-003	114.3526
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	113.9063	113.9063	5.1500e-003	1.0700e-003	114.3526
NaturalGas Mitigated	2.7900e-003	0.0254	0.0213	1.5000e-004		1.9300e-003	1.9300e-003		1.9300e-003	1.9300e-003	0.0000	27.6108	27.6108	5.3000e-004	5.1000e-004	27.7749
NaturalGas Unmitigated	2.7900e-003	0.0254	0.0213	1.5000e-004		1.9300e-003	1.9300e-003		1.9300e-003	1.9300e-003	0.0000	27.6108	27.6108	5.3000e-004	5.1000e-004	27.7749

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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					
Medical Office Building	517406	2.7900e-003	0.0254	0.0213	1.5000e-004		1.9300e-003	1.9300e-003		1.9300e-003	1.9300e-003	0.0000	27.6108	27.6108	5.3000e-004	5.1000e-004	27.7749
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		2.7900e-003	0.0254	0.0213	1.5000e-004		1.9300e-003	1.9300e-003		1.9300e-003	1.9300e-003	0.0000	27.6108	27.6108	5.3000e-004	5.1000e-004	27.7749

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					
Medical Office Building	517406	2.7900e-003	0.0254	0.0213	1.5000e-004		1.9300e-003	1.9300e-003		1.9300e-003	1.9300e-003	0.0000	27.6108	27.6108	5.3000e-004	5.1000e-004	27.7749
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		2.7900e-003	0.0254	0.0213	1.5000e-004		1.9300e-003	1.9300e-003		1.9300e-003	1.9300e-003	0.0000	27.6108	27.6108	5.3000e-004	5.1000e-004	27.7749

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5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Medical Office Building	361590	105.1906	4.7600e-003	9.8000e-004	105.6028
Parking Lot	29960	8.7157	3.9000e-004	8.0000e-005	8.7499
Total		113.9063	5.1500e-003	1.0600e-003	114.3526

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Medical Office Building	361590	105.1906	4.7600e-003	9.8000e-004	105.6028
Parking Lot	29960	8.7157	3.9000e-004	8.0000e-005	8.7499
Total		113.9063	5.1500e-003	1.0600e-003	114.3526

6.0 Area Detail**6.1 Mitigation Measures Area**

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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					
Mitigated	0.1974	4.0000e-005	2.9700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.5300e-003	4.5300e-003	2.0000e-005	0.0000	5.0600e-003
Unmitigated	0.1974	4.0000e-005	2.9700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.5300e-003	4.5300e-003	2.0000e-005	0.0000	5.0600e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0367					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1604					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.8000e-004	4.0000e-005	2.9700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.5300e-003	4.5300e-003	2.0000e-005	0.0000	5.0600e-003
Total	0.1974	4.0000e-005	2.9700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.5300e-003	4.5300e-003	2.0000e-005	0.0000	5.0600e-003

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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	0.0367					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1604					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.8000e-004	4.0000e-005	2.9700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.5300e-003	4.5300e-003	2.0000e-005	0.0000	5.0600e-003
Total	0.1974	4.0000e-005	2.9700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.5300e-003	4.5300e-003	2.0000e-005	0.0000	5.0600e-003

7.0 Water Detail**7.1 Mitigation Measures Water**

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	7.8762	0.1234	2.9700e-003	11.8451
Unmitigated	7.8762	0.1234	2.9700e-003	11.8451

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Medical Office Building	3.77696 / 0.719422	7.8762	0.1234	2.9700e-003	11.8451
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		7.8762	0.1234	2.9700e-003	11.8451

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7.2 Water by Land Use**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Medical Office Building	3.77696 / 0.719422	7.8762	0.1234	2.9700e-003	11.8451
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		7.8762	0.1234	2.9700e-003	11.8451

8.0 Waste Detail**8.1 Mitigation Measures Waste****Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	65.9883	3.8998	0.0000	163.4832
Unmitigated	65.9883	3.8998	0.0000	163.4832

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8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Medical Office Building	325.08	65.9883	3.8998	0.0000	163.4832
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		65.9883	3.8998	0.0000	163.4832

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Medical Office Building	325.08	65.9883	3.8998	0.0000	163.4832
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		65.9883	3.8998	0.0000	163.4832

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

APPENDIX B. FLEET MIX ADJUSTMENT

Project: SASD VA Clinic SPAL
Land Use Subtype: Medical Office Building

Key	
Data from CalEEMod or client	value
Data entered in CalEEMod	value

Weekly Trips

Weekday Trip Rate ¹ (trips/size unit)	Saturday Trip Rate ¹ (trips/size unit)	Sunday Trip Rate ¹ (trips/size unit)	# of Size Unit	Total Weekly ² Trips	Total Annual Trips
38.16	0	0	39.6	7,556	392,895

1. Weekly trip rate provided by traffic engineer.
2. Total Weekly Trips = [(Trip Rate_{weekday} x 5) + Trip Rate_{Saturday} + Trip Rate_{Sunday}] * Land Use_i

Average Trip Length

Trip Length (miles) ¹			Trip Purpose ²			Trip Percentage ²		
C-C	C-W	C-NW	Primary	Diverted	Passby	C-C	C-W	C-NW
7.3	9.5	7.3	60%	30%	10%	51.4%	29.6%	19%

1. Default CalEEMod data for land use setting.
2. Default CalEEMod data for land use type.

Annual VMT

Annual Trips by Type			Average Trip Length ¹			Annual VMT ²			Total Annual VMT
C-C	C-W	C-NW	C-C	C-W	C-NW	C-C	C-W	C-NW	
201,948	116,297	74,650	4.94	6.42	4.94	997,119	746,918	368,585	2,112,622

1. Average Trip Length_{i,m} = (Link %_{primary} x Trip Length_{primary}) + (Link %_{diverted} x 0.25 x Trip Length_{primary}) + (Link %_{passby} x 0.1 miles)
2. VMT = (Number of Trips x Average Trip Length)

Default Vehicle Fleet Mix

Category	Vehicle Type													
	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH	Total
Default Fleet Mix	0.483371	0.03038	0.169336	0.116038	0.018013	0.005928	0.019788	0.146278	0.00162	0.001664	0.005839	0.000931	0.000816	1.000002
Annual VMT by Vehicle Type	1,021,180	64,181	357,743	245,144	38,055	12,524	41,805	309,030	3,422	3,515	12,336	1,967	1,724	2,112,626

Heavy Heavy Duty (HHD) VMT Adjustment

Weekly Trips ¹	Trip Length (miles) ²	Total Annual Trips	Total Annual VMT	VMT to Adjust
0	7.30	0	0	309,030

1. HHD weekly trips provided by developer.
2. CalEEMod default trip length (C-NW)

Fleet Mix Adjustment

Category	Vehicle Type			
	LDA	LDT1	LDT2	Total
Default Annual VMT	1,021,180	64,181	357,743	1,443,105
Additional VMT	218,678	13,744	76,608	309,030
Total VMT	1,239,858	77,925	434,351	1,752,135

Adjusted Fleet Mix

Category	Vehicle Type													
	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH	Total
Annual VMT by Vehicle Type	1,239,858	77,925	434,351	245,144	38,055	12,524	41,805	0	3,422	3,515	12,336	1,967	1,724	2,112,626
Fleet Mix	0.586880	0.036886	0.205598	0.116038	0.018013	0.005928	0.019788	0.000000	0.001620	0.001664	0.005839	0.000931	0.000816	1.000000