



August 8, 2023

**Sienna Construction**

C/O Fernando Nieto, Owner  
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Dear Mr. Nieto,

The Soar Environmental Team is pleased to provide this Air Quality (AQ) and Greenhouse Gas (GHG) analyses Letter Report. This AQ/GHG Letter Report includes California Emissions Estimator Model® (CalEEMod) emissions estimates, criteria pollutant analysis and GHG analysis for the proposed light industrial development in Bakersfield, California. The project site is in Kern County, which is within the San Joaquin Valley Air Pollution Control District (SJVAPCD). These evaluations will support an Initial Study (IS) or a Mitigated Negative Declaration (MND) from the County under the California Environmental Quality Act (CEQA).

**PROJECT DESCRIPTION**

The proposed project is located at 185 Quantico Avenue, Bakersfield (APN 142-230-13-00-0), CA and involves the development and construction of the property for a truck maintenance shop. The maintenance shop will be conducting semi-truck repairs and dispatching activities for their own semi-truck fleet. Approximately 20 trucks, with or without trailers, will be at the maintenance shop on any given day. This includes approximately 15 trucks entering and exiting the shop, with approximately 5 trucks being parked at the shop for up to one week. The back portion of the site will be paved for longer-term storage of up to 40 trucks at any given time.

The 9-acre parcel is currently vacant; therefore, no demolition will be required. The nearest sensitive receptor is a residence adjacent to the project site to the east. The nearest school to the project site is Virginia Avenue Elementary School approximately 0.5 mile (800 meters) northeast of the project site. The nearest airport is Bakersfield Municipal Airport approximately 3 miles (4,830 meters) southwest of the property.

***Update Response to Comments***

The City requested an updated GHG analysis for consistency with Senate Bill (SB) 32, showing that proposed Best Performance Standards (BPS) [mitigated project] would achieve a 40% reduction of GHG emissions compared to business-as-usual (BAU) [unmitigated baseline]. This is because a project versus baseline comparison with corresponding results would be needed to show that the GHG impact would be less than significant. As discussed below and further in the GHG impact analysis, these criteria are not clearly applicable to the proposed Project:

There is no practicable method for determining whether a BAU emissions baseline can be defined or comprehensive BPS reduction applied for this type of facility. This is because the truck maintenance and repair business will serve non-owned mobile sources over which it has no direct control, whether miles driven, vehicle ages, mechanical conditions, emission control retrofits, maintenance and repairs conducted elsewhere, etc. In context, the proposed Project is not a planned residential community,

commercial retail center or office building, or a permitted stationary source, where applicable BPS can be designed-into a project and maintained under ownership control. A project versus baseline assessment is not practicable for this type of facility.

## ASSUMPTIONS

The following basic assumptions were used in developing the emission estimates for the proposed project using CalEEMod:

- CalEEMod defaults were applied to all phases of the project, unless otherwise specified.
- Institute of Traffic Engineers (ITE) default trip distances for the San Joaquin Valley Air Basin, as contained in CalEEMod, were assumed for the operational traffic analysis.
- Some project design features including sizes and number of buildings were defined by the Applicant and replaced some CalEEMod default settings.
- CalEEMod construction timelines are generally accurate, unless otherwise stated.
- During the site preparation and grading phases of construction, it is anticipated that no soil will need to be exported from or imported to the project site.
- The default equipment from CalEEMod for each construction phase, is representative of actual construction equipment used during construction.

## LIST OF TABLES

The project analyses and results are summarized in the following tables:

- Table 1: Land Use Data for CalEEMod Input – 185 Quantico Avenue, Bakersfield, CA
- Table 2: SJVAPCD CEQA Thresholds of Significance
- Table 3: Construction Emissions Summary and Significance Evaluation
- Table 4: Operational Emissions Summary and Significance Evaluation
- Table 5: Greenhouse Gas Emissions Summary and Significance Evaluation

## AIR QUALITY AND GREENHOUSE GAS IMPACTS ANALYSES

Appendix G of the California Environmental Quality Act (CEQA) Guidelines contains an Environmental Checklist Form which consists of a series of questions that are intended to encourage a thoughtful assessment of impacts. In order to evaluate the questions in the Air Quality and Greenhouse Gas Emissions Sections of the checklist, quantitative significance criteria established by the local air quality agency, such as SCAQMD, may be relied upon to make significance determinations based on mass emissions of criteria pollutants and GHGs, as determined in this report.

### Project Emissions Estimation

The construction and operation analysis were performed using CalEEMod version 2020.4.0, the official statewide land use computer model designed to provide a uniform platform for estimating potential criteria pollutant and GHG emissions associated with both construction and operations of land use projects under CEQA. The model quantifies direct emissions from construction and operations (including vehicle use), as well as indirect emissions, such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use. The mobile source emission factors used in the model



–published by the California Air Resources Board (CARB) – include the Pavley standards and Low Carbon Fuel standards. The model also identifies project design features, regulatory measures, and mitigation measures to reduce criteria pollutant and GHG emissions along with calculating the benefits achieved from the selected measures. CalEEMod was developed by the California Air Pollution Control Officers Association (CAPCOA) in collaboration with the SJVAPCD, the Bay Area Air Quality Management District (BAAQMD), the South Coast Air Quality Management District (SCAQMD), and other California air districts. Default land use data (e.g., emission factors, trip lengths, meteorology, source inventory, etc.) were provided by the various California air districts to account for local requirements and conditions. As the official assessment methodology for land use projects in California, CalEEMod is relied upon herein for construction and operational emissions quantification, which forms the basis for the impact analysis.

In its review comments to the September 2021 report, the City’s Planning Division requested an updated AQ/GHG analysis because the planned size of the building increased. The size increase would have no effect on the projected emissions for the proposed project. The original design included an 11,600 square-foot prefabricated steel building; the updated design increases the size of the building by 23% to 14,300 square feet. This is the result of adding 2,700 square feet office space with no increase in office staff; only more workspace for each employee will be added. The truck shop area will be the same size, and the capacity to service up to 20 trucks per day will not increase. The additional 2,700 square feet of office space will have no effect on daily truck traffic in and out of the facility, and the same number of office workers will be commuting. Thus, the increase in building size will not result in a substantive change in the results of the air quality and greenhouse gas analyses, and results will remain less than significant.

Based on information received from the Applicant, land use data for CalEEMod input is presented in Table 1. The total parcel area is 9 acres. The SJVAPCD quantitative significance thresholds shown in Table 2 were used to evaluate project emissions impacts (SJVAPCD 2015a,b,c).

<b>Table 1: Land Use Data for CalEEMod Input - 185 Quantico Avenue, Bakersfield, CA</b>						
<b>Project Element</b>	<b>Land Use Type</b>	<b>Land Use Subtype</b>	<b>Unit Amount</b>	<b>Size Metric</b>	<b>Lot Acreage (footprint)</b>	<b>Floor Surface Area</b>
Building	Industry	General Light Industry	14.30	1,000 sq. ft	0.33	14,300
Parking & Driveways	Parking	Parking Lot	8.68	Acre	8.73	380,440
<b>Project Site</b>					<b>9.00</b>	<b>392,040</b>

Source: Applicant 2020, CalEEMod version 2020.4.0

Notes:

Utility – Pacific Gas & Electric Corporation

Climate Zone 3

1 acre = 43,560 sf

**Table 2: SJVAPCD CEQA Thresholds of Significance**

Pollutant	Annual Threshold*	APR-2030 Threshold**
	tons/yr	lbs/day
VOC	10	100
NO <sub>x</sub>	10	100
CO	100	100
SO <sub>x</sub>	27	100
PM <sub>10</sub>	15	100
PM <sub>2.5</sub>	15	100
Toxic Air Contaminants (including carcinogens and non-carcinogens)	Maximally Exposed Individual risk equals or exceeds 20 in one million	
Toxic Air Contaminants (including carcinogens and non-carcinogens)	Acute: Hazard Index equals or exceeds 1 for the Maximally Exposed Individual	
	Chronic: Hazard Index equals or exceeds 1 for the Maximally Exposed Individual	
Greenhouse Gases	Implement Best Performance Standards (BPS)	
	Reduce Project GHG Emission by 29% over Business as Usual	

Source: SJVAPCD 2015a,b; 2018

\*Construction or operation

\*\*Stationary sources only

**Criteria Pollutants from Project Construction**

A project’s construction phase produces many types of emissions, but PM10 and PM2.5 in fugitive dust and diesel engine exhaust are the pollutants of greatest concern. Fugitive dust emissions can result from a variety of construction activities, including excavation, grading, demolition, vehicle travel on paved and unpaved surfaces, and vehicle exhaust. Construction-related emissions can cause substantial increases in localized concentrations of PM10, as well as affecting PM10 compliance with ambient air quality standards on a regional basis. Particulate emissions from construction activities can lead to adverse health effects as well as nuisance concerns such as reduced visibility and soiling of exposed surfaces. The use of diesel-powered construction equipment emits ozone precursors oxides of nitrogen (NOx) and reactive organic gases (ROG), and diesel particulate matter (DPM). Use of architectural coatings and other materials associated with finishing buildings may also emit ROG. CEQA significance thresholds address the impacts of construction activity emissions on local and regional air quality.

The SJVAPCD’s approach to CEQA analyses of fugitive dust impacts is to require implementation of effective and comprehensive dust control measures under Regulation VIII – Fugitive PM10 Prohibitions – rather than to require detailed quantification of emissions. PM10 emitted during construction can vary

greatly depending on the level of activity, the specific operations taking place, the equipment being operated, local soils, weather conditions, and other factors, making quantification difficult. Despite this variability in emissions, experience has shown that there are several feasible control measures that can be reasonably implemented to significantly reduce fugitive dust emissions from construction. The SJVAPCD has determined that implementing Best Management Practices (BMPs), primarily through frequent water application, constitutes sufficient mitigation to reduce PM10 impacts to a level considered less than significant.

**Criteria Pollutants from Project Operation**

The term “project operations” refers to the full range of activities that can or may generate criteria pollutant and GHG emissions when the project is functioning in its intended use. For projects, such as office parks, shopping centers, apartment buildings, residential subdivisions, and other indirect sources, motor vehicles traveling to and from the project represents the primary source of air pollutant emissions. For industrial projects and some commercial projects, equipment operation and manufacturing processes, i.e., permitted stationary sources, can be of greatest concern from an emissions standpoint. CEQA significance thresholds address the impacts of operational emission sources on local and regional air quality.

**Results of Criteria Emissions Analyses**

Table 3 shows unmitigated and mitigated criteria construction emissions and evaluates mitigated emissions against SJVAPCD significance thresholds.

Table 4 shows unmitigated and mitigated criteria operational emissions and evaluates mitigated emissions against SJVAPCD significance thresholds.

As shown in Tables 3 and 4, mass emissions of criteria pollutants from construction and operation are below applicable SJVAPCD significance thresholds, i.e., Less Than Significant (LTS).

PROJECTED IMPACT: Less Than Significant

MITIGATION: None Required

<b>Table 3: Construction Emissions Summary and Significance Evaluation</b>				
<b>Criteria Pollutants</b>	<b>Unmitigated</b>	<b>Mitigated</b>	<b>Threshold</b>	<b>Significance</b>
	<b>tons/yr</b>	<b>tons/yr</b>	<b>tons/yr</b>	
ROG (VOC)	0.41	0.41	10	LTS
NO <sub>x</sub>	1.93	1.93	10	LTS
CO	2.20	2.20	100	LTS
SO <sub>x</sub>	0.01	0.01	27	LTS
Total PM <sub>10</sub>	0.25	0.15	15	LTS
Total PM <sub>2.5</sub>	0.14	0.10	15	LTS

Sources: Applicant 2021, SJVAPCD 2015a,b,c; CalEEMod version 2020.4.0

Notes:

Lbs/day are winter or summer maxima for planned land use

Total PM<sub>10</sub>/ PM<sub>2.5</sub> comprises fugitive dust plus engine exhaust

LTS - Less Than Significant

Table 4: Operational Emissions Summary and Significance Evaluation				
Criteria Pollutants	Unmitigated	Mitigated	Threshold	Significance
	tons/yr	tons/yr	tons/yr	
ROG (VOC)	0.11	0.11	10	LTS
NO <sub>x</sub>	0.25	0.25	10	LTS
CO	0.32	0.32	100	LTS
SO <sub>x</sub>	0.00	0.00	27	LTS
Total PM <sub>10</sub>	0.09	0.09	15	LTS
Total PM <sub>2.5</sub>	0.03	0.03	15	LTS

Sources: Applicant 2021, SJVAPCD 2015a,b,c; CalEEMod version 2020.4.0

Tons per year are annual emissions for planned land use

Total PM<sub>10</sub> / PM<sub>2.5</sub> comprises fugitive dust plus engine exhaust

### **Greenhouse Gas Emissions from Construction and Operation**

Greenhouse gases - primarily carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and nitrous (N<sub>2</sub>O) oxide, collectively reported as carbon dioxide equivalents (CO<sub>2</sub>e) - are directly emitted from stationary source combustion of natural gas in equipment such as water heaters, boilers, process heaters, and furnaces. GHGs are also emitted from mobile sources such as on-road vehicles and off-road construction equipment burning fuels such as gasoline, diesel, biodiesel, propane, or natural gas (compressed or liquefied). Indirect GHG emissions result from electric power generated elsewhere (i.e. power plants) used to operate process equipment, lighting, and utilities at a facility. Also, included in GHG quantification is electric power used to pump the water supply (e.g., aqueducts, wells, pipelines) and disposal and decomposition of municipal waste in landfills. (CARB 2017).

California's Building Energy Efficiency Standards are updated on an approximately three-year cycle. The 2019 standards improved upon the 2016 standards for new construction of, and additions and alterations to, residential, commercial, and industrial buildings. The 2019 standards went into effect on January 1, 2020 (CEC 2019).

Since the Title 24 standards require energy conservation features in new construction (e.g., high efficiency lighting, high-efficiency heating, ventilating, and air-conditioning (HVAC) systems, thermal insulation, double-glazed windows, water conserving plumbing fixtures, etc.), they indirectly regulate and reduce GHG emissions.

Using CalEEMod, direct on-site and off-site GHG emissions were estimated for construction and operation, and indirect off-site GHG emissions were estimated to account for electric power used by the proposed project, water conveyance, and solid waste disposal.

### **Results of Greenhouse Gas Emissions Analysis**

Table 5 shows unmitigated and mitigated GHG emissions. For context, these estimated emissions are relatively small, approximately 213 MT CO<sub>2</sub>e per year, which is less than 0.001% of the statewide commercial sector GHG inventory of approximately 22 million MT CO<sub>2</sub>e per year (CARB 2022b).

As project design features, the 185 Quantico Avenue Project would implement applicable and feasible GHG reduction measures provided in the December 17, 2009, *Final Staff Report, Appendix J: GHG Emission Reduction Measures – Development Projects*. The Project proponent (Applicant) would implement the following measures as applicable and feasible for the type of land use: #1 Bicycle Parking (secure area or lockers), #A11 Vehicle Idling (5-minute BMP idling limit), and #A25 Zero Emission Infrastructure (Level 2 electric vehicle charging stations). (SJVAPCD 2009a)

PROJECTED IMPACT: Less Than Significant

MITIGATION: None Required

Table 5: Greenhouse Gas Emissions Summary and Significance Evaluation				
Greenhouse Gases	Unmitigated	Mitigated	Threshold	Significance
	MT/yr	MT/yr	MT/yr	
CO <sub>2</sub>	200	200	—	—
CH <sub>4</sub>	0.27	0.27	—	—
N <sub>2</sub> O	0.02	0.02	—	—
CO <sub>2</sub> e	213	213	BPS	LTS <sup>1</sup>

Sources: Applicant 2021, SJVAPCD 2009a,b; CalEEMod version 2020.4.0 Notes:

Comprises annual operational emissions plus construction emissions amortized over 30 years

<sup>1</sup> LTS - Less Than Significant, with implementation of applicable feasible BPS.

### Discussion

The SJVAPCD adopted guidance in its December 17, 2009, *Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for new Projects under CEQA* for determining GHG emission significance. The guidance provides that a land use project can implement Best Performance Standards (BPS) for the type of land use or reduce project-related GHG emissions by 29% compared to Business-as-Usual (BAU) to show that a project’s GHG impacts would be less than significant (SJVAPCD 2009b). However, as discussed below, the BAU approach for determining significance is not applicable to the 185 Quantico Avenue Project.

#### *Newhall Ranch Case*

The Newhall Ranch case shows how a BAU comparison is not a sufficient means of determining GHG significance in the absence of specific numerical thresholds set by a local agency.

The California Supreme Court’s CEQA decision on the Newhall Ranch development case, *Center for Biological Diversity v. California Department of Fish and Wildlife (November 30, 2015, Case No. 217763)*, determined that the project’s Environmental Impact Report (EIR) did not substantiate the conclusion that the GHG cumulative impacts would be less than significant. The EIR determined that the Newhall Ranch development project would reduce GHG emissions by 31% from BAU. This reduction was compared to the California target of reducing GHG emissions statewide by 29% from BAU. The Court determined that “the EIR’s deficiency stems from taking a quantitative comparison method developed by the Scoping Plan as a

measure of the greenhouse gas reduction effort required by the state as a whole, and attempting to use that method, without adjustments, for a purpose very different from its original design.” In the Court’s final ruling it offered suggestions that were deemed appropriate use of the BAU methodology:

- 1) Lead agencies can use the comparison to BAU methodology if they determine what reduction a particular project must achieve to comply with statewide goals;
- 2) Project design features that comply with regulations to reduce emissions may demonstrate that those components of emissions are less that significant; and
- 3) Lead agencies could also demonstrate compliance with locally adopted climate plans or could apply specific numerical thresholds developed by some local agencies.

Kern County, the Lead CEQA agency for this Project, has not developed specific thresholds for GHGs. The SJVAPCD, a CEQA Trustee [Responsible] Agency for this Project, has developed thresholds to determine significance of a proposed Project – either implement BPS or achieve a 29% reduction from BAU (a specific numerical threshold). However, the SJVAPCD (2009b) has established their BAU and baseline emissions based on the years 2002-2004 and 2020, respectively. The 2020 projected baseline has passed, and at this time, no new guidance has been approved for determining BAU and projected baseline for the next target year. Therefore, the 29% reduction from BAU cannot be applied to the proposed Project to determine significance. Additionally, a BPS threshold has not been established.

Therefore, the GHG analysis for the 185 Quantico Avenue Project follows the suggestions from the Court’s ruling on the Newhall Ranch development project to determine significance using the project design features. There is no practicable method for determining whether a BAU emissions baseline can be defined or comprehensive BPS reduction applied for this type of facility. This is because the truck maintenance and repair business will serve non-owned mobile sources over which it has no direct control, whether miles driven, vehicle ages, mechanical conditions, emission control retrofits, maintenance and repairs conducted elsewhere, etc. In context, the proposed Project is not a planned residential community, commercial retail center or office building, or a permitted stationary source, where applicable BPS can be designed-into a project and maintained under ownership control. A project versus baseline assessment is not practicable for this type of facility. This situation is consistent with Newhall Ranch.

*South Coast AQMD in the Final Negative Declaration for the Phillips 66 Los Angeles Refinery Carson Plant – Crude Oil Storage Capacity Project (Dec. 12, 2014; South Coast AQMD, 2014)*

The South Coast AQMD finding regarding the Phillips 66 Los Angeles Refinery Carson Plant case provides additional insight for determining that the GHG emissions for this Project would be less than significant. Since the City of Bakerfield does not have its own thresholds established at this time, other thresholds or means of determining significance in nearby jurisdictions are deemed acceptable.

The Project follows the approach certified by South Coast AQMD in the *Final Negative Declaration for the Phillips 66 Los Angeles Refinery Carson Plant- Crude Oil Storage Capacity Project on December 12, 2014 (South Coast AQMD, 2014)*. The approach used by South Coast AQMD to assess GHG impacts from that project recognizes that consumers of electricity and transportation fuels are, in effect, regulated by requiring providers and importers of electricity and fuel to participate in the GHG Cap-and-Trade Program and other Programs (e.g., low carbon fuel standard, renewable portfolio standard, etc.). Each such sector-wide program exists within the framework of AB 32 and its descendant laws the purpose of which is to achieve GHG emissions reductions consistent with the AB 32 Scoping Plan. In summary, the Phillips 66 Project would generate GHGs from electricity use and combustion of gasoline/diesel fuels, each of which





is regulated near the top of the supply-chain. As such, each citizen of California (including the operator of the Project) will have no choice but to purchase electricity and fuels produced in a way that is acceptable to the California market, regardless of the supplier, under the same rules. Thus, Project GHG emissions will be consistent with the relevant plan (i.e., AB 32 Scoping Plan). The Project would meet its fair share of the cost to mitigate the cumulative impact of global climate change because the proposed Project will be purchasing energy from the California market, e.g., diesel fuel used by customer trucks. Thus, the Project would have a less than significant impact on applicable GHG reduction plans.

Nevertheless, GHG emissions impacts from implementing the 185 Quantico Avenue Project were calculated at the project-specific level for construction and operations (Table 5). Impact analysis for the Project follows the approach certified by South Coast AQMD in the *Final Negative Declaration for the Phillips 66 Los Angeles Refinery Carson Plant - Crude Oil Storage Capacity Project on December 12, 2014* (South Coast AQMD, 2014). In summary, this approach considers the cumulative nature of the energy industry and recognizes that consumers of electricity and diesel fuel are in effect regulated by higher level emissions restrictions on the producers of these energy sources. Therefore, the Project's contribution to cumulative global climate change impacts would not be cumulatively considerable. Regardless, the proposed Project will be subject to any new regulations developed by CARB to address GHG emissions.

### **Discussion**

CEQA requires that all feasible and reasonable mitigation be applied to the Project to reduce the impacts from construction and operations on air quality. The SJVAPCD's "Non-Residential On-Site Mitigation Checklist" was utilized in preparing the mitigation measures and evaluating the project design features. These measures include using CARB-mandated controls that limit the exhaust from construction equipment and using alternatives to diesel when possible. Additional reductions would be achieved through the regulatory process of the air district and CARB as required changes to diesel engines are implemented, which would affect the customer trucks, and limits on idling. While it is not possible to determine whether the Project individually would have a significant impact on global warming or climate change, the Project would potentially contribute to cumulative GHG emissions in California as well as related health effects. As characterized above, the 185 Quantico Avenue Project emissions would only be a very small fraction of the statewide GHG emissions inventory.

However, without the necessary science and analytical tools, it is not possible to assess, with certainty, whether the Project's contribution would be cumulatively considerable, within the meaning of CEQA Guidelines Sections 15065(a)(3) and 15130. CEQA, however, does note that the more severe environmental problems the lower the thresholds for treating a project's contribution to cumulative impacts as significant. Given the position of the legislature in AB 32 which states that global warming poses serious detrimental effects, and the requirements of CEQA for the lead agency to determine that a project not have a cumulatively considerable contribution, the effect of the Project's CO<sub>2e</sub> contribution may be considered cumulatively considerable. This determination is "speculative", given the lack of clear scientific evidence or other criteria for determining the significance of the Project's contribution of GHG to the air quality in the SJVAB.

Not all the measures listed in SJVAPCD's "Non-Residential On-Site Mitigation Checklist" are currently appropriate or applicable to the proposed Project. While future legislation could further reduce the Project's GHG footprint, the analysis of this is speculative and in accordance with CEQA Guidelines Section 15145, will not be further evaluated. CEQA Guidelines Section 15130 notes that sometimes the only



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feasible mitigation for cumulative impacts may involve the adoption of ordinances or regulations rather than the imposition of conditions on a project-by-project basis. Global climate change is this type of issue. The causes and effects may not be just regional or statewide, they may also be worldwide.

Given the uncertainties in identifying, let alone quantifying the impact of any single project on global warming and climate change, and the efforts made to reduce emissions of GHGs from the Project through design, in accordance with CEQA Section 15130, any further feasible emissions reductions would be accomplished through CARB regulations adopted pursuant to AB 32. The 185 Quantico Avenue Project will comply with all local and statewide air quality and climate plans; therefore, the Project's contribution to cumulative global climate change impacts would not be cumulatively considerable.

PROJECTED IMPACT: Less Than Significant

## ATTACHMENTS

CalEEMod Outputs

## CLOSING

Thank you very much for the opportunity to be of assistance to Soar Environmental Consulting, Inc. Should you have any questions, please contact me at (949) 248-8490 extension 295.

Sincerely,

A handwritten signature in blue ink, appearing to read "Brad Boyes".

Bradford L. Boyes, BSEnvE, MBA, QEP | Ventura Office  
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## AIR QUALITY AND GHG REFERENCES

California Air Resources Board (CARB). 2017. California's 2017 Climate Change Scoping Plan. Website (<https://ww3.arb.ca.gov/cc/scopingplan/scopingplan.htm>) accessed August 26, 2021.

California Department of Resources Recycling and Recovery (CalRecycle). 2016. Solid Waste Cleanup Program Weights and Volumes for Project Estimates. Website (<http://www.calrecycle.ca.gov/swfacilities/cdi/Tools/Calculations.htm>) accessed August 26, 2021.

California Emissions Estimation Model® (CalEEMod). 2020. Version 2020.4.0. Website (<http://www.caleemod.com/>) accessed August 26, 2021.

California Energy Commission (CEC). 2019. Building Energy Efficiency Program. Website (<http://www.energy.ca.gov/title24/>) accessed August 26, 2021.

San Joaquin Valley Air Pollution Control District (SJVAPCD). 2018. APR-2030, Policy for Project Ambient Air Quality Analysis Applicability Determination under CEQA. June 12, 2018. Website ([https://www.valleyair.org/policies\\_per/policies\\_per\\_idx.htm](https://www.valleyair.org/policies_per/policies_per_idx.htm)) accessed August 26, 2021.

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San Joaquin Valley Air Pollution Control District (SJVAPCD). 2009b. Final Staff Report Appendix J: GHG Emission Reduction Measures - Development Projects. Website (<https://www.valleyair.org/Programs/CCAP/bps/Appendix%20J%20GHG%20Emission%20Reduction%20Measures%20-%20Development%20Projects.pdf>) accessed August 26, 2021.



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## ATTACHMENT 1 – CALEEMOD OUTPUTS

185 Quantico Truck Repair Shop - San Joaquin Valley Air Basin, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**185 Quantico Truck Repair Shop  
San Joaquin Valley Air Basin, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	11.60	1000sqft	0.27	11,600.00	0
Parking Lot	8.73	Acre	8.73	380,439.97	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.7	<b>Precipitation Freq (Days)</b>	45
<b>Climate Zone</b>	3			<b>Operational Year</b>	2023
<b>Utility Company</b>	Pacific Gas and Electric Company				
<b>CO2 Intensity (lb/MWhr)</b>	203.98	<b>CH4 Intensity (lb/MWhr)</b>	0.033	<b>N2O Intensity (lb/MWhr)</b>	0.004

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - CEC Forecasting Climate Zone based on 93307 zip. PG&E provider for Bakersfield.

Land Use -

Construction Phase - No demolition; plot is already vacated.

Trips and VMT - Where do I adjust to 20 trips/day?

Vehicle Trips - Per Applicant - 20 HHD trips per day, setting HHD operational traffic to 25% of fleet mix.

Construction Off-road Equipment Mitigation - Per Applicant

Grading - Per Applicant

Fleet Mix - Per Applicant

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	75

185 Quantico Truck Repair Shop - San Joaquin Valley Air Basin, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblFleetMix	HHD	0.03	0.25
tblFleetMix	HHD	0.03	0.25
tblFleetMix	LDA	0.51	0.25
tblFleetMix	LDA	0.51	0.25
tblFleetMix	LDT1	0.05	0.25
tblFleetMix	LDT1	0.05	0.25
tblFleetMix	LDT2	0.17	0.25
tblFleetMix	LDT2	0.17	0.25
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD2	7.8800e-003	0.00
tblFleetMix	LHD2	7.8800e-003	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.17	0.00
tblFleetMix	MDV	0.17	0.00
tblFleetMix	MH	3.7190e-003	0.00
tblFleetMix	MH	3.7190e-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	6.6400e-004	0.00
tblFleetMix	OBUS	6.6400e-004	0.00
tblFleetMix	SBUS	1.5050e-003	0.00
tblFleetMix	SBUS	1.5050e-003	0.00
tblFleetMix	UBUS	3.1700e-004	0.00
tblFleetMix	UBUS	3.1700e-004	0.00
tblGrading	AcresOfGrading	20.00	9.00
tblGrading	AcresOfGrading	15.00	9.00
tblVehicleTrips	ST_TR	1.99	6.90

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tblVehicleTrips	SU_TR	5.00	6.90
tblVehicleTrips	WD_TR	4.96	6.90

**2.0 Emissions Summary**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**2.1 Overall Construction**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1050	0.9487	0.7835	1.7000e-003	0.2012	0.0453	0.2465	0.0949	0.0422	0.1371	0.0000	151.4898	151.4898	0.0277	5.3400e-003	153.7735
2022	0.4090	1.9327	2.1997	5.1200e-003	0.1651	0.0857	0.2508	0.0448	0.0806	0.1254	0.0000	459.7962	459.7962	0.0623	0.0211	467.6283
<b>Maximum</b>	<b>0.4090</b>	<b>1.9327</b>	<b>2.1997</b>	<b>5.1200e-003</b>	<b>0.2012</b>	<b>0.0857</b>	<b>0.2508</b>	<b>0.0949</b>	<b>0.0806</b>	<b>0.1371</b>	<b>0.0000</b>	<b>459.7962</b>	<b>459.7962</b>	<b>0.0623</b>	<b>0.0211</b>	<b>467.6283</b>

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1050	0.9487	0.7835	1.7000e-003	0.0780	0.0453	0.1233	0.0376	0.0422	0.0797	0.0000	151.4897	151.4897	0.0277	5.3400e-003	153.7733
2022	0.4090	1.9327	2.1997	5.1200e-003	0.0627	0.0857	0.1483	0.0196	0.0806	0.1002	0.0000	459.7960	459.7960	0.0623	0.0211	467.6280
<b>Maximum</b>	<b>0.4090</b>	<b>1.9327</b>	<b>2.1997</b>	<b>5.1200e-003</b>	<b>0.0780</b>	<b>0.0857</b>	<b>0.1483</b>	<b>0.0376</b>	<b>0.0806</b>	<b>0.1002</b>	<b>0.0000</b>	<b>459.7960</b>	<b>459.7960</b>	<b>0.0623</b>	<b>0.0211</b>	<b>467.6280</b>



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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	61.60	0.00	45.38	59.06	0.00	31.45	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	8-23-2021	11-22-2021	0.7084	0.7084
2	11-23-2021	2-22-2022	0.7663	0.7663
3	2-23-2022	5-22-2022	0.6973	0.6973
4	5-23-2022	8-22-2022	0.7178	0.7178
5	8-23-2022	9-30-2022	0.2624	0.2624
		Highest	0.7663	0.7663

**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	0.0859	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.6000e-004	3.6000e-004	0.0000	0.0000	3.9000e-004
Energy	1.2900e-003	0.0118	9.8900e-003	7.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004	0.0000	34.3745	34.3745	3.7300e-003	6.6000e-004	34.6639
Mobile	0.0273	0.2417	0.3063	1.4900e-003	0.0898	2.1000e-003	0.0919	0.0241	2.0000e-003	0.0261	0.0000	140.6066	140.6066	2.6100e-003	0.0155	145.2878
Waste						0.0000	0.0000		0.0000	0.0000	2.9190	0.0000	2.9190	0.1725	0.0000	7.2317
Water						0.0000	0.0000		0.0000	0.0000	0.8510	1.3430	2.1940	0.0876	2.0900e-003	5.0076
<b>Total</b>	<b>0.1145</b>	<b>0.2535</b>	<b>0.3164</b>	<b>1.5600e-003</b>	<b>0.0898</b>	<b>2.9900e-003</b>	<b>0.0928</b>	<b>0.0241</b>	<b>2.8900e-003</b>	<b>0.0270</b>	<b>3.7700</b>	<b>176.3245</b>	<b>180.0946</b>	<b>0.2665</b>	<b>0.0182</b>	<b>192.1913</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**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	0.0859	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.6000e-004	3.6000e-004	0.0000	0.0000	3.9000e-004
Energy	1.2900e-003	0.0118	9.8900e-003	7.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004	0.0000	34.3745	34.3745	3.7300e-003	6.6000e-004	34.6639
Mobile	0.0273	0.2417	0.3063	1.4900e-003	0.0898	2.1000e-003	0.0919	0.0241	2.0000e-003	0.0261	0.0000	140.6066	140.6066	2.6100e-003	0.0155	145.2878
Waste						0.0000	0.0000		0.0000	0.0000	2.9190	0.0000	2.9190	0.1725	0.0000	7.2317
Water						0.0000	0.0000		0.0000	0.0000	0.8510	1.3430	2.1940	0.0876	2.0900e-003	5.0076
<b>Total</b>	<b>0.1145</b>	<b>0.2535</b>	<b>0.3164</b>	<b>1.5600e-003</b>	<b>0.0898</b>	<b>2.9900e-003</b>	<b>0.0928</b>	<b>0.0241</b>	<b>2.8900e-003</b>	<b>0.0270</b>	<b>3.7700</b>	<b>176.3245</b>	<b>180.0946</b>	<b>0.2665</b>	<b>0.0182</b>	<b>192.1913</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	9/18/2021	10/1/2021	5	10	
2	Grading	Grading	10/2/2021	10/29/2021	5	20	
3	Building Construction	Building Construction	10/30/2021	9/16/2022	5	230	

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4	Paving	Paving	9/17/2022	10/14/2022	5	20
5	Architectural Coating	Architectural Coating	10/15/2022	11/11/2022	5	20

**Acres of Grading (Site Preparation Phase): 9**

**Acres of Grading (Grading Phase): 9**

**Acres of Paving: 8.73**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 17,400; Non-Residential Outdoor: 5,800; Striped Parking Area: 22,826 (Architectural Coating – sqft)**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Grading	Excavators	1	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
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
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

**Trips and VMT**

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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	165.00	64.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	33.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Water Exposed Area

Clean Paved Roads

**3.2 Site Preparation - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0951	0.0000	0.0951	0.0502	0.0000	0.0502	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.2025	0.1058	1.9000e-004		0.0102	0.0102		9.4000e-003	9.4000e-003	0.0000	16.7179	16.7179	5.4100e-003	0.0000	16.8530
<b>Total</b>	<b>0.0194</b>	<b>0.2025</b>	<b>0.1058</b>	<b>1.9000e-004</b>	<b>0.0951</b>	<b>0.0102</b>	<b>0.1053</b>	<b>0.0502</b>	<b>9.4000e-003</b>	<b>0.0596</b>	<b>0.0000</b>	<b>16.7179</b>	<b>16.7179</b>	<b>5.4100e-003</b>	<b>0.0000</b>	<b>16.8530</b>

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**3.2 Site Preparation - 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	0.0000	0.0000	0.0000	0.0000	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	3.4000e-004	2.5000e-004	2.7000e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.6136	0.6136	2.0000e-005	2.0000e-005	0.6202
<b>Total</b>	<b>3.4000e-004</b>	<b>2.5000e-004</b>	<b>2.7000e-003</b>	<b>1.0000e-005</b>	<b>7.2000e-004</b>	<b>0.0000</b>	<b>7.2000e-004</b>	<b>1.9000e-004</b>	<b>0.0000</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>0.6136</b>	<b>0.6136</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.6202</b>

**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					0.0371	0.0000	0.0371	0.0196	0.0000	0.0196	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.2025	0.1058	1.9000e-004		0.0102	0.0102		9.4000e-003	9.4000e-003	0.0000	16.7178	16.7178	5.4100e-003	0.0000	16.8530
<b>Total</b>	<b>0.0194</b>	<b>0.2025</b>	<b>0.1058</b>	<b>1.9000e-004</b>	<b>0.0371</b>	<b>0.0102</b>	<b>0.0473</b>	<b>0.0196</b>	<b>9.4000e-003</b>	<b>0.0290</b>	<b>0.0000</b>	<b>16.7178</b>	<b>16.7178</b>	<b>5.4100e-003</b>	<b>0.0000</b>	<b>16.8530</b>

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**3.2 Site Preparation - 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	0.0000	0.0000	0.0000	0.0000	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	3.4000e-004	2.5000e-004	2.7000e-003	1.0000e-005	2.5000e-004	0.0000	2.6000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.6136	0.6136	2.0000e-005	2.0000e-005	0.6202
<b>Total</b>	<b>3.4000e-004</b>	<b>2.5000e-004</b>	<b>2.7000e-003</b>	<b>1.0000e-005</b>	<b>2.5000e-004</b>	<b>0.0000</b>	<b>2.6000e-004</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>0.6136</b>	<b>0.6136</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.6202</b>

**3.3 Grading - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0650	0.0000	0.0650	0.0336	0.0000	0.0336	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0229	0.2474	0.1586	3.0000e-004		0.0116	0.0116		0.0107	0.0107	0.0000	26.0537	26.0537	8.4300e-003	0.0000	26.2644
<b>Total</b>	<b>0.0229</b>	<b>0.2474</b>	<b>0.1586</b>	<b>3.0000e-004</b>	<b>0.0650</b>	<b>0.0116</b>	<b>0.0766</b>	<b>0.0336</b>	<b>0.0107</b>	<b>0.0443</b>	<b>0.0000</b>	<b>26.0537</b>	<b>26.0537</b>	<b>8.4300e-003</b>	<b>0.0000</b>	<b>26.2644</b>

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**3.3 Grading - 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	0.0000	0.0000	0.0000	0.0000	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	5.6000e-004	4.2000e-004	4.5100e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0227	1.0227	4.0000e-005	3.0000e-005	1.0337
<b>Total</b>	<b>5.6000e-004</b>	<b>4.2000e-004</b>	<b>4.5100e-003</b>	<b>1.0000e-005</b>	<b>1.2000e-003</b>	<b>1.0000e-005</b>	<b>1.2100e-003</b>	<b>3.2000e-004</b>	<b>1.0000e-005</b>	<b>3.3000e-004</b>	<b>0.0000</b>	<b>1.0227</b>	<b>1.0227</b>	<b>4.0000e-005</b>	<b>3.0000e-005</b>	<b>1.0337</b>

**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					0.0254	0.0000	0.0254	0.0131	0.0000	0.0131	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0229	0.2474	0.1586	3.0000e-004		0.0116	0.0116		0.0107	0.0107	0.0000	26.0537	26.0537	8.4300e-003	0.0000	26.2643
<b>Total</b>	<b>0.0229</b>	<b>0.2474</b>	<b>0.1586</b>	<b>3.0000e-004</b>	<b>0.0254</b>	<b>0.0116</b>	<b>0.0370</b>	<b>0.0131</b>	<b>0.0107</b>	<b>0.0238</b>	<b>0.0000</b>	<b>26.0537</b>	<b>26.0537</b>	<b>8.4300e-003</b>	<b>0.0000</b>	<b>26.2643</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.3 Grading - 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	0.0000	0.0000	0.0000	0.0000	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	5.6000e-004	4.2000e-004	4.5100e-003	1.0000e-005	4.2000e-004	1.0000e-005	4.3000e-004	1.3000e-004	1.0000e-005	1.3000e-004	0.0000	1.0227	1.0227	4.0000e-005	3.0000e-005	1.0337
<b>Total</b>	<b>5.6000e-004</b>	<b>4.2000e-004</b>	<b>4.5100e-003</b>	<b>1.0000e-005</b>	<b>4.2000e-004</b>	<b>1.0000e-005</b>	<b>4.3000e-004</b>	<b>1.3000e-004</b>	<b>1.0000e-005</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>1.0227</b>	<b>1.0227</b>	<b>4.0000e-005</b>	<b>3.0000e-005</b>	<b>1.0337</b>

**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	0.0428	0.3922	0.3729	6.1000e-004		0.0216	0.0216		0.0203	0.0203	0.0000	52.1184	52.1184	0.0126	0.0000	52.4327
<b>Total</b>	<b>0.0428</b>	<b>0.3922</b>	<b>0.3729</b>	<b>6.1000e-004</b>		<b>0.0216</b>	<b>0.0216</b>		<b>0.0203</b>	<b>0.0203</b>	<b>0.0000</b>	<b>52.1184</b>	<b>52.1184</b>	<b>0.0126</b>	<b>0.0000</b>	<b>52.4327</b>



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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	5.1100e-003	0.0957	0.0275	3.1000e-004	9.5500e-003	1.7000e-003	0.0112	2.7600e-003	1.6200e-003	4.3800e-003	0.0000	29.6528	29.6528	2.8000e-004	4.4500e-003	30.9862
Worker	0.0139	0.0103	0.1115	2.8000e-004	0.0297	1.8000e-004	0.0299	7.8900e-003	1.6000e-004	8.0500e-003	0.0000	25.3108	25.3108	9.4000e-004	8.4000e-004	25.5833
<b>Total</b>	<b>0.0190</b>	<b>0.1060</b>	<b>0.1390</b>	<b>5.9000e-004</b>	<b>0.0392</b>	<b>1.8800e-003</b>	<b>0.0411</b>	<b>0.0107</b>	<b>1.7800e-003</b>	<b>0.0124</b>	<b>0.0000</b>	<b>54.9636</b>	<b>54.9636</b>	<b>1.2200e-003</b>	<b>5.2900e-003</b>	<b>56.5695</b>

**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	0.0428	0.3922	0.3729	6.1000e-004		0.0216	0.0216		0.0203	0.0203	0.0000	52.1183	52.1183	0.0126	0.0000	52.4327
<b>Total</b>	<b>0.0428</b>	<b>0.3922</b>	<b>0.3729</b>	<b>6.1000e-004</b>		<b>0.0216</b>	<b>0.0216</b>		<b>0.0203</b>	<b>0.0203</b>	<b>0.0000</b>	<b>52.1183</b>	<b>52.1183</b>	<b>0.0126</b>	<b>0.0000</b>	<b>52.4327</b>

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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	5.1100e-003	0.0957	0.0275	3.1000e-004	4.5000e-003	1.7000e-003	6.1900e-003	1.5200e-003	1.6200e-003	3.1400e-003	0.0000	29.6528	29.6528	2.8000e-004	4.4500e-003	30.9862
Worker	0.0139	0.0103	0.1115	2.8000e-004	0.0104	1.8000e-004	0.0106	3.1600e-003	1.6000e-004	3.3200e-003	0.0000	25.3108	25.3108	9.4000e-004	8.4000e-004	25.5833
<b>Total</b>	<b>0.0190</b>	<b>0.1060</b>	<b>0.1390</b>	<b>5.9000e-004</b>	<b>0.0149</b>	<b>1.8800e-003</b>	<b>0.0168</b>	<b>4.6800e-003</b>	<b>1.7800e-003</b>	<b>6.4600e-003</b>	<b>0.0000</b>	<b>54.9636</b>	<b>54.9636</b>	<b>1.2200e-003</b>	<b>5.2900e-003</b>	<b>56.5695</b>

**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	0.1578	1.4445	1.5136	2.4900e-003		0.0748	0.0748		0.0704	0.0704	0.0000	214.3459	214.3459	0.0514	0.0000	215.6296
<b>Total</b>	<b>0.1578</b>	<b>1.4445</b>	<b>1.5136</b>	<b>2.4900e-003</b>		<b>0.0748</b>	<b>0.0748</b>		<b>0.0704</b>	<b>0.0704</b>	<b>0.0000</b>	<b>214.3459</b>	<b>214.3459</b>	<b>0.0514</b>	<b>0.0000</b>	<b>215.6296</b>

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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	0.0128	0.3250	0.0935	1.2400e-003	0.0393	3.6100e-003	0.0429	0.0113	3.4600e-003	0.0148	0.0000	118.8756	118.8756	7.7000e-004	0.0178	124.2057
Worker	0.0522	0.0368	0.4156	1.1000e-003	0.1220	6.9000e-004	0.1227	0.0324	6.3000e-004	0.0331	0.0000	100.8232	100.8232	3.4400e-003	3.1300e-003	101.8432
<b>Total</b>	<b>0.0650</b>	<b>0.3618</b>	<b>0.5091</b>	<b>2.3400e-003</b>	<b>0.1613</b>	<b>4.3000e-003</b>	<b>0.1656</b>	<b>0.0438</b>	<b>4.0900e-003</b>	<b>0.0479</b>	<b>0.0000</b>	<b>219.6987</b>	<b>219.6987</b>	<b>4.2100e-003</b>	<b>0.0210</b>	<b>226.0488</b>

**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	0.1578	1.4445	1.5136	2.4900e-003		0.0748	0.0748		0.0704	0.0704	0.0000	214.3456	214.3456	0.0514	0.0000	215.6294
<b>Total</b>	<b>0.1578</b>	<b>1.4445</b>	<b>1.5136</b>	<b>2.4900e-003</b>		<b>0.0748</b>	<b>0.0748</b>		<b>0.0704</b>	<b>0.0704</b>	<b>0.0000</b>	<b>214.3456</b>	<b>214.3456</b>	<b>0.0514</b>	<b>0.0000</b>	<b>215.6294</b>

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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	0.0128	0.3250	0.0935	1.2400e-003	0.0185	3.6100e-003	0.0221	6.2400e-003	3.4600e-003	9.7000e-003	0.0000	118.8756	118.8756	7.7000e-004	0.0178	124.2057
Worker	0.0522	0.0368	0.4156	1.1000e-003	0.0428	6.9000e-004	0.0435	0.0130	6.3000e-004	0.0136	0.0000	100.8232	100.8232	3.4400e-003	3.1300e-003	101.8432
<b>Total</b>	<b>0.0650</b>	<b>0.3618</b>	<b>0.5091</b>	<b>2.3400e-003</b>	<b>0.0613</b>	<b>4.3000e-003</b>	<b>0.0656</b>	<b>0.0192</b>	<b>4.0900e-003</b>	<b>0.0233</b>	<b>0.0000</b>	<b>219.6987</b>	<b>219.6987</b>	<b>4.2100e-003</b>	<b>0.0210</b>	<b>226.0488</b>

**3.5 Paving - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0110	0.1113	0.1458	2.3000e-004		5.6800e-003	5.6800e-003		5.2200e-003	5.2200e-003	0.0000	20.0276	20.0276	6.4800e-003	0.0000	20.1895
Paving	0.0114					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0225</b>	<b>0.1113</b>	<b>0.1458</b>	<b>2.3000e-004</b>		<b>5.6800e-003</b>	<b>5.6800e-003</b>		<b>5.2200e-003</b>	<b>5.2200e-003</b>	<b>0.0000</b>	<b>20.0276</b>	<b>20.0276</b>	<b>6.4800e-003</b>	<b>0.0000</b>	<b>20.1895</b>

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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	5.1000e-004	3.6000e-004	4.0800e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9909	0.9909	3.0000e-005	3.0000e-005	1.0009
<b>Total</b>	<b>5.1000e-004</b>	<b>3.6000e-004</b>	<b>4.0800e-003</b>	<b>1.0000e-005</b>	<b>1.2000e-003</b>	<b>1.0000e-005</b>	<b>1.2100e-003</b>	<b>3.2000e-004</b>	<b>1.0000e-005</b>	<b>3.2000e-004</b>	<b>0.0000</b>	<b>0.9909</b>	<b>0.9909</b>	<b>3.0000e-005</b>	<b>3.0000e-005</b>	<b>1.0009</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0110	0.1113	0.1458	2.3000e-004		5.6800e-003	5.6800e-003		5.2200e-003	5.2200e-003	0.0000	20.0275	20.0275	6.4800e-003	0.0000	20.1895
Paving	0.0114					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0225</b>	<b>0.1113</b>	<b>0.1458</b>	<b>2.3000e-004</b>		<b>5.6800e-003</b>	<b>5.6800e-003</b>		<b>5.2200e-003</b>	<b>5.2200e-003</b>	<b>0.0000</b>	<b>20.0275</b>	<b>20.0275</b>	<b>6.4800e-003</b>	<b>0.0000</b>	<b>20.1895</b>

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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	5.1000e-004	3.6000e-004	4.0800e-003	1.0000e-005	4.2000e-004	1.0000e-005	4.3000e-004	1.3000e-004	1.0000e-005	1.3000e-004	0.0000	0.9909	0.9909	3.0000e-005	3.0000e-005	1.0009
<b>Total</b>	<b>5.1000e-004</b>	<b>3.6000e-004</b>	<b>4.0800e-003</b>	<b>1.0000e-005</b>	<b>4.2000e-004</b>	<b>1.0000e-005</b>	<b>4.3000e-004</b>	<b>1.3000e-004</b>	<b>1.0000e-005</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>0.9909</b>	<b>0.9909</b>	<b>3.0000e-005</b>	<b>3.0000e-005</b>	<b>1.0009</b>

**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	0.1600					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0500e-003	0.0141	0.0181	3.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574
<b>Total</b>	<b>0.1621</b>	<b>0.0141</b>	<b>0.0181</b>	<b>3.0000e-005</b>		<b>8.2000e-004</b>	<b>8.2000e-004</b>		<b>8.2000e-004</b>	<b>8.2000e-004</b>	<b>0.0000</b>	<b>2.5533</b>	<b>2.5533</b>	<b>1.7000e-004</b>	<b>0.0000</b>	<b>2.5574</b>

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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	1.1300e-003	8.0000e-004	8.9900e-003	2.0000e-005	2.6400e-003	1.0000e-005	2.6500e-003	7.0000e-004	1.0000e-005	7.1000e-004	0.0000	2.1800	2.1800	7.0000e-005	7.0000e-005	2.2020
<b>Total</b>	<b>1.1300e-003</b>	<b>8.0000e-004</b>	<b>8.9900e-003</b>	<b>2.0000e-005</b>	<b>2.6400e-003</b>	<b>1.0000e-005</b>	<b>2.6500e-003</b>	<b>7.0000e-004</b>	<b>1.0000e-005</b>	<b>7.1000e-004</b>	<b>0.0000</b>	<b>2.1800</b>	<b>2.1800</b>	<b>7.0000e-005</b>	<b>7.0000e-005</b>	<b>2.2020</b>

**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	0.1600					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0500e-003	0.0141	0.0181	3.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574
<b>Total</b>	<b>0.1621</b>	<b>0.0141</b>	<b>0.0181</b>	<b>3.0000e-005</b>		<b>8.2000e-004</b>	<b>8.2000e-004</b>		<b>8.2000e-004</b>	<b>8.2000e-004</b>	<b>0.0000</b>	<b>2.5533</b>	<b>2.5533</b>	<b>1.7000e-004</b>	<b>0.0000</b>	<b>2.5574</b>

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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	1.1300e-003	8.0000e-004	8.9900e-003	2.0000e-005	9.3000e-004	1.0000e-005	9.4000e-004	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	2.1800	2.1800	7.0000e-005	7.0000e-005	2.2020
<b>Total</b>	<b>1.1300e-003</b>	<b>8.0000e-004</b>	<b>8.9900e-003</b>	<b>2.0000e-005</b>	<b>9.3000e-004</b>	<b>1.0000e-005</b>	<b>9.4000e-004</b>	<b>2.8000e-004</b>	<b>1.0000e-005</b>	<b>2.9000e-004</b>	<b>0.0000</b>	<b>2.1800</b>	<b>2.1800</b>	<b>7.0000e-005</b>	<b>7.0000e-005</b>	<b>2.2020</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**



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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0273	0.2417	0.3063	1.4900e-003	0.0898	2.1000e-003	0.0919	0.0241	2.0000e-003	0.0261	0.0000	140.6066	140.6066	2.6100e-003	0.0155	145.2878
Unmitigated	0.0273	0.2417	0.3063	1.4900e-003	0.0898	2.1000e-003	0.0919	0.0241	2.0000e-003	0.0261	0.0000	140.6066	140.6066	2.6100e-003	0.0155	145.2878

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	80.04	80.04	80.04	233,678	233,678
Parking Lot	0.00	0.00	0.00		
<b>Total</b>	<b>80.04</b>	<b>80.04</b>	<b>80.04</b>	<b>233,678</b>	<b>233,678</b>

**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
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
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
General Light Industry	0.250000	0.250000	0.250000	0.000000	0.000000	0.000000	0.000000	0.250000	0.000000	0.000000	0.000000	0.000000	0.000000
Parking Lot	0.250000	0.250000	0.250000	0.000000	0.000000	0.000000	0.000000	0.250000	0.000000	0.000000	0.000000	0.000000	0.000000

**5.0 Energy Detail**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

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	21.5608	21.5608	3.4900e-003	4.2000e-004	21.7740
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	21.5608	21.5608	3.4900e-003	4.2000e-004	21.7740
NaturalGas Mitigated	1.2900e-003	0.0118	9.8900e-003	7.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004	0.0000	12.8137	12.8137	2.5000e-004	2.3000e-004	12.8899
NaturalGas Unmitigated	1.2900e-003	0.0118	9.8900e-003	7.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004	0.0000	12.8137	12.8137	2.5000e-004	2.3000e-004	12.8899

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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					
General Light Industry	240120	1.2900e-003	0.0118	9.8900e-003	7.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004	0.0000	12.8137	12.8137	2.5000e-004	2.3000e-004	12.8899
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
<b>Total</b>		<b>1.2900e-003</b>	<b>0.0118</b>	<b>9.8900e-003</b>	<b>7.0000e-005</b>		<b>8.9000e-004</b>	<b>8.9000e-004</b>		<b>8.9000e-004</b>	<b>8.9000e-004</b>	<b>0.0000</b>	<b>12.8137</b>	<b>12.8137</b>	<b>2.5000e-004</b>	<b>2.3000e-004</b>	<b>12.8899</b>

**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					
General Light Industry	240120	1.2900e-003	0.0118	9.8900e-003	7.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004	0.0000	12.8137	12.8137	2.5000e-004	2.3000e-004	12.8899
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
<b>Total</b>		<b>1.2900e-003</b>	<b>0.0118</b>	<b>9.8900e-003</b>	<b>7.0000e-005</b>		<b>8.9000e-004</b>	<b>8.9000e-004</b>		<b>8.9000e-004</b>	<b>8.9000e-004</b>	<b>0.0000</b>	<b>12.8137</b>	<b>12.8137</b>	<b>2.5000e-004</b>	<b>2.3000e-004</b>	<b>12.8899</b>

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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			
General Light Industry	99876	9.2409	1.4900e-003	1.8000e-004	9.3323
Parking Lot	133154	12.3199	1.9900e-003	2.4000e-004	12.4417
<b>Total</b>		<b>21.5608</b>	<b>3.4800e-003</b>	<b>4.2000e-004</b>	<b>21.7740</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	99876	9.2409	1.4900e-003	1.8000e-004	9.3323
Parking Lot	133154	12.3199	1.9900e-003	2.4000e-004	12.4417
<b>Total</b>		<b>21.5608</b>	<b>3.4800e-003</b>	<b>4.2000e-004</b>	<b>21.7740</b>

**6.0 Area Detail**

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**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	0.0859	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.6000e-004	3.6000e-004	0.0000	0.0000	3.9000e-004
Unmitigated	0.0859	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.6000e-004	3.6000e-004	0.0000	0.0000	3.9000e-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	0.0160					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0699					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.6000e-004	3.6000e-004	0.0000	0.0000	3.9000e-004
<b>Total</b>	<b>0.0859</b>	<b>0.0000</b>	<b>1.9000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.6000e-004</b>	<b>3.6000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.9000e-004</b>

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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	0.0160					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0699					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.6000e-004	3.6000e-004	0.0000	0.0000	3.9000e-004
<b>Total</b>	<b>0.0859</b>	<b>0.0000</b>	<b>1.9000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.6000e-004</b>	<b>3.6000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.9000e-004</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2.1940	0.0876	2.0900e-003	5.0076
Unmitigated	2.1940	0.0876	2.0900e-003	5.0076

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	2.6825 / 0	2.1940	0.0876	2.0900e-003	5.0076
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>2.1940</b>	<b>0.0876</b>	<b>2.0900e-003</b>	<b>5.0076</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**7.2 Water by Land Use**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	2.6825 / 0	2.1940	0.0876	2.0900e-003	5.0076
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>2.1940</b>	<b>0.0876</b>	<b>2.0900e-003</b>	<b>5.0076</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	2.9190	0.1725	0.0000	7.2317
Unmitigated	2.9190	0.1725	0.0000	7.2317



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**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	14.38	2.9190	0.1725	0.0000	7.2317
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>2.9190</b>	<b>0.1725</b>	<b>0.0000</b>	<b>7.2317</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	14.38	2.9190	0.1725	0.0000	7.2317
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>2.9190</b>	<b>0.1725</b>	<b>0.0000</b>	<b>7.2317</b>

**9.0 Operational Offroad**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

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

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**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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