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## AIR QUALITY AND GREENHOUSE GAS ASSESSMENT

PROPOSED COMMERCIAL DEVELOPMENT  
2064 NORTH UNION ROAD  
MANTECA, CALIFORNIA

SALEM PROJECT NO. 4-423-0090  
APRIL 6, 2023

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**AIR QUALITY AND GREENHOUSE GAS ASSESSMENT**

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**1.0 INTRODUCTION**

This report presents an assessment of potential air quality and greenhouse gas (GHG) impacts associated with the proposed commercial development to be constructed at 2064 North Union Road in Manteca, California (subject property). The subject property consists of one rectangular-shaped parcel of vacant land (identified as San Joaquin County Assessor Parcel Number [APN] 216-020-01) totaling approximately 1.98 acres gross land area. According to SALEM's review of the Proposed Site Plan (Sheet A-0.0) prepared by Centerline Design, LLC., (Centerline), the following improvements are planned on the above-referenced parcel:

- One 5,200 square-foot convenience store with six (6) fuel dispensers,
- One 6,816 square-foot retail building,
- 48 parking stalls

Air quality and GHG impacts will be attributed to emissions associated with construction and operational emissions including traffic and energy use. This report presents an evaluation of existing conditions at the subject property, thresholds of significance, and potential air quality and GHG impacts associated with construction and operation of the project.

**2.0 EXISTING CONDITIONS**

**2.1 Current Development**

The subject property is currently undeveloped. Offsite and onsite improvements will be constructed to allow for vehicle and pedestrian access to the site.

**2.2 Regulatory Setting**

The United States Environmental Protection Agency (EPA) defines air quality by ambient air concentrations of specific pollutants that have been shown to be of concern with respect to health and welfare of the general public. The EPA is responsible for enforcing the Federal Clean Air Act (CAA) of 1970 and its 1977 and 1990 Amendments. The CAA required the EPA to establish National Ambient Air Quality Standards (NAAQS), which identify concentrations of pollutants in the ambient air below which no adverse effects on the public health and welfare are anticipated.

In response, the EPA established both primary and secondary standards for several pollutants (called "criteria" pollutants). Primary standards are designed to protect human health with an adequate margin of safety. Secondary standards are designed to protect property and the public welfare from air pollutants in the atmosphere.

The Federal CAA allows states to adopt ambient air quality standards and other regulations provided they are at least as stringent as federal standards. More stringent California Ambient Air Quality Standards

(CAAQS) have been adapted by the California Air Resources Board (ARB) for the six criteria pollutants through the California Clean Air Act of 1988 (CCAA). The CCAA also established California Ambient Air Quality Standards (CAAQS) for additional pollutants, including sulfates, hydrogen sulfide, vinyl chloride and visibility-reducing particles (see Table 1 for NAAQS and CAAQS.)

Areas that do not meet the NAAQS or the CAAQS for a particular pollutant are considered to be “Nonattainment Areas” for that pollutant. In September 1997, the EPA promulgated 8-hour O<sub>3</sub> and 24-hour and annual PM<sub>2.5</sub> national standards. As a result, this action has initiated a new planning process to monitor and evaluate emission control measures for these pollutants.

The California ARB is the state regulatory agency with authority to enforce regulations to both achieve and maintain the NAAQS and CAAQS. The ARB is responsible for the development, adoption, and enforcement of the state’s motor vehicle emissions program, as well as the adoption of the CAAQS. The ARB also reviews operations and programs of the local air districts and requires each air district with jurisdiction over a nonattainment area to develop its own strategy for achieving the NAAQS and CAAQS.

The local air district has the primary responsibility for the development and implementation of rules and regulations designed to attain the NAAQS and CAAQS, as well as the permitting of new or modified sources, development of air quality management plans, and adoption and enforcement of air pollution regulations. The San Joaquin Valley Air Pollution Control District (SJVAPCD) is the local agency responsible for the administration and enforcement of air quality regulations.

Table 1 presents a summary of the ambient air quality standards adopted by the federal and California Clean Air Acts.

**TABLE 1**  
**Ambient Air Quality Standards**

POLLUTANT	AVERAGE TIME	CALIFORNIA STANDARDS CONCENTRATION	CALIFORNIA STANDARDS METHODS	NATIONAL STANDARDS PRIMARY	NATIONAL STANDARDS SECONDARY	NATIONAL STANDARDS METHOD
Ozone (O <sub>3</sub> )	1 hour	0.09 ppm (180 µg/m <sup>3</sup> )	Ultraviolet Photometry	0.075 ppm (147 µg/m <sup>3</sup> )	0.075 ppm (147 µg/m <sup>3</sup> )	Ultraviolet Photometry
	8 hour	0.070 ppm (137 µg/m <sup>3</sup> )				
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m <sup>3</sup> )	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 µg/m <sup>3</sup> )	—	Non-Dispersive Infrared Spectroscopy (NDIR)
	8 Hour	9.0 ppm (10 mg/m <sup>3</sup> )		9 ppm (10 µg/m <sup>3</sup> )	—	
Nitrogen Dioxide (NO <sub>2</sub> )	Annual	0.030 ppm (56 µg/m <sup>3</sup> )	Gas Phase Chemiluminescence	0.053 ppm (100 µg/m <sup>3</sup> )		Gas Phase Chemiluminescence
	1 hour	0.18 ppm (338 µg/m <sup>3</sup> )		0.100 ppm (188 µg/m <sup>3</sup> )		
Sulfur Dioxide (SO <sub>2</sub> )	24 hours	0.04 ppm (105 µg/m <sup>3</sup> )	Ultraviolet Fluorescence		0.5 ppm (1300 µg/m <sup>3</sup> )	Pararosaniline
	3 hours	--				
	1 hour	0.25 ppm (655 µg/m <sup>3</sup> )		0.075 ppm (196 µg/m <sup>3</sup> )		
	24 hours	50 µg/m <sup>3</sup>	Gravimetric or Beta Attenuation	150 µg/m <sup>3</sup>	150 µg/m <sup>3</sup>	

POLLUTANT	AVERAGE TIME	CALIFORNIA STANDARDS CONCENTRATION	CALIFORNIA STANDARDS METHODS	NATIONAL STANDARDS PRIMARY	NATIONAL STANDARDS SECONDARY	NATIONAL STANDARDS METHOD
Respirable Particulate Matter (PM <sub>10</sub> )	Annual Arithmetic Mean	20 µg/m <sup>3</sup>				Inertial Separation and Gravimetric Analysis
Fine Particulate Matter (PM <sub>2.5</sub> )	Annual Arithmetic Mean	12 µg/m <sup>3</sup>	Gravimetric or Beta Attenuation	12.0 µg/m <sup>3</sup>	15 µg/m <sup>3</sup>	Inertial Separation and Gravimetric Analysis
	24 hours			35 µg/m <sup>3</sup>		
Sulfates	24 hours	25 µg/m <sup>3</sup>	Ion Chromatography	No National Standards		
Lead	30-day Average	1.5 µg/m <sup>3</sup>	Atomic Absorption			Atomic Absorption
	Calendar Quarter			1.5 µg/m <sup>3</sup>	1.5 µg/m <sup>3</sup>	
	3-Month Rolling			0.15 µg/m <sup>3</sup>	0.15 µg/m <sup>3</sup>	
Hydrogen Sulfide	1 hour	0.03 ppm (42 µg/m <sup>3</sup> )	Ultraviolet Fluorescence	No National Standards		
Vinyl Chloride	24 hours	0.010 ppm (26 µg/m <sup>3</sup> )	Gas Chromatography	No National Standards		

ppm= parts per million; µg/m<sup>3</sup> = micrograms per cubic meter; mg/m<sup>3</sup>= milligrams per cubic meter Source: California Air Resources Board, [www.arb.ca.gov](http://www.arb.ca.gov), 2014

### 3.0 THRESHOLDS OF SIGNIFICANCE

The SJVAPCD has identified numerical emission thresholds for significance for construction and operation for a project. The project-level numerical thresholds are summarized in Table 2.

**TABLE 2**  
**SJVAPCD Significance Thresholds**

POLLUTANT	CONSTRUCTION AND OPERATION	
	<i>Annual Threshold (tons)</i>	<i>Daily Threshold (pounds)</i>
NO <sub>x</sub>	10	-
ROG (VOC)	10	-
PM <sub>10</sub>	15	-
PM <sub>2.5</sub>	15	-
SO <sub>x</sub>	27	-
CO	100	-

**TABLE 3**  
**Construction Summary for Subject Property**

AREA DISTURBED	CONSTRUCTION SUMMARY	PARKING SPACES	APPROXIMATE DURATION
5,200 square feet	Convenience Store with 16 pumps		8 Months
6,816 square feet	Retail Building	-	8 Months
0.43 ac	Parking Lot	48	1 Month

## 4.0 IMPACTS

The proposed commercial development to be constructed include both construction and operational impacts. Construction impacts include emissions associated with site grading/preparation, utilities installation, construction of a building, and paving. Operational impacts include emissions associated with the project, including traffic, at full build-out.

### 4.1 Construction

Emissions of pollutants such as fugitive dust that are generated during construction are generally highest near the construction site. Emissions from the construction phase of the project were estimated through the use of the CalEEMod Model (ENVIRON). It was assumed that the construction would be vary in timeline as stated in the above table and that heavy construction equipment would be operating at the site for eight hours per day, five days per week during project construction.

Tables 4 and 5 provide summaries of the emission estimates for construction and operation of all proposed site improvements. These projected emissions assume standard measures are implemented to reduce emissions, as calculated with the CalEEMod Model, and are compared to the regional and localized significance thresholds. The localized significance thresholds are applicable only to on-site emissions and do not consider emissions occurring on roadways during travel to and from the site. Refer to Appendix A for detailed model output files.

Table 5 includes projected emissions for all steps of construction, averaged over the project's projected construction duration. These steps include: Grading Site, Site Preparation, Building Construction, Paving, and Architectural Coatings. Note that projected emissions for all pollutants during construction are below both the MDAQMD's Air Quality Significance Thresholds.

Construction of the project would be short-term and temporary. Thus, the emissions associated with construction would not result in a significant impact on the ambient air quality. Because emissions are less than the significance levels, they would not conflict or obstruct the implementation of the AQMP or applicable portions of the SIP. Project construction would also not result in emission of any odor compounds that would cause a nuisance or significant impact to nearby receptors. The impacts associated with Project construction are therefore not considered significant.

**TABLE 4**  
**Estimated Construction Emissions**  
**Tons/Year (unless otherwise shown)**

EMISSION SOURCE	ROG	NO <sub>x</sub>	CO	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>Significance Criteria</b>	10	10	100	27	15	15
<b>Project Construction Emissions</b>	0.06	0.28	0.31	0.0005	.02	.01
<i>Significant?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>

### 4.2 Operational Impacts

The main operational impacts associated with the Project would be impacts associated with traffic. Minor impacts would be associated with energy use and area sources.

The CalEEMod Model contains emission factors from the EMFAC model, which is the latest version of the Caltrans emission factor model for on-road traffic. Project-related traffic was assumed to be comprised of a mixture of vehicles in accordance with the CalEEMod Model default outputs for traffic. This assumption includes light duty autos and light duty trucks (i.e., small trucks, SUVs, and vans) as well as medium- and heavy-duty vehicles that may be traveling to the facility to make deliveries. For conservative

purposes, emission factors representing the vehicle mix for 2023 were used to estimate emissions as 2023 was assumed to be the first year of full operation; based on the results of the EMFAC model for subsequent years, emissions would decrease on an annual basis from 2023 onward due to phase-out of higher polluting vehicles and implementation of more stringent emission standards that are taken into account in the EMFAC model. Emissions associated with area sources (energy use and landscaping activities) were also estimated using the default assumptions in the CalEEMod Model.

Table 5 below presents the results of the CalEEMod emission calculations in lbs./day for operations, as an annual average considering the project’s design features. The calculation assumed that the project would be constructed to current Title 24 buildings standards and would use low flow plumbing fixtures.

**TABLE 5**  
**Estimated Operational Emissions, Tons/Year (unless otherwise shown)**

EMISSION SOURCE	ROG	NOx	CO	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Significance Criteria	10	10	100	27	15	15
Project Construction Emissions	0.64	0.64	3.39	.004	0.43	0.12
Significant?	No	No	No	No	No	No

Based on the estimates of the emissions associated with project operations, the emissions are below the significance criteria. In addition, because the emissions are less than the significance levels, they would not conflict or obstruct the implementation of the AQMP or applicable portions of the SIP. It should be noted that the emissions from vehicles are projected to decrease with time due to phase-out of older, more polluting vehicles and increasingly stringent emissions standards.

Projects involving traffic impacts may result in the formation of locally high concentrations of CO, known as CO “hot spots.” Based on the traffic recommendation to be implemented, it is not anticipated that the project would have a significant impact on traffic in the area, and no intersections would degrade to unacceptable levels. The intersections in the project area would therefore operate at an acceptable LOS and would not experience CO “hot spots” because traffic congestion would not result.

In reviewing the project data, location and area, a cumulatively increase in the surrounding emissions associated with the area would not result in a significant impact on the ambient air quality. In addition, because emissions are less than the significance levels, they do not expose sensitive receptors to substantial pollutant concentrations.

Based on the above project analyst of the operational phase, the project will not conflict or obstruct the implementation of the AQMP or applicable portions of the SIP.

**4.3 Odors**

During construction, diesel equipment operating at the site may generate some nuisance odors; however, due to the fact that there are no sensitive receptors near the project site and the temporary nature of construction, odors associated with project construction would not be significant.

Land uses associated with odor complaints include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting activities, refineries, landfills, dairies, and fiberglass molding operations. These land uses are not proposed for the commercial development on the subject property. As such, odor impacts would not be significant.

Provide traffic study to confirm this.

Residential communities are sensitive receptors and they are adjacent to this site.

#### 4.4 Project's Contribution to Criteria Pollutants

Pursuant to the Sierra Club v. Friant Ranch Supreme Court Ruling (Case No. S219783, December 24, 2018), which found on page 6 of the ruling that EIRs need to “makes a reasonable effort to substantively connect a project’s air quality impacts to likely health consequences.” Also, on page 24 of the ruling it states “The Court of Appeal identified several ways in which the EIR could have framed the analysis so as to adequately inform the public and decision makers of possible adverse health effects. The County could have, for example, identified the Project’s impact on the days of nonattainment per year.”

**TABLE 6**  
**Project's Contribution to Criteria Pollutants in the San Joaquin Valley Air Basin**

EMISSIONS SOURCE	MAXIMUM DAILY EMISSIONS					
	ROG	NOx	CO	SOx	PM10	PM2.5
Project Emissions (tons/year) <sup>1</sup>	0.64	0.64	3.39	.004	0.43	0.12
Total Emissions in Air Basin (lbs./day)	1,000,000	1,044,000	4,246,000	36,000	132,000	132,000
Project's Percent of Air Emissions	insignificant	insignificant	insignificant	insignificant	insignificant	insignificant

Notes:

<sup>1</sup> From the project's total operational emissions.

#### 5.0 GREENHOUSE GAS EVALUATION

According to the California Natural Resources Agency, “due to the global nature of GHG emissions and their potential effects, GHG emissions will typically be addressed in a cumulative impacts analysis.” According to Appendix G of the CEQA Guidelines, the following criteria may be considered to establish the significance of GHG emissions:

Would the project:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

As discussed in Section 15064.4 of the CEQA Guidelines, the determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency, consistent with the provisions in Section 15064. Section 15064.4 further provides that a lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of GHG emissions resulting from a project. A lead agency shall have discretion to determine, in the context of a particular project, whether to:

- Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use. The lead agency has discretion to select the model or methodology it considers most appropriate provided it supports its decision with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use; and/or
- Rely on a qualitative analysis or performance-based standards.

Section 15064.4 also advises a lead agency to consider the following factors, among others, when assessing the significance of impacts from greenhouse gas emissions on the environment:

1. The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;
2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and
3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions.

Based on the results of the CalEEMod Model, the project would generate a total of 49.71 tons of CO<sub>2</sub>e from construction and 487.46 tons of CO<sub>2</sub>e emissions annually from operations.

## 6.0 CONCLUSIONS

The air quality and GHG analysis for the Proposed Commercial Development project in Manteca, CA evaluated emissions associated with both the construction and operation of the proposed project. Emissions associated with construction and operation were compared with significance thresholds developed by the SJVAPCD, which provide a conservative means of evaluating whether project emissions would cause a significant impact on the ambient air quality or whether further evaluation is warranted. Emissions associated with construction and operation are below the significance thresholds for all phases and pollutants. Thus, the emissions associated with construction and operation of the project would not result in a significant impact.

### 6.1 Impact Determinations and Recommended Mitigation

In accordance with CEQA, when a proposed project is consistent with a General Plan for which an EIR has been certified, the effects of that project are evaluated to determine if they will result in project-specific significant adverse impacts on the environment. The criteria used to determine the significance of an air quality or greenhouse gas impact are based on the following thresholds of significance, which come from Appendix G of the CEQA Guidelines and the General Plan EIR. Accordingly, air quality or greenhouse gas impacts resulting from the Proposed Project are considered significant if the Proposed Project would:

#### Air Quality

- a) Conflict with or obstruct implementation of the applicable air quality plan?
- b) 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?
- c) Expose sensitive receptors to substantial pollutant concentrations?
- d) Result in other emissions such as those leading to odors adversely affecting a substantial number of people?

#### Greenhouse Gas Emissions

- a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
- b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

### 6.2 Air Quality

#### a) *Conflict with or obstruct implementation of the applicable air quality plan*

The primary way of determining consistency with the air quality plan's (AQP's) assumptions is determining consistency with the applicable General Plan to ensure that the Project's population density and land use are consistent with the growth assumptions used in the AQPs for the air basin.

As required by California law, city and county General Plans contain a Land Use Element that details the types and quantities of land uses that the city or county estimates will be needed for future growth, and that designate locations for land uses to regulate growth. SJCOG uses the growth projections and land use information in adopted general plans to estimate future average daily trips and then VMT, which are then provided to SJVAPCD to estimate future emissions in the AQPs. Existing and future pollutant emissions computed in the AQP are based on land uses from area general plans. AQPs detail the control measures and emission reductions required for reaching attainment of the air standards.

The applicable General Plan for the project is the City of Madera General Plan. The Project is consistent with the currently adopted General Plan for the City and is therefore consistent with the population growth and VMT applied in the plan. Therefore, the Project is consistent with the growth assumptions used in the applicable AQPs. As a result, the Project will not conflict with or obstruct implementation of any air quality plans. Therefore, no mitigation is needed.

***b) 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***

The San Joaquin County area is nonattainment for Federal and State air quality standards for ozone, in attainment of Federal standards and nonattainment for State standards for PM10, and nonattainment for Federal and State standards for PM2.5. The SJVAPCD has prepared the 2016 and 2013 Ozone Plans, 2007 PM10 Maintenance Plan, and 2012 PM2.5 Plan to achieve Federal and State standards for improved air quality in the SJVAB regarding ozone and PM. Inconsistency with any of the plans would be considered a cumulatively adverse air quality impact. As discussed above, the Project is consistent with the currently adopted General Plan for the City of Manteca and is therefore consistent with the population growth and VMT applied in the plan. Therefore, the Project is consistent with the growth assumptions used in the 2016 and 2013 Ozone Plan, 2007 PM10 Maintenance Plan, and 2012 PM2.5 Plan.

Project specific emissions that exceed the thresholds of significance for criteria pollutants would be expected to result in a cumulatively considerable net increase of any criteria pollutant for which the County is in non-attainment under applicable federal or state ambient air quality standards. It should be noted that a project is not characterized as cumulatively insignificant when project emissions fall below thresholds of significance. As discussed in Section 3.1, the SJVAPCD has established thresholds of significance for determining environmental significance which are provided in Table 6.

As discussed above, results of the analysis show that emissions generated from construction and operation of the Project will be less than the applicable SJVAPCD emission thresholds for criteria pollutants. Therefore, no mitigation is needed.

***c) Expose sensitive receptors to substantial pollutant concentrations***

Sensitive receptors refer to those segments of the population most susceptible to poor air quality (i.e., children, the elderly, and those with pre-existing serious health problems affected by air quality). Land uses that have the greatest potential to attract these types of sensitive receptors include schools, parks, playgrounds, daycare centers, nursing homes, hospitals, and residential communities. From a health risk perspective, this Project may be required to provide a Health Risk Assessment per SJVAPCD requirements; that is beyond the scope of this analysis.

**Short-Term Impacts:** The annual emissions from the construction phase of the Project will be less than the applicable SJVAPCD emission thresholds for criteria pollutants as shown above. Therefore, construction emissions associated with the Project are considered less than significant.

There is a residential community adjacent to this site.

Provide Health Risk Assessment.

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Long-Term Impacts: Long-Term emissions from the Project are generated primarily by mobile source (vehicle) emissions from the Project site and area sources such as maintenance equipment. Emissions from long-term operations generally represent a project's most substantial air quality impact. Table 8 summarizes the Project's operational impacts by pollutant. Results indicate that the annual operational emissions from the Project will be less than the SJVAPCD emission thresholds for criteria pollutants. Therefore, operational emissions associated with the Project are considered less than significant.

***d) Result in other emissions such as those leading to odors adversely affecting a substantial number of people***

The SJVAPCD requires that an analysis of potential odor impacts be conducted for the following two situations:

- ✓ Generators – projects that would potentially generate odorous emissions proposed to be located near existing sensitive receptors or other land uses where people may congregate, and
- ✓ Receivers – residential or other sensitive receptor projects or other projects built for the intent of attracting people located near existing odor sources.

The intensity of an odor source's operations and its proximity to sensitive receptors influences the potential significance of odor emissions. The SJVAPCD has identified some common types of facilities that have been known to produce odors in the SJV Air Basin. The types of facilities that are known to produce odors are shown above along with a reasonable distance from the source within which, the degree of odors could possibly be significant. The Project will not generate odorous emissions given the nature or characteristics of the Project. Therefore, no mitigation is needed.

### **6.3 Greenhouse Gas Emissions**

***a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment***

The SJVAPCD acknowledges the current absence of numerical thresholds and recommends a tiered approach to establish the significance of the GHG impacts on the environment:

- i. If a project complies with an approved GHG emission reduction plan or GHG mitigation program which avoids or substantially reduces GHG emissions within the geographic area in which the project is located, then the project would be determined to have a less than significant individual and cumulative impact for GHG emissions;
- ii. If a project does not comply with an approved GHG emission reduction plan or mitigation program, then it would be required to implement Best Performance Standards (BPS); and
- iii. If a project is not implementing BPS, then it should demonstrate that its GHG emissions would be reduced or mitigated by at least 29 percent compared to Business as Usual (BAU).

In the event that a local air district's guidance for addressing GHG impacts does not use numerical GHG emissions thresholds, at the lead agency's discretion, a neighboring air district's GHG threshold may be used to determine impacts. In December 2008, the South Coast Air Quality Management District (SCAQMD) Governing Board adopted the staff proposal for an interim GHG significance threshold for projects where the SCAQMD is lead agency. The SCAQMD guidance identifies a threshold of 3,500 MTCO<sub>2</sub>eq./year for GHG for construction emissions amortized over a 30-year project lifetime, plus annual operation emissions. Though the Project is under SJVAPCD jurisdiction, the SCAQMD GHG threshold provides some perspective on the GHG emissions generated by the Project. The yearly GHG emissions generated by the Project as determined by the CalEEMod model are shown above, which is less than the threshold identified by the SCAQMD.

The resulting permanent greenhouse gas increases related to Project operations would be within the greenhouse gas increases analyzed in the City of Manteca General Plan EIR since the Project meets the

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applicable zoning requirements. There would be no increase in severity to the greenhouse gas impacts, and implementation of the Project will not result in Project-specific or site-specific significant adverse impacts from greenhouse gas emissions within the Project study area. Therefore, no mitigation measures are needed.

***b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases***

California passed the California Global Warming Solutions Act of 2006. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. Under AB 32, CARB must adopt regulations by January 1, 2011, to achieve reductions in GHGs to meet the 1990 emission cap by 2020. On December 11, 2008, CARB adopted its initial Scoping Plan, which functions as a roadmap of CARB's plans to achieve GHG reductions in California required by AB 32 through subsequently enacted regulations. CARB's 2017 Climate Change Scoping Plan builds on the efforts and plans encompassed in the initial Scoping Plan.

SB 375 requires MPOs to adopt a SCS or APS that will prescribe land use allocation in that MPO's regional transportation plan. CARB, in consultation with MPOs, has provided each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. For the SJCOG region, CARB set targets at five (5) percent per capita decrease in 2020 and a ten (10) percent per capita decrease in 2035 from a base year of 2005.

Executive Order B-30-15 establishes a California greenhouse gas reduction target of 40 percent below 1990 levels by 2030 to ensure California meets its target of reducing greenhouse gas emissions to 80 percent below 1990 levels by 2050. Executive Order B-30-15 requires MPO's to implement measures that will achieve reductions of greenhouse gas emissions to meet the 2030 and 2050 greenhouse gas emissions reductions targets.

As required by California law, city and county General Plans contain a Land Use Element that details the types and quantities of land uses that the city or county estimates will be needed for future growth, and that designate locations for land uses to regulate growth. SJCOG uses the growth projections and land use information in adopted general plans to estimate future average daily trips and then VMT, which are then provided to SJVAPCD to estimate future emissions in the AQPs. The applicable General Plan for the project is City of Manteca General Plan.

The Project is consistent with the currently adopted General Plan for the City and the adopted SJCOG RTP/SCS and is therefore consistent with the population growth and VMT applied in those plan documents. Therefore, the Project is consistent with the growth assumptions used in the applicable AQP. It should also be noted that yearly GHG emissions generated by the Project are less than the threshold identified by the SCAQMD (see the discussion for Impact 4.2.1 above).

CARB's 2017 Climate Change Scoping Plan builds on the efforts and plans encompassed in the initial Scoping Plan. The current plan has identified new policies and actions to accomplish the State's 2030 GHG limit. Below is a list of applicable strategies in the Scoping Plan and the Project's consistency with those strategies.

- ✓ California Light-Duty Vehicle GHG Standards – Implement adopted standards and planned second phase of the program. Align zero-emission vehicle, alternative and renewable fuel and vehicle technology programs for long-term climate change goals.
- The Project is consistent with this reduction measure. This measure cannot be implemented by a particular project or lead agency since it is a statewide measure. When this measure is

implemented, standards would be applicable to light-duty vehicles that would access the Project. The Project would not conflict or obstruct this reduction measure.

- ✓ Energy Efficiency – Pursuit of comparable investment in energy efficiency from all retail providers of electricity in California. Maximize energy efficiency building and appliance standards.
  - The Project is consistent with this reduction measure. Though this measure applies to the State to increase its energy standards, the Project would comply with this measure through existing regulation. The Project would not conflict or obstruct this reduction measure.
- ✓ Low Carbon Fuel – Development and adoption of the low carbon fuel standard.
  - The Project is consistent with this reduction measure. This measure cannot be implemented by a particular project or lead agency since it is a statewide measure. When this measure is implemented, standards would be applicable to the fuel used by vehicles that would access the Project. The Project would not conflict or obstruct this reduction measure.

Based on the assessment above, the Project will not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. Therefore, any impacts would be less than significant.

## 7.0 REFERENCES

- Association of Environmental Professionals. 2007. *Recommendations by the Association of Environmental Professionals (AEP) on How to Analyze Greenhouse Gas Emissions and Global Climate Change in CEQA Documents*. June.
- California Air Pollution Control Officers Association. 2008. *CEQA and Climate Change – Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act*. January.
- California Air Resources Board. EMFAC Emissions Model.
- California Air Resources Board. 2008. *Climate Change Scoping Plan*. November.
- City of Manteca General Plan.
- ENVIRON. CalEEMod Model.
- San Joaquin Council of Governments RTP/SCS.
- U.S. EPA. 2006. *The U.S. Inventory of Greenhouse Gas Emissions and Sinks: Fast Facts*. [www.epa.gov/climatechange/emissions/downloads06/06FastFacts.pdf](http://www.epa.gov/climatechange/emissions/downloads06/06FastFacts.pdf).

We appreciate the opportunity to assist you with this project. If you have any questions, or if we may be of further assistance, please do not hesitate to contact our office at (559) 271-9700.

Respectfully submitted,

**SALEM Engineering Group, Inc.**

*John Thomason*

John Thomason, QSP/D/QISP, LEED AP  
Air Quality/CEQA Associate

# A

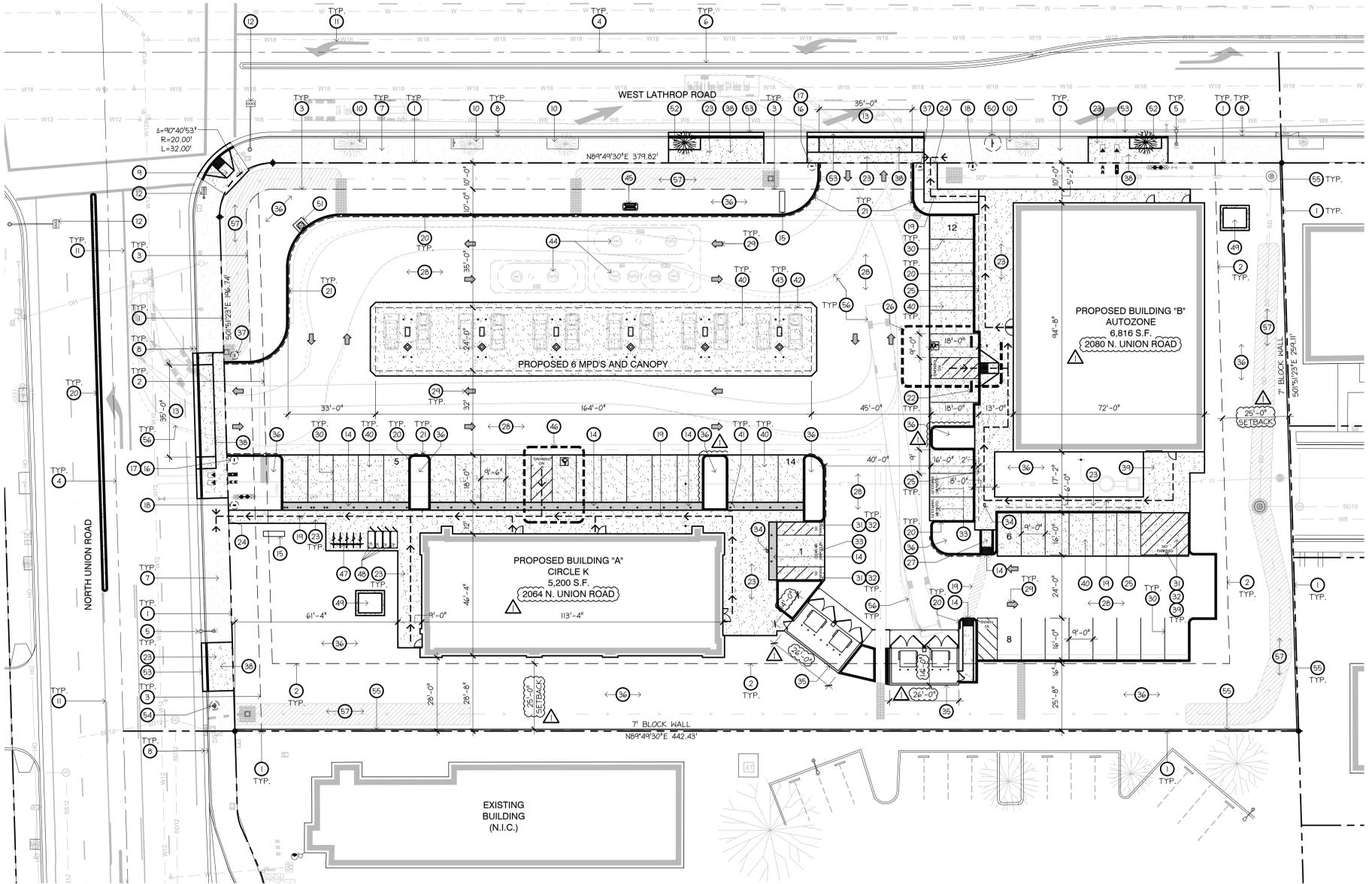


**PROJECT DATA**

<b>PARCEL DATA</b>	
A.P.N.:	216-020-01
LAND USE DESIGNATION:	CN (NEIGHBORHOOD COMMERCIAL)
ZONING:	CN
EXISTING LAND AREA:	(1.98 ACRES) ±86,249 S.F.
A.P.N.:	216-020-01
TOTAL GROSS LAND AREA:	(1.98 ACRES) ±86,249 S.F.
<b>BUILDING DATA</b>	
<b>BUILDING "A" - CIRCLE K</b>	
GROSS BUILDING AREA:	5,200 S.F.
CONSTRUCTION TYPE:	TYPE V-B
BUILDING OCCUPANCY TYPE:	M (MERCANTILE)
FIRE SPRINKLERS:	YES
FIRE ALARM:	NO
NUMBER OF STORIES:	1
ACTUAL BUILDING HEIGHT:	23'-0"
<b>BUILDING "B" - AUTOZONE</b>	
GROSS BUILDING AREA:	6,816 S.F.
CONSTRUCTION TYPE:	TYPE V-B
BUILDING OCCUPANCY TYPE:	M (MERCANTILE)
FIRE SPRINKLERS:	YES
FIRE ALARM:	NO
NUMBER OF STORIES:	1
ACTUAL BUILDING HEIGHT:	21'-0"
<b>ALLOWABLE BUILDING AREA</b>	
<b>BUILDING "A" - CIRCLE K</b>	
BUILDING ALLOWABLE AREA IS BASED ON AN OCCUPANCY OF M, THE LOWEST BASIC ALLOWABLE AREA PER TABLE 506.2 OF THE C.B.C. THAT IS ANTICIPATED FOR THIS BUILDING.	
ALLOWABLE BUILDING AREA CALCULATION PER C.B.C. EQUATION 5-1: A <sub>s</sub> = 9,000 S.F. > 5,200 S.F. (OKAY)	
<b>BUILDING "B" - AUTOZONE</b>	
BUILDING ALLOWABLE AREA IS BASED ON AN OCCUPANCY OF M (MERCANTILE), THE LOWEST BASIC ALLOWABLE AREA PER TABLE 506.2 OF THE C.B.C. THAT IS ANTICIPATED FOR THESE BUILDINGS.	
ALLOWABLE BUILDING AREA CALCULATION PER C.B.C. EQUATION 5-1: A = 36,000 S.F. > 6,816 S.F. (OKAY)	
<b>PARKING DATA</b>	
TOTAL REQUIRED VEHICLE PARKING STALLS REQUIRED BY ZONING ORDINANCE	
RETAIL, SERVICE, AND OFFICE USES, ALL OTHER COMMERCIAL USES NOT OTHERWISE LISTED (4 PER 1,000 S.F. OF GROSS FLOOR AREA) 47 12.016	
TOTAL REQUIRED VEHICLE PARKING STALLS:	48
<b>ACCESSIBILITY PARKING REQUIREMENTS</b>	
VAN ACCESSIBLE:	2
<b>CALGREEN VEHICLE PARKING REQUIREMENTS</b>	
CLEAN AIR DESIGNATED PARKING SPACES: (PER CALGREEN SECTION AND TABLE 5.106.5.2)	3
FUTURE EV CHARGING SPACES: (PER CALGREEN SECTION AND TABLE 5.106.5.3.3)	2
FUTURE VAN ACCESSIBLE:	1
<b>CALGREEN BICYCLE PARKING REQUIREMENTS</b>	
SHORT-TERM BICYCLE PARKING: (PER CAL GREEN SECTION 5.106.4.1.1, 2-BIKE MIN.)	48 x .05 = 3
LONG-TERM BICYCLE PARKING: (PER CAL GREEN SECTION 5.106.4.1.2, 1-BIKE MIN.)	48 x .05 = 3
<b>TOTAL PROVIDED VEHICLE PARKING STALLS</b>	
STANDARD: CLEAN AIR/VAN/POOL/EV:	41
FUTURE EV CHARGING STATIONS:	3
VAN ACCESSIBLE:	2
TOTAL PROVIDED VEHICLE PARKING STALLS:	47
RATIO OF PARKING SPACES TO FLOOR AREA:	4.08 SPACES PER 1,000 S.F.



**CENTERLINE DESIGN, LLC**  
 PLANNING - DESIGN - CONSULTING  
 1508 TOLLHOUSE ROAD, SUITE 'C'  
 CLOVIS, CALIFORNIA 93811  
 559-298-3060 (OFFICE)  
 559-298-3267 (FAX)



**GENERAL NOTES**

- SIGNS, OTHER THAN DIRECTIONAL SIGNS, IF APPLICABLE, ARE NOT APPROVED FOR INSTALLATION AS PART OF THIS SPECIAL PERMIT.
- IF ARCHAEOLOGICAL AND/OR ANIMAL FOSSIL MATERIAL IS ENCOUNTERED DURING PROJECT SURVEYING, GRADING, EXCAVATING, OR CONSTRUCTION, WORK SHALL STOP IMMEDIATELY.
- IF THERE ARE SUSPECTED HUMAN REMAINS, THE SAN JOAQUIN COUNTY CORNER SHALL BE IMMEDIATELY CONTACTED - IF THE REMAINS OR OTHER ARCHAEOLOGICAL MATERIAL IS POSSIBLY NATIVE AMERICAN IN ORIGIN, THE NATIVE AMERICAN HERITAGE COMMISSION (PHONE: (916) 653-4082) SHALL BE IMMEDIATELY CONTACTED, AND THE CALIFORNIA ARCHAEOLOGICAL INVENTORY/SOUTHERN SAN JOAQUIN VALLEY INFORMATION CENTER (PHONE: (955) 644-2289) SHALL BE CONTACTED TO OBTAIN A REFERRAL LIST OF RECOGNIZED ARCHAEOLOGISTS - AN ARCHAEOLOGICAL ASSESSMENT SHALL BE CONDUCTED FOR THE PROJECT, THE SITE SHALL BE FORMALLY RECORDED, AND RECOMMENDATIONS MADE TO THE CITY AS TO ANY FURTHER SITE INVESTIGATION OR SITE AVOIDANCE/PRESERVATION.
- IF ANIMAL FOSSILS ARE UNCOVERED, THE MUSEUM OF PALEONTOLOGY, U.C. BERKELEY SHALL BE CONTACTED TO OBTAIN A REFERRAL LIST OF RECOGNIZED PALEONTOLOGISTS - AN ASSESSMENT SHALL BE CONDUCTED BY A PALEONTOLOGIST AND, IF THE PALEONTOLOGIST DETERMINES THE MATERIAL TO BE SIGNIFICANT, IT SHALL BE PRESERVED.
- ANY SURVEY MONUMENTS WITHIN THE AREA OF CONSTRUCTION SHALL BE PRESERVED OR RESET BY A PERSON LICENSED TO PRACTICE LAND SURVEYING IN THE STATE OF CALIFORNIA.
- TWO WORKING DAYS BEFORE COMMENCING EXCAVATION OPERATIONS WITHIN THE STREET RIGHT-OF-WAY AND/OR UTILITY EASEMENTS, ALL EXISTING UNDERGROUND FACILITIES SHALL HAVE BEEN LOCATED BY UNDERGROUND SERVICES ALERT (USA) CALL 1-800-642-2444.
- ALL EXISTING SIDEWALKS IN EXCESS OF 2% MAXIMUM CROSS SLOPE MUST BE BROUGHT INTO COMPLIANCE PRIOR TO ACCEPTANCE BY PUBLIC WORKS.
- ALL EXTERIOR DOORS, DURING THE HOURS OF DARKNESS, SHALL BE ILLUMINATED WITH A MINIMUM OF 0.5 FOOT-CANDLE OF LIGHT.
- NO USE SHALL BE OPERATED SUCH THAT SIGNIFICANT DIRECT GLARE, INCIDENTAL TO THE OPERATION OF THE USE IS VISIBLE BEYOND THE BOUNDARIES OF THE PROPERTY WHERE THE USE IS LOCATED.
- DIRECT OR SKY-REFLECTED GLARE FROM FLOODLIGHTS SHALL NOT BE DIRECTED INTO ANY OTHER PROPERTY OR STREET.
- NO LIGHT OR COMBINATION OF LIGHTS, OR ACTIVITY SHALL CAST LIGHT EXCEEDING ONE FOOT CANDLE ONTO A PUBLIC STREET, WITH THE ILLUMINATION LEVEL MEASURED AT THE CENTERLINE OF THE STREET - NO LIGHT, COMBINATION OF LIGHTS, OR ACTIVITY SHALL CAST LIGHT EXCEEDING 0.5 FOOT CANDLE ONTO A RESIDENTIALLY ZONED PROPERTY, OR ANY PROPERTY CONTAINING RESIDENTIAL USES.
- THE FOLLOWING TYPES OF EXTERIOR LIGHTING ARE PROHIBITED: DROP-DOWN LENSES; MERCURY VAPOR LIGHTS; SEARCHLIGHTS; LASER LIGHTS, OR ANY OTHER LIGHTING THAT FLASHES, BLINKS, ALTERNATES, OR MOVES.
- FIRE HYDRANTS AND ACCESS ROADS SHALL BE INSTALLED, TESTED, AND APPROVED AND SHALL BE MAINTAINED SERVICEABLE PRIOR TO AND DURING ALL PHASES OF DEVELOPMENT - THE 4-1/2" OUTLET SHALL FACE THE ACCESS LANE.
- ALL ACCESSIBLE PARKING STALLS SHALL BE PLACED ADJACENT TO FACILITY ACCESS RAMPS OR IN STRATEGIC AREAS WHERE THE HANDICAPPED SHALL NOT HAVE TO WHEEL OR WALK BEHIND PARKED VEHICLES WHILE TRAVELING TO OR FROM ACCESSIBLE PARKING STALLS AND RAMPS.
- THE REQUIRED 4' MINIMUM PATH OF TRAVEL SHALL BE PROVIDED ALONG THE PUBLIC SIDEWALK DIRECTLY IN FRONT OF THE PROPERTY, AS REQUIRED BY THE CALIFORNIA ADMINISTRATION CODE (TITLE 24) - A PEDESTRIAN EASEMENT MAY BE REQUIRED IF REQUIREMENTS ARE NOT MET.

**KEYED NOTES**

- DASHED LINES INDICATE EXISTING PROPERTY LINE.
- DASHED LINES INDICATE EXISTING BUILDING SETBACK.
- DASHED LINES INDICATE EXISTING 10'-0" RIGHT-OF-WAY DEDICATION.
- DASHED LINES INDICATE EXISTING STREET CENTERLINE.
- EXISTING STREET LIGHT TO REMAIN.
- EXISTING MEDIAN TO REMAIN.
- EXISTING PUBLIC SIDEWALK TO REMAIN.
- EXISTING PUBLIC CURB AND/OR GUTTER TO REMAIN.
- EXISTING PUBLIC CURB CUT RAMP TO BE REMOVED AND REPLACED WITH A NEW ADA COMPLIANT RAMP - SEE CIVIL PLANS.
- EXISTING TREE WELL TO REMAIN.
- EXISTING STREET STRIPING TO REMAIN.
- EXISTING TRAFFIC SIGNAL TO REMAIN.
- NEW CONCRETE DRIVE APPROACH PER CITY OF MANTECA PUBLIC WORKS STANDARDS.
- NEW PUBLIC TRUNCATED DOMES PER CITY OF MANTECA PUBLIC WORKS STANDARDS.
- NEW MONUMENT SIGNAGE UNDER SEPARATE SUBMITTAL AND PERMIT.
- NEW POLE MOUNTED TOW-AWAY SIGNAGE PER CITY OF MANTECA STANDARDS.
- NEW SIGN(S) (17" x 22" MINIMUM) AT ALL PUBLIC ENTRANCE DRIVES TO THE PROPERTY WHICH STATE "WARNING - VEHICLES STOPPED, PARKED, OR LEFT STANDING IN FIRE LANES WILL BE IMMEDIATELY REMOVED AT OWNER'S EXPENSE - 22658(a) CALIFORNIA VEHICLE CODE.
- NEW POLE MOUNTED DOUBLE SIDED ACCESSIBLE DIRECTIONAL SIGNAGE.
- DASHED LINES INDICATE REQUIRED ACCESSIBLE ROUTE AS SHOWN - THE ACCESSIBLE ROUTE AS DELINEATED IS A BARRIER-FREE ROUTE 48" MINIMUM IN WIDTH WITH NO ABRUPT LEVEL CHANGES EXCEEDING 1/2" UNLESS BEVELED AT A 1:2 MAXIMUM SLOPE, AND NO VERTICAL LEVEL CHANGES EXCEEDING 1/4" - THE CROSS SLOPE DOES NOT EXCEED 2.00% AND SLOPE IN THE DIRECTION OF TRAVEL DOES NOT EXCEED 5.00% (EXCEPT AT DOOR LANDINGS, WHICH THE SLOPE IN THE DIRECTION OF TRAVEL SHALL NOT EXCEED 2.00%) - THE SURFACE IS FIRM, STABLE, AND SLIP RESISTANT - THE ACCESSIBLE ROUTE IS FREE OF OVERHANGING OBSTRUCTIONS BELOW 80" AND OBJECTS PROTRUDING GREATER THAN 4" FROM A WALL ABOVE 27" AND BELOW 80".
- NEW 6" HIGH AND 6" DEEP CONCRETE CURB PER CITY OF MANTECA STANDARDS.
- DASHED LINES INDICATE NEW FIRE LANE STRIPING OVER NEW CONCRETE CURB AND/OR AC DIKE - CURBS ADJACENT TO OPEN DRIVES OVER 20'-0" LONG SHALL BE PAINTED RED WITH 4" HIGH PAINTED WHITE LETTERING STATING "NO PARKING - FIRE LANE" OCCURRING APPROXIMATELY EVERY 50'-0".
- NEW 6" HIGH CONCRETE WHEEL STOP PER CITY OF MANTECA STANDARDS.
- NEW CONCRETE FLATWORK - CONCRETE FLATWORK SHALL NOT EXCEED MAXIMUM SLOPE IN ANY DIRECTION.
- NEW CONCRETE FLATWORK MEETS EXISTING CONCRETE FLATWORK.
- DASHED LINES INDICATE REQUIRED 2'-0" DEEP VEHICULAR OVERHANG - THERE SHALL BE NO OBSTRUCTIONS OVER 6' HIGH ALLOWED WITHIN A VEHICULAR OVERHANG.
- NEW ACCESSIBLE PARKING STALLS, CONCRETE CURB CUT RAMPS, CONCRETE PAVING, CONCRETE WHEEL STOPS, SIGNAGE, LOADING/UNLOADING ZONES, TRUNCATED DOMES, AND STRIPING/ISA SYMBOLS.
- DASHED LINES INDICATE NEW ACCESSIBLE CONCRETE CURB CUT RAMP.
- NEW AC PAVING PER CITY OF MANTECA STANDARDS.
- NEW DIRECTIONAL ARROW STRIPING PAINTED WHITE PER CITY OF MANTECA STANDARDS.
- NEW 4" WIDE STRIPING PAINTED WHITE PER CITY OF MANTECA STANDARDS.
- NEW 4" WIDE STRIPING PAINTED WHITE PER CITY OF MANTECA STANDARDS ALONG PERIMETER WITH PAINTED WHITE INFILL STRIPING AT 45 DEGREES AND AT 36" ON CENTER MAXIMUM.
- NEW 12" HIGH LETTERS PAINTED TRAFFIC WHITE STATING "NO PARKING" AS SHOWN.
- NEW 12" HIGH LETTERS PAINTED WHITE STATING "CLEAN AIR/VAN/POOL/EV" AS SHOWN - THE FOLLOWING CHARACTERS SHALL BE PAINTED IN SUCH A MANNER THAT THE LOWER EDGE OF THE LAST WORD ALIGNS WITH THE END OF THE STALL STRIPING AND IS VISIBLE BENEATH A PARKED VEHICLE - THESE DESIGNATED PARKING STALLS ARE FOR ANY COMBINATION OF LOW-EMITTING, FUEL-EFFICIENT, AND CARPOOL/VAN POOL VEHICLES PER CAL GREEN SECTION 5.106.5.2 - SEE "PARKING DATA" SECTION ON THIS SHEET.
- NEW ELECTRICAL RACEWAY FOR FUTURE ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE).
- NEW C.M.U. BLOCK TRASH AND RECYCLING ENCLOSURE PER CITY OF MANTECA STANDARDS.
- NEW LANDSCAPE AREA.
- NEW 30 INCH STATE STANDARD "STOP" SIGN(S) AT LOCATION(S) SHOWN.
- EXISTING APPROACHES TO BE REMOVED AND REPLACED WITH CURB, GUTTER AND SIDEWALK TO MATCH EXISTING IMPROVEMENTS.
- NEW HEAVY DUTY CONCRETE FOR DELIVERY AREA.
- NEW LIGHT DUTY CONCRETE FOR PARKING AREA.
- NEW BOLLARD - CONFIRM FINAL LOCATIONS AND PAINT COLOR SELECTIONS PER TENANT IMPROVEMENT PLANS.
- DASHED LINES INDICATE NEW GAS PUMP CANOPY.
- NEW GAS PUMPS.
- DASHED LINES INDICATE NEW IN-GROUND GAS STORAGE TANKS.
- NEW VENT RACK.
- NEW ACCESSIBLE PARKING STALLS, CONCRETE PAVING, SIGNAGE, LOADING / UNLOADING ZONES, TRUNCATED DOMES, AND STRIPING/ISA SYMBOLS.
- NEW SURFACE MOUNTED "MADRAX" HW238-5-SF 5 BIKE SPACES "HEAVY DUTY HINDER" BICYCLE RACK OR OWNER APPROVED EQUAL - GENERAL CONTRACTOR SHALL CONFIRM ALL ADDITIONAL ACCESSORIES PRIOR TO ORDERING.
- NEW "GROUND CONTROL SYSTEMS" FBV1 FIBERGLASS BICYCLE VAULT BIKE LOCKER (TYPICAL OF 4) - THIS LOCKER ACCOMMODATES ONE BIKE AND IS LOCKABLE - INSTALL PER MANUFACTURERS REQUIREMENTS.
- NEW ELECTRICAL TRANSFORMER.
- NEW LOCATION OF RE-LOCATED SIGN.
- NEW AIR AND WATER STATION.
- NEW TREE WELL AND NEW TREE PER CITY OF MANTECA STANDARDS.
- NEW CONCRETE GUTTER.
- EXISTING FIRE HYDRANT TO REMAIN.
- NEW 7'-0" TALL C.M.U. BLOCK WALL PER CITY OF MANTECA STANDARDS.
- CONTINUOUS AND/OR DASHED LINES INDICATE TRUCK TURNING TEMPLATE.
- DASHED LINES AND WATCHING INDICATE NEW BIOSWALE - SEE CIVIL PLANS.

**VICINITY MAP**



**PROJECT**  
 COMMERCIAL DEVELOPMENT FOR:  
 CROSSROADS PLAZA  
 2064 NORTH UNION ROAD  
 MANTECA, CALIFORNIA 95336

**STATUS**

Current Release Date	10-20-22
Planning Submittal	12-13-21
Plan Check Submittal	--

**REVISIONS**

△	CITY OF MANTECA CUP CONDITIONS OF APPROVAL DATED: 05-19-22
△	
△	
△	
△	

**IDENTIFICATION**

Scale	1" = 20'-0"
Project Coordinator	CHRIS WARD
Project No.	19-157
Sheet	A-0.0

**PROPOSED SITE PLAN**

ALL IDEAS, DESIGNS, AND PLANS ARE OWNED BY AND ARE PROPERTY OF CENTERLINE DESIGN, LLC AND/OR CONSULTANTS. THESE IDEAS, DESIGNS, AND PLANS ARE INSTRUMENTS OF PROFESSIONAL SERVICE AND ARE PROTECTED BY COMMON LAW, STATUTORY AND OTHER RESERVED RIGHTS INCLUDING COPYRIGHT. THESE IDEAS, DESIGNS, AND PLANS MAY NOT BE REPRODUCED OR USED FOR ANY PURPOSE WITHOUT THE WRITTEN CONSENT OF CENTERLINE DESIGN, LLC AND/OR CONSULTANTS.

APPENDIX

# B



Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Annual

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

**Manteca Commercial Development**  
**San Joaquin Valley Unified APCD Air District, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Convenience Market with Gas Pumps	6.00	Pump	0.02	847.05	0
General Office Building	6.82	1000sqft	0.16	6,816.00	0
Parking Lot	48.00	Space	0.43	19,200.00	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>	2025
<b>Utility Company</b>	Pacific Gas and Electric Company				
<b>CO2 Intensity (lb/MW hr)</b>	203.98	<b>CH4 Intensity (lb/MW hr)</b>	0.033	<b>N2O Intensity (lb/MW hr)</b>	0.004

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

Project Characteristics -  
 Land Use -  
 Construction Off-road Equipment Mitigation -  
 Area Mitigation - Low VOC paints.

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	150	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	150	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	150	50

Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Annual

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

**2.0 Emissions Summary**

**2.1 Overall Construction**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.0291	0.2839	0.3170	5.6000e-004	0.0102	0.0137	0.0239	3.8600e-003	0.0127	0.0165	0.0000	49.2271	49.2271	0.0134	5.1000e-004	49.7144
2024	0.0684	0.0995	0.1228	2.1000e-004	1.9500e-003	4.5900e-003	6.5400e-003	5.3000e-004	4.2500e-003	4.7700e-003	0.0000	18.7760	18.7760	5.1400e-003	1.9000e-004	18.9605
<b>Maximum</b>	<b>0.0684</b>	<b>0.2839</b>	<b>0.3170</b>	<b>5.6000e-004</b>	<b>0.0102</b>	<b>0.0137</b>	<b>0.0239</b>	<b>3.8600e-003</b>	<b>0.0127</b>	<b>0.0165</b>	<b>0.0000</b>	<b>49.2271</b>	<b>49.2271</b>	<b>0.0134</b>	<b>5.1000e-004</b>	<b>49.7144</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					
2023	0.0291	0.2839	0.3170	5.6000e-004	6.9200e-003	0.0137	0.0206	2.3100e-003	0.0127	0.0150	0.0000	49.2271	49.2271	0.0134	5.1000e-004	49.7144
2024	0.0684	0.0995	0.1228	2.1000e-004	1.9500e-003	4.5900e-003	6.5400e-003	5.3000e-004	4.2500e-003	4.7700e-003	0.0000	18.7760	18.7760	5.1400e-003	1.9000e-004	18.9605
<b>Maximum</b>	<b>0.0684</b>	<b>0.2839</b>	<b>0.3170</b>	<b>5.6000e-004</b>	<b>6.9200e-003</b>	<b>0.0137</b>	<b>0.0206</b>	<b>2.3100e-003</b>	<b>0.0127</b>	<b>0.0150</b>	<b>0.0000</b>	<b>49.2271</b>	<b>49.2271</b>	<b>0.0134</b>	<b>5.1000e-004</b>	<b>49.7144</b>

Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Annual

**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
Percent Reduction	0.00	0.00	0.00	0.00	27.24	0.00	10.90	35.31	0.00	7.28	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	9-1-2023	11-30-2023	0.2384	0.2384
2	12-1-2023	2-29-2024	0.2469	0.2469
		Highest	0.2469	0.2469

**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	0.0370	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0900e-003	1.0900e-003	0.0000	0.0000	1.1600e-003
Energy	5.2000e-004	4.7600e-003	4.0000e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	11.9963	11.9963	1.2000e-003	2.3000e-004	12.0945
Mobile	0.6082	0.6354	3.3929	4.9300e-003	0.4345	5.0200e-003	0.4395	0.1163	4.6900e-003	0.1210	0.0000	456.3314	456.3314	0.0524	0.0400	469.5466
Waste						0.0000	0.0000		0.0000	0.0000	1.2870	0.0000	1.2870	0.0761	0.0000	3.1884
Water						0.0000	0.0000		0.0000	0.0000	0.4045	0.8913	1.2958	0.0417	1.0000e-003	2.6355
<b>Total</b>	<b>0.6457</b>	<b>0.6401</b>	<b>3.3975</b>	<b>4.9600e-003</b>	<b>0.4345</b>	<b>5.3800e-003</b>	<b>0.4399</b>	<b>0.1163</b>	<b>5.0500e-003</b>	<b>0.1213</b>	<b>1.6914</b>	<b>469.2201</b>	<b>470.9115</b>	<b>0.1713</b>	<b>0.0412</b>	<b>487.4661</b>

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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	0.0331	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0900e-003	1.0900e-003	0.0000	0.0000	1.1600e-003
Energy	5.2000e-004	4.7600e-003	4.0000e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	11.9963	11.9963	1.2000e-003	2.3000e-004	12.0945
Mobile	0.6082	0.6354	3.3929	4.9300e-003	0.4345	5.0200e-003	0.4395	0.1163	4.6900e-003	0.1210	0.0000	456.3314	456.3314	0.0524	0.0400	469.5466
Waste						0.0000	0.0000		0.0000	0.0000	1.2870	0.0000	1.2870	0.0761	0.0000	3.1884
Water						0.0000	0.0000		0.0000	0.0000	0.4045	0.8913	1.2958	0.0417	1.0000e-003	2.6355
<b>Total</b>	<b>0.6419</b>	<b>0.6401</b>	<b>3.3975</b>	<b>4.9600e-003</b>	<b>0.4345</b>	<b>5.3800e-003</b>	<b>0.4399</b>	<b>0.1163</b>	<b>5.0500e-003</b>	<b>0.1213</b>	<b>1.6914</b>	<b>469.2201</b>	<b>470.9115</b>	<b>0.1713</b>	<b>0.0412</b>	<b>487.4661</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>0.59</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	Demolition	Demolition	9/1/2023	9/14/2023	5	10	
2	Site Preparation	Site Preparation	9/15/2023	9/15/2023	5	1	
3	Grading	Grading	9/16/2023	9/19/2023	5	2	

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4	Building Construction	Building Construction	9/20/2023	2/6/2024	5	100
5	Paving	Paving	2/7/2024	2/13/2024	5	5
6	Architectural Coating	Architectural Coating	2/14/2024	2/20/2024	5	5

**Acres of Grading (Site Preparation Phase): 0.5**

**Acres of Grading (Grading Phase): 1.5**

**Acres of Paving: 0.43**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 11,495; Non-Residential Outdoor: 3,832; Striped Parking Area: 1,152 (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
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Grading	Graders	1	6.00	187	0.41
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

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**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	11.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

- Use Soil Stabilizer
- Replace Ground Cover
- Water Exposed Area

**3.2 Demolition - 2023**

**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	3.2300e-003	0.0289	0.0370	6.0000e-005		1.4100e-003	1.4100e-003		1.3500e-003	1.3500e-003	0.0000	5.2091	5.2091	9.5000e-004	0.0000	5.2328
<b>Total</b>	<b>3.2300e-003</b>	<b>0.0289</b>	<b>0.0370</b>	<b>6.0000e-005</b>		<b>1.4100e-003</b>	<b>1.4100e-003</b>		<b>1.3500e-003</b>	<b>1.3500e-003</b>	<b>0.0000</b>	<b>5.2091</b>	<b>5.2091</b>	<b>9.5000e-004</b>	<b>0.0000</b>	<b>5.2328</b>

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**3.2 Demolition - 2023**

**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	1.6000e-004	1.1000e-004	1.2400e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3197	0.3197	1.0000e-005	1.0000e-005	0.3228
<b>Total</b>	<b>1.6000e-004</b>	<b>1.1000e-004</b>	<b>1.2400e-003</b>	<b>0.0000</b>	<b>4.0000e-004</b>	<b>0.0000</b>	<b>4.0000e-004</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>0.3197</b>	<b>0.3197</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.3228</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	3.2300e-003	0.0289	0.0370	6.0000e-005		1.4100e-003	1.4100e-003		1.3500e-003	1.3500e-003	0.0000	5.2091	5.2091	9.5000e-004	0.0000	5.2328
<b>Total</b>	<b>3.2300e-003</b>	<b>0.0289</b>	<b>0.0370</b>	<b>6.0000e-005</b>		<b>1.4100e-003</b>	<b>1.4100e-003</b>		<b>1.3500e-003</b>	<b>1.3500e-003</b>	<b>0.0000</b>	<b>5.2091</b>	<b>5.2091</b>	<b>9.5000e-004</b>	<b>0.0000</b>	<b>5.2328</b>

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**3.2 Demolition - 2023**

**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	1.6000e-004	1.1000e-004	1.2400e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3197	0.3197	1.0000e-005	1.0000e-005	0.3228
<b>Total</b>	<b>1.6000e-004</b>	<b>1.1000e-004</b>	<b>1.2400e-003</b>	<b>0.0000</b>	<b>4.0000e-004</b>	<b>0.0000</b>	<b>4.0000e-004</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>0.3197</b>	<b>0.3197</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.3228</b>

**3.3 Site Preparation - 2023**

**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					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7000e-004	3.0900e-003	1.9600e-003	0.0000		1.1000e-004	1.1000e-004		1.0000e-004	1.0000e-004	0.0000	0.4275	0.4275	1.4000e-004	0.0000	0.4309
<b>Total</b>	<b>2.7000e-004</b>	<b>3.0900e-003</b>	<b>1.9600e-003</b>	<b>0.0000</b>	<b>2.7000e-004</b>	<b>1.1000e-004</b>	<b>3.8000e-004</b>	<b>3.0000e-005</b>	<b>1.0000e-004</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>0.4275</b>	<b>0.4275</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>0.4309</b>

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**3.3 Site Preparation - 2023**

**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	1.0000e-005	1.0000e-005	6.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0160	0.0160	0.0000	0.0000	0.0161
<b>Total</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0160</b>	<b>0.0160</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0161</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					1.1000e-004	0.0000	1.1000e-004	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7000e-004	3.0900e-003	1.9600e-003	0.0000		1.1000e-004	1.1000e-004		1.0000e-004	1.0000e-004	0.0000	0.4275	0.4275	1.4000e-004	0.0000	0.4309
<b>Total</b>	<b>2.7000e-004</b>	<b>3.0900e-003</b>	<b>1.9600e-003</b>	<b>0.0000</b>	<b>1.1000e-004</b>	<b>1.1000e-004</b>	<b>2.2000e-004</b>	<b>1.0000e-005</b>	<b>1.0000e-004</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>0.4275</b>	<b>0.4275</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>0.4309</b>

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**3.3 Site Preparation - 2023**

**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	1.0000e-005	1.0000e-005	6.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0160	0.0160	0.0000	0.0000	0.0161
<b>Total</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0160</b>	<b>0.0160</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0161</b>

**3.4 Grading - 2023**

**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					5.3100e-003	0.0000	5.3100e-003	2.5700e-003	0.0000	2.5700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.3000e-004	0.0102	5.5500e-003	1.0000e-005		4.2000e-004	4.2000e-004		3.9000e-004	3.9000e-004	0.0000	1.2381	1.2381	4.0000e-004	0.0000	1.2481
<b>Total</b>	<b>9.3000e-004</b>	<b>0.0102</b>	<b>5.5500e-003</b>	<b>1.0000e-005</b>	<b>5.3100e-003</b>	<b>4.2000e-004</b>	<b>5.7300e-003</b>	<b>2.5700e-003</b>	<b>3.9000e-004</b>	<b>2.9600e-003</b>	<b>0.0000</b>	<b>1.2381</b>	<b>1.2381</b>	<b>4.0000e-004</b>	<b>0.0000</b>	<b>1.2481</b>

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**3.4 Grading - 2023**

**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	3.0000e-005	2.0000e-005	2.0000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0512	0.0512	0.0000	0.0000	0.0516
<b>Total</b>	<b>3.0000e-005</b>	<b>2.0000e-005</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0512</b>	<b>0.0512</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0516</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					2.1500e-003	0.0000	2.1500e-003	1.0400e-003	0.0000	1.0400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.3000e-004	0.0102	5.5500e-003	1.0000e-005		4.2000e-004	4.2000e-004		3.9000e-004	3.9000e-004	0.0000	1.2381	1.2381	4.0000e-004	0.0000	1.2481
<b>Total</b>	<b>9.3000e-004</b>	<b>0.0102</b>	<b>5.5500e-003</b>	<b>1.0000e-005</b>	<b>2.1500e-003</b>	<b>4.2000e-004</b>	<b>2.5700e-003</b>	<b>1.0400e-003</b>	<b>3.9000e-004</b>	<b>1.4300e-003</b>	<b>0.0000</b>	<b>1.2381</b>	<b>1.2381</b>	<b>4.0000e-004</b>	<b>0.0000</b>	<b>1.2481</b>

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**3.4 Grading - 2023**

**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	3.0000e-005	2.0000e-005	2.0000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0512	0.0512	0.0000	0.0000	0.0516
<b>Total</b>	<b>3.0000e-005</b>	<b>2.0000e-005</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0512</b>	<b>0.0512</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0516</b>

**3.5 Building Construction - 2023**

**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	0.0231	0.2343	0.2590	4.2000e-004		0.0117	0.0117		0.0108	0.0108	0.0000	36.5761	36.5761	0.0118	0.0000	36.8718
<b>Total</b>	<b>0.0231</b>	<b>0.2343</b>	<b>0.2590</b>	<b>4.2000e-004</b>		<b>0.0117</b>	<b>0.0117</b>		<b>0.0108</b>	<b>0.0108</b>	<b>0.0000</b>	<b>36.5761</b>	<b>36.5761</b>	<b>0.0118</b>	<b>0.0000</b>	<b>36.8718</b>

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

**3.5 Building Construction - 2023**

**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	1.6000e-004	6.4500e-003	1.9800e-003	3.0000e-005	9.7000e-004	4.0000e-005	1.0100e-003	2.8000e-004	4.0000e-005	3.2000e-004	0.0000	2.8224	2.8224	1.0000e-005	4.2000e-004	2.9486
Worker	1.2600e-003	8.5000e-004	9.9700e-003	3.0000e-005	3.2100e-003	2.0000e-005	3.2300e-003	8.5000e-004	2.0000e-005	8.7000e-004	0.0000	2.5671	2.5671	8.0000e-005	8.0000e-005	2.5917
<b>Total</b>	<b>1.4200e-003</b>	<b>7.3000e-003</b>	<b>0.0120</b>	<b>6.0000e-005</b>	<b>4.1800e-003</b>	<b>6.0000e-005</b>	<b>4.2400e-003</b>	<b>1.1300e-003</b>	<b>6.0000e-005</b>	<b>1.1900e-003</b>	<b>0.0000</b>	<b>5.3896</b>	<b>5.3896</b>	<b>9.0000e-005</b>	<b>5.0000e-004</b>	<b>5.5403</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	0.0231	0.2343	0.2590	4.2000e-004		0.0117	0.0117		0.0108	0.0108	0.0000	36.5760	36.5760	0.0118	0.0000	36.8718
<b>Total</b>	<b>0.0231</b>	<b>0.2343</b>	<b>0.2590</b>	<b>4.2000e-004</b>		<b>0.0117</b>	<b>0.0117</b>		<b>0.0108</b>	<b>0.0108</b>	<b>0.0000</b>	<b>36.5760</b>	<b>36.5760</b>	<b>0.0118</b>	<b>0.0000</b>	<b>36.8718</b>

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

**3.5 Building Construction - 2023**

**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	1.6000e-004	6.4500e-003	1.9800e-003	3.0000e-005	9.7000e-004	4.0000e-005	1.0100e-003	2.8000e-004	4.0000e-005	3.2000e-004	0.0000	2.8224	2.8224	1.0000e-005	4.2000e-004	2.9486
Worker	1.2600e-003	8.5000e-004	9.9700e-003	3.0000e-005	3.2100e-003	2.0000e-005	3.2300e-003	8.5000e-004	2.0000e-005	8.7000e-004	0.0000	2.5671	2.5671	8.0000e-005	8.0000e-005	2.5917
<b>Total</b>	<b>1.4200e-003</b>	<b>7.3000e-003</b>	<b>0.0120</b>	<b>6.0000e-005</b>	<b>4.1800e-003</b>	<b>6.0000e-005</b>	<b>4.2400e-003</b>	<b>1.1300e-003</b>	<b>6.0000e-005</b>	<b>1.1900e-003</b>	<b>0.0000</b>	<b>5.3896</b>	<b>5.3896</b>	<b>9.0000e-005</b>	<b>5.0000e-004</b>	<b>5.5403</b>

**3.5 Building Construction - 2024**

**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	8.0300e-003	0.0807	0.0954	1.5000e-004		3.8100e-003	3.8100e-003		3.5100e-003	3.5100e-003	0.0000	13.5327	13.5327	4.3800e-003	0.0000	13.6421
<b>Total</b>	<b>8.0300e-003</b>	<b>0.0807</b>	<b>0.0954</b>	<b>1.5000e-004</b>		<b>3.8100e-003</b>	<b>3.8100e-003</b>		<b>3.5100e-003</b>	<b>3.5100e-003</b>	<b>0.0000</b>	<b>13.5327</b>	<b>13.5327</b>	<b>4.3800e-003</b>	<b>0.0000</b>	<b>13.6421</b>

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

**3.5 Building Construction - 2024**

**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	6.0000e-005	2.3900e-003	7.1000e-004	1.0000e-005	3.6000e-004	2.0000e-005	3.7000e-004	1.0000e-004	1.0000e-005	1.2000e-004	0.0000	1.0272	1.0272	0.0000	1.5000e-004	1.0731
Worker	4.3000e-004	2.8000e-004	3.4000e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9184	0.9184	3.0000e-005	3.0000e-005	0.9268
<b>Total</b>	<b>4.9000e-004</b>	<b>2.6700e-003</b>	<b>4.1100e-003</b>	<b>2.0000e-005</b>	<b>1.5500e-003</b>	<b>3.0000e-005</b>	<b>1.5600e-003</b>	<b>4.2000e-004</b>	<b>2.0000e-005</b>	<b>4.4000e-004</b>	<b>0.0000</b>	<b>1.9456</b>	<b>1.9456</b>	<b>3.0000e-005</b>	<b>1.8000e-004</b>	<b>1.9999</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	8.0300e-003	0.0807	0.0954	1.5000e-004		3.8100e-003	3.8100e-003		3.5100e-003	3.5100e-003	0.0000	13.5327	13.5327	4.3800e-003	0.0000	13.6421
<b>Total</b>	<b>8.0300e-003</b>	<b>0.0807</b>	<b>0.0954</b>	<b>1.5000e-004</b>		<b>3.8100e-003</b>	<b>3.8100e-003</b>		<b>3.5100e-003</b>	<b>3.5100e-003</b>	<b>0.0000</b>	<b>13.5327</b>	<b>13.5327</b>	<b>4.3800e-003</b>	<b>0.0000</b>	<b>13.6421</b>

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**3.5 Building Construction - 2024**

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	6.0000e-005	2.3900e-003	7.1000e-004	1.0000e-005	3.6000e-004	2.0000e-005	3.7000e-004	1.0000e-004	1.0000e-005	1.2000e-004	0.0000	1.0272	1.0272	0.0000	1.5000e-004	1.0731
Worker	4.3000e-004	2.8000e-004	3.4000e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9184	0.9184	3.0000e-005	3.0000e-005	0.9268
<b>Total</b>	<b>4.9000e-004</b>	<b>2.6700e-003</b>	<b>4.1100e-003</b>	<b>2.0000e-005</b>	<b>1.5500e-003</b>	<b>3.0000e-005</b>	<b>1.5600e-003</b>	<b>4.2000e-004</b>	<b>2.0000e-005</b>	<b>4.4000e-004</b>	<b>0.0000</b>	<b>1.9456</b>	<b>1.9456</b>	<b>3.0000e-005</b>	<b>1.8000e-004</b>	<b>1.9999</b>

**3.6 Paving - 2024**

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	1.4800e-003	0.0131	0.0176	3.0000e-005		6.1000e-004	6.1000e-004		5.7000e-004	5.7000e-004	0.0000	2.3502	2.3502	6.8000e-004	0.0000	2.3673
Paving	5.6000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>2.0400e-003</b>	<b>0.0131</b>	<b>0.0176</b>	<b>3.0000e-005</b>		<b>6.1000e-004</b>	<b>6.1000e-004</b>		<b>5.7000e-004</b>	<b>5.7000e-004</b>	<b>0.0000</b>	<b>2.3502</b>	<b>2.3502</b>	<b>6.8000e-004</b>	<b>0.0000</b>	<b>2.3673</b>

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

**3.6 Paving - 2024**

**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	1.3000e-004	8.0000e-005	1.0300e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.2783	0.2783	1.0000e-005	1.0000e-005	0.2808
<b>Total</b>	<b>1.3000e-004</b>	<b>8.0000e-005</b>	<b>1.0300e-003</b>	<b>0.0000</b>	<b>3.6000e-004</b>	<b>0.0000</b>	<b>3.6000e-004</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>0.2783</b>	<b>0.2783</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.2808</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	1.4800e-003	0.0131	0.0176	3.0000e-005		6.1000e-004	6.1000e-004		5.7000e-004	5.7000e-004	0.0000	2.3502	2.3502	6.8000e-004	0.0000	2.3673
Paving	5.6000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>2.0400e-003</b>	<b>0.0131</b>	<b>0.0176</b>	<b>3.0000e-005</b>		<b>6.1000e-004</b>	<b>6.1000e-004</b>		<b>5.7000e-004</b>	<b>5.7000e-004</b>	<b>0.0000</b>	<b>2.3502</b>	<b>2.3502</b>	<b>6.8000e-004</b>	<b>0.0000</b>	<b>2.3673</b>

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**3.6 Paving - 2024**

**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	1.3000e-004	8.0000e-005	1.0300e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.2783	0.2783	1.0000e-005	1.0000e-005	0.2808
<b>Total</b>	<b>1.3000e-004</b>	<b>8.0000e-005</b>	<b>1.0300e-003</b>	<b>0.0000</b>	<b>3.6000e-004</b>	<b>0.0000</b>	<b>3.6000e-004</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>0.2783</b>	<b>0.2783</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.2808</b>

**3.7 Architectural Coating - 2024**

**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	0.0573					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.5000e-004	3.0500e-003	4.5300e-003	1.0000e-005		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6392
<b>Total</b>	<b>0.0577</b>	<b>3.0500e-003</b>	<b>4.5300e-003</b>	<b>1.0000e-005</b>		<b>1.5000e-004</b>	<b>1.5000e-004</b>		<b>1.5000e-004</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>0.6383</b>	<b>0.6383</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.6392</b>

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**3.7 Architectural Coating - 2024**

**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	1.0000e-005	1.0000e-005	1.1000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0309	0.0309	0.0000	0.0000	0.0312
<b>Total</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0309</b>	<b>0.0309</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0312</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	0.0573					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.5000e-004	3.0500e-003	4.5300e-003	1.0000e-005		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6392
<b>Total</b>	<b>0.0577</b>	<b>3.0500e-003</b>	<b>4.5300e-003</b>	<b>1.0000e-005</b>		<b>1.5000e-004</b>	<b>1.5000e-004</b>		<b>1.5000e-004</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>0.6383</b>	<b>0.6383</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.6392</b>

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

**3.7 Architectural Coating - 2024**

**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	1.0000e-005	1.0000e-005	1.1000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0309	0.0309	0.0000	0.0000	0.0312
<b>Total</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0309</b>	<b>0.0309</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0312</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	0.6082	0.6354	3.3929	4.9300e-003	0.4345	5.0200e-003	0.4395	0.1163	4.6900e-003	0.1210	0.0000	456.3314	456.3314	0.0524	0.0400	469.5466
Unmitigated	0.6082	0.6354	3.3929	4.9300e-003	0.4345	5.0200e-003	0.4395	0.1163	4.6900e-003	0.1210	0.0000	456.3314	456.3314	0.0524	0.0400	469.5466

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market with Gas Pumps	1,935.00	1,935.00	1935.00	1,037,942	1,037,942
General Office Building	66.39	15.06	4.77	120,093	120,093
Parking Lot	0.00	0.00	0.00		
<b>Total</b>	<b>2,001.39</b>	<b>1,950.06</b>	<b>1,939.77</b>	<b>1,158,035</b>	<b>1,158,035</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
Convenience Market with Gas	9.50	7.30	7.30	0.80	80.20	19.00	14	21	65
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
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
Convenience Market with Gas Pumps	0.517111	0.052324	0.170980	0.155671	0.027786	0.007423	0.013424	0.026160	0.000649	0.000313	0.023324	0.001439	0.003395
General Office Building	0.517111	0.052324	0.170980	0.155671	0.027786	0.007423	0.013424	0.026160	0.000649	0.000313	0.023324	0.001439	0.003395

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

Parking Lot	0.517111	0.052324	0.170980	0.155671	0.027786	0.007423	0.013424	0.026160	0.000649	0.000313	0.023324	0.001439	0.003395
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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	6.8173	6.8173	1.1000e-003	1.3000e-004	6.8848
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	6.8173	6.8173	1.1000e-003	1.3000e-004	6.8848
NaturalGas Mitigated	5.2000e-004	4.7600e-003	4.0000e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	5.1790	5.1790	1.0000e-004	9.0000e-005	5.2097
NaturalGas Unmitigated	5.2000e-004	4.7600e-003	4.0000e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	5.1790	5.1790	1.0000e-004	9.0000e-005	5.2097

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

**5.2 Energy by Land Use - NaturalGas**

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Convenience Market with Gas Pumps	8987.2	5.0000e-005	4.4000e-004	3.7000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.4796	0.4796	1.0000e-005	1.0000e-005	0.4824
General Office Building	88062.7	4.7000e-004	4.3200e-003	3.6300e-003	3.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004	0.0000	4.6994	4.6994	9.0000e-005	9.0000e-005	4.7273
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>5.2000e-004</b>	<b>4.7600e-003</b>	<b>4.0000e-003</b>	<b>3.0000e-005</b>		<b>3.6000e-004</b>	<b>3.6000e-004</b>		<b>3.6000e-004</b>	<b>3.6000e-004</b>	<b>0.0000</b>	<b>5.1790</b>	<b>5.1790</b>	<b>1.0000e-004</b>	<b>1.0000e-004</b>	<b>5.2097</b>

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

**5.2 Energy by Land Use - NaturalGas**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Convenience Market with Gas Pumps	8987.2	5.0000e-005	4.4000e-004	3.7000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.4796	0.4796	1.0000e-005	1.0000e-005	0.4824
General Office Building	88062.7	4.7000e-004	4.3200e-003	3.6300e-003	3.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004	0.0000	4.6994	4.6994	9.0000e-005	9.0000e-005	4.7273
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>5.2000e-004</b>	<b>4.7600e-003</b>	<b>4.0000e-003</b>	<b>3.0000e-005</b>		<b>3.6000e-004</b>	<b>3.6000e-004</b>		<b>3.6000e-004</b>	<b>3.6000e-004</b>	<b>0.0000</b>	<b>5.1790</b>	<b>5.1790</b>	<b>1.0000e-004</b>	<b>1.0000e-004</b>	<b>5.2097</b>

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

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market with Gas Pumps	6708.64	0.6207	1.0000e-004	1.0000e-005	0.6269
General Office Building	60253.4	5.5749	9.0000e-004	1.1000e-004	5.6300
Parking Lot	6720	0.6218	1.0000e-004	1.0000e-005	0.6279
<b>Total</b>		<b>6.8174</b>	<b>1.1000e-003</b>	<b>1.3000e-004</b>	<b>6.8848</b>

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

**5.3 Energy by Land Use - Electricity**

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market with Gas Pumps	6708.64	0.6207	1.0000e-004	1.0000e-005	0.6269
General Office Building	60253.4	5.5749	9.0000e-004	1.1000e-004	5.6300
Parking Lot	6720	0.6218	1.0000e-004	1.0000e-005	0.6279
<b>Total</b>		<b>6.8174</b>	<b>1.1000e-003</b>	<b>1.3000e-004</b>	<b>6.8848</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

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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	0.0331	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0900e-003	1.0900e-003	0.0000	0.0000	1.1600e-003
Unmitigated	0.0370	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0900e-003	1.0900e-003	0.0000	0.0000	1.1600e-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	5.7300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0312					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0900e-003	1.0900e-003	0.0000	0.0000	1.1600e-003
<b>Total</b>	<b>0.0370</b>	<b>1.0000e-005</b>	<b>5.6000e-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>1.0900e-003</b>	<b>1.0900e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.1600e-003</b>

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

**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	1.9100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0312					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0900e-003	1.0900e-003	0.0000	0.0000	1.1600e-003
<b>Total</b>	<b>0.0331</b>	<b>1.0000e-005</b>	<b>5.6000e-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>1.0900e-003</b>	<b>1.0900e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.1600e-003</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	1.2958	0.0417	1.0000e-003	2.6355
Unmitigated	1.2958	0.0417	1.0000e-003	2.6355

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market with Gas Pumps	0.0627431 / 0.0384554	0.0638	2.0500e-003	5.0000e-005	0.1297
General Office Building	1.21214 / 0.742927	1.2320	0.0396	9.5000e-004	2.5057
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>1.2958</b>	<b>0.0417</b>	<b>1.0000e-003</b>	<b>2.6354</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			
Convenience Market with Gas Pumps	0.0627431 / 0.0384554	0.0638	2.0500e-003	5.0000e-005	0.1297
General Office Building	1.21214 / 0.742927	1.2320	0.0396	9.5000e-004	2.5057
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>1.2958</b>	<b>0.0417</b>	<b>1.0000e-003</b>	<b>2.6354</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

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

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1.2870	0.0761	0.0000	3.1884
Unmitigated	1.2870	0.0761	0.0000	3.1884

**8.2 Waste by Land Use**

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	6.34	1.2870	0.0761	0.0000	3.1884
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>1.2870</b>	<b>0.0761</b>	<b>0.0000</b>	<b>3.1884</b>

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

**8.2 Waste by Land Use**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	6.34	1.2870	0.0761	0.0000	3.1884
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>1.2870</b>	<b>0.0761</b>	<b>0.0000</b>	<b>3.1884</b>

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

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Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Summer

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

**Manteca Commercial Development**  
**San Joaquin Valley Unified APCD Air District, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Convenience Market with Gas Pumps	6.00	Pump	0.02	847.05	0
General Office Building	6.82	1000sqft	0.16	6,816.00	0
Parking Lot	48.00	Space	0.43	19,200.00	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>	2025
<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 -  
 Land Use -  
 Construction Off-road Equipment Mitigation -  
 Area Mitigation - Low VOC paints.

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	150	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	150	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	150	50

Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Summer

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

**2.0 Emissions Summary**

**2.1 Overall Construction (Maximum Daily Emission)**

**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	lb/day										lb/day					
2023	0.9626	10.1945	7.6794	0.0147	5.3777	0.4204	5.7981	2.5860	0.3868	2.9728	0.0000	1,426.0790	1,426.0790	0.4431	0.0149	1,437.6285
2024	23.1015	6.1621	7.5066	0.0130	0.1479	0.2840	0.4014	0.0392	0.2613	0.2931	0.0000	1,270.3059	1,270.3059	0.3598	0.0145	1,283.6339
<b>Maximum</b>	<b>23.1015</b>	<b>10.1945</b>	<b>7.6794</b>	<b>0.0147</b>	<b>5.3777</b>	<b>0.4204</b>	<b>5.7981</b>	<b>2.5860</b>	<b>0.3868</b>	<b>2.9728</b>	<b>0.0000</b>	<b>1,426.0790</b>	<b>1,426.0790</b>	<b>0.4431</b>	<b>0.0149</b>	<b>1,437.6285</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	lb/day										lb/day					
2023	0.9626	10.1945	7.6794	0.0147	2.2171	0.4204	2.6375	1.0577	0.3868	1.4445	0.0000	1,426.0790	1,426.0790	0.4431	0.0149	1,437.6285
2024	23.1015	6.1621	7.5066	0.0130	0.1479	0.2840	0.4014	0.0392	0.2613	0.2931	0.0000	1,270.3059	1,270.3059	0.3598	0.0145	1,283.6339
<b>Maximum</b>	<b>23.1015</b>	<b>10.1945</b>	<b>7.6794</b>	<b>0.0147</b>	<b>2.2171</b>	<b>0.4204</b>	<b>2.6375</b>	<b>1.0577</b>	<b>0.3868</b>	<b>1.4445</b>	<b>0.0000</b>	<b>1,426.0790</b>	<b>1,426.0790</b>	<b>0.4431</b>	<b>0.0149</b>	<b>1,437.6285</b>

## Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Summer

**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
Percent Reduction	0.00	0.00	0.00	0.00	57.20	0.00	50.98	58.22	0.00	46.80	0.00	0.00	0.00	0.00	0.00	0.00

Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Summer

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

**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	lb/day										lb/day					
Area	0.2028	6.0000e-005	6.1900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0133	0.0133	3.0000e-005		0.0142
Energy	2.8700e-003	0.0261	0.0219	1.6000e-004		1.9800e-003	1.9800e-003		1.9800e-003	1.9800e-003		31.2812	31.2812	6.0000e-004	5.7000e-004	31.4671
Mobile	4.4330	3.3690	18.4403	0.0294	2.5339	0.0283	2.5621	0.6766	0.0265	0.7031		3,000.3550	3,000.3550	0.2875	0.2392	3,078.8297
<b>Total</b>	<b>4.6386</b>	<b>3.3951</b>	<b>18.4683</b>	<b>0.0296</b>	<b>2.5339</b>	<b>0.0303</b>	<b>2.5641</b>	<b>0.6766</b>	<b>0.0285</b>	<b>0.7051</b>		<b>3,031.6495</b>	<b>3,031.6495</b>	<b>0.2881</b>	<b>0.2398</b>	<b>3,110.3110</b>

**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	lb/day										lb/day					
Area	0.1818	6.0000e-005	6.1900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0133	0.0133	3.0000e-005		0.0142
Energy	2.8700e-003	0.0261	0.0219	1.6000e-004		1.9800e-003	1.9800e-003		1.9800e-003	1.9800e-003		31.2812	31.2812	6.0000e-004	5.7000e-004	31.4671
Mobile	4.4330	3.3690	18.4403	0.0294	2.5339	0.0283	2.5621	0.6766	0.0265	0.7031		3,000.3550	3,000.3550	0.2875	0.2392	3,078.8297
<b>Total</b>	<b>4.6177</b>	<b>3.3951</b>	<b>18.4683</b>	<b>0.0296</b>	<b>2.5339</b>	<b>0.0303</b>	<b>2.5641</b>	<b>0.6766</b>	<b>0.0285</b>	<b>0.7051</b>		<b>3,031.6495</b>	<b>3,031.6495</b>	<b>0.2881</b>	<b>0.2398</b>	<b>3,110.3110</b>

Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Summer

**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
Percent Reduction	0.45	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**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2023	9/14/2023	5	10	
2	Site Preparation	Site Preparation	9/15/2023	9/15/2023	5	1	
3	Grading	Grading	9/16/2023	9/19/2023	5	2	
4	Building Construction	Building Construction	9/20/2023	2/6/2024	5	100	
5	Paving	Paving	2/7/2024	2/13/2024	5	5	
6	Architectural Coating	Architectural Coating	2/14/2024	2/20/2024	5	5	

**Acres of Grading (Site Preparation Phase): 0.5**

**Acres of Grading (Grading Phase): 1.5**

**Acres of Paving: 0.43**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 11,495; Non-Residential Outdoor: 3,832; Striped Parking Area: 1,152 (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
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20

Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Summer

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

Grading	Graders	1	6.00	187	0.41
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	11.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Summer

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

**3.2 Demolition - 2023**

**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	lb/day										lb/day					
Off-Road	0.6463	5.7787	7.3926	0.0120		0.2821	0.2821		0.2698	0.2698		1,148.4055	1,148.4055	0.2089		1,153.6290
<b>Total</b>	<b>0.6463</b>	<b>5.7787</b>	<b>7.3926</b>	<b>0.0120</b>		<b>0.2821</b>	<b>0.2821</b>		<b>0.2698</b>	<b>0.2698</b>		<b>1,148.4055</b>	<b>1,148.4055</b>	<b>0.2089</b>		<b>1,153.6290</b>

**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	lb/day										lb/day					
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
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
Worker	0.0363	0.0196	0.2867	7.6000e-004	0.0822	4.2000e-004	0.0826	0.0218	3.9000e-004	0.0222		76.6346	76.6346	2.1400e-003	1.9800e-003	77.2779
<b>Total</b>	<b>0.0363</b>	<b>0.0196</b>	<b>0.2867</b>	<b>7.6000e-004</b>	<b>0.0822</b>	<b>4.2000e-004</b>	<b>0.0826</b>	<b>0.0218</b>	<b>3.9000e-004</b>	<b>0.0222</b>		<b>76.6346</b>	<b>76.6346</b>	<b>2.1400e-003</b>	<b>1.9800e-003</b>	<b>77.2779</b>

Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Summer

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

**3.2 Demolition - 2023**

**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	lb/day										lb/day					
Off-Road	0.6463	5.7787	7.3926	0.0120		0.2821	0.2821		0.2698	0.2698	0.0000	1,148.4055	1,148.4055	0.2089		1,153.6290
<b>Total</b>	<b>0.6463</b>	<b>5.7787</b>	<b>7.3926</b>	<b>0.0120</b>		<b>0.2821</b>	<b>0.2821</b>		<b>0.2698</b>	<b>0.2698</b>	<b>0.0000</b>	<b>1,148.4055</b>	<b>1,148.4055</b>	<b>0.2089</b>		<b>1,153.6290</b>

**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	lb/day										lb/day					
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
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
Worker	0.0363	0.0196	0.2867	7.6000e-004	0.0822	4.2000e-004	0.0826	0.0218	3.9000e-004	0.0222		76.6346	76.6346	2.1400e-003	1.9800e-003	77.2779
<b>Total</b>	<b>0.0363</b>	<b>0.0196</b>	<b>0.2867</b>	<b>7.6000e-004</b>	<b>0.0822</b>	<b>4.2000e-004</b>	<b>0.0826</b>	<b>0.0218</b>	<b>3.9000e-004</b>	<b>0.0222</b>		<b>76.6346</b>	<b>76.6346</b>	<b>2.1400e-003</b>	<b>1.9800e-003</b>	<b>77.2779</b>

Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Summer

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

**3.3 Site Preparation - 2023**

**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	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.5348	6.1887	3.9239	9.7300e-003		0.2266	0.2266		0.2084	0.2084		942.4317	942.4317	0.3048		950.0517
<b>Total</b>	<b>0.5348</b>	<b>6.1887</b>	<b>3.9239</b>	<b>9.7300e-003</b>	<b>0.5303</b>	<b>0.2266</b>	<b>0.7568</b>	<b>0.0573</b>	<b>0.2084</b>	<b>0.2657</b>		<b>942.4317</b>	<b>942.4317</b>	<b>0.3048</b>		<b>950.0517</b>

**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	lb/day										lb/day					
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
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
Worker	0.0181	9.7800e-003	0.1434	3.8000e-004	0.0411	2.1000e-004	0.0413	0.0109	1.9000e-004	0.0111		38.3173	38.3173	1.0700e-003	9.9000e-004	38.6389
<b>Total</b>	<b>0.0181</b>	<b>9.7800e-003</b>	<b>0.1434</b>	<b>3.8000e-004</b>	<b>0.0411</b>	<b>2.1000e-004</b>	<b>0.0413</b>	<b>0.0109</b>	<b>1.9000e-004</b>	<b>0.0111</b>		<b>38.3173</b>	<b>38.3173</b>	<b>1.0700e-003</b>	<b>9.9000e-004</b>	<b>38.6389</b>

Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Summer

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

**3.3 Site Preparation - 2023**

**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	lb/day										lb/day					
Fugitive Dust					0.2148	0.0000	0.2148	0.0232	0.0000	0.0232			0.0000			0.0000
Off-Road	0.5348	6.1887	3.9239	9.7300e-003		0.2266	0.2266		0.2084	0.2084	0.0000	942.4317	942.4317	0.3048		950.0517
<b>Total</b>	<b>0.5348</b>	<b>6.1887</b>	<b>3.9239</b>	<b>9.7300e-003</b>	<b>0.2148</b>	<b>0.2266</b>	<b>0.4413</b>	<b>0.0232</b>	<b>0.2084</b>	<b>0.2316</b>	<b>0.0000</b>	<b>942.4317</b>	<b>942.4317</b>	<b>0.3048</b>		<b>950.0517</b>

**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	lb/day										lb/day					
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
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
Worker	0.0181	9.7800e-003	0.1434	3.8000e-004	0.0411	2.1000e-004	0.0413	0.0109	1.9000e-004	0.0111		38.3173	38.3173	1.0700e-003	9.9000e-004	38.6389
<b>Total</b>	<b>0.0181</b>	<b>9.7800e-003</b>	<b>0.1434</b>	<b>3.8000e-004</b>	<b>0.0411</b>	<b>2.1000e-004</b>	<b>0.0413</b>	<b>0.0109</b>	<b>1.9000e-004</b>	<b>0.0111</b>		<b>38.3173</b>	<b>38.3173</b>	<b>1.0700e-003</b>	<b>9.9000e-004</b>	<b>38.6389</b>

Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Summer

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

**3.4 Grading - 2023**

**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	lb/day										lb/day					
Fugitive Dust					5.3119	0.0000	5.3119	2.5686	0.0000	2.5686			0.0000			0.0000
Off-Road	0.9335	10.1789	5.5516	0.0141		0.4201	0.4201		0.3865	0.3865		1,364.771 3	1,364.771 3	0.4414		1,375.806 2
<b>Total</b>	<b>0.9335</b>	<b>10.1789</b>	<b>5.5516</b>	<b>0.0141</b>	<b>5.3119</b>	<b>0.4201</b>	<b>5.7320</b>	<b>2.5686</b>	<b>0.3865</b>	<b>2.9550</b>		<b>1,364.771 3</b>	<b>1,364.771 3</b>	<b>0.4414</b>		<b>1,375.806 2</b>

**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	lb/day										lb/day					
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
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
Worker	0.0290	0.0157	0.2294	6.1000e-004	0.0657	3.4000e-004	0.0661	0.0174	3.1000e-004	0.0177		61.3077	61.3077	1.7100e-003	1.5800e-003	61.8223
<b>Total</b>	<b>0.0290</b>	<b>0.0157</b>	<b>0.2294</b>	<b>6.1000e-004</b>	<b>0.0657</b>	<b>3.4000e-004</b>	<b>0.0661</b>	<b>0.0174</b>	<b>3.1000e-004</b>	<b>0.0177</b>		<b>61.3077</b>	<b>61.3077</b>	<b>1.7100e-003</b>	<b>1.5800e-003</b>	<b>61.8223</b>

Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Summer

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

**3.4 Grading - 2023**

**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	lb/day										lb/day					
Fugitive Dust					2.1513	0.0000	2.1513	1.0403	0.0000	1.0403			0.0000			0.0000
Off-Road	0.9335	10.1789	5.5516	0.0141		0.4201	0.4201		0.3865	0.3865	0.0000	1,364.771 3	1,364.771 3	0.4414		1,375.806 2
<b>Total</b>	<b>0.9335</b>	<b>10.1789</b>	<b>5.5516</b>	<b>0.0141</b>	<b>2.1513</b>	<b>0.4201</b>	<b>2.5714</b>	<b>1.0403</b>	<b>0.3865</b>	<b>1.4268</b>	<b>0.0000</b>	<b>1,364.771 3</b>	<b>1,364.771 3</b>	<b>0.4414</b>		<b>1,375.806 2</b>

**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	lb/day										lb/day					
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
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
Worker	0.0290	0.0157	0.2294	6.1000e-004	0.0657	3.4000e-004	0.0661	0.0174	3.1000e-004	0.0177		61.3077	61.3077	1.7100e-003	1.5800e-003	61.8223
<b>Total</b>	<b>0.0290</b>	<b>0.0157</b>	<b>0.2294</b>	<b>6.1000e-004</b>	<b>0.0657</b>	<b>3.4000e-004</b>	<b>0.0661</b>	<b>0.0174</b>	<b>3.1000e-004</b>	<b>0.0177</b>		<b>61.3077</b>	<b>61.3077</b>	<b>1.7100e-003</b>	<b>1.5800e-003</b>	<b>61.8223</b>

Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Summer

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

**3.5 Building Construction - 2023**

**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	lb/day										lb/day					
Off-Road	0.6322	6.4186	7.0970	0.0114		0.3203	0.3203		0.2946	0.2946		1,104.6089	1,104.6089	0.3573		1,113.5402
<b>Total</b>	<b>0.6322</b>	<b>6.4186</b>	<b>7.0970</b>	<b>0.0114</b>		<b>0.3203</b>	<b>0.3203</b>		<b>0.2946</b>	<b>0.2946</b>		<b>1,104.6089</b>	<b>1,104.6089</b>	<b>0.3573</b>		<b>1,113.5402</b>

**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	lb/day										lb/day					
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
Vendor	4.5700e-003	0.1691	0.0534	8.1000e-004	0.0271	1.1400e-003	0.0283	7.8100e-003	1.0900e-003	8.9000e-003		85.1683	85.1683	3.7000e-004	0.0127	88.9728
Worker	0.0399	0.0215	0.3154	8.3000e-004	0.0904	4.6000e-004	0.0908	0.0240	4.3000e-004	0.0244		84.2981	84.2981	2.3500e-003	2.1800e-003	85.0057
<b>Total</b>	<b>0.0445</b>	<b>0.1906</b>	<b>0.3688</b>	<b>1.6400e-003</b>	<b>0.1175</b>	<b>1.6000e-003</b>	<b>0.1191</b>	<b>0.0318</b>	<b>1.5200e-003</b>	<b>0.0333</b>		<b>169.4664</b>	<b>169.4664</b>	<b>2.7200e-003</b>	<b>0.0149</b>	<b>173.9784</b>

Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Summer

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

**3.5 Building Construction - 2023**

**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	lb/day										lb/day					
Off-Road	0.6322	6.4186	7.0970	0.0114		0.3203	0.3203		0.2946	0.2946	0.0000	1,104.6089	1,104.6089	0.3573		1,113.5402
<b>Total</b>	<b>0.6322</b>	<b>6.4186</b>	<b>7.0970</b>	<b>0.0114</b>		<b>0.3203</b>	<b>0.3203</b>		<b>0.2946</b>	<b>0.2946</b>	<b>0.0000</b>	<b>1,104.6089</b>	<b>1,104.6089</b>	<b>0.3573</b>		<b>1,113.5402</b>

**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	lb/day										lb/day					
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
Vendor	4.5700e-003	0.1691	0.0534	8.1000e-004	0.0271	1.1400e-003	0.0283	7.8100e-003	1.0900e-003	8.9000e-003		85.1683	85.1683	3.7000e-004	0.0127	88.9728
Worker	0.0399	0.0215	0.3154	8.3000e-004	0.0904	4.6000e-004	0.0908	0.0240	4.3000e-004	0.0244		84.2981	84.2981	2.3500e-003	2.1800e-003	85.0057
<b>Total</b>	<b>0.0445</b>	<b>0.1906</b>	<b>0.3688</b>	<b>1.6400e-003</b>	<b>0.1175</b>	<b>1.6000e-003</b>	<b>0.1191</b>	<b>0.0318</b>	<b>1.5200e-003</b>	<b>0.0333</b>		<b>169.4664</b>	<b>169.4664</b>	<b>2.7200e-003</b>	<b>0.0149</b>	<b>173.9784</b>

Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Summer

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

**3.5 Building Construction - 2024**

**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	lb/day										lb/day					
Off-Road	0.5950	5.9739	7.0675	0.0114		0.2824	0.2824		0.2598	0.2598		1,104.9834	1,104.9834	0.3574		1,113.9177
<b>Total</b>	<b>0.5950</b>	<b>5.9739</b>	<b>7.0675</b>	<b>0.0114</b>		<b>0.2824</b>	<b>0.2824</b>		<b>0.2598</b>	<b>0.2598</b>		<b>1,104.9834</b>	<b>1,104.9834</b>	<b>0.3574</b>		<b>1,113.9177</b>

**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	lb/day										lb/day					
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
Vendor	4.4400e-003	0.1692	0.0521	7.9000e-004	0.0271	1.1500e-003	0.0283	7.8100e-003	1.1000e-003	8.9100e-003		83.8071	83.8071	3.5000e-004	0.0125	87.5488
Worker	0.0367	0.0190	0.2904	8.1000e-004	0.0904	4.4000e-004	0.0908	0.0240	4.0000e-004	0.0244		81.5155	81.5155	2.1100e-003	2.0100e-003	82.1674
<b>Total</b>	<b>0.0412</b>	<b>0.1882</b>	<b>0.3425</b>	<b>1.6000e-003</b>	<b>0.1175</b>	<b>1.5900e-003</b>	<b>0.1191</b>	<b>0.0318</b>	<b>1.5000e-003</b>	<b>0.0333</b>		<b>165.3226</b>	<b>165.3226</b>	<b>2.4600e-003</b>	<b>0.0145</b>	<b>169.7162</b>

Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Summer

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

**3.5 Building Construction - 2024**

**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	lb/day										lb/day					
Off-Road	0.5950	5.9739	7.0675	0.0114		0.2824	0.2824		0.2598	0.2598	0.0000	1,104.9834	1,104.9834	0.3574		1,113.9177
<b>Total</b>	<b>0.5950</b>	<b>5.9739</b>	<b>7.0675</b>	<b>0.0114</b>		<b>0.2824</b>	<b>0.2824</b>		<b>0.2598</b>	<b>0.2598</b>	<b>0.0000</b>	<b>1,104.9834</b>	<b>1,104.9834</b>	<b>0.3574</b>		<b>1,113.9177</b>

**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	lb/day										lb/day					
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
Vendor	4.4400e-003	0.1692	0.0521	7.9000e-004	0.0271	1.1500e-003	0.0283	7.8100e-003	1.1000e-003	8.9100e-003		83.8071	83.8071	3.5000e-004	0.0125	87.5488
Worker	0.0367	0.0190	0.2904	8.1000e-004	0.0904	4.4000e-004	0.0908	0.0240	4.0000e-004	0.0244		81.5155	81.5155	2.1100e-003	2.0100e-003	82.1674
<b>Total</b>	<b>0.0412</b>	<b>0.1882</b>	<b>0.3425</b>	<b>1.6000e-003</b>	<b>0.1175</b>	<b>1.5900e-003</b>	<b>0.1191</b>	<b>0.0318</b>	<b>1.5000e-003</b>	<b>0.0333</b>		<b>165.3226</b>	<b>165.3226</b>	<b>2.4600e-003</b>	<b>0.0145</b>	<b>169.7162</b>

Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Summer

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

**3.6 Paving - 2024**

**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	lb/day										lb/day					
Off-Road	0.5904	5.2297	7.0314	0.0113		0.2429	0.2429		0.2269	0.2269		1,036.2393	1,036.2393	0.3019		1,043.7858
Paving	0.2253					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.8157</b>	<b>5.2297</b>	<b>7.0314</b>	<b>0.0113</b>		<b>0.2429</b>	<b>0.2429</b>		<b>0.2269</b>	<b>0.2269</b>		<b>1,036.2393</b>	<b>1,036.2393</b>	<b>0.3019</b>		<b>1,043.7858</b>

**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	lb/day										lb/day					
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
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
Worker	0.0601	0.0310	0.4752	1.3200e-003	0.1479	7.2000e-004	0.1486	0.0392	6.6000e-004	0.0399		133.3890	133.3890	3.4500e-003	3.2900e-003	134.4557
<b>Total</b>	<b>0.0601</b>	<b>0.0310</b>	<b>0.4752</b>	<b>1.3200e-003</b>	<b>0.1479</b>	<b>7.2000e-004</b>	<b>0.1486</b>	<b>0.0392</b>	<b>6.6000e-004</b>	<b>0.0399</b>		<b>133.3890</b>	<b>133.3890</b>	<b>3.4500e-003</b>	<b>3.2900e-003</b>	<b>134.4557</b>

Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Summer

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

**3.6 Paving - 2024**

**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	lb/day										lb/day					
Off-Road	0.5904	5.2297	7.0314	0.0113		0.2429	0.2429		0.2269	0.2269	0.0000	1,036.2393	1,036.2393	0.3019		1,043.7858
Paving	0.2253					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.8157</b>	<b>5.2297</b>	<b>7.0314</b>	<b>0.0113</b>		<b>0.2429</b>	<b>0.2429</b>		<b>0.2269</b>	<b>0.2269</b>	<b>0.0000</b>	<b>1,036.2393</b>	<b>1,036.2393</b>	<b>0.3019</b>		<b>1,043.7858</b>

**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	lb/day										lb/day					
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
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
Worker	0.0601	0.0310	0.4752	1.3200e-003	0.1479	7.2000e-004	0.1486	0.0392	6.6000e-004	0.0399		133.3890	133.3890	3.4500e-003	3.2900e-003	134.4557
<b>Total</b>	<b>0.0601</b>	<b>0.0310</b>	<b>0.4752</b>	<b>1.3200e-003</b>	<b>0.1479</b>	<b>7.2000e-004</b>	<b>0.1486</b>	<b>0.0392</b>	<b>6.6000e-004</b>	<b>0.0399</b>		<b>133.3890</b>	<b>133.3890</b>	<b>3.4500e-003</b>	<b>3.2900e-003</b>	<b>134.4557</b>

Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Summer

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

**3.7 Architectural Coating - 2024**

**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	lb/day										lb/day					
Archit. Coating	22.9141					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
<b>Total</b>	<b>23.0948</b>	<b>1.2188</b>	<b>1.8101</b>	<b>2.9700e-003</b>		<b>0.0609</b>	<b>0.0609</b>		<b>0.0609</b>	<b>0.0609</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0159</b>		<b>281.8443</b>

**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	lb/day										lb/day					
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
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
Worker	6.6800e-003	3.4500e-003	0.0528	1.5000e-004	0.0164	8.0000e-005	0.0165	4.3600e-003	7.0000e-005	4.4300e-003		14.8210	14.8210	3.8000e-004	3.7000e-004	14.9395
<b>Total</b>	<b>6.6800e-003</b>	<b>3.4500e-003</b>	<b>0.0528</b>	<b>1.5000e-004</b>	<b>0.0164</b>	<b>8.0000e-005</b>	<b>0.0165</b>	<b>4.3600e-003</b>	<b>7.0000e-005</b>	<b>4.4300e-003</b>		<b>14.8210</b>	<b>14.8210</b>	<b>3.8000e-004</b>	<b>3.7000e-004</b>	<b>14.9395</b>

Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Summer

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

**3.7 Architectural Coating - 2024**

**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	lb/day										lb/day					
Archit. Coating	22.9141					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
<b>Total</b>	<b>23.0948</b>	<b>1.2188</b>	<b>1.8101</b>	<b>2.9700e-003</b>		<b>0.0609</b>	<b>0.0609</b>		<b>0.0609</b>	<b>0.0609</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0159</b>		<b>281.8443</b>

**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	lb/day										lb/day					
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
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
Worker	6.6800e-003	3.4500e-003	0.0528	1.5000e-004	0.0164	8.0000e-005	0.0165	4.3600e-003	7.0000e-005	4.4300e-003		14.8210	14.8210	3.8000e-004	3.7000e-004	14.9395
<b>Total</b>	<b>6.6800e-003</b>	<b>3.4500e-003</b>	<b>0.0528</b>	<b>1.5000e-004</b>	<b>0.0164</b>	<b>8.0000e-005</b>	<b>0.0165</b>	<b>4.3600e-003</b>	<b>7.0000e-005</b>	<b>4.4300e-003</b>		<b>14.8210</b>	<b>14.8210</b>	<b>3.8000e-004</b>	<b>3.7000e-004</b>	<b>14.9395</b>

Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Summer

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

**4.0 Operational Detail - Mobile**

**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4.4330	3.3690	18.4403	0.0294	2.5339	0.0283	2.5621	0.6766	0.0265	0.7031		3,000.3550	3,000.3550	0.2875	0.2392	3,078.8297
Unmitigated	4.4330	3.3690	18.4403	0.0294	2.5339	0.0283	2.5621	0.6766	0.0265	0.7031		3,000.3550	3,000.3550	0.2875	0.2392	3,078.8297

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market with Gas Pumps	1,935.00	1,935.00	1935.00	1,037,942	1,037,942
General Office Building	66.39	15.06	4.77	120,093	120,093
Parking Lot	0.00	0.00	0.00		
<b>Total</b>	<b>2,001.39</b>	<b>1,950.06</b>	<b>1,939.77</b>	<b>1,158,035</b>	<b>1,158,035</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
Convenience Market with Gas	9.50	7.30	7.30	0.80	80.20	19.00	14	21	65
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Summer

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

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market with Gas Pumps	0.517111	0.052324	0.170980	0.155671	0.027786	0.007423	0.013424	0.026160	0.000649	0.000313	0.023324	0.001439	0.003395
General Office Building	0.517111	0.052324	0.170980	0.155671	0.027786	0.007423	0.013424	0.026160	0.000649	0.000313	0.023324	0.001439	0.003395
Parking Lot	0.517111	0.052324	0.170980	0.155671	0.027786	0.007423	0.013424	0.026160	0.000649	0.000313	0.023324	0.001439	0.003395

**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	lb/day										lb/day					
NaturalGas Mitigated	2.8700e-003	0.0261	0.0219	1.6000e-004		1.9800e-003	1.9800e-003		1.9800e-003	1.9800e-003		31.2812	31.2812	6.0000e-004	5.7000e-004	31.4671
NaturalGas Unmitigated	2.8700e-003	0.0261	0.0219	1.6000e-004		1.9800e-003	1.9800e-003		1.9800e-003	1.9800e-003		31.2812	31.2812	6.0000e-004	5.7000e-004	31.4671

Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Summer

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

**5.2 Energy by Land Use - Natural Gas**

**Unmitigated**

	Natural Gas 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	lb/day										lb/day					
Convenience Market with Gas Pumps	24.6225	2.7000e-004	2.4100e-003	2.0300e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		2.8968	2.8968	6.0000e-005	5.0000e-005	2.9140
General Office Building	241.268	2.6000e-003	0.0237	0.0199	1.4000e-004		1.8000e-003	1.8000e-003		1.8000e-003	1.8000e-003		28.3844	28.3844	5.4000e-004	5.2000e-004	28.5531
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
<b>Total</b>		<b>2.8700e-003</b>	<b>0.0261</b>	<b>0.0219</b>	<b>1.5000e-004</b>		<b>1.9800e-003</b>	<b>1.9800e-003</b>		<b>1.9800e-003</b>	<b>1.9800e-003</b>		<b>31.2812</b>	<b>31.2812</b>	<b>6.0000e-004</b>	<b>5.7000e-004</b>	<b>31.4671</b>

Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Summer

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

**5.2 Energy by Land Use - Natural Gas**

Mitigated

	Natural Gas 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	lb/day										lb/day					
Convenience Market with Gas Pumps	0.0246225	2.7000e-004	2.4100e-003	2.0300e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		2.8968	2.8968	6.0000e-005	5.0000e-005	2.9140
General Office Building	0.241268	2.6000e-003	0.0237	0.0199	1.4000e-004		1.8000e-003	1.8000e-003		1.8000e-003	1.8000e-003		28.3844	28.3844	5.4000e-004	5.2000e-004	28.5531
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
<b>Total</b>		<b>2.8700e-003</b>	<b>0.0261</b>	<b>0.0219</b>	<b>1.5000e-004</b>		<b>1.9800e-003</b>	<b>1.9800e-003</b>		<b>1.9800e-003</b>	<b>1.9800e-003</b>		<b>31.2812</b>	<b>31.2812</b>	<b>6.0000e-004</b>	<b>5.7000e-004</b>	<b>31.4671</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Summer

**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	lb/day										lb/day					
Mitigated	0.1818	6.0000e-005	6.1900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0133	0.0133	3.0000e-005		0.0142
Unmitigated	0.2028	6.0000e-005	6.1900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0133	0.0133	3.0000e-005		0.0142

**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	lb/day										lb/day					
Architectural Coating	0.0314					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1708					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.7000e-004	6.0000e-005	6.1900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0133	0.0133	3.0000e-005		0.0142
<b>Total</b>	<b>0.2028</b>	<b>6.0000e-005</b>	<b>6.1900e-003</b>	<b>0.0000</b>		<b>2.0000e-005</b>	<b>2.0000e-005</b>		<b>2.0000e-005</b>	<b>2.0000e-005</b>		<b>0.0133</b>	<b>0.0133</b>	<b>3.0000e-005</b>		<b>0.0142</b>

Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Summer

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

**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	lb/day										lb/day					
Architectural Coating	0.0105					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1708					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.7000e-004	6.0000e-005	6.1900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0133	0.0133	3.0000e-005		0.0142
<b>Total</b>	<b>0.1818</b>	<b>6.0000e-005</b>	<b>6.1900e-003</b>	<b>0.0000</b>		<b>2.0000e-005</b>	<b>2.0000e-005</b>		<b>2.0000e-005</b>	<b>2.0000e-005</b>		<b>0.0133</b>	<b>0.0133</b>	<b>3.0000e-005</b>		<b>0.0142</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Summer

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

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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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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Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Winter

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

**Manteca Commercial Development**  
**San Joaquin Valley Unified APCD Air District, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Convenience Market with Gas Pumps	6.00	Pump	0.02	847.05	0
General Office Building	6.82	1000sqft	0.16	6,816.00	0
Parking Lot	48.00	Space	0.43	19,200.00	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>	2025
<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 -

Land Use -

Construction Off-road Equipment Mitigation -

Area Mitigation - Low VOC paints.

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	150	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	150	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	150	50

Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Winter

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

**2.0 Emissions Summary**

**2.1 Overall Construction (Maximum Daily Emission)**

**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	lb/day										lb/day					
2023	0.9594	10.1973	7.6381	0.0146	5.3777	0.4204	5.7981	2.5860	0.3868	2.9728	0.0000	1,419.3236	1,419.3236	0.4433	0.0152	1,430.9331
2024	23.1008	6.1775	7.4400	0.0129	0.1479	0.2840	0.4014	0.0392	0.2613	0.2931	0.0000	1,261.5137	1,261.5137	0.3601	0.0148	1,274.9280
<b>Maximum</b>	<b>23.1008</b>	<b>10.1973</b>	<b>7.6381</b>	<b>0.0146</b>	<b>5.3777</b>	<b>0.4204</b>	<b>5.7981</b>	<b>2.5860</b>	<b>0.3868</b>	<b>2.9728</b>	<b>0.0000</b>	<b>1,419.3236</b>	<b>1,419.3236</b>	<b>0.4433</b>	<b>0.0152</b>	<b>1,430.9331</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	lb/day										lb/day					
2023	0.9594	10.1973	7.6381	0.0146	2.2171	0.4204	2.6375	1.0577	0.3868	1.4445	0.0000	1,419.3236	1,419.3236	0.4433	0.0152	1,430.9331
2024	23.1008	6.1775	7.4400	0.0129	0.1479	0.2840	0.4014	0.0392	0.2613	0.2931	0.0000	1,261.5137	1,261.5137	0.3601	0.0148	1,274.9280
<b>Maximum</b>	<b>23.1008</b>	<b>10.1973</b>	<b>7.6381</b>	<b>0.0146</b>	<b>2.2171</b>	<b>0.4204</b>	<b>2.6375</b>	<b>1.0577</b>	<b>0.3868</b>	<b>1.4445</b>	<b>0.0000</b>	<b>1,419.3236</b>	<b>1,419.3236</b>	<b>0.4433</b>	<b>0.0152</b>	<b>1,430.9331</b>



Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Winter

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

**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	lb/day										lb/day					
Area	0.2028	6.0000e-005	6.1900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0133	0.0133	3.0000e-005		0.0142
Energy	2.8700e-003	0.0261	0.0219	1.6000e-004		1.9800e-003	1.9800e-003		1.9800e-003	1.9800e-003		31.2812	31.2812	6.0000e-004	5.7000e-004	31.4671
Mobile	3.0792	3.7660	21.1282	0.0274	2.5339	0.0284	2.5622	0.6766	0.0266	0.7032		2,798.273 2	2,798.273 2	0.3598	0.2581	2,884.166 0
<b>Total</b>	<b>3.2848</b>	<b>3.7921</b>	<b>21.1563</b>	<b>0.0276</b>	<b>2.5339</b>	<b>0.0304</b>	<b>2.5642</b>	<b>0.6766</b>	<b>0.0286</b>	<b>0.7052</b>		<b>2,829.567 7</b>	<b>2,829.567 7</b>	<b>0.3604</b>	<b>0.2586</b>	<b>2,915.647 3</b>

**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	lb/day										lb/day					
Area	0.1818	6.0000e-005	6.1900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0133	0.0133	3.0000e-005		0.0142
Energy	2.8700e-003	0.0261	0.0219	1.6000e-004		1.9800e-003	1.9800e-003		1.9800e-003	1.9800e-003		31.2812	31.2812	6.0000e-004	5.7000e-004	31.4671
Mobile	3.0792	3.7660	21.1282	0.0274	2.5339	0.0284	2.5622	0.6766	0.0266	0.7032		2,798.273 2	2,798.273 2	0.3598	0.2581	2,884.166 0
<b>Total</b>	<b>3.2638</b>	<b>3.7921</b>	<b>21.1563</b>	<b>0.0276</b>	<b>2.5339</b>	<b>0.0304</b>	<b>2.5642</b>	<b>0.6766</b>	<b>0.0286</b>	<b>0.7052</b>		<b>2,829.567 7</b>	<b>2,829.567 7</b>	<b>0.3604</b>	<b>0.2586</b>	<b>2,915.647 3</b>

Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Winter

**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
Percent Reduction	0.64	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**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2023	9/14/2023	5	10	
2	Site Preparation	Site Preparation	9/15/2023	9/15/2023	5	1	
3	Grading	Grading	9/16/2023	9/19/2023	5	2	
4	Building Construction	Building Construction	9/20/2023	2/6/2024	5	100	
5	Paving	Paving	2/7/2024	2/13/2024	5	5	
6	Architectural Coating	Architectural Coating	2/14/2024	2/20/2024	5	5	

**Acres of Grading (Site Preparation Phase): 0.5**

**Acres of Grading (Grading Phase): 1.5**

**Acres of Paving: 0.43**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 11,495; Non-Residential Outdoor: 3,832; Striped Parking Area: 1,152 (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
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20

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

Grading	Graders	1	6.00	187	0.41
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	11.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Winter

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

**3.2 Demolition - 2023**

**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	lb/day										lb/day					
Off-Road	0.6463	5.7787	7.3926	0.0120		0.2821	0.2821		0.2698	0.2698		1,148.4055	1,148.4055	0.2089		1,153.6290
<b>Total</b>	<b>0.6463</b>	<b>5.7787</b>	<b>7.3926</b>	<b>0.0120</b>		<b>0.2821</b>	<b>0.2821</b>		<b>0.2698</b>	<b>0.2698</b>		<b>1,148.4055</b>	<b>1,148.4055</b>	<b>0.2089</b>		<b>1,153.6290</b>

**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	lb/day										lb/day					
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
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
Worker	0.0324	0.0231	0.2454	6.7000e-004	0.0822	4.2000e-004	0.0826	0.0218	3.9000e-004	0.0222		68.1903	68.1903	2.3800e-003	2.2100e-003	68.9086
<b>Total</b>	<b>0.0324</b>	<b>0.0231</b>	<b>0.2454</b>	<b>6.7000e-004</b>	<b>0.0822</b>	<b>4.2000e-004</b>	<b>0.0826</b>	<b>0.0218</b>	<b>3.9000e-004</b>	<b>0.0222</b>		<b>68.1903</b>	<b>68.1903</b>	<b>2.3800e-003</b>	<b>2.2100e-003</b>	<b>68.9086</b>

Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Winter

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

**3.2 Demolition - 2023**

**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	lb/day										lb/day					
Off-Road	0.6463	5.7787	7.3926	0.0120		0.2821	0.2821		0.2698	0.2698	0.0000	1,148.4055	1,148.4055	0.2089		1,153.6290
<b>Total</b>	<b>0.6463</b>	<b>5.7787</b>	<b>7.3926</b>	<b>0.0120</b>		<b>0.2821</b>	<b>0.2821</b>		<b>0.2698</b>	<b>0.2698</b>	<b>0.0000</b>	<b>1,148.4055</b>	<b>1,148.4055</b>	<b>0.2089</b>		<b>1,153.6290</b>

**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	lb/day										lb/day					
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
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
Worker	0.0324	0.0231	0.2454	6.7000e-004	0.0822	4.2000e-004	0.0826	0.0218	3.9000e-004	0.0222		68.1903	68.1903	2.3800e-003	2.2100e-003	68.9086
<b>Total</b>	<b>0.0324</b>	<b>0.0231</b>	<b>0.2454</b>	<b>6.7000e-004</b>	<b>0.0822</b>	<b>4.2000e-004</b>	<b>0.0826</b>	<b>0.0218</b>	<b>3.9000e-004</b>	<b>0.0222</b>		<b>68.1903</b>	<b>68.1903</b>	<b>2.3800e-003</b>	<b>2.2100e-003</b>	<b>68.9086</b>

Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Winter

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

**3.3 Site Preparation - 2023**

**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	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.5348	6.1887	3.9239	9.7300e-003		0.2266	0.2266		0.2084	0.2084		942.4317	942.4317	0.3048		950.0517
<b>Total</b>	<b>0.5348</b>	<b>6.1887</b>	<b>3.9239</b>	<b>9.7300e-003</b>	<b>0.5303</b>	<b>0.2266</b>	<b>0.7568</b>	<b>0.0573</b>	<b>0.2084</b>	<b>0.2657</b>		<b>942.4317</b>	<b>942.4317</b>	<b>0.3048</b>		<b>950.0517</b>

**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	lb/day										lb/day					
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
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
Worker	0.0162	0.0116	0.1227	3.4000e-004	0.0411	2.1000e-004	0.0413	0.0109	1.9000e-004	0.0111		34.0952	34.0952	1.1900e-003	1.1100e-003	34.4543
<b>Total</b>	<b>0.0162</b>	<b>0.0116</b>	<b>0.1227</b>	<b>3.4000e-004</b>	<b>0.0411</b>	<b>2.1000e-004</b>	<b>0.0413</b>	<b>0.0109</b>	<b>1.9000e-004</b>	<b>0.0111</b>		<b>34.0952</b>	<b>34.0952</b>	<b>1.1900e-003</b>	<b>1.1100e-003</b>	<b>34.4543</b>

Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Winter

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

**3.3 Site Preparation - 2023**

**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	lb/day										lb/day					
Fugitive Dust					0.2148	0.0000	0.2148	0.0232	0.0000	0.0232			0.0000			0.0000
Off-Road	0.5348	6.1887	3.9239	9.7300e-003		0.2266	0.2266		0.2084	0.2084	0.0000	942.4317	942.4317	0.3048		950.0517
<b>Total</b>	<b>0.5348</b>	<b>6.1887</b>	<b>3.9239</b>	<b>9.7300e-003</b>	<b>0.2148</b>	<b>0.2266</b>	<b>0.4413</b>	<b>0.0232</b>	<b>0.2084</b>	<b>0.2316</b>	<b>0.0000</b>	<b>942.4317</b>	<b>942.4317</b>	<b>0.3048</b>		<b>950.0517</b>

**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	lb/day										lb/day					
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
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
Worker	0.0162	0.0116	0.1227	3.4000e-004	0.0411	2.1000e-004	0.0413	0.0109	1.9000e-004	0.0111		34.0952	34.0952	1.1900e-003	1.1100e-003	34.4543
<b>Total</b>	<b>0.0162</b>	<b>0.0116</b>	<b>0.1227</b>	<b>3.4000e-004</b>	<b>0.0411</b>	<b>2.1000e-004</b>	<b>0.0413</b>	<b>0.0109</b>	<b>1.9000e-004</b>	<b>0.0111</b>		<b>34.0952</b>	<b>34.0952</b>	<b>1.1900e-003</b>	<b>1.1100e-003</b>	<b>34.4543</b>

Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Winter

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

**3.4 Grading - 2023**

**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	lb/day										lb/day					
Fugitive Dust					5.3119	0.0000	5.3119	2.5686	0.0000	2.5686			0.0000			0.0000
Off-Road	0.9335	10.1789	5.5516	0.0141		0.4201	0.4201		0.3865	0.3865		1,364.771 3	1,364.771 3	0.4414		1,375.806 2
<b>Total</b>	<b>0.9335</b>	<b>10.1789</b>	<b>5.5516</b>	<b>0.0141</b>	<b>5.3119</b>	<b>0.4201</b>	<b>5.7320</b>	<b>2.5686</b>	<b>0.3865</b>	<b>2.9550</b>		<b>1,364.771 3</b>	<b>1,364.771 3</b>	<b>0.4414</b>		<b>1,375.806 2</b>

**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	lb/day										lb/day					
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
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
Worker	0.0259	0.0185	0.1964	5.4000e-004	0.0657	3.4000e-004	0.0661	0.0174	3.1000e-004	0.0177		54.5522	54.5522	1.9000e-003	1.7700e-003	55.1269
<b>Total</b>	<b>0.0259</b>	<b>0.0185</b>	<b>0.1964</b>	<b>5.4000e-004</b>	<b>0.0657</b>	<b>3.4000e-004</b>	<b>0.0661</b>	<b>0.0174</b>	<b>3.1000e-004</b>	<b>0.0177</b>		<b>54.5522</b>	<b>54.5522</b>	<b>1.9000e-003</b>	<b>1.7700e-003</b>	<b>55.1269</b>

Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Winter

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

**3.4 Grading - 2023**

**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	lb/day										lb/day					
Fugitive Dust					2.1513	0.0000	2.1513	1.0403	0.0000	1.0403			0.0000			0.0000
Off-Road	0.9335	10.1789	5.5516	0.0141		0.4201	0.4201		0.3865	0.3865	0.0000	1,364.771 3	1,364.771 3	0.4414		1,375.806 2
<b>Total</b>	<b>0.9335</b>	<b>10.1789</b>	<b>5.5516</b>	<b>0.0141</b>	<b>2.1513</b>	<b>0.4201</b>	<b>2.5714</b>	<b>1.0403</b>	<b>0.3865</b>	<b>1.4268</b>	<b>0.0000</b>	<b>1,364.771 3</b>	<b>1,364.771 3</b>	<b>0.4414</b>		<b>1,375.806 2</b>

**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	lb/day										lb/day					
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
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
Worker	0.0259	0.0185	0.1964	5.4000e-004	0.0657	3.4000e-004	0.0661	0.0174	3.1000e-004	0.0177		54.5522	54.5522	1.9000e-003	1.7700e-003	55.1269
<b>Total</b>	<b>0.0259</b>	<b>0.0185</b>	<b>0.1964</b>	<b>5.4000e-004</b>	<b>0.0657</b>	<b>3.4000e-004</b>	<b>0.0661</b>	<b>0.0174</b>	<b>3.1000e-004</b>	<b>0.0177</b>		<b>54.5522</b>	<b>54.5522</b>	<b>1.9000e-003</b>	<b>1.7700e-003</b>	<b>55.1269</b>

Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Winter

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

**3.5 Building Construction - 2023**

**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	lb/day										lb/day					
Off-Road	0.6322	6.4186	7.0970	0.0114		0.3203	0.3203		0.2946	0.2946		1,104.6089	1,104.6089	0.3573		1,113.5402
<b>Total</b>	<b>0.6322</b>	<b>6.4186</b>	<b>7.0970</b>	<b>0.0114</b>		<b>0.3203</b>	<b>0.3203</b>		<b>0.2946</b>	<b>0.2946</b>		<b>1,104.6089</b>	<b>1,104.6089</b>	<b>0.3573</b>		<b>1,113.5402</b>

**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	lb/day										lb/day					
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
Vendor	4.2900e-003	0.1811	0.0552	8.1000e-004	0.0271	1.1500e-003	0.0283	7.8100e-003	1.1000e-003	8.9000e-003		85.3349	85.3349	3.6000e-004	0.0128	89.1502
Worker	0.0356	0.0254	0.2700	7.4000e-004	0.0904	4.6000e-004	0.0908	0.0240	4.3000e-004	0.0244		75.0093	75.0093	2.6100e-003	2.4300e-003	75.7995
<b>Total</b>	<b>0.0399</b>	<b>0.2065</b>	<b>0.3252</b>	<b>1.5500e-003</b>	<b>0.1175</b>	<b>1.6100e-003</b>	<b>0.1191</b>	<b>0.0318</b>	<b>1.5300e-003</b>	<b>0.0333</b>		<b>160.3442</b>	<b>160.3442</b>	<b>2.9700e-003</b>	<b>0.0152</b>	<b>164.9496</b>

Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Winter

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

**3.5 Building Construction - 2023**

**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	lb/day										lb/day					
Off-Road	0.6322	6.4186	7.0970	0.0114		0.3203	0.3203		0.2946	0.2946	0.0000	1,104.6089	1,104.6089	0.3573		1,113.5402
<b>Total</b>	<b>0.6322</b>	<b>6.4186</b>	<b>7.0970</b>	<b>0.0114</b>		<b>0.3203</b>	<b>0.3203</b>		<b>0.2946</b>	<b>0.2946</b>	<b>0.0000</b>	<b>1,104.6089</b>	<b>1,104.6089</b>	<b>0.3573</b>		<b>1,113.5402</b>

**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	lb/day										lb/day					
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
Vendor	4.2900e-003	0.1811	0.0552	8.1000e-004	0.0271	1.1500e-003	0.0283	7.8100e-003	1.1000e-003	8.9000e-003		85.3349	85.3349	3.6000e-004	0.0128	89.1502
Worker	0.0356	0.0254	0.2700	7.4000e-004	0.0904	4.6000e-004	0.0908	0.0240	4.3000e-004	0.0244		75.0093	75.0093	2.6100e-003	2.4300e-003	75.7995
<b>Total</b>	<b>0.0399</b>	<b>0.2065</b>	<b>0.3252</b>	<b>1.5500e-003</b>	<b>0.1175</b>	<b>1.6100e-003</b>	<b>0.1191</b>	<b>0.0318</b>	<b>1.5300e-003</b>	<b>0.0333</b>		<b>160.3442</b>	<b>160.3442</b>	<b>2.9700e-003</b>	<b>0.0152</b>	<b>164.9496</b>

Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Winter

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

**3.5 Building Construction - 2024**

**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	lb/day										lb/day					
Off-Road	0.5950	5.9739	7.0675	0.0114		0.2824	0.2824		0.2598	0.2598		1,104.9834	1,104.9834	0.3574		1,113.9177
<b>Total</b>	<b>0.5950</b>	<b>5.9739</b>	<b>7.0675</b>	<b>0.0114</b>		<b>0.2824</b>	<b>0.2824</b>		<b>0.2598</b>	<b>0.2598</b>		<b>1,104.9834</b>	<b>1,104.9834</b>	<b>0.3574</b>		<b>1,113.9177</b>

**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	lb/day										lb/day					
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
Vendor	4.1700e-003	0.1812	0.0539	7.9000e-004	0.0271	1.1500e-003	0.0283	7.8100e-003	1.1000e-003	8.9100e-003		83.9719	83.9719	3.4000e-004	0.0126	87.7239
Worker	0.0329	0.0224	0.2497	7.2000e-004	0.0904	4.4000e-004	0.0908	0.0240	4.0000e-004	0.0244		72.5584	72.5584	2.3600e-003	2.2500e-003	73.2863
<b>Total</b>	<b>0.0370</b>	<b>0.2036</b>	<b>0.3035</b>	<b>1.5100e-003</b>	<b>0.1175</b>	<b>1.5900e-003</b>	<b>0.1191</b>	<b>0.0318</b>	<b>1.5000e-003</b>	<b>0.0333</b>		<b>156.5303</b>	<b>156.5303</b>	<b>2.7000e-003</b>	<b>0.0148</b>	<b>161.0102</b>

Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Winter

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

**3.5 Building Construction - 2024**

**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	lb/day										lb/day					
Off-Road	0.5950	5.9739	7.0675	0.0114		0.2824	0.2824		0.2598	0.2598	0.0000	1,104.9834	1,104.9834	0.3574		1,113.9177
<b>Total</b>	<b>0.5950</b>	<b>5.9739</b>	<b>7.0675</b>	<b>0.0114</b>		<b>0.2824</b>	<b>0.2824</b>		<b>0.2598</b>	<b>0.2598</b>	<b>0.0000</b>	<b>1,104.9834</b>	<b>1,104.9834</b>	<b>0.3574</b>		<b>1,113.9177</b>

**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	lb/day										lb/day					
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
Vendor	4.1700e-003	0.1812	0.0539	7.9000e-004	0.0271	1.1500e-003	0.0283	7.8100e-003	1.1000e-003	8.9100e-003		83.9719	83.9719	3.4000e-004	0.0126	87.7239
Worker	0.0329	0.0224	0.2497	7.2000e-004	0.0904	4.4000e-004	0.0908	0.0240	4.0000e-004	0.0244		72.5584	72.5584	2.3600e-003	2.2500e-003	73.2863
<b>Total</b>	<b>0.0370</b>	<b>0.2036</b>	<b>0.3035</b>	<b>1.5100e-003</b>	<b>0.1175</b>	<b>1.5900e-003</b>	<b>0.1191</b>	<b>0.0318</b>	<b>1.5000e-003</b>	<b>0.0333</b>		<b>156.5303</b>	<b>156.5303</b>	<b>2.7000e-003</b>	<b>0.0148</b>	<b>161.0102</b>

Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Winter

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

**3.6 Paving - 2024**

**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	lb/day										lb/day					
Off-Road	0.5904	5.2297	7.0314	0.0113		0.2429	0.2429		0.2269	0.2269		1,036.2393	1,036.2393	0.3019		1,043.7858
Paving	0.2253					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.8157</b>	<b>5.2297</b>	<b>7.0314</b>	<b>0.0113</b>		<b>0.2429</b>	<b>0.2429</b>		<b>0.2269</b>	<b>0.2269</b>		<b>1,036.2393</b>	<b>1,036.2393</b>	<b>0.3019</b>		<b>1,043.7858</b>

**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	lb/day										lb/day					
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
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
Worker	0.0538	0.0366	0.4086	1.1700e-003	0.1479	7.2000e-004	0.1486	0.0392	6.6000e-004	0.0399		118.7319	118.7319	3.8500e-003	3.6700e-003	119.9230
<b>Total</b>	<b>0.0538</b>	<b>0.0366</b>	<b>0.4086</b>	<b>1.1700e-003</b>	<b>0.1479</b>	<b>7.2000e-004</b>	<b>0.1486</b>	<b>0.0392</b>	<b>6.6000e-004</b>	<b>0.0399</b>		<b>118.7319</b>	<b>118.7319</b>	<b>3.8500e-003</b>	<b>3.6700e-003</b>	<b>119.9230</b>

Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Winter

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

**3.6 Paving - 2024**

**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	lb/day										lb/day					
Off-Road	0.5904	5.2297	7.0314	0.0113		0.2429	0.2429		0.2269	0.2269	0.0000	1,036.2393	1,036.2393	0.3019		1,043.7858
Paving	0.2253					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.8157</b>	<b>5.2297</b>	<b>7.0314</b>	<b>0.0113</b>		<b>0.2429</b>	<b>0.2429</b>		<b>0.2269</b>	<b>0.2269</b>	<b>0.0000</b>	<b>1,036.2393</b>	<b>1,036.2393</b>	<b>0.3019</b>		<b>1,043.7858</b>

**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	lb/day										lb/day					
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
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
Worker	0.0538	0.0366	0.4086	1.1700e-003	0.1479	7.2000e-004	0.1486	0.0392	6.6000e-004	0.0399		118.7319	118.7319	3.8500e-003	3.6700e-003	119.9230
<b>Total</b>	<b>0.0538</b>	<b>0.0366</b>	<b>0.4086</b>	<b>1.1700e-003</b>	<b>0.1479</b>	<b>7.2000e-004</b>	<b>0.1486</b>	<b>0.0392</b>	<b>6.6000e-004</b>	<b>0.0399</b>		<b>118.7319</b>	<b>118.7319</b>	<b>3.8500e-003</b>	<b>3.6700e-003</b>	<b>119.9230</b>

Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Winter

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

**3.7 Architectural Coating - 2024**

**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	lb/day										lb/day					
Archit. Coating	22.9141					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
<b>Total</b>	<b>23.0948</b>	<b>1.2188</b>	<b>1.8101</b>	<b>2.9700e-003</b>		<b>0.0609</b>	<b>0.0609</b>		<b>0.0609</b>	<b>0.0609</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0159</b>		<b>281.8443</b>

**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	lb/day										lb/day					
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
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
Worker	5.9700e-003	4.0700e-003	0.0454	1.3000e-004	0.0164	8.0000e-005	0.0165	4.3600e-003	7.0000e-005	4.4300e-003		13.1924	13.1924	4.3000e-004	4.1000e-004	13.3248
<b>Total</b>	<b>5.9700e-003</b>	<b>4.0700e-003</b>	<b>0.0454</b>	<b>1.3000e-004</b>	<b>0.0164</b>	<b>8.0000e-005</b>	<b>0.0165</b>	<b>4.3600e-003</b>	<b>7.0000e-005</b>	<b>4.4300e-003</b>		<b>13.1924</b>	<b>13.1924</b>	<b>4.3000e-004</b>	<b>4.1000e-004</b>	<b>13.3248</b>

Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Winter

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

**3.7 Architectural Coating - 2024**

**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	lb/day										lb/day					
Archit. Coating	22.9141					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
<b>Total</b>	<b>23.0948</b>	<b>1.2188</b>	<b>1.8101</b>	<b>2.9700e-003</b>		<b>0.0609</b>	<b>0.0609</b>		<b>0.0609</b>	<b>0.0609</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0159</b>		<b>281.8443</b>

**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	lb/day										lb/day					
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
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
Worker	5.9700e-003	4.0700e-003	0.0454	1.3000e-004	0.0164	8.0000e-005	0.0165	4.3600e-003	7.0000e-005	4.4300e-003		13.1924	13.1924	4.3000e-004	4.1000e-004	13.3248
<b>Total</b>	<b>5.9700e-003</b>	<b>4.0700e-003</b>	<b>0.0454</b>	<b>1.3000e-004</b>	<b>0.0164</b>	<b>8.0000e-005</b>	<b>0.0165</b>	<b>4.3600e-003</b>	<b>7.0000e-005</b>	<b>4.4300e-003</b>		<b>13.1924</b>	<b>13.1924</b>	<b>4.3000e-004</b>	<b>4.1000e-004</b>	<b>13.3248</b>

Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Winter

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

**4.0 Operational Detail - Mobile**

**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.0792	3.7660	21.1282	0.0274	2.5339	0.0284	2.5622	0.6766	0.0266	0.7032		2,798,273 2	2,798,273 2	0.3598	0.2581	2,884.166 0
Unmitigated	3.0792	3.7660	21.1282	0.0274	2.5339	0.0284	2.5622	0.6766	0.0266	0.7032		2,798,273 2	2,798,273 2	0.3598	0.2581	2,884.166 0

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market with Gas Pumps	1,935.00	1,935.00	1935.00	1,037,942	1,037,942
General Office Building	66.39	15.06	4.77	120,093	120,093
Parking Lot	0.00	0.00	0.00		
<b>Total</b>	<b>2,001.39</b>	<b>1,950.06</b>	<b>1,939.77</b>	<b>1,158,035</b>	<b>1,158,035</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
Convenience Market with Gas	9.50	7.30	7.30	0.80	80.20	19.00	14	21	65
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Winter

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

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market with Gas Pumps	0.517111	0.052324	0.170980	0.155671	0.027786	0.007423	0.013424	0.026160	0.000649	0.000313	0.023324	0.001439	0.003395
General Office Building	0.517111	0.052324	0.170980	0.155671	0.027786	0.007423	0.013424	0.026160	0.000649	0.000313	0.023324	0.001439	0.003395
Parking Lot	0.517111	0.052324	0.170980	0.155671	0.027786	0.007423	0.013424	0.026160	0.000649	0.000313	0.023324	0.001439	0.003395

**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	lb/day										lb/day					
NaturalGas Mitigated	2.8700e-003	0.0261	0.0219	1.6000e-004		1.9800e-003	1.9800e-003		1.9800e-003	1.9800e-003		31.2812	31.2812	6.0000e-004	5.7000e-004	31.4671
NaturalGas Unmitigated	2.8700e-003	0.0261	0.0219	1.6000e-004		1.9800e-003	1.9800e-003		1.9800e-003	1.9800e-003		31.2812	31.2812	6.0000e-004	5.7000e-004	31.4671

Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Winter

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

**5.2 Energy by Land Use - Natural Gas**

**Unmitigated**

	Natural Gas 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	lb/day										lb/day					
Convenience Market with Gas Pumps	24.6225	2.7000e-004	2.4100e-003	2.0300e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		2.8968	2.8968	6.0000e-005	5.0000e-005	2.9140
General Office Building	241.268	2.6000e-003	0.0237	0.0199	1.4000e-004		1.8000e-003	1.8000e-003		1.8000e-003	1.8000e-003		28.3844	28.3844	5.4000e-004	5.2000e-004	28.5531
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
<b>Total</b>		<b>2.8700e-003</b>	<b>0.0261</b>	<b>0.0219</b>	<b>1.5000e-004</b>		<b>1.9800e-003</b>	<b>1.9800e-003</b>		<b>1.9800e-003</b>	<b>1.9800e-003</b>		<b>31.2812</b>	<b>31.2812</b>	<b>6.0000e-004</b>	<b>5.7000e-004</b>	<b>31.4671</b>

Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Winter

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

**5.2 Energy by Land Use - Natural Gas**

Mitigated

	Natural Gas 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	lb/day										lb/day					
Convenience Market with Gas Pumps	0.0246225	2.7000e-004	2.4100e-003	2.0300e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		2.8968	2.8968	6.0000e-005	5.0000e-005	2.9140
General Office Building	0.241268	2.6000e-003	0.0237	0.0199	1.4000e-004		1.8000e-003	1.8000e-003		1.8000e-003	1.8000e-003		28.3844	28.3844	5.4000e-004	5.2000e-004	28.5531
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
<b>Total</b>		<b>2.8700e-003</b>	<b>0.0261</b>	<b>0.0219</b>	<b>1.5000e-004</b>		<b>1.9800e-003</b>	<b>1.9800e-003</b>		<b>1.9800e-003</b>	<b>1.9800e-003</b>		<b>31.2812</b>	<b>31.2812</b>	<b>6.0000e-004</b>	<b>5.7000e-004</b>	<b>31.4671</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Winter

**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	lb/day										lb/day					
Mitigated	0.1818	6.0000e-005	6.1900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0133	0.0133	3.0000e-005		0.0142
Unmitigated	0.2028	6.0000e-005	6.1900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0133	0.0133	3.0000e-005		0.0142

**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	lb/day										lb/day					
Architectural Coating	0.0314					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1708					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.7000e-004	6.0000e-005	6.1900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0133	0.0133	3.0000e-005		0.0142
<b>Total</b>	<b>0.2028</b>	<b>6.0000e-005</b>	<b>6.1900e-003</b>	<b>0.0000</b>		<b>2.0000e-005</b>	<b>2.0000e-005</b>		<b>2.0000e-005</b>	<b>2.0000e-005</b>		<b>0.0133</b>	<b>0.0133</b>	<b>3.0000e-005</b>		<b>0.0142</b>

Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Winter

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

**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	lb/day										lb/day					
Architectural Coating	0.0105					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1708					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.7000e-004	6.0000e-005	6.1900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0133	0.0133	3.0000e-005		0.0142
<b>Total</b>	<b>0.1818</b>	<b>6.0000e-005</b>	<b>6.1900e-003</b>	<b>0.0000</b>		<b>2.0000e-005</b>	<b>2.0000e-005</b>		<b>2.0000e-005</b>	<b>2.0000e-005</b>		<b>0.0133</b>	<b>0.0133</b>	<b>3.0000e-005</b>		<b>0.0142</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

Manteca Commercial Development - San Joaquin Valley Unified APCD Air District, Winter

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

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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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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APPENDIX

C



### Manteca Commercial Development

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

#### San Joaquin Valley Unified APCD Air District, Mitigation Report

#### Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Demolition	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

#### OFFROAD Equipment Mitigation

### Manteca Commercial Development

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

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Air Compressors	Diesel	No Change	0	1	No Change	0.00
Cement and Mortar Mixers	Diesel	No Change	0	4	No Change	0.00
Concrete/Industrial Saws	Diesel	No Change	0	1	No Change	0.00
Cranes	Diesel	No Change	0	1	No Change	0.00
Forklifts	Diesel	No Change	0	2	No Change	0.00
Graders	Diesel	No Change	0	2	No Change	0.00
Pavers	Diesel	No Change	0	1	No Change	0.00
Rollers	Diesel	No Change	0	1	No Change	0.00
Rubber Tired Dozers	Diesel	No Change	0	2	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	No Change	0	7	No Change	0.00

### Manteca Commercial Development

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

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Unmitigated tons/yr							Unmitigated mt/yr					
Air Compressors	4.50000E-004	3.05000E-003	4.53000E-003	1.00000E-005	1.50000E-004	1.50000E-004	0.00000E+000	6.38310E-001	6.38310E-001	4.00000E-005	0.00000E+000	6.39210E-001
Cement and Mortar Mixers	4.40000E-004	2.76000E-003	2.31000E-003	1.00000E-005	1.10000E-004	1.10000E-004	0.00000E+000	3.43710E-001	3.43710E-001	4.00000E-005	0.00000E+000	3.44600E-001
Concrete/Industrial Saws	1.67000E-003	1.29200E-002	1.82900E-002	3.00000E-005	6.40000E-004	6.40000E-004	0.00000E+000	2.68829E+000	2.68829E+000	1.30000E-004	0.00000E+000	2.69160E+000
Cranes	8.65000E-003	9.32900E-002	4.54600E-002	1.40000E-004	3.89000E-003	3.58000E-003	0.00000E+000	1.26737E+001	1.26737E+001	4.10000E-003	0.00000E+000	1.27762E+001
Forklifts	7.52000E-003	7.04300E-002	8.57500E-002	1.10000E-004	4.28000E-003	3.94000E-003	0.00000E+000	1.00719E+001	1.00719E+001	3.26000E-003	0.00000E+000	1.01533E+001
Graders	4.80000E-004	5.82000E-003	2.12000E-003	1.00000E-005	1.90000E-004	1.70000E-004	0.00000E+000	7.26720E-001	7.26720E-001	2.40000E-004	0.00000E+000	7.32590E-001
Pavers	4.00000E-004	3.81000E-003	6.33000E-003	1.00000E-005	1.80000E-004	1.60000E-004	0.00000E+000	9.03250E-001	9.03250E-001	2.90000E-004	0.00000E+000	9.10560E-001
Rollers	3.20000E-004	3.33000E-003	4.05000E-003	1.00000E-005	1.80000E-004	1.60000E-004	0.00000E+000	5.04340E-001	5.04340E-001	1.60000E-004	0.00000E+000	5.08420E-001
Rubber Tired Dozers	9.40000E-004	9.80000E-003	4.27000E-003	1.00000E-005	4.40000E-004	4.10000E-004	0.00000E+000	1.03158E+000	1.03158E+000	3.30000E-004	0.00000E+000	1.03992E+000
Tractors/Loaders/Backhoes	1.65900E-002	1.68000E-001	2.47940E-001	3.50000E-004	8.15000E-003	7.50000E-003	0.00000E+000	3.03901E+001	3.03901E+001	9.83000E-003	0.00000E+000	3.06359E+001

### Manteca Commercial Development

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

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Mitigated tons/yr							Mitigated mt/yr					
Air Compressors	4.50000E-004	3.05000E-003	4.53000E-003	1.00000E-005	1.50000E-004	1.50000E-004	0.00000E+000	6.38310E-001	6.38310E-001	4.00000E-005	0.00000E+000	6.39210E-001
Cement and Mortar Mixers	4.40000E-004	2.76000E-003	2.31000E-003	1.00000E-005	1.10000E-004	1.10000E-004	0.00000E+000	3.43710E-001	3.43710E-001	4.00000E-005	0.00000E+000	3.44600E-001
Concrete/Industrial Saws	1.67000E-003	1.29200E-002	1.82900E-002	3.00000E-005	6.40000E-004	6.40000E-004	0.00000E+000	2.68828E+000	2.68828E+000	1.30000E-004	0.00000E+000	2.69159E+000
Cranes	8.65000E-003	9.32900E-002	4.54600E-002	1.40000E-004	3.89000E-003	3.58000E-003	0.00000E+000	1.26737E+001	1.26737E+001	4.10000E-003	0.00000E+000	1.27762E+001
Forklifts	7.52000E-003	7.04300E-002	8.57500E-002	1.10000E-004	4.28000E-003	3.94000E-003	0.00000E+000	1.00718E+001	1.00718E+001	3.26000E-003	0.00000E+000	1.01533E+001
Graders	4.80000E-004	5.82000E-003	2.12000E-003	1.00000E-005	1.90000E-004	1.70000E-004	0.00000E+000	7.26720E-001	7.26720E-001	2.40000E-004	0.00000E+000	7.32590E-001
Pavers	4.00000E-004	3.81000E-003	6.33000E-003	1.00000E-005	1.80000E-004	1.60000E-004	0.00000E+000	9.03250E-001	9.03250E-001	2.90000E-004	0.00000E+000	9.10560E-001
Rollers	3.20000E-004	3.33000E-003	4.05000E-003	1.00000E-005	1.80000E-004	1.60000E-004	0.00000E+000	5.04340E-001	5.04340E-001	1.60000E-004	0.00000E+000	5.08420E-001
Rubber Tired Dozers	9.40000E-004	9.80000E-003	4.27000E-003	1.00000E-005	4.40000E-004	4.10000E-004	0.00000E+000	1.03158E+000	1.03158E+000	3.30000E-004	0.00000E+000	1.03992E+000
Tractors/Loaders/Balckhoes	1.65900E-002	1.68000E-001	2.47940E-001	3.50000E-004	8.15000E-003	7.50000E-003	0.00000E+000	3.03901E+001	3.03901E+001	9.83000E-003	0.00000E+000	3.06358E+001

### Manteca Commercial Development

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

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Air Compressors	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Cement and Mortar Mixers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Concrete/Industrial Saws	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	3.71984E-006	3.71984E-006	0.00000E+000	0.00000E+000	3.71526E-006
Cranes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	7.89034E-007	7.89034E-007	0.00000E+000	0.00000E+000	1.56541E-006
Forklifts	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	9.92866E-007	9.92866E-007	0.00000E+000	0.00000E+000	9.84903E-007
Graders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Pavers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rubber Tired Dozers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Tractors/Loaders/Backhoes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.31622E-006	1.31622E-006	0.00000E+000	0.00000E+000	1.30566E-006

#### Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input	Mitigation Input	Mitigation Input
Yes	Soil Stabilizer for unpaved Roads	PM10 Reduction	15.00	PM2.5 Reduction 15.00
Yes	Replace Ground Cover of Area Disturbed	PM10 Reduction	10.00	PM2.5 Reduction 10.00
Yes	Water Exposed Area	PM10 Reduction	55.00	PM2.5 Reduction 55.00; Frequency (per day) 2.00

### Manteca Commercial Development

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

No	Unpaved Road Mitigation	Moisture Content: %	0.00	Vehicle Speed (mph)	0.00		
No	Clean Paved Road	% PM Reduction	0.00				

Phase	Source	Unmitigated		Mitigated		Percent Reduction	
		PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Architectural Coating	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Roads	0.01	0.00	0.01	0.00	0.00	0.00
Demolition	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Demolition	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Grading	Fugitive Dust	0.01	0.00	0.00	0.00	0.60	0.60
Grading	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	Fugitive Dust	0.00	0.00	0.00	0.00	0.59	0.67
Site Preparation	Roads	0.00	0.00	0.00	0.00	0.00	0.00

#### Operational Percent Reduction Summary

### Manteca Commercial Development

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

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	66.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

#### Operational Mobile Mitigation

Project Setting:

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value 3
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	0.11	0.33		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.00			

**Manteca Commercial Development**

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

No	Neighborhood Enhancements	Improve Pedestrian Network			
No	Neighborhood Enhancements	Provide Traffic Calming Measures			
No	Neighborhood Enhancements	Implement NEV Network	0.00		
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00		
No	Parking Policy Pricing	Limit Parking Supply	0.00		
No	Parking Policy Pricing	Unbundle Parking Costs	0.00		
No	Parking Policy Pricing	On-street Market Pricing	0.00		
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00		
No	Transit Improvements	Provide BRT System	0.00		
No	Transit Improvements	Expand Transit Network	0.00		
No	Transit Improvements	Increase Transit Frequency	0.00		
	Transit Improvements	Transit Improvements Subtotal	0.00		
		Land Use and Site Enhancement Subtotal	0.00		
No	Commute	Implement Trip Reduction Program			
No	Commute	Transit Subsidy			
No	Commute	Implement Employee Parking "Cash Out"			
No	Commute	Workplace Parking Charge			
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00		
No	Commute	Market Commute Trip Reduction Option	0.00		
No	Commute	Employee Vanpool/Shuttle	0.00		2.00

**Manteca Commercial Development**

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

No	Commuter	Provide Ride Sharing Program			
	Commuter	Commuter Subtotal	0.00		
No	School Trip	Implement School Bus Program	0.00		
		Total VMT Reduction	0.00		

**Area Mitigation**

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	150.00
No	Use Low VOC Paint (Residential Exterior)	150.00
Yes	Use Low VOC Paint (Non-residential Interior)	50.00
Yes	Use Low VOC Paint (Non-residential Exterior)	50.00
Yes	Use Low VOC Paint (Parking)	50.00
No	% Electric Lawnmower	0.00
No	% Electric Leafblower	0.00
No	% Electric Chainsaw	0.00

**Energy Mitigation Measures**

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Exceed Title 24		

### Manteca Commercial Development

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

No	Install High Efficiency Lighting		
No	On-site Renewable		

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

#### Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Apply Water Conservation on Strategy		
No	Use Reclaimed Water		
No	Use Grey Water		
No	Install low-flow bathroom faucet	32.00	
No	Install low-flow Kitchen faucet	18.00	
No	Install low-flow Toilet	20.00	
No	Install low-flow Shower	20.00	
No	Turf Reduction		
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape		

#### Solid Waste Mitigation

### Manteca Commercial Development

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

Mitigation Measures	Input Value
Institute Recycling and Composting Services Percent Reduction in Waste Disposed	