

Amond World Cold Storage Warehouse Site Plan Review (SDP 2021-041)

Administrative Draft
Initial Study / Mitigated Negative Declaration

February 2022

Prepared by:



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Chapter 1 Introduction

Precision Civil Engineering, Inc. (PCE) has prepared this Initial Study/Mitigated Negative Declaration (IS/MND) on behalf of City of Madera (City) to address the environmental effects of the proposed Amond World Cold Storage Warehouse (Project). This document has been prepared in accordance with the California Environmental Quality Act (CEQA), Public Resources Code Section 21000 et. seq. The City of Madera is the Lead Agency for this proposed Project. The site and the proposed Project are described in detail in the [Project Description](#).

1.1 Regulatory Information

An Initial Study (IS) is a document prepared by a lead agency to determine whether a project may have a significant effect on the environment. In accordance with California Code of Regulations Title 14 (Chapter 3, Section 15000, *et seq.*)-- also known as the CEQA Guidelines-- Section 15064 (a)(1) states that an environmental impact report (EIR) must be prepared if there is substantial evidence in light of the whole record that the proposed Project under review may have a significant effect on the environment and should be further analyzed to determine mitigation measures or project alternatives that might avoid or reduce project impacts to less than significant levels. A negative declaration (ND) may be prepared instead if the lead agency finds that there is *no substantial* evidence in light of the whole record that the project may have a significant effect on the environment. An ND is a written statement describing the reasons why a proposed Project, not otherwise exempt from CEQA, would not have a significant effect on the environment and, therefore, why it would not require the preparation of an EIR (CEQA Guidelines Section 15371). According to CEQA Guidelines Section 15070, a ND or *mitigated* ND shall be prepared for a project subject to CEQA when either:

- a. *The IS shows there is no substantial evidence, in light of the whole record before the agency, that the proposed Project may have a significant effect on the environment, or*
- b. *The IS identified potentially significant effects, but:*
 1. *Revisions in the project plans or proposals made by or agreed to by the applicant before the proposed MND and IS is released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur is prepared, and*
 2. *There is no substantial evidence, in light of the whole record before the agency, that the proposed Project as revised may have a significant effect on the environment.*

1.2 Document Format

This IS/MND contains five chapters plus appendices. [Introduction](#), provides an overview of the proposed Project and the CEQA process. [Project Description](#), provides a detailed description of proposed Project components. [Chapter 3 Determination](#) identifies the environmental factors potentially affected based on the analyses contained in this IS and includes with the Lead Agency's determination based upon those analyses. [Determination](#)

[Environmental Factors Potentially Affected](#)

As indicated by the discussions of existing and baseline conditions, and impact analyses that follow in this Chapter, environmental factors not checked below would have no impacts or less than significant impacts resulting from the project. Environmental factors that are checked below would have potentially significant impacts resulting from the project. Mitigation measures are recommended for each of the potentially significant impacts that would reduce the impact to less than significant.

Aesthetics	Agriculture & Forestry Resources	Air Quality
Biological Resources	Cultural Resources	Energy
Geology/Soils	Greenhouse Gas Emissions	Hazards & Hazardous Materials
Hydrology/Water Quality	Land Use/Planning	Mineral Resources
Noise	Population/Housing	Public Services
Recreation	Transportation	Tribal Cultural Resources
Utilities/Service Systems	Wildfire	Mandatory Findings of Significance

The analyses of environmental impacts in **Chapter 4 Impact Analysis** result in an impact statement, which shall have the following meanings.

Potentially Significant Impact. This category is applicable if there is substantial evidence that an effect may be significant, and no feasible mitigation measures can be identified to reduce impacts to a less than significant level. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.

Less than Significant with Mitigation Incorporated. This category applies where the incorporation of mitigation measures would reduce an effect from a “Potentially Significant Impact” to a “Less Than Significant Impact.” The lead agency must describe the mitigation measure(s), and briefly explain how they would reduce the effect to a less than significant level (mitigation measures from earlier analyses may be cross-referenced).

Less Than Significant Impact. This category is identified when the proposed Project would result in impacts below the threshold of significance, and no mitigation measures are required.

No Impact. This category applies when a project would not create an impact in the specific environmental issue area. “No Impact” answers do not require a detailed explanation if they are adequately supported by the information sources cited by the lead agency, which show that the impact does not apply to the specific project (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

1.3 Determination

On the basis of this initial evaluation (to be completed by the Lead Agency):

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



Signature

Arnoldo Rodriguez, City Manager

Print Name, Position
City of Madera

2/10/22

Date

Impact Analysis, presents the CEQA checklist and environmental analyses for all impact areas, mandatory findings of significance, and feasible mitigation measures, if applicable. If the proposed Project does not have the potential to significantly impact a given issue area, the relevant section provides a brief discussion of the reasons why the impact is anticipated to be less than significant or why no impacts are expected. If the proposed Project could have a potentially significant impact on a resource, the issue area discussion provides a description of potential impacts, and appropriate mitigation measures and/or permit requirements that would reduce those impacts to a less than significant level. **Mitigation Monitoring and Reporting Program** (MMRP), provides the proposed mitigation measures, implementation timelines, and the entity/agency responsible for ensuring implementation. The Air Quality, Health Risk Analysis, and Greenhouse Gas Technical Memorandum, CHRIS Record Search Results, Environmental Noise Assessment, Trip Generation Memorandum, VMT Analysis Memorandum, and Habitat Assessment Memorandum are provided as technical **Appendix A and Appendix B, Appendix C, Appendix D, Appendix E, and Appendix F** respectively, at the end of this document.

Chapter 2 Project Description

2.1 Project Background

2.1.1 Project Title

Amond World Cold Storage Warehouse (Site Plan Review 2021-041)

2.1.2 Lead Agency Name and Address

City of Madera
205 West 4th Street
Madera, CA 93637

2.1.3 Contact Person and Phone Number

Lead Agency Contact

Robert Smith, Senior Planner
(559) 661-5400
rsmith@madera.gov

Applicant Information

Origo Cold Madera, LLC
Origo Investments
1470 Paseo de Oro
Los Angeles, CA 90272

2.1.4 Study Prepared by

Precision Civil Engineering
1234 O Street
Fresno, CA 93721

2.1.5 Project Location

The proposed Project is located in the northwestern area of the City of Madera, California on the westside of Golden State Boulevard between Avenue 16 and Avenue 17 (see [Figure 2-1](#)). The site consists of two (2) parcels identified as Madera County Assessor Parcel Numbers (APNs) 013-200-004 and 013-200-005 totaling approximately 30.16 acres. The site is a portion of Section 10, Township 11 South, Range 17 East, Mount Diablo Base and Meridian. [Figure 2-2](#) shows the Project vicinity.

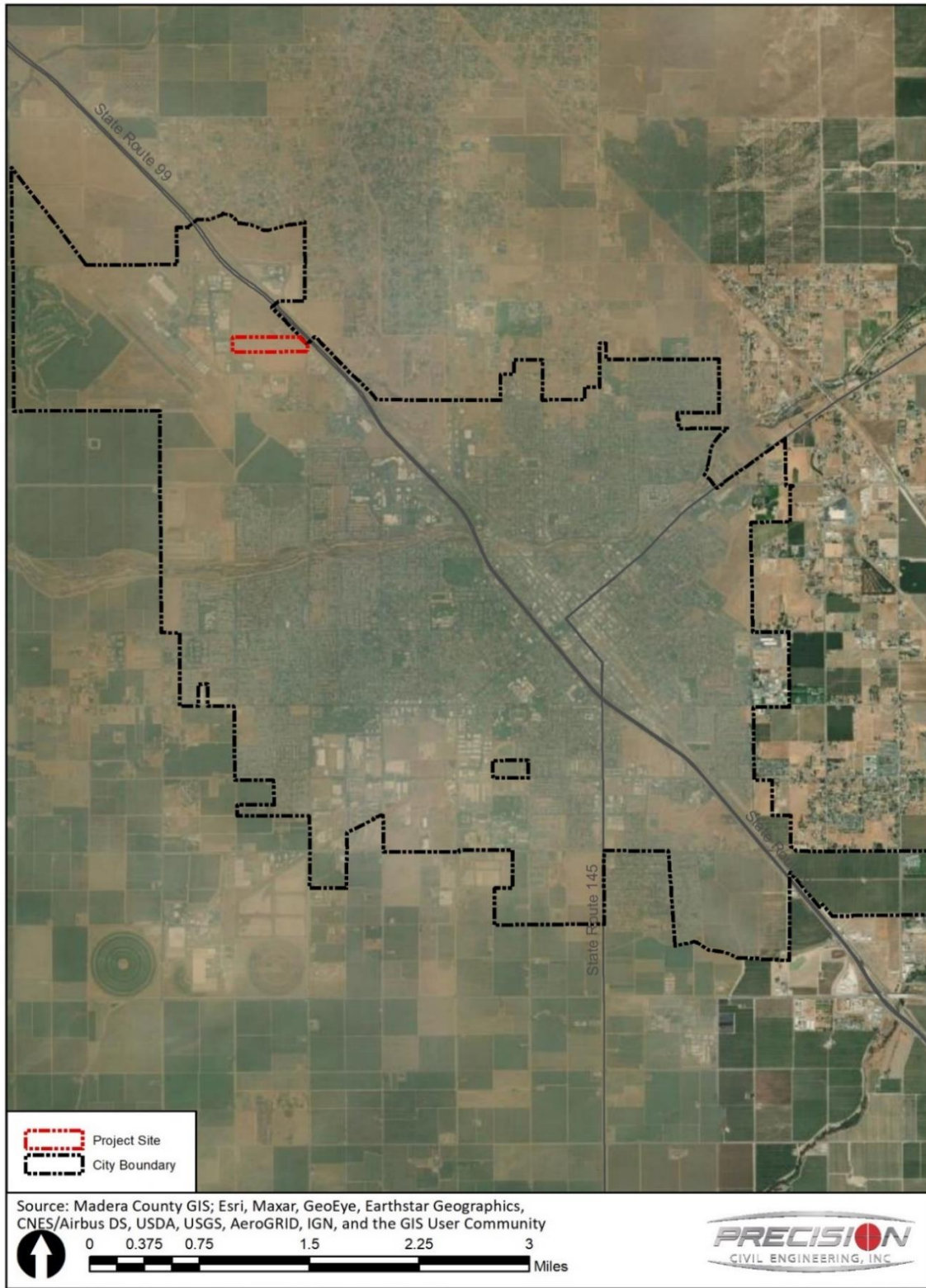


Figure 2-1 Regional Location Map



CITY OF MADERA - ORIGO MADERA COLD STORAGE FACILITY
INITIAL STUDY

Created: 11/15/2021

Figure 2-2 Project Vicinity Map

2.1.6 Latitude and Longitude

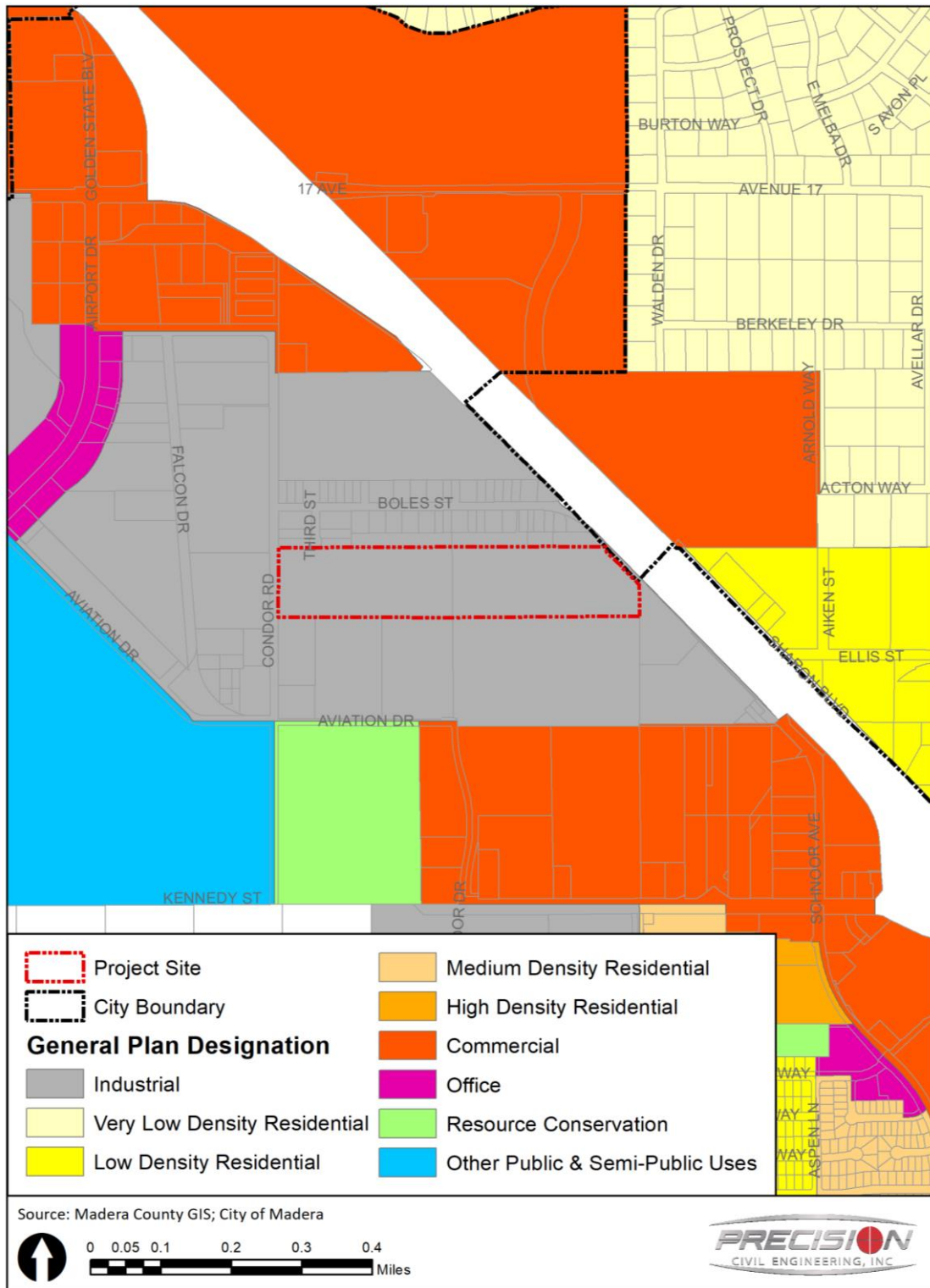
The centroid of the Project area is 36.98834412496621, -120.0973480454256.

2.1.7 General Plan Designation

The Project site has a Madera General Plan land use designation of Industrial (see [Figure 2-3](#) **Error! Reference source not found.**). According to the Madera General Plan, the Industrial land use category provides for both light and heavy industrial development. The Project proposes a cold storage warehouse, which is considered a light industrial use. As such, the Project is consistent with the Industrial land use designation.

2.1.8 Zoning

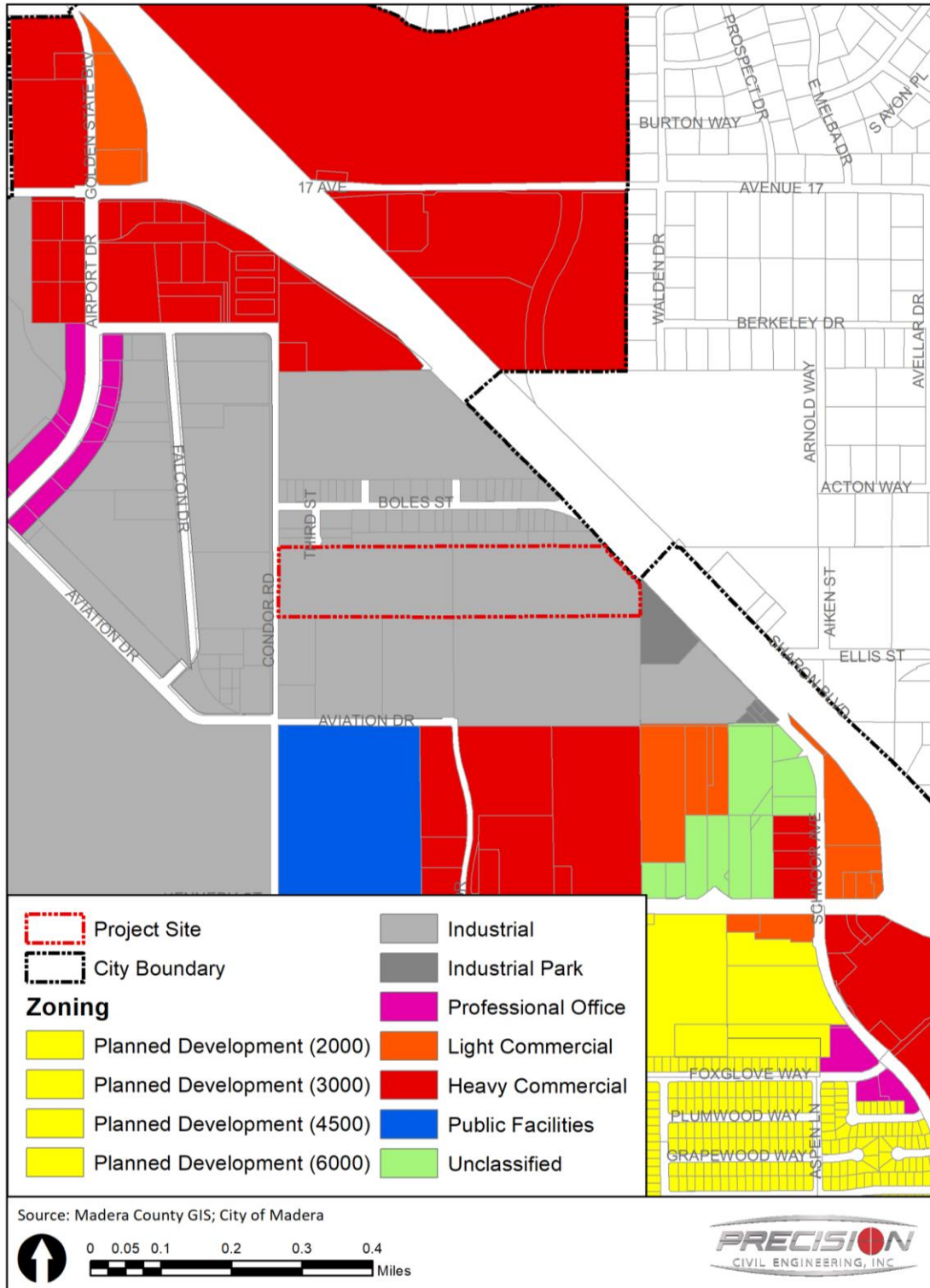
The Project site is within the I – Industrial Zone District (see [Figure 2-4](#)). According to the Madera Municipal Code (MMC), the purpose of the I – Industrial Zone District is to provide a diverse range of industrial uses, including but not limited to animal hospitals, automobile dismantling and use parts storage, boat-building works, building materials, sales, and storage, dairy products processing, ice and cold storage plants, pre-fabrication of buildings, machine shops, etc. The Project proposes a cold storage warehouse and is therefore a use that is consistent with the I – Industrial Zone District.



CITY OF MADERA - ORIGO MADERA COLD STORAGE FACILITY
 INITIAL STUDY

Created: 11/11/2021

Figure 2-3 General Plan Designated Land Use Map



CITY OF MADERA - ORIGO MADERA COLD STORAGE FACILITY
 INITIAL STUDY

Created: 11/11/2021

Figure 2-4 Current Zoning Map

2.1.9 Description of Project

This section describes the components of the proposed Project in more detail, including operations, site preparation, proposed structures, and on- and off-site improvements.

Project Description

The proposed Project includes a Site Plan Review Application (SDP 2021-41) to facilitate the development of a cold storage warehouse for agricultural products. The Project would consist of two (2) phases to occupy two (2) parcels that total 30.16 acres located on the westside of Golden State Boulevard between Avenue 16 and Avenue 17 in Madera, CA (APNs 013-200-004 and 013-200-005). Phase I involves the construction of an approximately 254,016-sf. refrigerated warehouse and storage facility on the parcel identified as APN 013-200-005 and would include a 235,200-sf. warehouse with refrigerated storage area, in addition to an administrative office (4,000 sf.), shipping office (2,204 sf.), and flatbed annex building (12,544 sf.). Phase II would include a 250,000-sf. warehouse and storage facility on the adjoining parcel to the east identified as APN 013-200-004 and would include a ground mount solar PV array. An on-site stormwater retention basin is proposed to be constructed under Phase I and would be sized to accommodate total buildout of the Project.

Hours of Operation

The facility would operate 24 hours per day, seven (7) days per week, with business hours between 9 am and 5 pm, Monday through Sunday. Access to the site for employees and customers (including trucks) would occur during business hours between 9 am and 5 pm.

Employment

Approximately nine (9) employees are projected to work at the facility on a rotating 24-hour schedule or during regulation business hours between 9 am and 5 pm, Monday through Sunday. Outside regular operational hours the security gates to the facility will be closed and no visitors or truck traffic will be allowed on the site. A maximum of two (2) customers are expected to visit the facility per day during normal business operations.

Products

The facility would store agricultural nut products within the refrigerated warehouse. No products would be produced or sold at the facility.

Truck Traffic

Truck trips associated with the facility would consist of refrigerated truck vans, single trailer trucks, and double trailer trucks. In total, the Project anticipates between 10 and 15 trucks per day, year-round, that would be scheduled ahead of time (i.e., appointment only) and based on the availability of dock space. In addition to these anticipated trips, the facility is expected to send and receive UPS and FedEx shipments and deliveries. One (1) delivery/shipment per day is anticipated. Solid waste collection is expected to occur once per week.

2.1.10 Site and Surrounding Land Uses and Setting

Project Setting

Historically, the Project site has been operated as agricultural land for the purposes of dry farming. Today, the Project site is vacant with no improvements or structures. Topography is generally flat, and the site vegetation can be primarily classified as agricultural habitat that contains very little vegetation. There are no shrubs, trees, or water features present on the site. Golden State Boulevard, a two (2)-lane, northwest-southeast collector forms the easterly site boundary and Condor Road, a partially developed north-south “other road” forms the westerly site boundary. Condor Road is proposed to be extended south to Aviation Drive, past parcels identified as APNs 013-200-12 and 013-200-13. No street frontage improvements are present (i.e., no curb, gutter, sidewalk, storm-drains, or streetlights). The Project proposes improvements across the westerly frontage (See [Site Circulation and Parking](#)).

Surrounding Land Uses and Setting

The Project site is in an area generally characterized by a mix of existing land uses including industrial (east and west), vacant land (north and south), and single-family residential (north). As shown in [Error! Reference source not found.](#), the surrounding properties are zoned and planned for industrial uses. Discarded fields are located to the north and south, four (4) single-family residential dwellings are located to the north, and manufacturer, California Custom Processing, is to the south. Madera Self Storage bounds the site to the west and food-processing company, Ready Roast Co., bounds the site to the east.

Table 2-1 Existing Uses, General Plan Designations, and Zone Districts of Surrounding Properties

Direction from Project Site	Existing Use	General Plan Designation	Zone District
North	Vacant, Residential	I – Industrial	I – Industrial
East	Industrial (Madera Self-Storage, DPF Filters)	I – Industrial	IP – Industrial Park
South	Vacant, Industrial	I – Industrial	I – Industrial
West	Industrial (Ready Roast Co.)	I – Industrial	I – Industrial

2.1.11 Project Construction and Phasing

The Project involves two (2) construction phases. Phase I involves construction of the approximately 254,000 sf. refrigerated warehouse and storage facility with related ancillary uses (i.e., offices, dock). Construction of Phase I is expected to require approximately nine (9) months. Phase I construction is anticipated to begin upon securing the required permits and Phase II construction is to be determined.

2.1.12 Site Preparation

The Project site is currently vacant and undeveloped; there are no existing structures on site. Site preparation would include typical grading activities to ensure an adequately graded site for drainage purposes. Part of the preparation would include the removal of any vegetation necessary to accommodate

the Project. Other site preparation activities would include minor excavation for the installation of utility infrastructure, for conveyance of water, sewer, stormwater, and irrigation. There are no buildings proposed for demolition as part of this Project.

2.1.13 Project Components

This section describes the overall components of the Project, such as the proposed buildings, landscape, vehicle and pedestrian circulation, and utilities.

Site Layout and Elevations

As shown in [Figure 2-5](#) and [Figure 2-6](#), the Project proposes the construction of a refrigerated warehouse and storage facility (Project) for agricultural nut products. The developed site would consist of two (2) warehouse and storage facilities of 254,016-sf. (Phase I) and 250,000-sf. (Phase II), with associated ancillary uses including administrative and shipping offices, docks, on-site storm retention basin, truck scales, and future ground mount solar PV array. The proposed floor plans for Phase I are shown in [Figure 2-7](#). As shown, Phase I would consist of a 235,200-sf. warehouse with refrigerated storage area, in addition to an administrative office (4,000 sf.), shipping office (2,204 sf.), and flatbed annex building (12,544 sf.). Conceptual elevations are shown in [Figure 2-8](#). As shown, the facility would reach a maximum height of \pm 34 ft. and the exterior would consist of concrete and metal with a white, driftwood, and evergreen color palette. Exterior lighting is also proposed and will provide safety lighting for the parking lot, walkways, and areas surrounding the facility's exterior.

Site Circulation and Parking

The Project site would be accessible by automobiles and trucks via two (2) points of ingress/egress along Condor Road, which is proposed to be expanded from the site to Aviation Drive. The site would be secured by a six (6)-ft. tall chain link fence at the perimeter of the property in addition to security gates at the main entrance, controlled access to employee and visitor parking, and guarded truck access gates for the docks. Approximately 24 loading stalls and 26 parking stalls, including two (2) accessible stalls, are proposed for employees and visitors for Phase I, and would be constructed per the MMC standards for parking spaces. Additional employee and visitor parking would be provided to the north of the proposed parking lot. Truck unloading and loading is proposed to the south of the facility. Lastly, fire department access gates are proposed via a separate point of ingress/egress along Condor Road, north of the on-site storm retention basin.

Landscaping

A 20-ft. wide landscaped buffer is proposed along the Condor Road frontage.

Utilities

Utilities for the site would consist of water, sewer, electric, cable, gas, and stormwater infrastructure. Minor trenching and digging activities would be required for the installation of necessary pipelines typical of industrial development. All utility plans would be required to be reviewed and approved by the appropriate agency, and/or the appropriate City or County department to ensure that installation occurs to pertinent codes and regulations. Utilities are provided by and managed from a combination of agencies, including the City of Madera, Pacific Gas & Electric (PG&E), and Mid Valley Disposal (see [Table 2-2](#)).

Table 2-2 Project Utilities

Utility System	Jurisdiction	Reviewing Agency/Division
Water	City of Madera	Department of Public Works – Water Division
Sewer	City of Madera	Department of Public Works – Sewer Division
Electricity and Gas	Pacific Gas & Electric (PG&E)	PG&E
Stormwater	City of Madera	Department of Public Works
Solid Waste	Mid Valley Disposal	Mid Valley Disposal

Chapter 2 Project Description
Amond World Cold Storage Warehouse (SDP 2021-041)

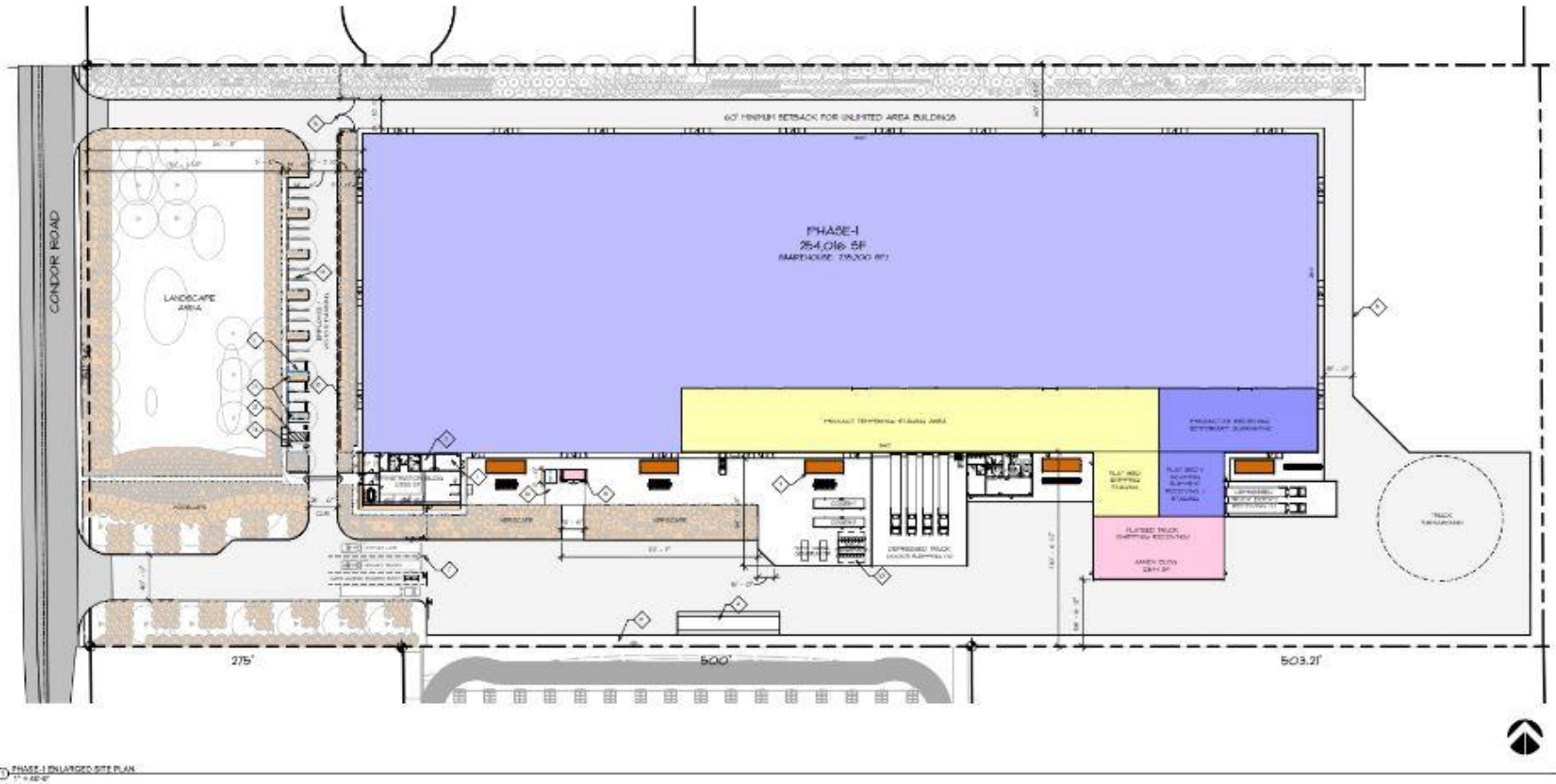


Figure 2-6 Phase I Site Plan

Chapter 2 Project Description
 Amid World Cold Storage Warehouse (SDP 2021-041)

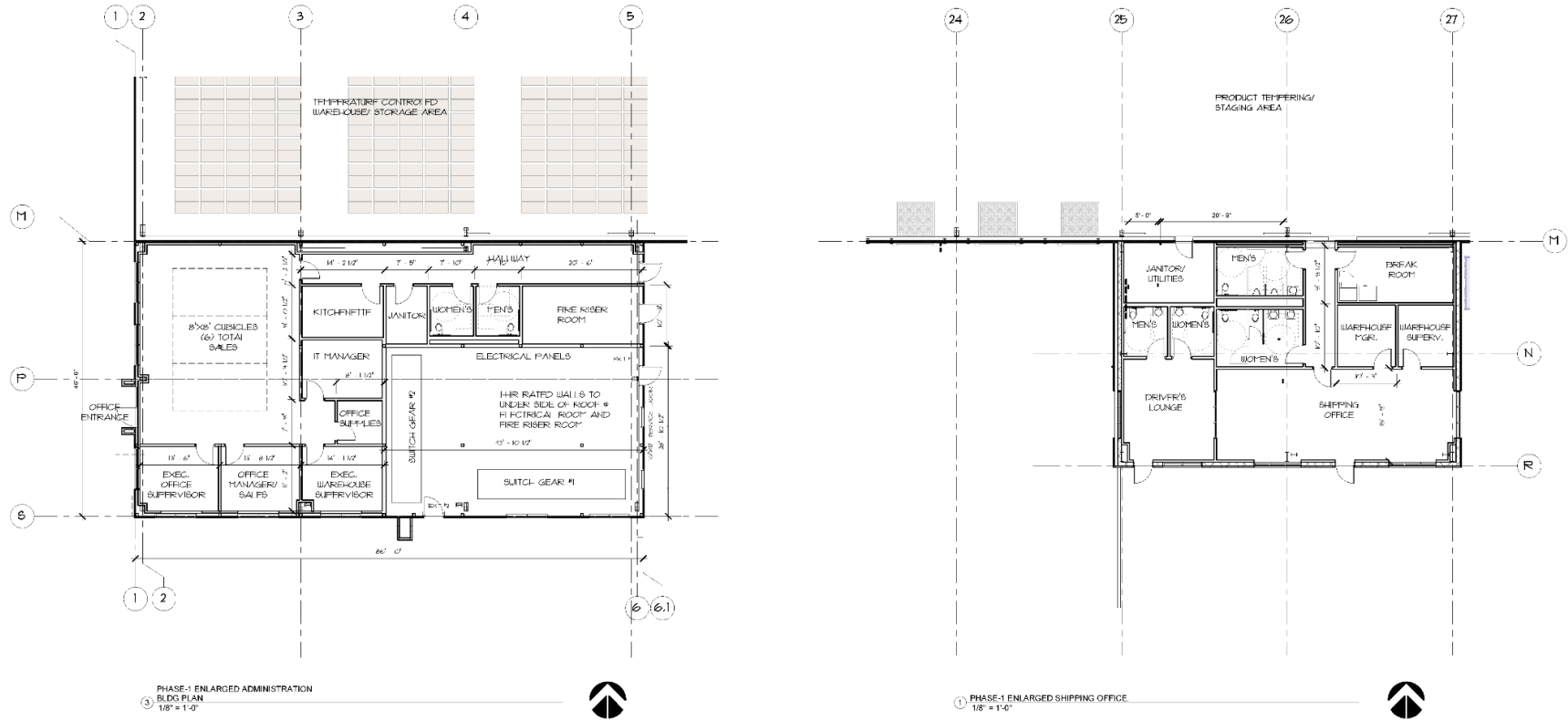
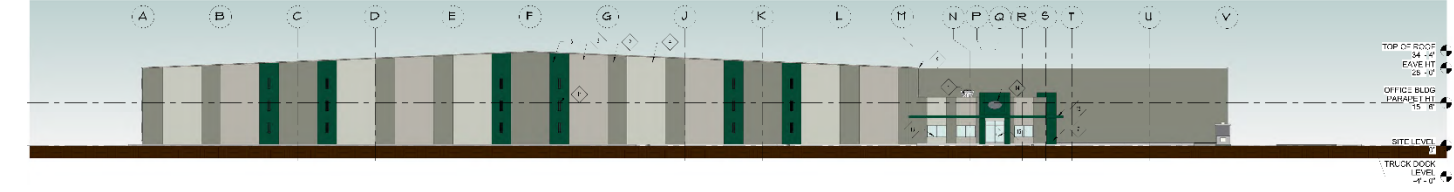
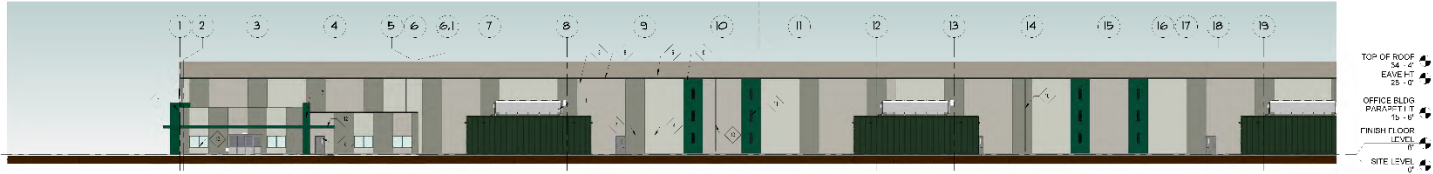


Figure 2-7 Project Floor Plans

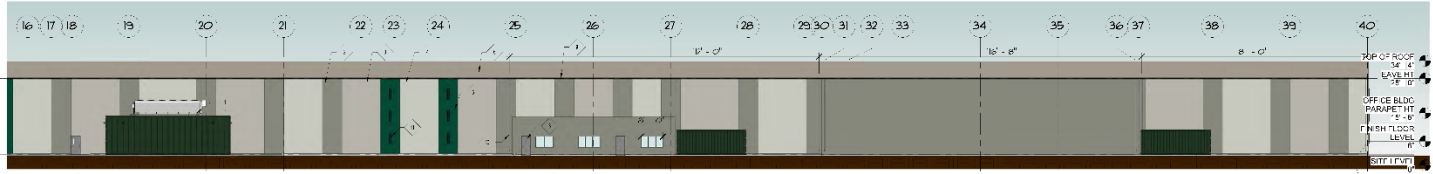
Chapter 2 Project Description Amond World Cold Storage Warehouse (SDP 2021-041)



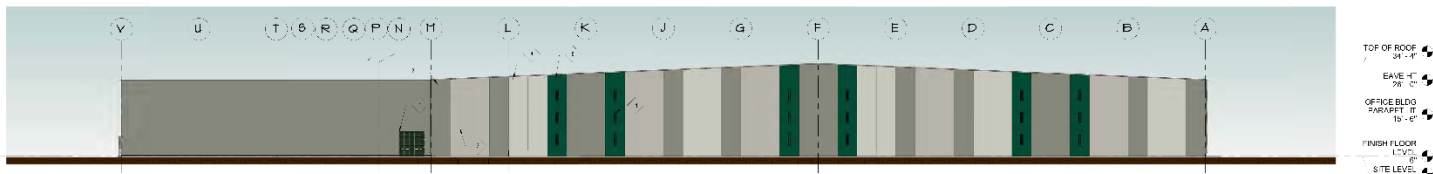
1. WEST ELEVATION
1/16" = 1'-0"



2. SOUTH ELEVATION PART A
1/16" = 1'-0"



3. SOUTH ELEVATION PART B
1/16" = 1'-0"



4. EAST ELEVATION
1/16" = 1'-0"

KEYNOTES

1. INTERIOR EXPOSED RIB BUILDING CONTRACT: METAL PANEL TO MATCH COOL EMERALD GREEN PANEL COLOR
2. 4" INSULATED METAL PANEL, ROLL FORMED ROOF COLOR
3. 4" INSULATED METAL PANEL, ROLL FORMED ROOF COLOR
4. 4" INSULATED METAL PANEL, ROLL FORMED ROOF COLOR
5. 4" INSULATED METAL PANEL, ROLL FORMED ROOF COLOR
6. 2" TO 1" REFRIGERATION ROOFING SYSTEM
7. OFFICE ENTRY FEATHER LAMINATE SPOON PANELS TO MATCH COOL EMERALD GREEN COLOR
8. 80% REFLECTIVE R-10 COOL METAL PANEL COLOR - TYPICAL, PAINTED GREY TO MATCH PORTLAND MASONRY COLOR
9. SITES (PAINTED) GREEN COLOR TO MATCH COOL EMERALD GREEN INSULATED METAL PANEL COLOR
10. 6" EXPOSED COLOR TO MATCH ADJACENT PANEL COLOR
11. CONTACT FINISHED ACQUIT LIGHT FIXTURES
12. OFFICE CANOPY OVERHANG TO MATCH COOL EMERALD GREEN COLOR
13. 2"X4" ANGLE ALUMINUM STRONGFLEX JOISTS UNFINISHED, TYPICAL
14. LIGHT FIXTURES TO MEET CITY OF MADISON STANDARDS
15. FIN OFFICE STORE FRONT BY RANGE



NO.	DESCRIPTION	DATE	BY
REVISIONS			



GRIGIO INVESTMENTS
CONSTRUCTION OFFICE FACILITY
1111 CONCORD ROAD
MADISON, CAI 53704-4150



2.1.14 Other Public Agencies Whose Approval May Be Required

The City of Madera requires the following review, permits, and/or approvals for the proposed Project. Other approvals not listed below may be required as identified through the entitlement process. In addition, other agencies may have the authority to issue permits prior to implementation of the Project as listed below.

- Site Plan Review
- Grading Permit
- Encroachment Permit
- Building Permit
- Sign Permit
- Madera County Department of Public Health
- San Joaquin Valley Air Pollution Control District
- California Regional Water Quality Control Board

2.1.15 Technical Studies

The analysis of the Project throughout this Initial Study relied in part on the technical studies listed below prepared for the Project, as well as other sources, including, but not limited to, the City of Madera General Plan and Madera Municipal Code.

- **Appendix A:** Air Quality, Health Risk Analysis, and Greenhouse Gas Technical Memorandum prepared by Johnson Johnson and Miller Air Quality Consulting Services on February 8, 2022.
- **Appendix B:** CHRIS Record Search Results of CHRIS Record Search conducted by Southern San Joaquin Valley Information Center on October 22, 2021.
- **Appendix C:** Environmental Noise Assessment conducted by WJV Acoustics on January 24, 2022.
- **Appendix D:** Trip Generation memo prepared by Precision Civil Engineering on January 28, 2022.
- **Appendix E:** VMT Analysis memo prepared by Precision Civil Engineering on February 9, 2022.
- **Appendix F:** Habitat Assessment prepared by Precision Civil Engineering on February 9, 2022.

2.1.16 Consultation with California Native American Tribes

Public Resources Code Section 21080.3.1, *et seq.* (codification of AB 52, 2013-14)) requires that a lead agency, within 14 days of determining that it will undertake a project, must notify in writing any California Native American Tribe traditionally and culturally affiliated with the geographic area of the project if that Tribe has previously requested notification about projects in that geographic area. The notice must briefly describe the project and inquire whether the Tribe wishes to initiate request formal consultation. Tribes have 30 days from receipt of notification to request formal consultation. The lead agency then has 30 days to initiate the consultation, which then continues until the parties come to an agreement regarding necessary mitigation or agree that no mitigation is needed, or one or both parties determine that negotiation occurred in good faith, but no agreement will be made.

The City of Madera has not received any written correspondence from any California Native American Tribe pursuant to Public Resources Code Section 21080.3.1 requesting notification of proposed project.

Chapter 3 Determination

3.1 Environmental Factors Potentially Affected

As indicated by the discussions of existing and baseline conditions, and impact analyses that follow in this Chapter, environmental factors not checked below would have no impacts or less than significant impacts resulting from the project. Environmental factors that are checked below would have potentially significant impacts resulting from the project. Mitigation measures are recommended for each of the potentially significant impacts that would reduce the impact to less than significant.

- | | | |
|---|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture & Forestry Resources | <input type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Energy |
| <input checked="" type="checkbox"/> Geology/Soils | <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards & Hazardous Materials |
| <input checked="" type="checkbox"/> Hydrology/Water Quality | <input type="checkbox"/> Land Use/Planning | <input type="checkbox"/> Mineral Resources |
| <input checked="" type="checkbox"/> Noise | <input type="checkbox"/> Population/Housing | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation | <input checked="" type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Utilities/Service Systems | <input type="checkbox"/> Wildfire | <input type="checkbox"/> Mandatory Findings of Significance |

The analyses of environmental impacts in [Chapter 4 Impact Analysis](#) result in an impact statement, which shall have the following meanings.

Potentially Significant Impact. This category is applicable if there is substantial evidence that an effect may be significant, and no feasible mitigation measures can be identified to reduce impacts to a less than significant level. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.

Less than Significant with Mitigation Incorporated. This category applies where the incorporation of mitigation measures would reduce an effect from a “Potentially Significant Impact” to a “Less Than Significant Impact.” The lead agency must describe the mitigation measure(s), and briefly explain how they would reduce the effect to a less than significant level (mitigation measures from earlier analyses may be cross-referenced).

Less Than Significant Impact. This category is identified when the proposed Project would result in impacts below the threshold of significance, and no mitigation measures are required.

No Impact. This category applies when a project would not create an impact in the specific environmental issue area. “No Impact” answers do not require a detailed explanation if they are adequately supported by the information sources cited by the lead agency, which show that the impact does not apply to the specific project (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

3.2 Determination

On the basis of this initial evaluation (to be completed by the Lead Agency):

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

Date

Print Name, Position
City of Madera

Chapter 4 Impact Analysis

4.1 Aesthetics

Except as provided in Public Resources Code Section 21099, would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

4.1.1 Environmental Setting

The City of Madera is located within Madera County in the San Joaquin Valley in Central California. The city's visual features predominately include urbanized land uses, agricultural land uses, rivers and creeks, and trees. The Project site is located in the northwestern area of the city on the westside of Golden State Boulevard between Avenue 16 and Avenue 17. The Project area (i.e., within a ½-mile radius of the Project site) generally comprises industrial uses or vacant land, in addition to some residential uses to the north of the site. The Madera Municipal Airport (MAE) is located approximately 0.50-miles to the west of the site. As a result, the Project site is surrounded by typical infrastructure such as roadways, streetlights, parking lot lights, and ambient light sources typical of industrial development. The Project area is relatively flat. Views of the Sierra Nevada mountains to the east are somewhat obstructed by State Route-99 and the expansive views of surrounding vacant land.

California Scenic Highway Program

The California Scenic Highway Program was established in 1963 with the purpose to protect and enhance the natural scenic beauty of California highways and adjacent corridors, through special conservation treatment. A highway may be designated scenic depending upon how much of the natural landscape can

be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view. There are no officially designated State Scenic Highways in the City of Madera, inclusive of the Project area. The nearest eligible State Scenic Highways is State-Route 168 which is approximately 23.5 miles southeast from the Project site, and in the county of Fresno.¹

Madera General Plan

Regarding the proposed use, the Madera General Plan Community Design Element and Land Use Element outline policies related to Goal 13: "Well-Design Industrial Development." The following goals and policies related to aesthetics are applicable to the Project.

Community Design Policy CD-62: *Development in industrial areas which are visible from public roadways and/or from adjacent properties shall incorporate high quality design principles, including:*

- *Offices and enclosed structures oriented toward street frontages.*
- *Building facades that provide visual interest.*
- *Loading facilities and storage areas which are screened from public view along collectors and arterials.*
- *Visually appealing fences and walls.*
- *The use of landscaped buffers around parking lots and industrial structures.*

For the purposes of implementing this Policy, a "building" shall include any structure which is designed to be used by humans or whose purpose is to warehouse materials or enclose an industrial process.

Community Design Policy CD-64: *Where industrial development abuts non-industrial uses, appropriate buffering techniques shall be employed such as, enhanced architecture, increased setbacks, screening landscaping, or some combination of these features.*

Community Design Policy CD-65: *Regardless of building materials or construction techniques, such as tilt up concrete or prefabricated metal buildings, all buildings shall meet all of the City's standards and guidelines for excellence in design.*

Land Use Policy LU-28: *To maintain the quality of life and aesthetic value of the major circulation routes used by both industrial and non-industrial traffic; the portions of industrial sites in public view along arterials and collectors shall be subject to the same standards for architectural review as commercial buildings, including architecture, street trees, frontage and parking lot landscaping, and screening of outdoor storage visible from public rights-of-way.*

Madera Municipal Code

Madera Municipal Code (MMC), Section 10-3.1000, Industrial Zones, sets forth the City's height and yard requirements for industrial uses. Specific requirements applicable to the Project are as follows.

§ 10-3.1003 Height of Structures. *The maximum height of any building shall be 65 feet; provided, however, additional height may be permitted if a use permit is first secured.*

¹ Caltrans. California State Scenic Highway System Map. Accessed on November 15, , 2021, <https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aaca>

§ 10-3.1004 Yard Requirements.

(A) *Front yards.* There shall be no requirements for front yards except where the frontage in a block is partially in a R zone in which case the front yard shall be the same as required in such R zone.

(B) *Side yards.* There shall be no requirements for side yards except where the side of a lot abuts upon the side of a lot in a R zone in which case the side yard shall not be less than ten feet.

(C) *Rear yard.* There shall be no requirements for rear yards except where the rear of a lot abuts on an R zone in which case the rear yard shall be not less than ten feet.

Agency Review

The City of Madera Department of Engineering reviewed the proposed Project and provided the following conditions related to aesthetics: *“The proposed lighting fixtures shall be adequately shielded to prevent light spill or unnecessary glare onto adjacent properties. Plans shall show all lighting architecturally integrated into the site. Nuisance onsite lighting shall be redirected as requested by City Engineer within 48 hours of notification.”*

4.1.2 Impact Assessment

a) Would the project have a substantial adverse effect on a scenic vista?

Less than Significant Impact. The Madera General Plan does not identify or designate scenic vistas in the City of Madera, inclusive of the Project site and area. In particular, the Project site is vacant and undeveloped and is within a Project area that is relatively flat and void of visual features. In addition, State Route-99 is located within the Project area to the east of the site, which effectively obstructs long-distance viewsheds of the mountain ranges to the east. Thus, given the flat topography and limited long-distance viewsheds, scenic views from the Project area and site are insignificant. As such, the Project itself would not result in an adverse effect on a scenic vista and a less than significant impact would occur as a result of the Project.

b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. According to the California State Scenic Highway Program and Madera General Plan, the Project is not located within a state-designated scenic highway. Thus, no impact would occur as a result of the Project.

c) In non-urbanized areas, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less than Significant Impact. The Project site is within an urbanized area surrounded by a mix of development, including industrial and residential uses. The proposed Project includes the development of two (2) warehouse and storage facilities that would reach a maximum height of 34-ft. and its exterior would consist of concrete and metal in addition to exterior lighting. The visual character of the Project is compatible with the existing industrial development in the area, is consistent with the planned land use and zoning designation, and therefore would not substantially degrade existing visual character due to its

size and character. Further through the entitlement review process, the Project is subject to compliance with applicable zoning and other regulations governing scenic quality including but not limited to the California Building Code, Madera General Plan, and MMC including *Sections 10-3.1003* and *10-3.1004* described above. Compliance with these regulations would ensure that the Project would not conflict with regulations governing scenic quality. Therefore, the Project would have a less than significant impact.

d) Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less than Significant Impact. Generally, lighting impacts are associated with artificial lighting in evening hours either through interior lighting from windows or exterior lighting (e.g., street lighting, parking lot lighting, landscape lighting, cars, and trucks). Development of the Project site would incrementally increase the amount of light from streetlights, exterior lighting, and vehicular headlights. Such sources could create adverse effects on day or nighttime views in the area.

Project construction would also introduce light and glare resulting from construction activities that could adversely affect day or nighttime views. Although construction activities are anticipated to occur primarily during daylight hours, it is possible that some activities could occur during dusk or early evening hours (pursuant to MMC *Section 3-11.01*, construction activities are permitted between 6:00 AM and 8:00 PM). Construction during these time periods could result in light and glare from construction vehicles or equipment. However, construction would occur primarily during daylight hours and would be temporary in nature. Once construction is completed, any light and glare from these activities would cease to occur.

In addition, the Project would be required to comply with the General Plan and MMC, which contain specific, enforceable requirements and/or restrictions intended to prevent light and glare impacts. Compliance with Title 24 lighting requirements would also reduce impacts related to nighttime light. The Title 24 lighting requirements cover outdoor spaces including regulations for mounted luminaires (i.e., high efficacy, motion sensor controlled, time clocks, energy management control systems, etc.). As such, conditions imposed on the Project by the City of Madera pursuant to Title 24, the General Plan, and MMC would reduce light and glare impacts to a less than significant impact.

4.2 Agriculture and Forestry Resources

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.2.1 Environmental Setting

The Project site is located within the Madera city limits and is currently zoned as I (Industrial) and has a General Plan land use designation of Industrial. As such, the site is planned for urbanized uses. Historically, the Project site has been operated as agricultural land for the purposes of dry farming. Today, the site is vacant with no improvements or structures. Topography is generally flat, and the site vegetation can be primarily classified as agricultural habitat that contains very little vegetation. No forestry resources are present on the site.

Farmland Mapping and Monitoring Program

The California Department of Conservation manages the Farmland Mapping and Monitoring Program (FMMP) that provides maps and data for analyzing land use impacts to farmland. The FMMP produces the Important Farmland Finder as a resource map that shows quality (soils) and land use information.

Agricultural land is rated according to soil quality and irrigation status, in addition to many other physical and chemical characteristics. The highest quality land is called “Prime Farmland.” Maps are updated every two years.

According to the Farmland Monitoring and Mapping Program, California Important Farmland Finder, the Project site is categorized as “Farmland of Local Importance” in 2016.² Farmland of Local Importance is defined as “*Land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee.*”³

Williamson Act

The California Land Conservation Act of 1965 (i.e., the Williamson Act) allows local governments to enter contracts with private landowners to restrict parcels of land agricultural or open space uses. In return, property tax assessments of the restricted parcels are lower than full market value. The minimum length of a Williamson Act contract is 10 years and automatically renews upon its anniversary date; as such, the contract length is essentially indefinite. The Project site nor the surrounding properties are subject to the Williamson Act Contract.

Madera General Plan

The Urban Growth Areas within the City’s Sphere of Influence are planned for the development of urban uses, including industrial development. This conversion of agricultural land to non-agricultural uses was evaluated under the Madera General Plan Update Environmental Impact Report (EIR) dated April 29, 2009. This EIR recognized that despite implementation of the objectives and policies of the General Plan, project and cumulative impacts on agricultural resources will remain significant. To certify the EIR, the City adopted Findings of Fact related to Significant and Unavoidable Impacts as well as Statements of Overriding Considerations. Section 15093 of the California Environmental Quality Act requires the lead agency to balance the benefits of a proposed project against its unavoidable environmental risks in determining whether to approve the project.

The adopted Statements of Overriding Considerations for the EIR addressed Findings of Significant and Unavoidable Impacts within the categories/areas of Agricultural Resources. The Findings cite specific economic, legal, social, technological, or other considerations which were deemed and considered by the City Council to be benefits, which outweighed the unavoidable adverse environmental effects attributed to development occurring within the City’s Sphere of Influence (SOI), consistent with the land uses, densities, and intensities set forth in the Madera General Plan.

4.2.2 Impact Assessment

- a) Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

² California Department of Conservation. (2018). California Important Farmland Finder. Accessed on October 21, 2021, <https://maps.conservation.ca.gov/DLRP/CIFF/>

³ California Department of Conservation. “Important Farmland Categories.” Accessed on October 21, 2021, <https://www.conservation.ca.gov/dlrp/fmmp/Pages/Important-Farmland-Categories.aspx>

Less than Significant Impact. According to the FMMP, California Important Farmland Finder, the Project site is located on land that is designated as “Farmland of Local Importance.” As such, the Project site is not located on lands designated as “Prime Farmland,” “Unique Farmland,” or “Farmland of Statewide Importance,” as shown on maps prepared pursuant to the FMMP. For this reason, the impact would be less than significant. In addition to this, while the Project would result in the conversion of agricultural lands to non-agricultural uses, this conversion was evaluated under the Madera General Plan Update EIR and subsequent Statements of Overriding Considerations and Findings of Significant and Unavoidable Impacts. Further, the site is within the city limits and is designated for non-agricultural uses. The Project would develop the site with non-agricultural uses that are consistent with the planned land use designation. Therefore, by developing the site in conformance with the General Plan and because the property is not one of the identified farmland types, it can be concluded that the Project would result in a less than significant impact.

b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. The Project site is not zoned for or located within an area planned or zoned for agricultural uses and is not under Williamson Act contract. Thus, the Project would have no impact.

c) Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

No Impact. The Project site does not contain forest land or timberland and it is not planned or zoned for forestry or timberland uses. As a result, the Project would have no impact.

d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. The Project site does not contain forest land or timberland and it is not planned or zoned for forestry or timberland uses. As a result, the Project would have no impact.

e) Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

No Impact. The Project site is not planned or zoned for agricultural uses. Additionally, the site is not planned or zoned for forestry uses. For these reasons, the Project would have no impact.

4.3 Air Quality

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

4.3.1 Environmental Setting

The proposed project is located within the San Joaquin Valley Air Basin (SJVAB). The San Joaquin Valley Air Pollution Control District (SJVAPCD) regulates air quality in eight (8) counties including: Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare. The SJVAPCD is the agency primarily responsible for ensuring that NAAQS and CAAQS are not exceeded and that air quality conditions are maintained in the SJVAB, within which the proposed project is located. Responsibilities of the SJVAPCD include, but are not limited to, preparing plans for the attainment of ambient air quality standards, adopting and enforcing rules and regulations concerning sources of air pollution, issuing permits for stationary sources of air pollution, inspecting stationary sources of air pollution and responding to citizen complaints, monitoring ambient air quality and meteorological conditions, and implementing programs and regulations required by the FCAA and the CCAA.

The SJVAPCD adopted rules and regulations for development projects prior to and during construction to reduce air contaminants, including but not limited to the following:

Rule 2010 – Permits Required. *The purpose of this rule is to require any person constructing, altering, replacing or operating any source operation which emits, may emit, or may reduce emissions to obtain an Authority to Construct or a Permit to Operate. This rule also explains the posting requirements for a Permit to Operate and the illegality of a person willfully altering, defacing, forging, counterfeiting or falsifying any Permit to Operate.*

Rule 2201 – New and Modified Stationary Source Review Rule. *The purpose of this rule is to provide for the following:*

*The review of new and modified Stationary Sources of air pollution and to provide mechanisms including emission trade-offs by which Authorities to Construct such sources may be granted, without interfering with the attainment or maintenance of Ambient Air Quality Standards; and
No net increase in emissions above specified thresholds from new and modified Stationary Sources of all nonattainment pollutants and their precursors.*

Rule 4001 – New Source Performance Standards. *This rule incorporates the New Source Performance Standards from Part 60, Chapter 1, Title 40, Code of Federal Regulations (CFR).*

Rule 4002 – National Emission Standards for Hazardous Air Pollutants. *This rule incorporates the National Emission Standards for Hazardous Air Pollutants from Part 61, Chapter I, Subchapter C, Title 40, Code of Federal Regulations (CFR) and the National Emission Standards for Hazardous Air Pollutants for Source Categories from Part 63, Chapter I, Subchapter C, Title 40, Code of Federal Regulations (CFR).*

Rule 4102 – Nuisance. *The purpose of this rule is to protect the health and safety of the public.*

Rule 4601 – Architectural Coatings. *The purpose of this rule is to limit VOC emissions from architectural coatings. This rule specifies architectural coatings storage, cleanup, and labeling requirements.*

Rule 4641 – Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations. *The purpose of this rule is to limit VOC emissions from asphalt paving and maintenance operations. This rule applies to the manufacture and use of cutback asphalt, slow cure asphalt and emulsified asphalt for paving and maintenance operations.*

Regulation VIII – Fugitive PM₁₀ Prohibitions. *The purpose of Regulation VIII (Fugitive PM₁₀ Prohibitions) is to reduce ambient concentrations of fine particulate matter (PM₁₀) by requiring actions to prevent, reduce or mitigate anthropogenic fugitive dust emissions.*

Rule 9510 – Indirect Source Review. *The purposes of this rule are to:*

- 1. Fulfill the District's emission reduction commitments in the PM₁₀ and Ozone Attainment Plans.*
- 2. Achieve emission reductions from the construction and use of development projects through design features and on-site measures.*
- 3. Provide a mechanism for reducing emissions from the construction of and use of development projects through off-site measures.*

Madera General Plan

In regard to local measures and thresholds for air quality impacts, the Madera General Plan Conservation Element outlines goals, objectives, and policies for addressing air quality. A sample of applicable goals and policies are as follows:

Goal CON-11 *Air quality that meets or exceeds all state and federal standards.*

GOAL CON-12 *Meet or exceed all current and future state-mandated targets for reducing emissions of greenhouse gases.*

Policy CON-29 *The City shall require new air pollution point sources (such as, but not limited to, industrial, manufacturing, and processing facilities) to be located an adequate distance from*

residential areas and other sensitive receptors. “Adequate distance” will be based on site-specific conditions, the type and location of sensitive receptors, on the types and amounts of potential toxic emissions, and other factors.

Policy CON-30 The creation of dust during construction/demolition activities should be reduced to the extent feasible.

Air Quality, Health Risk Analysis, and Greenhouse Gas Technical Memorandum

An Air Quality, Health Risk Analysis, and Greenhouse Gas Technical Memorandum was prepared for the proposed Project by Johnson Johnson and Miller Air Quality Consulting Services on February 8, 2022. Results are incorporated herein, and the fill assessment is provided in [Appendix A](#).

4.3.2 Impact Assessment

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

Less than Significant Impact. Air Quality Plans (AQPs) are plans for reaching attainment of air quality standards. The assumptions, inputs, and control measures are analyzed to determine if the Air Basin can reach attainment for the ambient air quality standards. The proposed Project site is located within the jurisdictional boundaries of the SJVAPCD. To show attainment of the standards, the SJVAPCD analyzes the growth projections in the Valley, contributing factors in air pollutant emissions and formations, and existing and adopted emissions controls. The SJVAPCD then formulates a control strategy to reach attainment that includes both State and SJVAPCD regulations and other local programs and measures. For projects that include stationary sources of emissions, the SJVAPCD relies on project compliance with Rule 2201—New and Modified Stationary Source Review to ensure that growth in stationary source emissions would not interfere with the applicable AQP. Projects exceeding the offset thresholds included in the rule are required to purchase offsets in the form of Emission Reduction Credits (ERCs).

The CEQA Guidelines indicate that a significant impact would occur if the project would conflict with or obstruct implementation of the applicable air quality plan. The GAMAQI indicates that projects that do not exceed SJVAPCD regional criteria pollutant emissions quantitative thresholds would not conflict with or obstruct the applicable AQP. An additional criterion regarding the project’s implementation of control measures was assessed to provide further evidence of the project’s consistency with current AQPs. This document proposes the following criteria for determining project consistency with the current AQPs:

1. Will the project result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQPs? This measure is determined by comparison to the regional and localized thresholds identified by the District for Regional and Local Air Pollutants.
2. Will the project comply with applicable control measures in the AQPs?

The use of the criteria listed above is a standard approach for CEQA analysis of projects in the SJVAPCD’s jurisdiction, as well as within other air districts, for the following reasons:

- Significant contribution to existing or new exceedances of the air quality standards would be inconsistent with the goal of attaining the air quality standards.

- AQP emissions inventories and attainment modeling are based on growth assumptions for the area within the air district's jurisdiction.
- AQPs rely on a set of air district-initiated control measures as well as implementation of federal and state measures to reduce emissions within their jurisdictions, with the goal of attaining the air quality standards.

Contribution to Air Quality Violations

As discussed in criterion b) below, emissions of ROG, NOX, CO, SOX, PM10, and PM2.5 associated with the proposed Project would not exceed the SJVAPCD's significance thresholds. Therefore, the proposed Project would not be considered to obstruct implementation of the applicable air quality plan or be in conflict with the applicable air quality plan.

Air Quality Plan Control Measures

The AQP contains a number of control measures that are enforceable requirements through the adoption of rules and regulations. The following rules and regulations are relevant to the project:

- Rule 2201—New and Modified Stationary Source Review Rule. The review of new and modified Stationary Sources of air pollution and to provide mechanisms including emission trade-offs by which Authorities to Construct such sources may be granted, without interfering with the attainment or maintenance of Ambient Air Quality Standards
- Rule 4201—Particulate Matter Concentration. This rule shall apply to any source operation that emits or may emit dust, fumes, or total suspended particulate matter.
- Rule 4309—Boilers, Steam Generators, and Process Heaters. The purpose of this rule is to limit emissions of oxides of nitrogen (NOX) and carbon monoxide (CO) from boilers, steam generators, and process heaters. This rule applies to any gaseous fuel or liquid fuel fired boiler, steam generator, or process heater with a total rated heat input greater than 5 million Btu per hour.
- Rule 4601—Architectural Coatings. The purpose of this rule is to limit Volatile Organic Compounds (VOC) emissions from architectural coatings. Emissions are reduced by limits on VOC content and providing requirements on coatings storage, cleanup, and labeling. Only compliant components are available for purchase in the San Joaquin Valley.
- Rule 4641—Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations. The purpose of this rule is to limit VOC emissions from asphalt paving and maintenance operations. If asphalt paving will be used, then the paving operations will be subject to Rule 4641. This regulation is enforced on the asphalt provider.
- Rule 4702—Internal Combustion Engines. The purpose of this rule is to limit the emissions of NOX, carbon monoxide (CO), VOC, and sulfur oxides (SOX) from internal combustion engines. If the project includes emergency generators, the equipment is required to comply with Rule 4702.
- Regulation VIII—Fugitive PM10 Prohibitions. This regulation is a control measure that is one main strategies from the 2006 PM10 for reducing the PM10 emissions that are part of fugitive dust. Projects over 10 acres are required to file a Dust Control Plan (DCP) containing dust control practices sufficient to comply with Regulation VIII. Rule 8021 regulates construction and demolition activities, road construction, bulk materials storage, paved and unpaved roads, carryout and trackout, etc. All development projects that involve soil disturbance are subject to at least one provision of the Regulation VIII series of rules.

The Project would comply with all applicable CARB and SJVAPCD rules and regulations. Therefore, the Project complies with this criterion and would not conflict with or obstruct implementation of the applicable air quality attainment plan.

In conclusion, the Project's emissions would be less than significant for all criteria pollutants and would not result in inconsistency with the AQP for this criterion. The Project would comply with all applicable rules and regulations from the applicable air quality plans. Considering the Project's less-than-significant contribution to air quality violations and the Project's adherence to applicable rules and regulations, the Project would not be considered inconsistent with the AQP; the impact would be less than significant.

b) Would the project 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?

To result in a less than significant impact, emissions of nonattainment pollutants must be below the SJVAPCD's regional significance thresholds. This is an approach recommended by the SJVAPCD's in its GAMAQI. The SJVAB is in nonattainment for ozone, PM₁₀ (State only), and PM_{2.5}. Ozone is a secondary pollutant that can be formed miles from the source of emissions, through reactions of ROG and NO_x emissions in the presence of sunlight. Therefore, ROG and NO_x are termed ozone precursors. As such, the primary pollutants of concern during project construction and operation are ROG, NO_x, PM₁₀, and PM_{2.5}. The air quality standards were set to protect public health, including the health of sensitive individuals (such as children, the elderly, and the infirm). Therefore, when the concentration of those pollutants exceeds the standard, it is likely that some sensitive individuals in the population would adverse experience health effects. However, the health effects are a factor of the dose-response curve. Concentration of the pollutant in the air (dose), the length of time exposed, and the response of the individual are factors involved in the severity and nature of health impacts. If a significant health impact results from project emissions, it does not mean that 100 percent of the population would experience health effects.

Since the SJVAB is nonattainment for ozone, PM₁₀, and PM_{2.5}, it is considered to have an existing significant cumulative health impact without the Project. When this occurs, the analysis considers whether the Project's contribution to the existing violation of air quality standards is cumulatively considerable. The SJVAPCD regional thresholds for NO_x, ROG/VOC, PM₁₀, or PM_{2.5} are applied as cumulative contribution thresholds. Projects that exceed the regional thresholds would have a cumulatively considerable health impact.

The SJVAPCD GAMAQI adopted in 2015 contains thresholds for CO, NO_x, ROG, SO_x, PM₁₀, and PM_{2.5}. Air pollutant emissions have both regional and localized effects. The Project's regional emissions are compared to the applicable SJVAPCD below.

Criteria Pollutant Emission Estimates

Construction Emissions (Regional)

Construction emissions associated with the project are shown in **Table 4-1** and **Table 4-2**, the emissions are below the significance thresholds and, therefore, are less than significant on a project basis.

Table 4-1: Summary of Construction-Generated Emissions of Criteria Air Pollutants – Unmitigated

Emissions Source	Emissions (Tons/Year)					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Phase 1— 2022	0.40	3.29	3.49	0.01	0.48	0.24
Phase 1— 2023	0.59	0.51	0.64	<0.01	0.08	0.03
Phase 2— 2023	0.35	2.89	3.31	0.01	0.45	0.22
Phase 2— 2024	0.73	0.51	0.68	<0.01	0.08	0.03
Project Total	2.08	7.20	8.12	0.02	1.09	0.53
Significance Thresholds	10	10	100	27	15	15
Exceed Significance Thresholds?	No	No	No	No	No	No
Notes: PM ₁₀ and PM _{2.5} emissions are from the mitigated output to reflect compliance with Regulation VIII—Fugitive PM ₁₀ Prohibitions. Source of Emissions: CalEEMod Output and Additional Supporting Information (Attachment A). Totals may not appear to sum exactly due to rounding. Source of Thresholds: San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. Guidance for Assessing and Mitigating Air Quality Impacts. February 19. Website: https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF . Accessed January 30, 2022.						

Operational Emissions (Regional)—Non-Permitted

Operational emissions occur over the lifetime of the Project. The SJVAPCD considers permitted and non-permitted emission sources separately when making significance determinations. In addition, the annual operational emissions are also considered separately from construction emissions. Operational emissions are shown in **Table 4-2**. As shown, the operational emissions would be less than the thresholds of significance for all criteria air pollutants.

Table 4-2: Summary of Operational Emissions of Criteria Air Pollutants – Unmitigated

Source	Emissions (tons/year)					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Area	2.16	0.00	0.00	0.00	0.00	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00
Mobile (Passenger Vehicles)	0.33	0.32	3.84	0.01	1.08	0.29
Mobile (Trucks)	0.04	3.15	0.48	0.02	0.51	0.16
Annual Total (2023)	2.52	3.47	4.33	0.03	1.59	0.46
Significance Thresholds	10	10	100	27	15	15
Exceed Significance Thresholds?	No	No	No	No	No	No
Notes:						

Emissions were quantified using CalEEMod based on project details and estimated operating year for the proposed project. Totals may not sum exactly due to rounding.
Source: CalEEMod Output and Additional Supporting Information (Attachment A).

Operational Emissions (Regional)—Permitted

The SJVAPCD GAMAQI recommends assessing the emissions from permitted sources of emissions separate from non-permitted sources. The SJVAPCD's permitting process ensures that emissions of criteria pollutants from permitted equipment and activities at stationary sources are reduced or mitigated to below the SJVAPCD's thresholds of significance. SJVAPCD implementation of New Source Review (NSR) ensures that there is no net increase in emissions above specified thresholds from new and modified Stationary Sources subject to the rule for all nonattainment pollutants and their precursors. Permitted sources emitting more than the NSR Offset Thresholds for any criteria pollutant must, in general, offset all emission increases in excess of the thresholds.

The Project will include stationary sources that require SJVAPCD permits, such as an emergency generator. The SJVAPCD will prepare an engineering evaluation of all permitted equipment to determine the controls required to achieve best available control technology (BACT) requirements. The permitted emissions are dependent on the control technology selected and any process limits included in the permit conditions. Permitted sources will be required to comply with SJVAPCD BACT requirements. Compliance with regulations would ensure that the project's stationary sources would not exceed SJVAPCD thresholds of significance; therefore, the Project's estimated permitted emissions would be less than significant.

In conclusion, as shown above, the Project's regional emissions would not exceed the applicable regional criteria pollutant emissions quantitative thresholds. In addition, any permitted sources will be required to comply with SJVAPCD BACT requirements. Therefore, the Project would not result in significant cumulative health impacts.

c) Would the project expose sensitive receptors to substantial pollutant concentrations?

Less than Significant Impact. Emissions occurring at or near the project have the potential to create a localized impact that could expose sensitive receptors to substantial pollutant concentrations. Sensitive receptors are considered land uses or other types of population groups that are more sensitive to air pollution than others due to their exposure. Sensitive population groups include children, the elderly, the acutely and chronically ill, and those with cardio-respiratory diseases. The SJVAPCD considers a sensitive receptor to be a location that houses or attracts children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants. Examples of sensitive receptors include hospitals, residences, convalescent facilities, and schools.

The closest existing sensitive receptors (to the site area) are residences located approximately within 50 feet north of the Project site. Other notable sensitive receptors include trailer homes south of the Project site, the closest of which are located approximately 830 feet from the Project site boundary.

Localized Impacts

Emissions occurring at or near the Project have the potential to create a localized impact also referred to as an air pollutant hotspot. Localized emissions are considered significant if when combined with background emissions, they would result in exceedance of any health-based air quality standard. In locations that already exceed standards for these pollutants, significance is based on a significant impact level (SIL) that represents the amount that is considered a cumulatively considerable contribution to an

existing violation of an air quality standard. The pollutants of concern for localized impact in the SJVAB are NO₂, SO_x, and CO.

The SJVAPCD has provided guidance for screening localized impacts in the GAMAQI that establishes a screening threshold of 100 pounds per day of any criteria pollutant. If a project exceeds 100 pounds per day of any criteria pollutant, then ambient air quality modeling would be necessary. If the project does not exceed 100 pounds per day of any criteria pollutant, then it can be assumed that it would not cause a violation of an ambient air quality standard.

Construction: Localized Concentrations of PM₁₀, PM_{2.5}, CO, and NO_x

Local construction impacts would be short-term in nature lasting only during the duration of construction. As shown in **Table 4-3** below, on-site construction emissions would be less than 100 pounds per day for each of the criteria pollutants. To present a conservative estimate, on-site emissions for on-road construction vehicles were included in the localized analysis. Based on the SJVAPCD’s guidance, the construction emissions would not cause an ambient air quality standard violation.

Table 4-3: Localized Concentrations of PM₁₀, PM_{2.5}, CO, and NO_x for Construction

Source	On-site Emissions (pounds per day)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Phase 1—2022	3.67	38.90	29.24	10.47	6.03
Phase 1—2023	52.81	24.45	28.87	1.27	1.09
Phase 2—2023	3.37	34.55	30.56	10.13	5.72
Phase 2—2024	67.08	24.35	30.29	1.35	1.05
Maximum Daily On-site Emissions	67.08	38.90	30.56	10.47	6.03
Significance Thresholds	—	100	100	100	100
Exceed Significance Thresholds?	—	No	No	No	No

Note: Overlap of construction activities is based on the construction schedule shown in **Error! Reference source not found.** and Attachment A. Source of Emissions: CalEEMod Output and Additional Supporting Information (Attachment A). Maximum daily emissions of NO_x, CO, PM₁₀, and PM_{2.5} were highest in the Winter scenario, while maximum daily emissions of ROG were highest in the Summer scenario. Source of Thresholds: San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. Guidance for Assessing and Mitigating Air Quality Impacts. February 19. Website: <https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF>. Accessed February 6, 2022.

Operation: Localized Concentrations of PM₁₀, PM_{2.5}, CO, and NO_x

Localized impacts could occur in areas with a single large source of emissions such as a power plant or with multiple sources concentrated in a small area such as a distribution center. The maximum daily operational emissions would occur at project buildout, which was assumed to occur in 2023. Operational emissions include those generated on-site by area sources such as consumer products, and landscape maintenance, energy use from natural gas combustion, and motor vehicles operation at the project site. Motor vehicle emissions are estimated for on-site operations using trip lengths for on-site travel. The trip lengths used to analyze on-site emissions was selected by measuring possible on-site paths using Google Earth; the length for the longest measured route for the appropriate vehicle type was selected to present a conservative estimate of on-site emissions.

As shown in **Table 4-4** below, operational modeling of on-site emissions for the project indicate that the project would not exceed 100 pounds per day for each of the criteria pollutants. Therefore, based on the SJVAPCD’s guidance, the operational emissions would not cause an ambient air quality standard violation. As such, impacts would be less than significant.

Table 4-4: Localized Concentrations of PM10, PM2.5, CO, and NOX for Operations

Source	On-site Emissions (pounds per day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
Area	<0.01	0.05	<0.01	<0.01
Energy	0.02	0.02	<0.01	<0.01
Mobile - Passenger Vehicles Trips	0.66	7.21	0.12	0.03
Mobile - Truck Trips	1.51	1.18	0.03	0.01
Total	2.20	8.46	0.15	0.05
Significance Thresholds	100	100	100	100
Exceed Significance Thresholds?	No	No	No	No

Source of Emissions: CalEEMod Output and Additional Supporting Information (Attachment A). Maximum daily emissions of NO_x, CO, PM₁₀, and PM_{2.5} were highest in the Winter scenario.
 Source of Thresholds: San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. Guidance for Assessing and Mitigating Air Quality Impacts. February 19. Website: <https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF>. Accessed February 6, 2022.

Toxic Air Contaminants

Construction

Project construction would involve the use of diesel-fueled vehicles and equipment that emit DPM, which is considered a TAC. The SJVAPCD’s current threshold of significance for TAC emissions is an increase in cancer risk for the maximally exposed individual of 20 in a million (formerly 10 in a million). The SJVAPCD’s 2015 GAMAQI does not currently recommend analysis of TAC emissions from project construction activities, but instead focuses on projects with operational emissions that would expose sensitive receptors over a typical lifetime of 70 years. In addition, the most intense construction activities of the project’s construction would occur during site preparation and grading phases over a short period. There are no conditions unique to the project site that would require more intense construction activity compared to typical development. Examples of situations that would warrant closer scrutiny may include sites that would require extensive excavation and hauling due to existing site conditions. Building construction typically requires limited amounts of diesel equipment relative to site clearing activities.

Operations

For reasons previously discussed (see Modeling Parameters and Assumptions in **Appendix A**), an analysis of TACs (including DPM) was performed using the EPA-approved AERMOD model, which is an air dispersion model accepted by the SJVAPCD for preparing HRAs. AERMOD version 21112 was used for this analysis. Consistent with SJVAPCD guidance, the health risk computation was performed to determine the risk of developing an excess cancer risk calculated on a 70-year exposure scenario. Results of the HRA are

summarized in **Table 4-5**. The complete HRA prepared for the proposed project, including calculations and AERMOD output data, are included in Attachment B of **Appendix A**.

**Table 4-5: Summary of the Health Impacts from Operations of the Proposed Project
(70-year Scenario)**

Exposure Scenario	Maximum Cancer Risk (Risk per Million)	Chronic Non-Cancer Hazard Index
70-Year Exposure at the MER (from DPM Emissions)	3.54	0.007
Applicable Threshold of Significance	20	1
Threshold Exceeded?	No	No
Notes: MER = Maximally Exposed Receptor Origo Cold Madera Project Total DPM MER UTM: 758610.13, 4097186.34 Source: Attachment B.		

As shown in **Table 4-5**, the Project would not exceed the cancer risk, chronic risk, and acute risk threshold levels. The primary source of the emissions responsible for chronic risk are from diesel trucks and diesel-powered TRUs. DPM does not have an acute risk factor. Since the Project does not exceed the applicable SJVAPCD thresholds for cancer risk, acute risk, or chronic risk, the impact related to the Project’s potential to expose sensitive receptors to substantial pollutant concentrations would be less than significant.

Valley Fever

Valley fever, or coccidioidomycosis, is an infection caused by inhalation of the spores of the fungus, *Coccidioides immitis* (*C. immitis*). The spores live in soil and can live for an extended time in harsh environmental conditions. Activities or conditions that increase the amount of fugitive dust contribute to greater exposure, and they include dust storms, grading, and recreational off-road activities.

The San Joaquin Valley is considered an endemic area for Valley fever. During 2000–2018, a total of 65,438 coccidioidomycosis cases were reported in California; median statewide annual incidence was 7.9 per 100,000 population and varied by region from 1.1 in Northern and Eastern California to 90.6 in the Southern San Joaquin Valley, with the largest increase (15-fold) occurring in the Northern San Joaquin Valley. Incidence has been consistently high in six counties in the Southern San Joaquin Valley (Fresno, Kern, Kings, Madera, Tulare, and Merced counties) and Central Coast (San Luis Obispo County) regions.⁴ California experienced 7,962 new probable or confirmed cases of Valley fever in 2021. A total of 46 Valley fever cases were reported in Madera County in 2021.⁵

⁴ Centers for Disease Control and Prevention (CDC). 2020. Regional Analysis of Coccidioidomycosis Incidence—California, 2000–2018. Website: https://www.cdc.gov/mmwr/volumes/69/wr/mm6948a4.htm?s_cid=mm6948a4_e Accessed March 17, 2021.

⁵ California Department of Public Health (CDPH). 2021. Coccidioidomycosis in California Provisional Monthly Report January 2021. Website: <https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH%20Document%20Library/CocciinCAProvisionalMonthlyReport.pdf> Accessed January 15, 2022 and February 6, 2022.

The distribution of *C. immitis* within endemic areas is not uniform and growth sites are commonly small (a few tens of meters) and widely scattered. Known sites appear to have some ecological factors in common suggesting that certain physical, chemical, and biological conditions are more favorable for *C. immitis* growth. Avoidance, when possible, of sites favorable for the occurrence of *C. immitis* is a prudent risk management strategy. Listed below are ecologic factors and sites favorable for the occurrence of *C. immitis*:

1. Rodent burrows (often a favorable site for *C. immitis*, perhaps because temperatures are more moderate and humidity higher than on the ground surface)
2. Old (prehistoric) Indian campsites near fire pits
3. Areas with sparse vegetation and alkaline soils
4. Areas with high salinity soils
5. Areas adjacent to arroyos (where residual moisture may be available)
6. Packrat middens
7. Upper 30 centimeters of the soil horizon, especially in virgin undisturbed soils
8. Sandy, well-aerated soil with relatively high water-holding capacities

Sites within endemic areas less favorable for the occurrence of *C. immitis* include:

1. Cultivated fields
2. Heavily vegetated areas (e.g., grassy lawns)
3. Higher elevations (above 7,000 feet)
4. Areas where commercial fertilizers (e.g., ammonium sulfate) have been applied
5. Areas that are continually wet
6. Paved (asphalt or concrete) or oiled areas
7. Soils containing abundant microorganisms
8. Heavily urbanized areas where there is little undisturbed virgin soil.⁶

The Project is situated on a site previously disturbed that does not provide a suitable habitat for spores. Specifically, the Project site is primarily covered with existing shrubbery and grassland. Therefore, implementation of the proposed project would have a low probability of the site having *C. immitis* growth sites and exposure to the spores from disturbed soil.

Although conditions are not favorable, construction activities could generate fugitive dust that contain *C. immitis* spores. The project will minimize the generation of fugitive dust during construction activities by complying with SJVAPCD's Regulation VIII. Therefore, this regulation, combined with the relatively low probability of the presence of *C. immitis* spores would reduce Valley fever impacts to less than significant. During operations, dust emissions are anticipated to be relatively small, because most of the Project area where operational activities would occur would be occupied by the proposed industrial buildings and pavement. This condition would lessen the possibility of the project from providing habitat suitable for *C. immitis* spores and for generating fugitive dust that may contribute to Valley fever exposure. Impacts would be less than significant.

⁶ United States Geological Survey (USGS). 2000. Operational Guidelines (Version 1.0) for Geological Fieldwork in Areas Endemic for Coccidioidomycosis (Valley Fever), 2000, Open-File Report 2000-348. Website: <https://pubs.usgs.gov/of/2000/0348/pdf/of00-348.pdf>. Accessed November 8, 2021.

Naturally Occurring Asbestos

Review of the map of areas where naturally occurring asbestos in California are likely to occur found no such areas in the Project area. Therefore, development of the Project is not anticipated to expose receptors to naturally occurring asbestos.⁷ Impacts would be less than significant.

In summary, the Project would not exceed SJVAPCD localized emission daily screening levels for any criteria pollutant. The Project is not a significant source of TAC emissions during construction or operation. The Project is not in an area with suitable habitat for Valley fever spores and is not in area known to have naturally occurring asbestos. Therefore, the Project would not result in significant impacts to sensitive receptors.

d) Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less than Significant Impact. Two situations create a potential for odor impact. The first occurs when a new odor source is located near an existing sensitive receptor. The second occurs when a new sensitive receptor locates near an existing source of odor. The proposed Project is of the first type only since it involves a potential new odor source and would not locate any new sensitive receptors.

Odor impacts on residential areas and other sensitive receptors, such as hospitals, day-care centers, schools, etc. warrant the closest scrutiny, but consideration should also be given to other land uses where people may congregate, such as recreational facilities, worksites, and commercial areas.

Although the Project is less than one mile from the nearest sensitive receptor, the project is not expected to be a significant source of odors. The screening levels for these land use types are shown in **Table 4-6**.

Table 4-6: Screening Levels for Potential Odor Sources

Odor Generator	Screening Distance
Wastewater Treatment Facilities	2 miles
Sanitary Landfill	1 mile
Transfer Station	1 mile
Composting Facility	1 mile
Petroleum Refinery	2 miles
Asphalt Batch Plant	1 mile
Chemical Manufacturing	1 mile
Fiberglass Manufacturing	1 mile
Painting/Coating Operations (e.g., auto body shop)	1 mile
Food Processing Facility	1 mile
Feed Lot/Dairy	1 mile
Rendering Plant	1 mile
Wastewater Treatment Facilities	2 miles

⁷ U.S. Geological Survey. 2011. Van Gosen, B.S., and Clinkenbeard, J.P. California Geological Survey Map Sheet 59. Reported Historic Asbestos Mines, Historic Asbestos Prospects, and Other Natural Occurrences of Asbestos in California. Open-File Report 2011-1188 Website: <https://pubs.usgs.gov/of/2011/1188/>. Accessed February 6, 2022.

Source of Thresholds: San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. Guidance for Assessing and Mitigating Air Quality Impacts. February 19. Website: <https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF>. Accessed February 6, 2022.

Construction

During construction, various diesel-powered vehicles and equipment in use on-site would create localized odors. These odors would be temporary and intermittent, which would decrease the likelihood of the odors concentrating in a single area or lingering for any notable period of time. As such, these odors would likely not be noticeable for extended periods of time beyond the project's site boundaries. The potential for odor impacts from construction of the proposed Project would, therefore, be less than significant.

Operations

The development of the proposed Project would not substantially increase objectionable odors in the area and would not introduce any new sensitive receptors to the area that could be affected by any existing objectionable odor sources in the area. Land uses that are typically identified as sources of objectionable odors include landfills, transfer stations, sewage treatment plants, wastewater pump stations, composting facilities, asphalt batch plants, rendering plants, and other land uses outlined in **Table 4-6**. The proposed Project would not engage in any of these activities. Minor sources of odors that would be associated with uses typical of temperature-controlled storage facilities, such as exhaust from mobile sources (including diesel-fueled heavy trucks), are known to have temporary and less concentrated odors. Considering the low intensity of potential odor emissions, the proposed Project's operational activities would not expose receptors to objectionable odor emissions. Therefore, the proposed Project would not be considered to be a generator of objectionable odors during operations. As such, impacts would be less than significant.

4.4 Biological Resources

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.4.1 Environmental Setting

Preliminary Site Investigation

On October 15, 2021, Precision Civil Engineering (PCE) conducted a preliminary site investigation. Field conditions were typical for early fall at the site. The temperature was in the mid-60s during the day. The sky was clear and there was a light breeze. Site photos taken during the preliminary site investigation are provided in [Figure 4-1](#) and [Figure 4-2](#). Observations from the site visit are incorporated herein.



Figure 4-1 View of Project Site, facing northeast

Source: Precision Civil Engineering, October 15, 2021



Figure 4-2 View of the Project site, facing northwest

Source: Precision Civil Engineering, October 15, 2021

The site visit confirmed that the site vegetation is primarily classified as agricultural habitat. The site was disced and graded fallow agricultural land that contained very little vegetation. Ruderal weedy species typically found in disturbed or agricultural modified plant communities were observed on the site in limited quantities. The height of the vegetation was typically less than six (6) inches tall. This indicates that the vegetation on site and in the region is highly disturbed and is unlikely to follow natural vegetation patterns. The site is not expected to support native vegetation, due to discing activities.

On October 15, 2021, the following was observed: The site is vacant and undeveloped with no improvements, structures, vegetative cover, trees, or water features suitable for habitat by special-status species. There are no shrubs, trees, or herbaceous vegetation present on the site. Discd fields are located to the north and south, in addition to four (4) single-family residential dwellings to the north and manufacturer, California Custom Processing, to the south. Madera Self Storage bounds the site to the west and food-processing company, Ready Roast Co., bounds the site to the east.

Site Investigation

On February 8, 2022, Precision Civil Engineering (PCE) biologist, Mr. Ryan Brosius conducted a reconnaissance level survey of the project area to search for special status species, and to determine the potential presence of suitable habitat for these species. The site was surveyed using meandering pedestrian transects. Field binoculars were used to observe and identify animals encountered during the survey. Botanical species were identified, based on current available hand samples, to the species level whenever possible and recorded; otherwise they were recorded at the level of genus and or family. These surveys do not constitute CDFG and/or FWS Protocol level surveys for any specific species. Site photos taken during the preliminary investigation are provided in [Figure 4-3](#), [Figure 4-4](#), and [Figure 4-5](#).



Figure 4-3 Site Photo (view of the Project site, facing northeast)

Source: Precision Civil Engineering, February 9, 2022



Figure 4-4 Site Photo (view of the Project site, facing northwest)

Source: Precision Civil Engineering, February 9, 2022



Figure 4-5 Site Photo (view of the Project site, facing east)

Source: Precision Civil Engineering, February 9, 2022

The agricultural habitat type is generally surrounded by partially developed lands and existing roadways and ranks moderate to low in terms of wildlife value due to heavy alteration by grazing and agricultural practices. Though the undeveloped margins of these lands can offer reasonable access to food and water for some species and serve as movement corridors through which a variety of wildlife could be expected to pass, they lack a cover component that would enable the vast majority of wildlife species to safely nest, forage, and escape from predators.

On February 8, 2022, the following was observed: Field conditions were typical for winter at the site. The temperature was in the low 40’s in the a.m. to the 50’s during the site visit. The sky was clear, and there was a light breeze. Vegetation on the site was green and growing. Vegetation on site consisted of grasses and forbs. Most of the site was covered in wild mustard.

U.S. Fish and Wildlife – Special-Status Species Database

The Project site is located in Madera County. The U.S. Fish and Wildlife’s Information for Planning and Consultation (IPaC) database indicates 29 endangered species and ten (10) critical habitats that are potentially affected in the County.⁸

California Department of Fish and Wildlife – Natural Diversity Database

The Project site is located in the Madera Quad. According to the CNDDDB, there are five (5) special-status species in five (5)-mile radius of the site. **Table 4-7** lists the species and their status within five (5) miles of the Project site.

Table 4-7 Wildlife Species within 5-mile radius of Project site

Scientific Name	Common Name	Status	
		Federal	State
Ambystoma californiense pop. 1	California tiger salamander	Threatened	Threatened
Branchinecta lynchi	Vernal pool fairy shrimp	Threatened	-
Buteo swainsoni	Swainson’s hawk	-	Threatened
Gambelia sila	Blunt-nosed leopard lizard	Endangered	Endangered
Orcuttia pilosa	Hairy Orcutt grass	Endangered	Endangered
Lytta molesta	molestan blister beetle	-	-
Layia munzii	Munz's tidy-tips	-	-
Spea hammondii	western spadefoot		-
Orcuttia inaequalis	San Joaquin Valley Orcutt grass	Threatened	Endangered
Navarretia nigelliformis ssp. radians	shining navarretia	-	-
Branchinecta mesovallensis	midvalley fairy shrimp	-	-
Leptosiphon serrulatus	Madera leptosiphon	-	-
Lasiurus cinereus	hoary bat	-	-
Athene cucularia	burrowing owl		-

⁸ U.S. fish and Wildlife Service. Information and Planning Consultation Online System. Accessed on October 19, 2021, <https://ecos.fws.gov/ipac/>

Table 4-8 lists the special-status species occurrences in the five (5)-mile radius of the site. The occurrence map developed from the CNDDDB is provided in Figure 4-6.

Table 4-8 Special-status Species Occurrences within 5-mile radius of Project site

Special-status species	Date	Rank	Distance to site
Swainson’s hawk	2016/4/16	Fair**	2.5 miles southwest
California tiger salamander	2021/3/19	Fair	2.2 miles northeast
California tiger salamander	2018/5/4	Fair	2.9 miles northeast
Vernal pool fairy shrimp	2016/2/11	Poor***	3.5 miles east
California tiger salamander	2018/7/10	Poor	3.5 miles east
Vernal pool fairy shrimp	1993/3/10	Unknown	3.7 miles northeast
California tiger salamander	2002/3/10	Fair	5 miles northeast

* Occurrences that are Extirpated, defined as “Only used when the element has been searched for but not seen for many years or when the habitat is destroyed at this site”, are not listed in the table.

** Fair (C) - Population small and/or potentially not very viable OR habitat in disturbed, fragmented or otherwise suboptimal condition. Disturbances are more severe and can include nearby development, heavy recreational use, ORV use and damage, heavy weed infestation, and more. Population not expected to persist in the long term but may persist for 10 years.

*** Poor (D) - Population very small and/or non-viable. Habitat may be in good condition, but usually it is not and shows multiple disturbances and features of degradation. Population not expected to persist over 5 years.

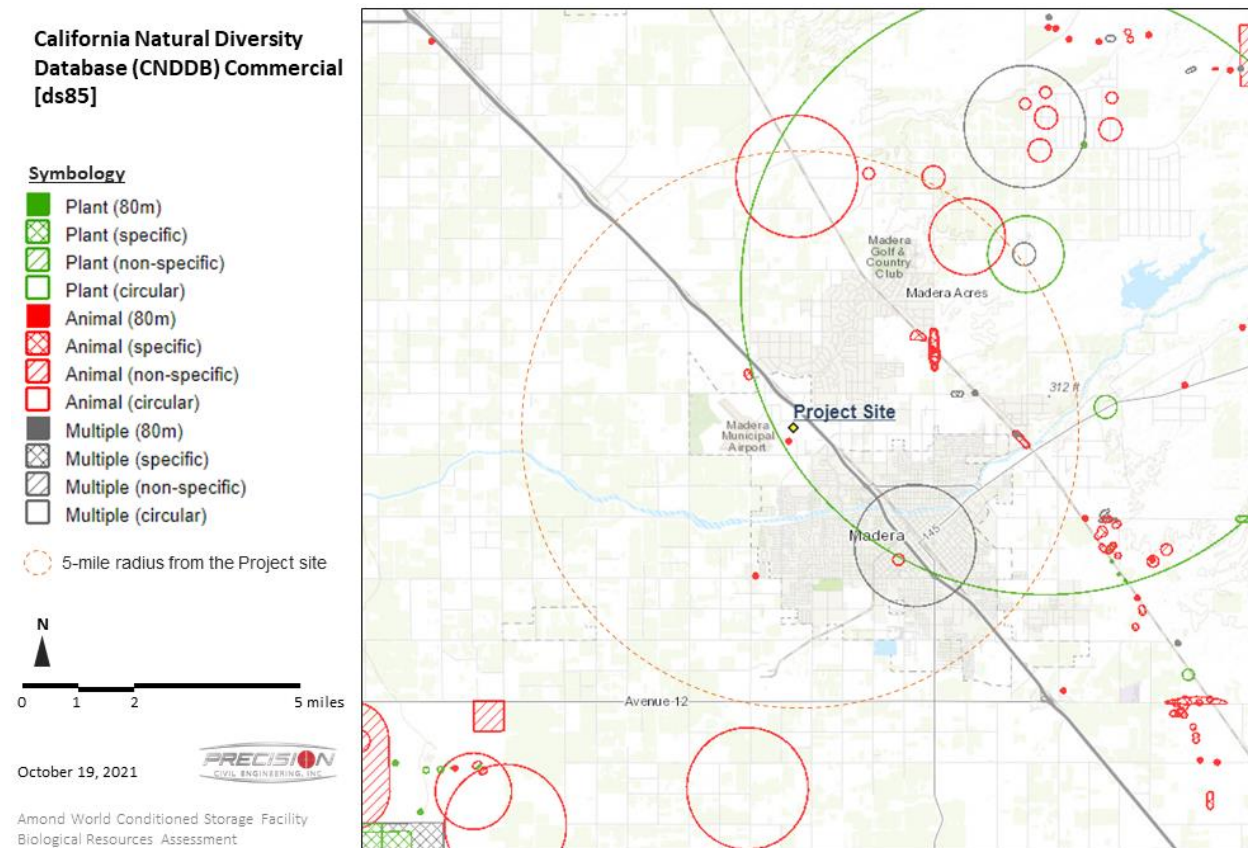


Figure 4-6 CNDDDB Special-status Species Occurrences

Based on the CNDDDB search, there are seven (7) special-status species occurrences within a five (5)-mile radius of the Project site (Table 4-8). These occurrences are ranked by the CNDDDB to be either fair or poor, whereby “fair” indicates the population is small and/or potentially not very viable or habitat in disturbed, fragmented, or otherwise suboptimal condition and “poor” indicates a very small and/or non-viable population. None of these occurrences have been observed on the Project site or in the immediate vicinity of the site (i.e., within 0.5- to one (1)-mile radius). Given the existing conditions of the Project site and surrounding properties including heavy alteration, lack of cover, vegetation, or water features, it is unlikely that these species occur on the site. However, given that the biologist determined that ground squirrel burrows were noted throughout the site and trees were noted on the perimeter of the site that could be potentially used for nesting raptor (although no nests were observed during the site visit) mitigation measures will be added to ensure there will be no impacts.

National Wetlands Inventory

A search of the National Wetlands Inventory (NWI) shows no federally protected wetlands (including but not limited to marsh, vernal pool, coastal, etc.) on the Project site or within the immediate vicinity of the Project area.⁹ Wetlands in the 0.5-mile radius of the Project site include two (2) 2 freshwater emergent wetland habitats classified as PEM1A and PEM1Cx. The PEM1A indicates Palustrine System (P) usually dominated by perennial plants (EM) that remain standing at least until the beginning of the next growing season (1), that is temporary flooded (A). The PEM1Cx indicates Palustrine System (P) usually dominated by perennial plants (EM) that remain standing at least until the beginning of the next growing season (1), that is seasonally flooded (C), and has been excavated by humans (x). These wetlands do not exist or occur on the Project site.

Environmental Protection Agency (EPA) Water Program “My Waters”

According to the My Waters GeoViewer, there are no surface water features (i.e., waterbodies, pipelines, canals, streams, coastlines, catchments, hydrologic units) on or in immediate vicinity of the Project site. The nearest surface water feature is a catchment 0.52 miles north of the Project site.

Critical Habitat

Once a species is listed under the federal Endangered Species Act, NOAA Fisheries is required to determine whether there are areas that meet the definition of Critical Habitat. Per NOAA Fisheries, Critical Habitat is defined as: Specific areas within the geographical area occupied by the species at the time of listing that contain physical or biological features essential to conservation of the species and that may require special management considerations or protection; and Specific areas outside the geographical area occupied by the species if the agency determines that the area itself is essential for conservation. The Project site is not located with federally designated Critical Habitat, record updated December 10, 2021. The closest federally designated Critical Habitat is located approximately 7.5 miles east of the Project site for hairy Orcutt grass (*Orcuttia Pilosa*) and 5.5 miles northeast of the project site for Greene’s tuctoria (*Tuctoria Greenei*). These critical habitats are also identified in the General Plan Draft EIR.

⁹ U.S. Fish & Wildlife Service. National Wetlands Inventory. Accessed October 19, 2021, <https://www.fws.gov/wetlands/data/Mapper.html>

4.4.2 Impact Assessment

- a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Less than Significant with Mitigation Incorporated. The Project site and surrounding properties have historically been designated and operated as agricultural land. The site is currently vacant and undeveloped and has been highly disturbed as a result of periodic discing and agricultural activity. There are no trees, shrubs, or herbaceous vegetation. There are no water features on site. Additionally, the site is relatively flat with AsA – Alamo Clay, 0 to 1 percent slopes (occasional to no flooding, no ponding), CuB – Cometa, sandy loams, 3 to 8 percent slopes (no ponding, no flooding), and SaA – San Joaquin sandy loam soil types.¹⁰

Given the existing conditions of the Project site and surrounding properties including heavy alteration, lack of/limited cover, vegetation, or water features, it is unlikely that these species occur on the site. However, given that the biologist determined that ground squirrel burrows were noted throughout the site and trees were observed on the perimeter of the site (on adjacent property) that could be potentially used for nesting raptor (although no nests were observed during the site visit) mitigation measures will be added to ensure that any potential impacts will be reduced to less than significant by conducting pre-construction surveys.

The following are the mitigation measures will ensure project impacts are reduced to less than significant.

MM BIO-1.1: 14 days prior to Project activities, a pre-construction survey shall be conducted by a qualified biologist knowledgeable in the identification of burrowing owls. The pre-construction survey shall include walking transects to identify presence of burrowing owls and their burrows. For burrowing owls, the transects shall be spaced at no greater than 30-foot intervals to obtain a 100 percent coverage of the Project site and a 250-foot buffer.

1. If no evidence of this species is detected, no further action is required.
2. If dens or burrows that could support these species are discovered during the pre-construction survey, avoidance buffers outlined below shall be established. Unless a qualified biologist approves and monitors development activity, no work shall occur within these buffers.
Burrowing Owl (active burrows):
 - a. Non-breeding season (September 1 to January 31): 160 feet
 - b. Breeding season (February 1 to August 31): 250 feet

MM BIO-1.2: If Project activities must occur during the nesting season (February 1 to September 15), pre-activity nesting bird surveys shall be conducted within seven (7) days prior to the start of construction on the construction site and a 500-foot buffer for raptors (other than Swainson's hawk).

1. If no active nests are found, no further action is required. However, existing nests may become active, and new nests may be built at any time prior to and throughout the nesting season, including when construction activities are in progress.

¹⁰ United States Department of Agriculture Natural Resources and Conservation Service. Web Soil Survey. Accessed October 19, 2021, <https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>

2. *If active nests are found during the survey or at any time during construction of the Project, an avoidance buffer ranging from 50 feet to 500 feet may be required, with the avoidance buffer from any specific nest being determined by a qualified biologist. The avoidance buffer will remain in place until the biologist has determined that the young are no longer reliant on the adults or the nest. Work may occur within the avoidance buffer under the approval and guidance of the biologist, but full-time monitoring may be required. The biologist shall have the ability to stop construction if nesting adults show any sign of distress.*

MM BIO-1.3: *If Project activities must occur during the Swainson's hawk nesting season (February 15 to August 31), pre-construction surveys shall be conducted for Swainson's hawk nests in accordance with the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley, Swainson's Hawk Technical Advisory Committee (CDFG, 2000). The surveys would be conducted on the Project site plus a 0.5-mile buffer. To meet the minimum level of protection for the species, surveys shall be conducted during at least two survey periods.*

1. *If no Swainson's hawk nests are found, no further action is required.*
2. *If an active Swainson's hawk nest is discovered at any time within 0.5 miles of active construction, a qualified biologist shall complete an assessment of the potential for current construction activities to impact the nest. The assessment would consider the type of construction activities, the location of construction relative to the nest, the visibility of construction activities from the nest location, and other existing disturbances in the area that are not related to the construction activities of this Project. Based on this assessment, the biologist will determine if construction activities can proceed and the level of nest monitoring required. Construction activities shall not occur within 500 feet of an active nest, but this distance may be reduced depending upon conditions at the site. Full-time monitoring to evaluate the effects of construction activities on nesting Swainson's hawks may be required. The qualified biologist shall have the authority to stop work if it is determined that Project construction is disturbing the nest. These buffers may need to increase depending on the sensitivity of the nesting Swainson's hawk to disturbances and at the discretion of the qualified biologist.*

b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Less than Significant Impact. According to the General Plan, California Department of Fish and Wildlife, and U.S. Fish and Wildlife Service, there are no known riparian habitats or other sensitive natural communities identified on the Project site or within the immediate vicinity (i.e., within a 0.5 to one (1) mile radius) of the Project. In addition, the site does not contain any water features that would provide habitat for such species. In addition, the site is heavily impacted with very little vegetation which would not provide essential habitat. For these reasons, it can be determined that the Project site does not provide any riparian habitat. However, given the existing conditions of the Project site and surrounding properties including heavy alteration, lack of/limited cover, vegetation, or water features, it is unlikely that these species occur on the site. However, given that the biologist determined that ground squirrel burrows were noted throughout the site and trees were observed on the perimeter of the site (on adjacent property) that could be potentially used for nesting raptor (although no nests were observed during the site visit) mitigation measures MM BIO-1.1- 1.3 will be added to ensure that any potential impacts will be reduced to less than significant by conducting pre-construction surveys.

- c) **Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?**

Less than Significant Impact. A search of the National Wetlands Inventory shows no federally protected wetlands (including but not limited to marsh, vernal pool, coastal, etc.) on the Project site or within the broader Project area. Typically, the primary wetland indicators include hydrophytic vegetation, hydric soils, and surface hydrology. The on-site topography consists of leveled, vacant land with no vegetation or water features including no ponds or standing water. The site comprises the following soil types, which are subject to low frequency of flooding and ponding: AsA – Alamo Clay, 0 to 1 percent slopes (occasional to no flooding, no ponding), CuB – Cometa, sandy loams, 3 to 8 percent slopes (no ponding, no flooding), and SaA – San Joaquin sandy loam. In addition, the site is designated as Zone X on the most recent FEMA Flood Insurance Rate Map (FIRM) No. 06039C1155E dated 9/26/2008.¹¹ Zone X is an area of minimal flood hazards with a 0.2 percent-annual-chance of flood (i.e., 500-year flood). Therefore, the Project would have no impact on state or federally protected wetlands. For these reasons, it can be determined that the Project site would not result in any impact on state or federally protected wetlands.

- d) **Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?**

Less than Significant Impact. Wildlife movement corridors are linear habitats that function to connect two or more areas of significant wildlife habitat. These corridors may function on a local level as links between small habitat patches (e.g., streams in urban settings) or may provide critical connections between regionally significant habitats (e.g., deer movement corridors). Wildlife corridors typically include vegetation and topography that facilitate the movements of wild animals from one area of suitable habitat to another, in order to fulfill foraging, breeding, and territorial needs. These corridors often provide cover and protection from predators that may be lacking in surrounding habitats. Wildlife corridors generally include riparian zones and similar linear expanses of contiguous habitat.

There is no evidence that the plant communities present in the area support a wildlife movement corridor or wildlife nursery site. The Project site and its surroundings are heavily impacted by human activity (discing, industrial and residential uses, vehicular traffic, etc.) so overall use by wildlife is likely low. In addition, the site is vacant and undeveloped with no improvements, structures, vegetative cover, trees, or water features suitable for habitat of any native resident or migratory fish or wildlife species. Due to these conditions, it can be determined that the Project would not interfere with wildlife movement and a less than significant impact would result from the Project.

- e) **Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?**

No Impact. The Madera General Plan Conservation Element outlines policies related to conservation of biological resources as listed above. Due to the lack of any identified special-status species or habitat for special-status species on the Project site or within the Project vicinity, the Project would not conflict with

¹¹ FEMA. FEMA Flood Map Service Center. Accessed October 19, 2021, <https://msc.fema.gov/portal/home>

any local policies or ordinances protecting biological resources. Therefore, the Project would have no impact.

f) **Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?**

No Impact. The Project site is within the PG&E San Joaquin Valley Operation and Maintenance Habitat Conservation Plan (HCP). The HCP covers PG&E's routine operations and maintenance activities and minor new construction, on any PG&E gas and electrical transmission and distribution facilities, easements, private access routes, or lands owned by PG&E. The Project would not conflict or interfere with HCP. The Project is also located in the planning area of the Recovery Plan for Upland Species of the San Joaquin Valley, which addresses recovery goals for several species. The Project would not conflict with the plan since the site does not provide appropriate habitat for the species mentioned and would comply to applicable General Plan policies regarding habitat conservation. The City, County, and Regional Planning Agency do not have any other adopted or approved plans for habitat or natural community conservation. For these reasons, the Project would have no impact.

4.5 Cultural Resources

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to in §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4.5.1 Environmental Setting

Generally, the term ‘cultural resources’ describes property types such as prehistoric and historical archaeological sites, buildings, bridges, roadways, and tribal cultural resources. As defined by CEQA, historical resources include sites, structures, objects, or districts that may have historical, prehistoric, architectural, archaeological, cultural, or scientific importance. Such resources are eligible for listing in the California Register of Historic Resources by the State Historical Resources Commission.

Historically, the Project site has been operated as agricultural land for the purposes of dry farming. Today, the Project site is vacant with no improvements or structures. Topography is generally flat, and the site vegetation can be primarily classified as agricultural habitat that contains very little vegetation. There are no shrubs, trees, or water features present on the site. Golden State Boulevard, a two (2)-lane, northwest-southeast collector forms the easterly site boundary and Condor Road, a north-south “other road” forms the westerly site boundary.

Madera General Plan

According to the Madera General Plan, there are approximately 54 historic buildings/structures and sites in the city. Places of contemporary historical significance include the Madera County Courthouse, Luther Burbank School, and Dixie Motel. There are also many paleontological resources that have been discovered at the Fairmead landfill (approximately 18-miles northwest of the city). In addition, it is likely that archaeological and cultural resources exist along waterways.

The Madera General Plan Historic and Cultural Resources Element outlines the following policies related to preservation of cultural resources:

Policy HC-1: *The City encourages the preservation and enhancement of existing historical and archaeological resources in the City.*

Policy HC-2: *The City supports the goals and objectives for the Comprehensive Statewide Historic Preservation Plan for California 2000-2005.*

Policy HC-3: *The City encourages restoration, renovation, and/or rehabilitation of buildings which retain their historic integrity.*

Policy HC-4: *Support use of federal financial incentive programs to encourage preservation of historic structures.*

Policy HC-9: *The City will endeavor to protect and preserve prehistoric and historic archaeological resources, cultural resources (particularly those of importance to existing tribes), and fossils.*

Action Item HC-9.2: *Impose the following conditions on all discretionary projects which may cause ground disturbance:*

“The Planning Department shall be notified immediately if any prehistoric, archaeological, or fossil artifact or resource is uncovered during construction. All construction must stop and an archaeologist that meets the Secretary of the Interior’s Professional Qualifications Standards in prehistoric or historical archaeology shall be retained to evaluate the finds and recommend appropriate action.”

“All construction must stop if any human remains are uncovered, and the County Coroner must be notified according to Section 7050.5 of California’s Health and Safety Code. If the remains are determined to be Native American, the procedures outlined in CEQA Section 15064.5 (d) and (e) shall be followed.”

Record Search

The Southern San Joaquin Valley Information Center (SJVIC) conducted a California Historical Resources Information System (CHRIS) Record Search for the Project site and surrounding area (0.50-mile radius) on October 22, 2021 (SJVIC File Number 21-404). The search results do not show any formally recorded prehistoric or historic archeological resources or historic buildings within the Project area. There is one recorded resource within the 0.5-mile radius, P-20-002308, the Madera Canal. There are no cultural resources within the Project area, or 0.5-mile radius listed in the National Register of Historic Places, the California Register of Historical Resources, the California Points of Historical Interest, California Inventory of Historic Resources, or the California State Historic Landmarks. In addition, no resources that are known to have value to local cultural groups have been formally reported to the SJVIC. The SJVIC Correspondence is provided in [Appendix B](#).

Site Visit

On October 15, 2021, PCE conducted a preliminary site investigation. Field conditions were typical for early fall at the site. The temperature was in the mid-60s during the day. The sky was clear and there was a light breeze. The photos taken during the preliminary site investigation are provided in [Section 4.4](#). From the preliminary site investigation, PCE confirmed that the site contained disced and graded fallow agricultural land that is vacant and undeveloped with no improvements, structures, vegetative cover, trees, or water features.

Agency Review

The City of Madera Department of Engineering reviewed the proposed Project and provided the following conditions related to cultural resources: *“In the event any prehistoric or historic subsurface cultural resources are discovered during ground disturbing activities, all work within 50 feet of the resources shall be halted, the Community Development Director or City Engineer shall be notified and the project applicant and/or lead agency shall consult with a qualified archaeologist or paleontologist to assess the significance of the find. If any find is determined to be significant, representatives of the project proponent and/or lead agency and the qualified archaeologist would meet to determine the appropriate avoidance measures or other appropriate measure, with the ultimate determination to be made by the City of Madera. All significant cultural materials recovered shall be subject to scientific analysis, professional museum curation, and a report prepared by the qualified archaeologist according to current professional standards.”*

4.5.2 Impact Assessment

a) **Would the project cause a substantial adverse change in the significance of a historical resource pursuant to in §15064.5?**

Less than Significant Impact with Mitigation Incorporated. Based on the CHRIS record search, site visit conducted on October 22, 2021, and review of the Madera General Plan, there are no local, state, or federal designated historical resources on the Project site. Further, the Project site is vacant, undeveloped, and highly disturbed as it has been graded and disced over time for agricultural operations. Nevertheless, there is some possibility that a non-visible, buried resource may exist and may be uncovered during ground disturbing construction activities which would constitute a significant impact. The Project shall incorporate MM CUL-1 and MM CUL-2 in order to reduce any potentially significant impacts to less than significant.

MM CUL-1: *Prior to ground-disturbing activities, the developer shall consult with a qualified historical resources specialist to determine whether further study is required. Recommendations by the qualified historical resources specialist shall be made to the City on the necessary implementation measures to protect the resources discovered. If the resources meet the definitions under Section 15064.5 of the CEQA Guidelines, then protection measures shall be recommended to the City by the qualified historical resources specialist. The City shall approve the protection measures before any further grading shall occur. If the project will result in alteration or demolition of any existing structures more than 45 years old, the structures should first be recorded and evaluated for historical significance. Historical resources recovered as a result of mitigation shall be provided to an institution approved by the City in order to provide preservation and further study as required.*

MM CUL-2: *In the event of the accidental discovery or recognition of any human remains on the Project site during construction, the following steps in accordance with Section 15064.5 of the CEQA Guidelines shall be taken prior to the continuation of, and during, construction activities, in order to mitigate potential impact:*

1. *There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:*
 - a. *The coroner of the County in which the remains are discovered must be contacted to determine that no investigation of the cause of death is required; and,*
 - b. *If the coroner determines the remains to be Native American:*

- i. *The coroner shall contact the Native American Heritage Commission within 24 hours.*
- ii. *The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descended from the deceased Native American.*
- iii. *The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98.*

b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Less than Significant Impact with Mitigation Incorporated. As discussed under criterion a),, there is no evidence that cultural resources of any type (including historical, archaeological, paleontological, or unique geologic features) exist on the Project site. Nevertheless, there is some possibility that a non-visible, buried resource may exist and may be uncovered during ground disturbing construction activities which would constitute a significant impact. To mitigate potential impacts, the Project shall incorporate MM CUL-1 and MM CUL-2 as described under criterion a). Thus, in the event of the accidental discovery and recognition of previously unknown resources before or during grading activities, incorporation of the mitigation measures would reduce any potentially significant impacts to less than significant.

c) Would the project disturb any human remains, including those interred outside of dedicated cemeteries?

Less than Significant Impact with Mitigation Incorporated. It is not anticipated that the proposed Project will disturb any human remains including those interred outside of formal cemeteries. Nevertheless, there is some possibility that a non-visible buried site may exist and may be uncovered during ground disturbing construction activities which would constitute a significant impact. In the event that human remains are identified during future development resulting from Project implementation, then the future development shall incorporate *MM CUL-3* in accordance with Section 15064.5 of the CEQA Guidelines to reduce any potentially significant impacts to less than significant.

Mitigation Measure CUL-3: *“All construction must stop if any human remains are uncovered, and the County Coroner must be notified according to Section 7050.5 of California’s Health and Safety Code. In the event of discovery or recognition of any human remains, Public Resources Code Section 5097.98 must be followed. If the remains are determined to be Native American, the procedures outlined in CEQA Section 15064.5 (d) and (e) shall be followed.”*

4.6 Energy

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

4.6.1 Environmental Setting

Appendix F – Energy Conservation of the CEQA Guidelines requires consideration of energy implications in project decisions, including a discussion of the potential energy impacts with emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy resources (Public Resources Code Section 21100(b)(3)). Per Appendix F, a project would be considered inefficient, wasteful, and unnecessary if it violated existing energy standards, had a negative effect on local and regional energy supplies and requirements for additional capacity, had a negative effect on peak and base period demands for electricity and other energy forms, and effected energy resources.

The California Energy Commission updates the Building Energy Efficiency Standards (Title 24, Parts 6 and 11) every three years as part of the California Code of Regulations. The standards were established in 1978 in effort to reduce the state’s energy consumption. They apply for new construction of, and additions and alterations to, residential and nonresidential buildings and relate to various energy efficiencies including but not limited to ventilation, air conditioning, and lighting.¹² The California Green Building Standards Code (CALGreen), Part 11, Title 24, California Code of Regulations, was developed in 2007 to meet the state goals for reducing Greenhouse Gas emissions pursuant to AB32. CALGreen covers five (5) categories: planning and design, energy efficiency, water efficiency and conservation, material and resource efficiency, and indoor environmental quality.¹³ The 2019 Building Energy Efficiency Standards went into effect on January 1, 2020. Additionally, the California Air Resources Board (CARB) oversees air pollution control efforts, regulations, and programs that contribute to reduction of energy consumption. Compliance with these energy efficiency regulations and programs ensure that development will not result in wasteful, inefficient, or unnecessary consumption of energy sources.

¹² California Energy Commission. 2019 Building Energy Efficiency Standards. Accessed on October 27, 2021, <https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2019-building-energy-efficiency>

¹³ California Department of General Services. (2020). 2019 California Green Building Standards Code. Accessed on October 27, 2021, <https://codes.iccsafe.org/content/CGBC2019P3>

California Energy Action Plan

The Energy Action Plan (EAP) for California was approved in 2003 and updated in 2008. The California Public Utilities Commission (PUC) approved the Energy Action Plan (EAP) for California in 2003, with an updated in 2008. The 2008 EAP established goals and next steps to integrate and coordinate energy efficiency demand and response programs and actions.¹⁴

4.6.2 Impact Assessment

- a) **Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?**

Less than Significant Impact. The Project would consist of the development of a cold storage warehouse for agricultural products. Potential impacts related to energy resources could arise from either construction or operations, both of which are discussed below. Based on this analysis, the Project would have a less than significant impact.

Construction

Construction would be short-term and temporary. There are no unusual project characteristics or construction processes that would require the use of equipment that would be more energy intensive than is used for comparable activities. Construction activities would include typical site preparation, grading, paving, architectural coating, and trenching – all of which would require the transportation of building materials and equipment. Demolition would not be required because there are no existing structures. Therefore, the primary source of energy for construction activities would be diesel and gasoline (i.e., petroleum fuels). All construction equipment shall conform to current emissions standards and related fuel efficiencies including applicable CARB regulations (Airborne Toxic Control Measure), California Code of Regulations (Title 13, Motor Vehicles), and Title 24 standards. Compliance with such regulations would ensure that the short-term, temporary construction activities do not result in wasteful, inefficient, or unnecessary consumption of energy resources.

Operations

Operations would involve heating, cooling, equipment, and vehicle trips. Energy consumption related to operations would be associated with natural gas, electricity, and fuel. Energy and natural gas consumption were estimated using CalEEMod (**Appendix A**) and vehicle trips were estimated through a Vehicle Miles Traveled (VMT) analysis (**Section 4.17**). Overall, the results of the analyses do not rise to a level of significance given the nature of the Project (i.e., non-residential) and the Project's required compliance with various energy efficiency regulations and policies including CALGreen, Title 24 (e.g., Lighting Power Density requirements), the General Plan, California Code of Regulations (e.g., Title 13, Motor Vehicles), and CARB (e.g., Airborne Toxic Control Measure). Thus, through compliance, the Project would not result in wasteful, inefficient, or unnecessary consumption of energy resources and a less than significant impact would occur.

¹⁴ State of California. (2008). Energy Action Plan 2008 Update. Accessed on October 27, 2021, https://docs.cpuc.ca.gov/word_pdf/REPORT/28715.pdf

b) **Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?**

Less than Significant Impact. As discussed under criterion a), the construction and operations of the Project would be subject to compliance with applicable energy efficiency regulations including CALGreen, Title 24, General Plan, and CARB. Thus, applicable state and local regulations and programs would be implemented to reduce energy waste from construction and operations. In addition, state law ensures construction vehicle idling will be limited. Therefore, through compliance, the Project would not conflict with or obstruct any state or local plan for energy efficiency and a less than significant impact would occur as a result of the Project.

4.7 Geology and Soils

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994) creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

4.7.1 Environmental Setting

The City of Madera is located within the San Joaquin Valley which is part of the Great Valley Geomorphic Providence that is bounded to the east by the Sierra Nevada Mountain range, to the west by the Coastal Range, and to the south by the Tehachapi mountains. Madera is generally flat with some areas of slopes

including areas near rivers and streams. A brief discussion of the likelihood of seismic activities to occur in or affect Madera is provided below.

Faulting

There are no active earthquake faults (i.e., faults showing activity within the last 11,000 years) mapped within the City of Madera, inclusive of the Project site, and the city is not in any Alquist-Priolo Special Studies Zone as established by the Alquist-Priolo Fault Zoning Act (*Section 2622* of Chapter 7.5, Division 2 of the California Public Resources Code). The nearest active faults are more than 50 miles from the Project site.¹⁵

Subsurface Soils

A search of the Web Soil Survey by the USDA Natural Resources Conservation Service indicates that the following soils comprise the Project site (**Figure 4-7**).¹⁶

AsA: Alamo clay, zero (0) to one (1) percent slopes, poorly drained, very high runoff, with occasional to no potential of flooding and not potential of ponding. The depth to water table is about zero(0) inches. The AsA soils account for 8.8% of the Project site.

CuB: Cometa sandy loams, three (3) to eight (8) percent slopes, well drained, very high runoff, with no potential of flooding or ponding. The depth to water table is more than 80 inches. The CuB soils account for 73.7% of the Project site.

HgA: Hanford sandy loam, moderately deep and deep over hardpan, zero (0) to three (3) percent slopes, well drained, very low runoff, with rare potential of flooding and no potential of ponding. The depth to water table is more than 80 inches. The HgA soils account for 4.3% of the Project site.

SaA: San Joaquin sandy loam, zero (0) to three (3) percent slopes, well drained, very low runoff, with rare potential of flooding and no potential of ponding. The depth to water table is more than 80 inches. The SaA soils account for 13.2 % of the Project site.

¹⁵ California Department of Conservation. Fault Activity Map of California. Accessed on October 27, 2021, <https://maps.conservation.ca.gov/cgs/fam/>

¹⁶ United States Department of Agriculture Natural Resources Conservation Service. "Web Soil Survey." Accessed on October 27, 2021, <https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>



Figure 4-7 Soil Distribution Map

Source: U.S. Department of Agriculture Natural Resources Conservation Service, Web Soil Survey

Strong Ground Shaking

The Madera County Local Hazard Mitigation Plan (LHMP) assesses a low potential of major earthquake in Madera County and acknowledges that existing building codes would mitigate for potential earthquake.¹⁷ According to the City of Madera General Plan, no earthquakes of magnitude 5.5 or greater have ever been recorded in the city of Madera and there have been no reports on earthquake damage of such magnitude in Madera County. The most recent earthquake occurred on May 30, 2003, with 3.1 magnitude and epicenter located approximately six (6) miles northwest of the city. In addition, Madera is classified by the State as being in a low ground shaking potential (shaking potential 0.35% of gravity) according to the MS48: Earthquake Shaking Potential for California map, which shows the relative intensity of ground shaking in California from anticipated future earthquakes.¹⁸

Liquefaction

Liquefaction is a seismic phenomenon in which loose, saturated, fine-grained granular soils behave similarly to a fluid when subjected to high-intensity ground shaking. Factors that determine liquefaction potential include soil type, soil density, depth to the groundwater table, and duration and intensity of ground shaking.

¹⁷ Madera County. (2017). Local Hazard Mitigation Plan Update. Accessed on October 27, 2021, <https://www.maderacounty.com/home/showdocument?id=362>

¹⁸ California Department of Conservation. (2016). Geological Hazards Data & Maps - MS48: Earthquake Shaking Potential for California (ref. 2016). Accessed on October 28, 2021, <https://maps.conservation.ca.gov/geologichazards/#dataviewer>

Areas that are most prone to liquefaction are those that are water-saturated, or with a water table of less than 30 feet below the surface. The Madera County LHMP indicates that soil types within the county are not conducive to liquefaction because they are too coarse in texture or too high in clay content. Soil types thereby mitigate against the potential for liquefaction. In addition, neither liquefaction nor lateral spreading have been observed in Madera from any historic earthquake. Liquefaction and lateral spreading potential in the City of Madera is considered very low as due to the nature of the underlying soils, relatively deep-water table, and history of low ground shaking potential.

Ground Subsidence

Ground subsidence is the settling or sinking of surface soil deposits with little or no horizontal motion. Soils with high silt or clay content are subject to subsidence. According to the Madera County LHMP, the probability of future occurrences of subsidence is likely (i.e., between 10% and 100% chance of occurrence in the next year or has a recurrence interval of 10 years or less). However, the likely magnitude/severity is negligible (i.e., less than 10% of property severely damaged; shut down of facilities for less than 24 hours; and/or injuries/illnesses treatable with first aid). In addition, the Madera General Plan indicates the risk of subsidence in Madera County to be “low.”

Landslides

A landslide is the down-slope movement of rock, debris, or earth that can be caused by gravity, earthquakes, disturbance by human activities, etc. Lateral spreading is a related occurrence that results in a fluid-like, down-slope movement. Lateral spreading can be caused by liquefaction. According to the Madera County LHMP, most areas throughout the county are at low to moderate risk for landslides. The central and eastern portions of the county are at high risk. Geographic extent of such occurrences is limited to less than 10% of Madera County.

4.7.2 Impact Assessment

a) **Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:**

a-i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

No Impact. There are no known active earthquake faults in Madera, nor is Madera within an Alquist-Priolo earthquake fault zone as established by the Alquist-Priolo Fault Zoning Act. As such, the development of the Project in an area void of earthquake faults would not cause the rupture of a known earthquake fault. In addition, the Project does not have any aspect that could result in a fault rupturing. Thus, no impact would occur as a result of the Project.

a-ii) Strong seismic ground shaking?

No Impact. The Project site is in an area traditionally characterized by relatively low seismic activity. The Project site is relatively flat with stable, native soils and is not near any fault lines. In addition, the Project would be required to conform to current seismic protection standards in the CBC, which are intended to minimize potential risks. Therefore, because of the Project’s stable soils and distance from active fault lines,

and because of the Project's conformance to CBC seismic safety standards, the Project does not have any aspect that could result in strong seismic ground shaking. Therefore, no impact would occur as a result of the Project.

a-iii) Seismic-related ground failure, including liquefaction?

No Impact. As previously discussed, Madera has a low potential for seismic activities. There are also no geologic hazards or unstable soil conditions known to exist on the Project site as the site is relatively flat with stable soils and no apparent unique or significant landforms. Further, development of the site would require compliance with the City's grading and drainage standards, including adherence to Best Management Practices (BMPs) which would reduce impacts resulting from ground disturbance. Lastly, the Project does not have any aspect that could result in seismic-related ground failure, including liquefaction. Therefore, no impact would occur.

a-iv) Landslides?

No Impact. Landslides are not expected to affect the Project site as Madera is not located in a zone where landslides, subsidence, or liquefaction could possibly occur. Furthermore, the topography of the Project site is flat with stable, native soils and the site is not in the immediate vicinity of rivers or creeks that would be more susceptible to landslides. As such, development of the Project on a stable site in an area that is not susceptible to seismic activities or geologic instability would not cause landslides. Therefore, no impact would occur as a result of the Project.

b) Would the project result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact. Development of the Project site would require typical site preparation activities such as grading and trenching which may result in the potential for short-term soil disturbance or erosion impacts. Construction would also involve the use of water which may cause further soil disturbance. Such impacts would be addressed through compliance with regulations set by the Regional Water Quality Control Board (RWQCB), including standards and regulations set forth by the City of Madera for grading and drainage, and subsequent requirements of the State Water Resources Control Board (SWRCB).

Further, because the Project would disturb one (1) or more acres of soil it would be subject to the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit Order 2012-0006-DWQ). The General Permit requires the development of a Storm Water Pollution Prevention Plan (SWPPP) by a certified Qualified SWPPP Developer that includes BMPs to be implemented during and post construction. The SWPPP estimates the sediment risk associated with construction activities and includes the BMPs to control erosion and loss of topsoil. BMPs specific to erosion control cover erosion, sediment, tracking, and waste management controls. Implementation of the SWPPP minimizes the potential for the Project to result in impacts to soil and topsoil. Therefore, impacts to soil and topsoil by the Project would be considered less than significant.

c) Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

No Impact. The Project site is not located in a zone where landslides, subsidence, or liquefaction could occur. Further, the site is relatively flat with stable soils and no apparent unique or significant landforms.

Therefore, development of the Project on a stable site would not cause landslides, lateral spreading, subsidence, liquefaction, or collapse. Therefore, no impact would occur as a result of the Project.

d) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Less than Significant Impact with Mitigation Incorporated. The Project site is relatively flat and stable, native soils of the AsA, Alamo clay, CuB, Cometa sandy loam, HgA, Hanford sandy loam, and SaA, San Joaquin sandy loam. Loam and sandy loam soils are not classified as expansive soils, as defined in Table 18-1-B of the Uniform Building Code and would not create substantial direct or indirect risks to life or property. However, clay is classified as an expansive soil (i.e., with an expansion index greater than 20). Therefore, construction on the portion of the site that has underlying soils of the AsA, Alamo clay, variety would be subject to the 2018 International Building Code (IBC) design standards to mitigate for potential risks, specifically *Section 1808.6 Design for expansive soils*.

Mitigation Measure GEO-1: *“Subsequent to a preliminary City review of the project grading plans, a soils report, inclusive of information on expansive soils, shall be conducted. The following procedures shall be followed:*

- *If expansive soils are not found, excavation and/or construction activities can commence.*
- *If there is evidence that the Project site includes expansive soils, foundations for buildings and structures founded on expansive soils shall be designed in accordance with IBC Section 1808.6.1 or 1808.6.2 unless 1) the expansive soil is removed in accordance with Section 1808.6.3 or 2) the building official approves stabilization of the soil in accordance with Section 1808.6.4.”*

Thus, incorporation of **Mitigation Measure GEO-1** would reduce any potentially significant impacts to less than significant.

e) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact. The Project would not involve the installation of a septic tank or alternative wastewater disposal system, as the Project would connect to the City’s water and sewer systems. Therefore, no impact would occur because of the Project.

f) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geological feature?

Less than Significant Impact. As discussed in **Section 4.5**, there are no known paleontological resources or unique geological features known to the City within this area or on this site. Nevertheless, there is some possibility that a non-visible, buried resource may exist and may be uncovered during ground disturbing construction activities which would constitute a significant impact. Incorporation of Mitigation Measures CUL-1, CUL-2, and CUL-3 would reduce any potential impacts to less than significant.

4.8 Greenhouse Gas Emissions

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

4.8.1 Environmental Setting

The SJVAPCD’s Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA presents a tiered approach to analyzing project significance with respect to GHG emissions. Project GHG emissions are considered less than significant if they can meet any of the following conditions, evaluated in the order presented:

1. Project is exempt from CEQA requirements;
2. Project complies with an approved GHG emission reduction plan or GHG mitigation program;
3. Project implements Best Performance Standards (BPS); or
4. Project demonstrates that specific GHG emissions would be reduced or mitigated by at least 29 percent compared to Business-as-Usual (BAU), including GHG emission reductions achieved since the 2002-2004 baseline period.

The SJVAPCD’s Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA includes thresholds based on whether the project will reduce or mitigate GHG levels by 29 percent from BAU levels compared with 2005 levels by 2020.¹⁹ This level of GHG reduction is based on the target established by CARB’s AB 32 Scoping Plan, approved in 2008. First occupancy at the project site is expected to occur in 2023. This date is past the AB 32 2020 milestone year. Given recent legislative and legal scrutiny on post-2020 compliance, additional discussion is provided to show progress towards GHG reduction goals identified in CARB’s 2017 Scoping Plan for the year 2030. Additionally, although not included in a formal GHG reduction plan, Executive Order S-3-05 also includes a goal of reducing GHG emissions 80 percent below 1990 levels by 2050 and Executive Order B-55-18 set the goal to achieve carbon neutrality statewide by 2045.

¹⁹ San Joaquin Valley Air Pollution Control District (SJVAPCD). 2009. “Final Staff Report, Addressing Greenhouse Gas Emissions Impacts under the California Environmental Quality Act.” Website: http://www.valleyair.org/programs/CCAP/11-05-09/1_CCAP_FINAL_CEQA_GHG_Draft_Staff_Report_Nov_05_2009.pdf. December 2009. Accessed February 6, 2022.

Air Quality, Health Risk Analysis, and Greenhouse Gas Technical Memorandum

An Air Quality, Health Risk Analysis, and Greenhouse Gas Technical Memorandum was prepared for the proposed Project by Johnson Johnson and Miller Air Quality Consulting Services on February 8, 2022. Results are incorporated herein, and the fill assessment is provided in [Appendix A](#).

Project-level Thresholds

Section 15064.4(b) of the CEQA Guidelines' amendments for GHG emissions states that a lead agency may take into account the following three considerations in assessing the significance of impacts from GHG emissions.

- Consideration #1: The extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting.
- Consideration #2: Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
- Consideration #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 GHG emissions. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must include specific requirements that reduce or mitigate the project's incremental contribution of GHG emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an Environmental Impact Report (EIR) must be prepared for the project.

The SJVAPCD's Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA includes thresholds based on whether the project will reduce or mitigate GHG levels by 29 percent from BAU levels compared with 2005 levels by 2020.²⁰ This level of GHG reduction is based on the target established by CARB's AB 32 Scoping Plan, approved in 2008. First occupancy at the project site is expected to occur in 2023. This date is past the AB 32 2020 milestone year. Given recent legislative and legal scrutiny on post-2020 compliance, additional discussion is provided to show progress towards GHG reduction goals identified in CARB's 2017 Scoping Plan for the year 2030. Additionally, although not included in a formal GHG reduction plan, Executive Order S-3-05 also includes a goal of reducing GHG emissions 80 percent below 1990 levels by 2050 and Executive Order B-55-18 set the goal to achieve carbon neutrality statewide by 2045. The proposed project briefly addresses those two Executive Orders.

Newhall Ranch

The California Supreme Court decision in the Center for Biological Diversity et al. vs. California Department of Fish and Wildlife, the Newhall Land and Farming Company (62 Cal.4th 204 [2015], and known as the Newhall Ranch decision), confirmed that the use of BAU analysis (e.g., 29 percent below BAU), a performance-based approach, would be satisfactory. However, for a project-level analysis that uses CARB's statewide BAU targets, substantial evidence must be presented to support the use of those targets for a particular project at a specific location. The court noted that this may require examination of the data behind the statewide model and adjustment to the levels of reduction from BAU used for project

²⁰ San Joaquin Valley Air Pollution Control District (SJVAPCD). 2009. "Final Staff Report, Addressing Greenhouse Gas Emissions Impacts under the California Environmental Quality Act." Website: http://www.valleyair.org/programs/CCAP/11-05-09/1_CCAP_FINAL_CEQA_GHG_Draft_Staff_Report_Nov_05_2009.pdf. December 2009. Accessed October 30, 2021.

evaluation. To date, neither CARB nor any lead agencies have provided any guidance on how to adjust AB 32’s statewide BAU target for use at the project level.

The regulations in the State’s 2008 Scoping Plan have been adopted and the State is on track to meet the 2020 target and achieve continued progress towards meeting the 2017 Scoping Plan target for 2030. In the Newhall case, the Supreme Court was concerned that new development may need to reduce GHG emissions more than existing development to demonstrate it is meeting its fair share of reductions. New development does do more than its fair share through compliance with enhanced regulations, particularly with respect to motor vehicles, energy efficiency, and electricity generation. If no additional reductions are required from an individual project beyond that achieved by regulations, then the amount needed to reach the 2020 target is the amount of GHG emissions a project must reduce to comply with Statewide goals.

4.8.2 Impact Assessment

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

Less than Significant Impact. GHG emissions generated during all phases of construction were combined and are shown in [Table 4-9](#). The SJVAPCD does not have a recommendation for assessing the significance of construction related emissions, however, other jurisdictions such as the South Coast Air Quality Management District (SCAQMD) and the Sacramento Metropolitan Air Quality Management District (SMAQMD) have concluded that construction emissions should be included since they may remain in the atmosphere for years after construction is complete. In order to account for the construction emissions, amortization of the total emissions generated during construction were based on the life of the development (non-residential—30 years) and added to the operational emissions.

Table 4-9: Summary of Construction-Generated Greenhouse Gas Emissions

Emissions Source	MT CO _{2e} per Year
Phase 1—2022	736
Phase 1—2023	142
Phase 2—2023	707
Phase 2—2024	149
Project Construction Total	1,734
Amortized over 30 Years	58
Notes: MT CO _{2e} = metric tons of carbon dioxide equivalent Totals summed using unrounded numbers; totals may not appear to sum exactly due to rounding. Source: CalEEMod Output and Additional Supporting Information (Attachment A).	

Operations

Operational or long-term emissions occur over the life of the project. Sources of emissions may include motor vehicles and trucks, energy usage, water usage, waste generation, and area sources, such as landscaping activities. Operational GHG emissions associated with the proposed project were estimated using CalEEMod 2020.4.0. Please see the “Assumptions” sections of this technical memorandum for details regarding assumptions and methodology used to estimate emissions. Complete CalEEMod output files and additional supporting information are also included in Attachment A of [Appendix A](#).

Business-as-Usual Operational Emissions

Operational emissions under the business-as-usual scenario were modeled using CalEEMod 2020.4.0. Modeling assumptions for the year 2005 were used to represent business as usual conditions (without the benefit of regulations adopted to reduce GHG emissions). The CARB and SJVAPCD guidance recommend using regulatory conditions in 2002-2004 in the baseline scenario to represent conditions as if regulations had not been adopted to allow the effect of projected growth on achieving reduction targets to be clearly defined. CalEEMod defaults were used for project energy usage, water usage, waste generation, and area sources (architectural coating, consumer products, and landscaping). The vehicle fleet mixes were revised to reflect the project fleet mixes.

Buildout Year Operational Emissions

Operational emissions for the year 2023 were modeled using CalEEMod. CalEEMod assumes compliance with some, but not all, applicable rules and regulations regarding energy efficiency, vehicle fuel efficiency, renewable energy usage, and other GHG reduction policies, as described in the CalEEMod User's Guide.²¹

The reductions obtained from each regulation and the source of the reduction amount used in the analysis are described below.

The following regulations are incorporated into the CalEEMod emission factors:

- Pavley I and Pavley II (LEV III) motor vehicle emission standards
- CARB Medium and Heavy-Duty Vehicle Regulation
- 2005, 2008, 2013, 2016, and 2019 Title 24 Energy Efficiency Standards

The following regulations have not been incorporated into the CalEEMod emission factors and require alternative methods to account for emission reductions provided by the regulations:

- Renewables Portfolio Standard (RPS) requirements for year 2030
- Green Building Code Standards (indoor water use)
- California Model Water Efficient Landscape Ordinance (outdoor water)
- CalRecycle 75 Percent Initiative (solid waste)

Title 24 reductions for 2013 and 2016 updates were added to CalEEMod 2016.3.2 and were carried into CalEEMod 2020.4.0. Title 24 reductions for 2019 were added to CalEEMod 2020.4.0.

RPS is not accounted for in CalEEMod 2020.4.0. Reductions from RPS for operational years 2030 and beyond are addressed by revising the electricity emission intensity factor in CalEEMod to account for the utility RPS rate forecast for 2030. The utilities will be required by SB 100 to increase the use of renewable energy sources to 60 percent by 2030. The latest power content label for PG&E and compliance with RPS were used to estimate a revised CO₂ intensity factor for use in modeling the 2030 operational year scenario.

²¹ California Air Pollution Control Officers Association (CAPCOA). 2021. California Emission Estimator Model (CalEEMod) Version 2020.4.0 User's Guide. Website: https://www.aqmd.gov/docs/default-source/caleemod/user-guide-2021/01_user-39-s-guide2020-4-0.pdf?sfvrsn=6 . Accessed February 6, 2022.

GHG reductions from some design features and compliance with regulations that are not otherwise accounted for can be quantified in CalEEMod. Note that CalEEMod nominally treats these design elements and conditions as “mitigation measures,” despite their inclusion in the project description. Therefore, reported operational emissions are considered to represent unmitigated project conditions.

Operational GHG emissions by source are shown in **Table 4-10**. Full buildout of the project is anticipated to occur in 2023.

Table 4-10: Unmitigated Project Operational GHG Emissions (Buildout Year Scenario)

Emission Source	Emissions (MT CO ₂ e per year)	
	Business as Usual Total Emissions (MT CO ₂ e per year)	Buildout Year (2023) Total Emissions with Regulations and Design Features (MT CO ₂ e per year)
Area	0.01	0.01
Energy	3,921	492
Mobile (Passenger Vehicles)	1,302	950
Mobile (Trucks)	2,102	1,589
Fugitive Refrigerants	2,249	241
Waste	238	238
Water	343	218
Amortized Construction Emissions	58	58
Total	10,213	3,786
Reduction from BAU		6,427
Percent Reduction		62.9%
SJVAPCD Significance Threshold (Shown for Informational Proposes Only)		29%
<small>MT CO₂e = metric tons of carbon dioxide equivalent. Totals were calculated using unrounded emissions; totals may not appear to sum exactly due to rounding. The project achieves the SJVAPCD 29 percent reduction from BAU threshold, and the 21.7 percent required to show consistency with AB 32 targets. Source of SJVAPCD Significance Threshold: San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. Final Draft Guidance for Assessing and Mitigating Air Quality Impacts. Website: https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF. Accessed February 6, 2022. Source of Business as Usual Emissions: CalEEMod output for the buildout year BAU scenario (see Attachment A). Source of Buildout Year Emissions: CalEEMod output for the year 2023 (Attachment A).</small>		

Emissions were assessed for full buildout operations in years 2023 and 2030. The 2030 scenario summarized in **Table 4-11**.

Table 4-11: Unmitigated Project Operational GHG Emissions (Year 2030 Scenario)

Emission Source	Emissions (MT CO ₂ e per year)	
	Business as Usual Total Emissions (MT CO ₂ e per year)	2030 Year Total Emissions with Regulations and Design Features (MT CO ₂ e per year)
Area	0.01	0.01
Energy	3,921	445
Mobile (Passenger Vehicles)	1,279	766
Mobile (Trucks)	2,102	1,361
Fugitive Refrigerants	2,249	241
Waste	238	238
Water	343	212
Amortized Construction Emissions	58	58
Total	10,190	3,321
Reduction from BAU		6,868
Percent Reduction		67.4%
Significance Threshold (Shown for Informational Purposes Only)		29%
<small>MT CO₂e = metric tons of carbon dioxide equivalent. Totals were calculated using unrounded emissions; totals may not appear to sum exactly due to rounding. Source of Business-as-Usual Emissions: CalEEMod output for 2030 BAU scenario (see Attachment A). Source of 2030 Emissions: CalEEMod output for the year 2030 (Attachment A).</small>		

As shown in [Table 4-10](#) and [Table 4-11](#), the Project would achieve a 62.9 percent reduction from BAU at project buildout (2023) and 67.4 percent reduction from BAU by the year 2030 with adopted regulations and design features incorporated. This is above the 29 percent reduction required by the SJVAPCD threshold, and the required 21.7 percent average reduction from all GHG emission sources to meet the AB 32 targets. The CARB originally identified a reduction of 29 percent from business as usual as needed to achieve AB 32 targets. The 2008 recession and slower growth in the years since 2008 have reduced the growth forecasted for 2020 and the amount needed to be reduced to achieve 1990 levels as required by AB 32; the target was revised to 21.7 percent.

The 62.9 percent reduction from BAU is 41.2 percent beyond the average reduction required by the State from all sources to achieve the AB 32 2020 target. This surplus addresses the Supreme Court’s concern in the Newhall case that new development must do more than average to meet its fair share of emission reductions.

By 2030, the proposed Project would achieve a 67.4 percent reduction from BAU or 45.7 percent above the 21.7 percent reduction necessary to meet the 2020 target (38.4 percent above the SJVAPCD-identified target). No new threshold has been adopted by the SJVAPCD for the 2030 target, so in the interim the Project must make continued progress toward the 2030 goal.

The Project’s occupancy is anticipated to be fully built out in 2023, thus an additional analysis is provided to show consistency with post-2020 State legislative GHG goals. The SB 32 goal of 40 percent below 1990 emission levels by 2030 is the target established by the 2017 Scoping Plan Update.

The 2017 Scoping Plan includes new strategies that are not incorporated in the analysis above. Many measures that are likely to proceed include zero net energy buildings in future updates to Title 24 and enhanced motor vehicle fuel efficiency standards beyond 2025. The 2017 Scoping Plan identified an emission limit of 260 million metric tons of carbon dioxide equivalents (MMT CO_2e). The 2030 BAU Inventory is estimated to be 392 MMT CO_2e . The 2017 Scoping Plan identified that the bulk of its reductions would come from the Electric Power, Industrial fuel combustion, and Transportation. The continuance of the Cap and Trade would provide additional reductions. Although the 2017 Scoping Plan largely relies on state actions to achieve the GHG emissions limit, the CARB considers local governments partners in achieving the State's goals for reducing GHG emissions. The 2017 Scoping Plan suggests that all new land use development implement feasible measures to reduce GHG emissions, however, it does not define feasible measures nor assign a required reduction amount to new development. A fair share quantitative threshold based on the 2017 Scoping Plan is not presently feasible as the nexus between a Project's contribution and its fair share mitigation is not well defined.

Based on the 62.9 percent reduction from BAU for the buildout year (2023), the proposed Project would not have a significant impact on GHG emissions as it would meet the SJVAPCD's threshold of 29 percent and exceed the CARB's 21.7 percent reduction necessary from all sources to meet the AB 32 emissions limit.

For the year 2030, the project achieves a 67.4 percent reduction from BAU, which demonstrates substantial progress towards achieving the 2030 target.

Regarding the years 2045 and 2050, there have been Executive Orders issued to address carbon neutrality and GHG reduction targets, respectively for those years, however, there are no existing GHG reduction measures or plans that specifically address those Orders. Historically, the State would take the lead in developing regulatory and market measures to achieve the required reductions. The proposed project would participate in the reductions through adherence with regulations and continued improvements to the motor vehicle efficiencies accessing the project site. Studies have shown that in order to meet the 2050 targets, aggressive pursuit of technologies in the transportation and energy sectors, including electrification and the decarbonization of fuel, will be required. Because of the technological shifts required and the unknown parameters of the regulatory framework in 2050, quantitatively analyzing the proposed project's impacts further relative to the 2050 goals is speculative for purposes of CEQA.

In summary, the Proposed project exceeds the required 29 percent below BAU guidance provided by the SJVAPCD. Furthermore, the proposed project shows significant reductions in the year 2030, demonstrating that it would not inhibit the State's progress in achieving the 2030 GHG emissions target. The GHG emissions impact would be less than significant with respect to Consideration #1 and #2.

b) Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less than Significant Impact. The following analysis assesses the proposed project's compliance with Consideration No. 3 regarding consistency with adopted plans to reduce GHG emissions. City of Madera has not adopted a GHG Reduction Plan that would meet the criteria of the CEQA Guidelines 15064.4(b)(3) in order to evaluate a project's contribution to GHG emissions. Therefore, the proposed project is also assessed for its consistency with CARB's adopted Scoping Plans to determine its consistence with adopted plans to reduce GHG emissions.

Consistency with CARB's Adopted Scoping Plans

The State's regulatory program implementing the 2008 Scoping Plan is now fully mature. All regulations envisioned in the Scoping Plan have been adopted, and the effectiveness of those regulations has been estimated by the agencies during the adoption process and then tracked to verify their effectiveness after implementation. The combined effect of this successful effort is that the State now projects that it will meet the 2020 target and achieve continued progress toward meeting post-2020 targets. Governor Brown, in the introduction to Executive Order B-30-15, stated "California is on track to meet or exceed the current target of reducing greenhouse gas emissions to 1990 levels by 2020, as established in the California Global Warming Solutions Act of 2006 (AB 32)."

The State's regulatory program is able to target both new and existing development because the two most important strategies, motor vehicle fuel efficiency and emissions from electricity generation, obtain reductions equally from existing sources and new sources. This is because all vehicle operators use cleaner low carbon fuels and buy vehicles subject to the fuel efficiency regulations and all building owners or operators purchase cleaner energy from the grid that is produced by increasing percentages of renewable fuels. This includes regulations on mobile sources such as the Pavley standards that apply to all vehicles purchased in California, the LCFS (Low Carbon Fuel Standard) that applies to all fuel sold in California, and the Renewable Portfolio Standard and Renewable Energy Standard under SB 100 that apply to utilities providing electricity to all California end users.

Moreover, the Scoping Plan strategy will achieve more than average reductions from energy and mobile source sectors that are the primary sources related to development projects and lower than average reductions from other sources such as agriculture. The proposed project's operational GHG emissions would principally be generated from electricity consumption and vehicle use (including heavy trucks), which are directly under the purview of the Scoping Plan strategy and have experienced reductions above the State average reduction. The project includes renewable energy production for the project's consumption. In addition, refrigerants used in the cold storage facility will be subject the latest CARB regulations in the form of California's Refrigerant Management Program. The Refrigerant Management Program requires all supermarket and industrial refrigeration systems with a full recharge capacity of 50 pounds (22.7 kilograms) or greater to limit the refrigerants used to 150 GWP. Considering this information, the proposed project would be consistent with the State's AB 32 and SB 32 GHG reduction goals. As such, the proposed project's GHG impacts would be less than significant.

Consistency Regarding GHG Reduction Goals for 2050 under Executive Order S-3-05

Regarding goals for 2050 under Executive Order S-3-05, at this time it is not possible to quantify the emissions savings from future regulatory measures, as they have not yet been developed; nevertheless, it can be anticipated that operation of the proposed project would comply with whatever measures are enacted that State lawmakers decide would lead to an 80 percent reduction below 1990 levels by 2050. In its 2008 Scoping Plan, CARB acknowledged that the "measures needed to meet the 2050 are too far in the future to define in detail." In the First Scoping Plan Update; however, CARB generally described the type of activities required to achieve the 2050 target: "energy demand reduction through efficiency and activity changes; large scale electrification of on-road vehicles, buildings, and industrial machinery; decarbonizing electricity and fuel supplies; and rapid market penetration of efficiency and clean energy technologies that requires significant efforts to deploy and scale markets for the cleanest technologies immediately." The 2017 Scoping Plan provides an intermediate target that is intended to achieve reasonable progress toward the 2050 target.

Accordingly, taking into account the proposed project's design features and the progress being made by the State towards reducing emissions in key sectors such as transportation, industry, and electricity, the proposed project would be consistent with State GHG Plans and would further the State's goals of reducing GHG emissions 40 percent below 1990 levels by 2030, and 80 percent below 1990 levels by 2050, and does not obstruct their attainment.

4.9 Hazards and Hazardous Materials

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Expose people or structures, either directly or indirectly to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

4.9.1 Environmental Setting

For the purposes of this section, the term “hazardous materials” refers to “injurious substances,” which include flammable liquids and gases, poisons, corrosives, explosives, oxidizers, radioactive materials, and medical supplies and waste. These materials are either generated or used by various commercial and industrial activities. Hazardous wastes are injurious substances that have been or will be disposed. Potential hazards arise from the transport of hazardous materials, including leakage and accidents involving

transporting vehicles. There also are hazards associated with the use and storage of these materials and wastes. Hazardous materials are grouped into the following four categories based on their properties:

- *Toxic: causes human health effect*
- *Ignitable: has the ability to burn*
- *Corrosive: causes severe burns or damage to materials*
- *Reactive: causes explosions or generates toxic gases*

“Hazardous wastes” are defined in California Health and Safety Code Section 25141(b) as wastes that: “...because of their quantity, concentration, or physical, chemical, or infectious characteristics, [may either] cause or significantly contribute to an increase in mortality or an increase in serious illness or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.” A hazardous waste is any hazardous material that is discarded, abandoned, or slated to be recycled. If improperly handled, hazardous materials and hazardous waste can result in public health hazards if released into the soil or groundwater or through airborne releases in vapors, fumes, or dust. Soil and groundwater having concentrations of hazardous constituents higher than specific regulatory levels must be handled and disposed of as hazardous waste when excavated or pumped from an aquifer. The California Code of Regulations, Title 22, Sections 66261.20-24 contains technical descriptions of toxic characteristics that could cause soil or groundwater to be classified as hazardous waste.

Hazardous waste generators may include industries, businesses, public and private institutions, and households. Federal, state, and local agencies maintain comprehensive databases that identify the location of facilities using large quantities of hazardous materials, as well as facilities generating hazardous waste. Some of these facilities use certain classes of hazardous materials that require risk management plans to protect surrounding land uses. The release of hazardous materials would be subject to existing federal, State, and local regulations and is similar to the transport, use, and disposal of hazard materials.

Phase I Environmental Site Assessment

A Phase I Environmental Site Assessment was conducted by Krazan & Associates, Inc., for the Project site and was issued August 17, 2021. Environmental characteristics including topography, geology, soil, and hydrogeology were evaluated based on site observations, interviews, and review of published literature and maps.

Record Search

The California Department of Toxic Substance Control’s EnviroStor database and the State Water Resources Control Board’s GeoTracker database include hazardous release and contamination sites. A search of each database was conducted on October 28, 2021. The search revealed no hazardous material release sites on the Project site. The closest hazardous site is a 543-acre cleanup program site, the Madera Municipal Airport, which is approximately 2,800 feet northwest from the Project site.

Hazardous Materials Business Plan

Facilities that use and/or store hazardous materials and/or hazardous wastes are required to meet the requirements set forth in the California Health and Safety Code (HSC), Division 20, Chapter 6.95, and the California Code of Regulations (CCR), Title 22, Division 4.5. In Madera County, businesses that handle or store hazardous materials and/or hazardous waste are required to submit a Hazardous Materials Business

Plan (HMBP) to the Madera County Environmental Health Division, pursuant to HSC, Division 20, Chapter 6.95. As a standard practice, the Madera County Department of Public Health will require that the Project submit an HMBP in order to provide for safe storage and use of chemicals.

4.9.2 Impact Assessment

a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less than Significant Impact. The Project would consist of the development of a cold storage warehouse for agricultural products. Potential impacts related to hazardous materials could arise from either operations or construction, both of which are discussed below. Based on this analysis, the Project would have a less than significant impact.

Operations

The Project proposes the development of a cold storage warehouse for agricultural products. Agricultural nut products would be shipped to the facility for storage before being packaged and distributed. Based on these operations, it is not expected that the Project would involve the routine transport, use, or disposal of hazardous materials. Nevertheless, the Madera County Department of Public Health will require that the Project submit an Hazardous Materials Business Plan in order to provide for safe storage and use of chemicals. Therefore, if the facility does handle hazardous materials and/or hazardous waste, compliance with the HMBP as approved by the County would reduce any impacts to less than significant.

Construction

Construction activities for the Project site would include typical site preparation, grading, paving, architectural coating, and trenching – all of which would require the transportation of building materials and equipment. Demolition would not be required because there are no existing structures. Generally, hazardous materials associated with construction include asbestos, lead, mold, mercury, sewage overflows, pesticides and herbicides, motor oil and fuel, solvents, acids, pressure impregnated wood, septic systems, underground storage tanks and hydro-carbon plumes, and fugitive dust and stormwater runoff.

Because the Project site is vacant and undeveloped, potential hazardous materials associated with construction could result from the use of fuels and lubricants for construction equipment (i.e., motor oil and fuel) in addition to grading and drainage activities (i.e., fugitive dust and stormwater runoff). As described in [Section 4.3](#), the Project is subject to a SJVAPCD Authority to Construct Permit, in addition to SJVAPCD Regulation VIII (Fugitive PM10 Prohibitions) which requires the approval of a Dust Control Plan prior to construction. In addition, the Project's grading and drainage plans are subject to City approval and would determine the limits of grading and disturbance. Compliance with these regulations would limit visible dust and ensure that disturbed surfaces or soils remain stable.

In addition, stormwater runoff resulting from the anticipated buildout of the Project would be managed by the City in compliance with the UWMP, WSMP, SDSMP, SWQMP, and regulatory requirements pursuant to NPDES General Permit Requirements (See [Section 4.7](#)). This includes runoff consisting of any hazardous materials, including fuels and lubricants used for construction equipment. In addition, the quality of stormwater runoff would be maintained by design components specific to the Project including but not limited to 1) the proposed onsite stormwater retention basin, 2) the required preparation of a SWPPP, and 3) the City's approval of the Project's grading and drainage plans. Together, compliance with the

aforementioned plans, policies, and regulatory requirements in addition to Project design components, would reduce potential impacts related stormwater quality.

Overall, it is not expected that the Project would routinely transport, use, or dispose of hazardous materials. However, if the facility does handle hazardous materials and/or hazardous waste, compliance with the HMBP as approved by the County would reduce potential impacts. In addition, while potential impacts could occur during construction, such impacts would be reduced through compliance with local, state, and federal regulations in addition to standard equipment operating practices. For these reasons, the Project would have a less than significant impact.

b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less than Significant Impact. As described under criterion a) above, it is not anticipated that the Project itself will involve any operations that would require routine transport, use, or disposal of hazardous materials and therefore is not anticipated to create a significant hazard to the public or the environment through release of hazardous materials. In the case that the Project does involve hazardous materials, the HMBP as approved by the County would ensure safe storage and use of such materials. While potential impacts could occur through construction-related transport and disposal of hazardous materials, such impacts would be short-term and temporary, and would be reduced to less than significant levels through compliance with local, state, and federal regulations in addition to standard equipment operating practices. Therefore, the Project would not be expected to cause the release of hazardous materials into the environment and thus, a less than significant impact would occur.

c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less than Significant Impact. There are no existing or proposed schools within one-quarter mile of the subject site. The nearest existing schools are Madera Adult School (approximately ± one (1) mile southeast) and Matilda Torres High School (approximately ± one (1) mile northeast), both of which are further than one-quarter mile of the Project site. Based on the proposed site circulation, the site would be accessible by automobiles and trucks via two (2) points of ingress/egress along Condor Road, which is proposed to be expanded on Condor Road to the south. Based on the proposed access points, it can be assumed that trips generated from the Project would utilize either Avenue 16 or Avenue 17 to reach SR-99. Neither school is located on this tentative route. Further, as described under criteria a) and b) above, the proposed Project is not anticipated to emit hazardous emissions or handle hazardous materials, substances, or waste that would pose a risk or threat to schools or surrounding area. Therefore, the Project would have a less than significant impact.

d) Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact. According to EnviroStor and GeoTracker, the Project is not located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, and therefore, as a result would not create a significant hazard to the public or the environment. For these reasons, there would be no impact.

- e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

Less than Significant Impact. The nearest public and public use airport is the Madera Municipal Airport approximately ± 0.47-miles west of the Project site. The Madera Municipal Airport is owned and operated by the City of Madera and has two (2) runways that are 5,544 feet long and 3,700 feet long. The applicable airport land use plan for the Madera Municipal Airport is the Madera Countywide Airport Land Use Compatibility Plan (ALUCP) adopted in 2015. According to this land use plan, the Project site is located within the airport influence area of the Madera Municipal Airport and is within the Traffic Pattern Zone. Because the site is within the airport influence area, it is subject to established airport compatibility measures within the Madera General Plan to ensure that projects would not result in a safety hazard or excessive noise for people residing or working in the area. In particular, the following policies are applicable to the review process for the proposed Project.

Policy HS-31: *City shall consider compatibility criteria in the ALUCP and Airport Master Plan in reviewing potential land uses or projects. Projects shall be approved only where consistency with compatibility criteria in the ALUCP can be demonstrated.*

Action Item HS-31.1: *Review projects to ensure consistency with ALUCP and Master Plan at earliest possible stage of planning/ entitlement process. A determination on consistency shall be made by the entity (City Council, Planning Commission, Staff) given authority to approve the project pursuant to the zoning ordinance.*

Action Item HS-31.2: *Establish and maintain a geographic information system to identify all parcels within the airport influence area and establish a standard review checklist applicable to those projects which includes references to airport compatibility criteria.*

Policy HS-32: *City shall ensure that new development near Madera Airport is designed to protect public safety from airport operations consistent with recommendations and requirements of the ALUC, the FAA, and other responsible agencies. It shall be the City's intent to comply with all State laws related to airport land use planning.*

According to the ALUCP's Compatibility Policy Map, the Project site is within the "D" Compatibility Zone designated as "Other Airport Environs." Within this Compatibility Zone, indoor storage including wholesale sales, distribution centers, warehouses, and other indoor storage are deemed "normally compatible" with two additional criteria for Compatibility Zones B1 and B2: 1) ensure intensity criteria are met and 2) ensure airspace obstruction does not occur. Since the Project is not within the B1 or B2 Compatibility Zones, the additional criteria are not applicable. Therefore, the Project can be deemed compatible with the ALUCP and thereby would not result in a safety hazard or excessive noise. For these reasons, the Project would not result in a safety hazard for people residing or working in the area and impacts would be less than significant.

- f) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less than Significant Impact. The Project would not involve any new or altered infrastructure associated with evacuation, emergency response, and emergency access routes within the City or County of Madera.

Extension of Condor Road may require lane closure; however, these activities would be short term and access through Aviation Drive would be maintained through standard traffic control. Following construction, Aviation Drive would continue to provide access to the site. Furthermore, the Project would be subject to compliance with applicable standards for on-site emergency access including turn radii and fire access. Therefore, the Project would have a less than significant impact.

g) Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Less than Significant Impact. The Project site is located on a relatively flat, infill property within an urbanized area that is surrounded by existing development and infrastructure. Further, the Project site is not identified by the California Department of Forestry and Fire Protection (Cal Fire) as a Very High Fire Hazard Severity Zone (VHFHSZ) within the Local Responsibility Area.²² In addition, the Project proposes a construction of structures that would be occupied by humans; as such, the structure shall be constructed in adherence to the California Fire Code, Wildland Urban Interface Codes, and standards of the California Building Code Chapter 7A. Compliance with such regulations would ensure that the Project meets standards to help prevent loss, injury, or death involving wildland fires. For these reasons, the Project would have a less than significant impact.

²² California Department of Forestry and Fire Protection. FHSZ Viewer. Accessed on October 28, 2021, <https://egis.fire.ca.gov/FHSZ/>.

4.10 Hydrology and Water Quality

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

4.10.1 Environmental Setting

The Project site is within city limits and thus, will be required to connect to water and stormwater services. These services are provided by the City of Madera. The City and responsible agencies have reviewed the

Project to determine adequate capacity in these systems and to ensure compliance with applicable connection and discharge requirements. A brief overview of the systems and services is provided below.

Water Supply System

The City of Madera Water Division manages and operates the City of Madera’s water supply system. Groundwater is the sole source of water supply through 18 active wells that pump from the Madera Subbasin of the San Joaquin groundwater basin directly into the City’s distribution system. The distribution system consists of 200 miles of water mains that are maintained as a single pressure zone. The system also contains a one (1) million-gallon storage reservoir. The system’s connections are primarily “looped,” which provides increased capacity and reliability.

According to the City’s 2014 Water System Master Plan (WSMP), existing 12-inch water supply pipelines are located in Condor Drive and Condor Road, immediately adjacent to the Project on the site’s westerly border. These pipelines are between Avenue 17 and Avenue 16 and ultimately connect to groundwater wells number 25 and 26. As of 2014, Well 25 has a rated capacity of 1,997 Gallons per Minute (GPM) with peak production recorded in summer, whereas Well 26 is a fire flow/emergency pump and is not typically used. However, the WSMP indicates that Well 26 is intended to be a full production well when water demand increases in the northwest with planned development (inclusive of the Project area).

Water Supply and Demand

The City’s long-term water resource planning for existing and future demand is addressed in the City’s 2015 Urban Water Management Plan (UWMP).²³ While the City also utilizes the 2014 WSMP, the methodology used in the WSMP differs from the UWMP. As a result, the demand analysis in the UWMP supersedes the analysis of the WSMP.

According to the UWMP, water demand in the city has declined and is expected to grow at a slower rate than the anticipated population growth. The decline is attributed to conservation programs and water meter installations, in addition to state-imposed water conservation requirements in 2015. Peak water demand for the City is typically during summer whereby most groundwater wells are operated at capacity. During these periods of high demand, the City’s storage reservoir is incorporated. As of 2014, the City’s existing average daily domestic water demand was estimated at 9.8 million gallons per day (GPD), with industrial uses accounting for 408,257 GPD.

Potable water demands were estimated in the UWMP and WSMP using land-use based water demand factors. According to the land-use based water demand factors, the Industrial land use designation is expected to generate a demand of 780 gallons per day per acre (GPD/ac). **Table 4-12** summarizes the total water demand to be expected for an industrial project based on the acreage of the Project site, if the total site was developed. Further, the proposed use of the Project is primarily “warehouse” and thus has the potential to have demands similar to that estimated in the UWMP and WSMP.

Table 4-12 Summary of Total Water Demands by Land Use

Land Use	Area (ac)	Gallons Per Day/Acre	Daily Demand
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²³ City of Madera (2017). 2020 Urban Water Management Plan. Accessed October 29, 2021, <https://www.madera.gov/wp-content/uploads/2017/03/2015-Madera-UWMP-Draft-1.pdf>

Industrial	30.16	780	23,524 gpd
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Source: *City of Madera, 2015 Water Demand Factors by Land Use Classification*

Groundwater Sustainability

To consider long-term sustainability, a groundwater sustainability plan (GSP) was adopted for the Madera Subbasin in 2020 by the Madera Subbasin groundwater sustainability agencies (GSAs) of which the City of Madera is a member.²⁴ The GSP was prepared in response to the California Department of Water Resources (DWR) identifying the Madera Subbasin as a critically over drafted basin. The intent of the GSP is to identify groundwater conditions, evaluate the overdraft conditions, establish sustainability goals, and determine programs and management actions to achieve sustainable groundwater management by 2040.

As a member agency of the Madera Subbasin GSAs, the City of Madera’s land-use decisions must comply with the GSP by decreasing water demand and managing groundwater resources. The City’s Water Division, Water Conservation Program oversees enforcement of water conservation regulations as outlined in the Chapter 5 – Water System of the MMC. In particular, Chapter 5 of the MMC requires all new construction to install Automatic Meter Reading and all landscaping irrigation to be compliant with the Model Water Efficient Landscape Ordinance (MWELO).

Lastly, the Madera General Plan Conservation Element addresses groundwater recharge and supplies through the following policies:

Conservation Element Policy CON-1: *The City will coordinate with local, regional, and state water suppliers and water resource managers to identify water management strategies and issues that ensure a clean and sustainable water supply.*

Conservation Element Policy CON-2: *The City supports the consideration and implementation of a broad range of strategies to ensure the long-term sustainability of its water supply, including strategies related to conservation, reclamation, recharge, and diversification of supply.*

Conservation Element Policy CON-3: *The City supports natural groundwater recharge and new groundwater recharge opportunities through means such as:*

- Developing a comprehensive groundwater recharge program to be applied in conjunction with new development
- Increasing the area on developed sites into which rainwater can percolate
- Providing areas where rainwater and other water can collect and percolate into the ground.
- Providing for groundwater recharge in storm drainage facilities.
- The use of reclaimed water to recharge the groundwater table.

²⁴ County of Madera. (2014). Madera Regional Groundwater Management Plan. Accessed December 9, 2021, <https://www.maderacountywater.com/wp-content/uploads/2018/08/Madera-Regional-Groundwater-Management-Plan-2014.pdf>

Water Quality

The GMP identifies sources of groundwater contamination including but not limited to the results of naturally occurring, point source contamination, and/or regional contamination. Typical sources of point source contamination include gas stations, dry cleaners, high-density animal enclosures, applied fertilizers, leaky sewer lines, wastewater treatment plants, and septic systems. The proposed Project does not propose any of these uses. Another concern for water quality includes non-point source pollutions and associated runoff whereby rain causes pollutants to “runoff” impervious surfaces. Stormwater runoff is addressed in the section below. According to the UWMP, groundwater within the Madera Subbasin has been high quality and as of 2014, the City’s water system meets state and federal guidelines for regulation of water quality.

Storm Drainage System

There are four (4) major watersheds that collect and convey stormwater runoff in Madera. These watersheds include Cottonwood Creek, Root Creek/San Joaquin, Middle Fresno River, and Dry Creek. Within these watersheds there are smaller drainage basins, which have existing or natural conveyance systems and may discharge to retention basins, pump stations, or direct outfalls to Madera Irrigation District (MID) canals, or Fresno River. Some basins are connected to MID facilities that receive surface water for recharge. In recent years, captured stormwater has been held in the basins to maximize percolation opportunities. When runoff exceeds basin capacity, water is sent to local streams and irrigation canals to allow basins to accommodate further runoff.

The discharge areas of basins, or “drainage subbasins,” contain overland flow routing (i.e., routing rainfall runoff to stormwater conveyance system) or a combined pipe street conveyance system (i.e., conveyance from gutters to catchments). According to the City’s 2014 Storm Drainage System Master Plan (SDSMP), the Project site is within the AE, “Aviation East,” drainage subbasin. In this subbasin, there are existing storm drainpipes located in Condor Drive and Falcon Drive. There is also an existing City-owned basin between Condor Road and Avenue 16. To capture onsite runoff, the Project is required to extend storm drainage facilities and would also be required to treat the runoff (See [Agency Review](#) .

Stormwater Quality

Discharges to municipal storm drain systems are regulated by the National Pollutant Discharge Elimination System (NPDES) permit. There are two (2) rules – Phase I and Phase II – that regulate pollutant discharges. Phase I Final Rule requires that an operator (i.e., City of Madera) of a regulated municipal separate storm sewer system (MS4) must develop, implement, and enforce a program to reduce runoff pollutants from new development that disturbs one (1) acre or more of land. Phase II Final Rule requires an operator (i.e., City of Madera) to reduce stormwater runoff pollutants through implementation of erosion and sediment controls on construction sites, such as procedures, enforcement measures, sanitation, and BMPs.

The City of Madera’s 2004 Storm Water Quality Management Program (SWQMP) outlines a series of best management practices (BMPs) designed to reduce the discharge of pollutants from the municipal storm drain systems in order to protect water quality pursuant to the Clean Water Act and in compliance with NPDES. General permit requirements and BMPs are outlined in the SWQMP. In particular, the Project is subject to preparation of a Stormwater Pollution Prevention Plan (SWPPP), to obtain coverage under the State Construction General Permit (NPDES General Permit for Stormwater Discharge Association) with construction activity (Order 2009-0009 DWQ), and submission of the SWPPP with a Notice of Intent to the RWQCD. Pursuant to NPDES, this is prepared by a Qualified SWPPP Developer (QSD) and implemented by

a Qualified SWPPP Practitioner (QSP). The SWPPP is required to incorporate BMPs, which would prevent water quality degradation, control erosion and siltation, and minimize any impacts to water quality to a level that is less than significant (See [Section 4.7](#)), as described in MM HYD-1.

Agency Review

The City of Madera Department of Engineering reviewed the proposed Project and provided the following conditions related to water, sewer, and stormwater:

- *“The developer shall confirm the existence of a 12-inch water main along Condor Road from Aviation Drive to Yeager Drive from which water service connections can be made. Should it be determined that said water line does not exist, the developer shall install water line between Aviation Drive and Yeager Drive.*
- *New or existing water service connection(s), including landscape areas, shall be constructed or upgraded to current City standards including Automatic Meter Reading (AMR) water meter installed within City right-of-way and backflow prevention device installed within private property. Each parcel shall have a separate water service.*
- *A separate water meter and backflow prevention device will be required for landscape areas.*
- *Existing water service connections that will not be used for the project shall be abandoned at the mains per City of Madera standards.*
- *Existing wells, if any, shall be abandoned as directed and permitted by City of Madera for compliance with State standards, prior to issuance of building permits or any activities in which the well to be abandoned may be further damaged resulting in potential contamination to the aquifer below.*
- *New or existing sewer service connection(s) shall be constructed or upgraded to current City standards. Each parcel shall have a separate sewer service.*
- *Sewer main connections six (6) inches and larger in diameter shall require manhole installation.*
- *The developer shall construct, at a minimum, a 12-inch sewer main from the intersection of Aviation Drive and Condor Road to the most southern property line of the proposed project on Condor Road in accordance with Madera Airport Area Infrastructure Master Plan-Final. Between the southern and northern property lines, a minimum 10-inch sewer main shall be constructed. The oversize component (difference in cost between the pipe installed and 8-inch pipe) of the construction of the sewer main on Condor Road is considered reimbursable, subject to the availability of funds, under the City’s Development Impact Fee Program.*
- *Existing sewer service connections that will not be used for the project shall be abandoned at the mains per current City of Madera standards.*
- *Existing septic tanks, if found, shall be removed, permitted and inspected by City of Madera Building Department.*

- *Storm runoff from this project is planned to go to the Airport Basin located south of this project. Runoff volume calculations shall be provided, and the developer shall excavate the basin to an amount equivalent to this project's impact on the basin. Dirt shall be stockpiled in a location designated by the Madera Irrigation District (MID). MID shall be contacted prior to contractor securing permission to enter basin. Water runoff from the site must be cleaned prior to entering the existing City owned storm water system to the satisfaction of the MID through the use of an on-site oil/water separator or drop inlet inserts at drop inlets that receive runoff from the site.*
- *A Madera Irrigation District (MID) approval block shall be shown on the final improvement plans.*
- *The developer shall verify whether the storm drain outlet to the west of the proposed project parcel will need to be addressed in regard to cleaning runoff prior to entering the outlet to the satisfaction of MID.*
- *Developer shall construct a 48-inch storm drain pipeline from Aviation Drive to the southern project property line and a 42-inch pipeline along the property frontage to the northern property line in Condor Road in accordance with the City's Storm Drainage Master Plan. The construction of this line is considered 100% reimbursable, subject to the availability of funds, under the City's Development Impact Fee Program.*
- *This project shall, as applicable, comply with the design criteria as listed on the National Pollutant Elimination Systems (NPDES) General Permit for Storm Water Discharges from Small Municipal Separate Storm Sewer System (MS4's) as mandated by Water Quality Order No. 2013-0001-DWQ, NPDES General Permit No. CAS000004. For the purpose of this proposed development, post development runoff shall match or be less than pre-development runoff. The development shall be subject to future inspections by City or other designated agencies relative to the improvements installed as a result of this condition to ensure they remain in compliance with the conditions imposed under this condition relative to retention or treatment of storm water.*

4.10.2 Impact Assessment

- a) **Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?**

Less than Significant Impact with Mitigation Incorporated. Groundwater is the sole source of water supply for the City. Groundwater is supplied through 18 active wells that pump from the Madera Subbasin of the San Joaquin groundwater basin directly into the City's distribution system. According to the UWMP, groundwater within the Madera Subbasin has been high quality and meets state and federal guidelines. Potential concerns for water quality and groundwater contamination include but are not limited to naturally occurring contamination, point source contamination, regional contamination, and non-point source pollutants and associated runoff (i.e., stormwater runoff). Of these concerns, stormwater runoff is most applicable to the proposed Project.

Generally, stormwater runoff resulting from the anticipated buildout of the Project would be managed by the City in compliance with the UWMP, WSMP, SDSMP, SWQMP, and regulatory requirements pursuant to NPDES General Permit Requirements. In addition, the quality of stormwater runoff would be maintained by design components specific to the Project including but not limited to: 1) the required connection to storm drainage facilities, 2) the required preparation of a SWPPP, and 3) the City's approval of the Project's

grading and drainage plans. Together, these design components would help maintain stormwater quality through proper site drainage (e.g., grading and drainage plans, SWPPP) and reduction of sediments and pollutants (e.g., retention basin). However, to further reduce any potentially significant impacts to less than significant, the Project shall incorporate *MM HYD-1* as described below. All other requirements noted above, including the SWPPP are normal project conditions and do not require additional project specific mitigation measure. As a result, continued compliance with the aforementioned plans, policies, and regulatory requirements in addition to Project design components and incorporation of mitigation measures, would reduce potential impacts related to water quality and waste discharge to less than significant levels.

MM HYD-1: *Prior to issuing of grading or building permits, (a) the Project applicant shall submit to the Lead Agency (1) the approved Storm Water Pollution Prevention Plan (SWPPP) and (2) the Notice of Intent (NOI) to comply with the General National Pollutant Discharge Elimination System (NPDES) from the Central Valley Regional Water Quality Control Board. The requirements of the SWPPP and NPDES shall be incorporated into design specifications and construction contracts.*

b) Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less than Significant Impact. As previously mentioned, groundwater is the sole source of water supply for the City. Groundwater is supplied through 18 active wells that pump from the Madera Subbasin of the San Joaquin groundwater basin directly into the City's distribution system. Management and sustainability of groundwater supplies is discussed in the Madera Subbasin GSP, Madera Regional GMP, UWMP, and WSMP. Anticipated buildout of the proposed Project would increase water demands within the area and would encourage the need for sustainable water sources. Because the Project is within city limits, it will be required to connect to water and stormwater services as provided by the City. As a new connection, the Project is required to comply with Chapter 5 of the MMC to meet water efficiency standards. Additionally, adherence to connection requirements and recommendations pursuant to the City's water supply planning efforts (i.e., compliance with California Plumbing Code, efficient appliances, efficient landscaping, etc.) should not negatively impact the City's water provision.

Furthermore, because the Project has been previously accounted for and analyzed within the General Plan and the City's system master plans (i.e., WSMP and SDSMP), it can be presumed that the existing and planned water distribution system and supplies should be adequate to serve the Project, and the Project would thereby not interfere substantially with groundwater recharge or impede sustainable groundwater management of the basin. For these reasons, the Project would not decrease groundwater supplies or interfere substantially with groundwater recharge and would thereby have a less than significant impact.

c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i) result in substantial erosion or siltation on- or off-site;

Less than Significant Impact. Erosion is a natural process in which soil is moved from place to place by wind or from flowing water. The effects of erosion within the Project area can be accelerated by ground-disturbing activities associated with development. Siltation is the settling of sediment to the bed of a stream

or lake which increases the turbidity of water. Turbid water can have harmful effects to aquatic life by clogging fish gills, reducing spawning habitat, and suppress aquatic vegetation growth.

Implementation of the proposed Project would result in the development of agricultural lands. Bare soils, common within farmlands, are more susceptible to erosion than an already developed urban land, thus it is expected erosion would occur on-site. During construction activities, and in compliance with the Project's SWPPP, construction-related erosion controls and BMPs would be implemented to reduce potential impacts related to erosion and siltation. These BMPs would include, but are not limited to, covering and/or binding soil surfaces to prevent soil from being detached and transported by water or wind, and the use of barriers such as straw bales and sandbags to control sediment. Together, the controls and BMPs are intended to limit soil transportation and erosion.

In addition, the Project would increase impervious surfaces by installing paving, concrete pads, and sidewalks. As discussed under criterion a) above, stormwater runoff resulting from the anticipated buildout of the Project would be managed by the City in compliance with the UWMP, WSMP, SDSMP, SWQMP, and regulatory requirements pursuant to NPDES General Permit Requirements. In addition, the quality of stormwater runoff would be maintained by design components specific to the Project including but not limited to: 1) the required connection to storm drainage facilities, 2) the required preparation of a SWPPP, and 3) the City's approval of the Project's grading and drainage plans. Together, compliance with the aforementioned plans, policies, and regulatory requirements in addition to Project design components and mitigation measures described under criterion a), would reduce potential impacts related to erosion and siltration to less than significant levels.

ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;

Less than Significant Impact. The Project would increase impervious surfaces by installing paving, concrete pads, and sidewalks. Such impervious surfaces have the potential to increase the rate or amount of surface runoff that would be captured and drained within the AE drainage subbasin. However, to reduce the rate or amount of direct surface runoff, the Project proposes an onsite stormwater retention basin that would accommodate the total buildout of the Project. Support calculations for the basin were completed so as to not create or contribute runoff that would exceed the capacity of the City's drainage systems. Therefore, provision of private facilities as approved by the City would ensure that surface runoff is controlled in a manner which would not result in flooding on- or off-site. In addition, incorporation of mitigation measures described under criterion a) would reduce potential impacts related to surface runoff. For these reasons, a less than significant impact would occur because of the Project.

iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

Less than Significant Impact. As described under **Agency Review** above, the Project is required to connect to the storm drainage system that would be reviewed and approved by the City. Thus, while the Project would result in increased impervious surfaces, Project design has accounted for capturing runoff as to not exceed the capacity of existing or planned stormwater drainage systems. Regarding stormwater quality, stormwater runoff resulting from the anticipated buildout of the Project would be managed by the City in compliance with the UWMP, WSMP, SDSMP, SWQMP, and regulatory requirements pursuant to NPDES General Permit Requirements. As a result, compliance with the aforementioned plans, policies, and

regulatory requirements in addition to Project design components and incorporation of mitigation measures described under criterion a), would ensure that the Project would not provide substantial additional sources of polluted runoff. For these reasons, the Project would have a less than significant impact.

iv) impede or redirect flood flows?

Less than Significant Impact. Although the construction of the proposed Project would increase impervious surfaces, the Project would not significantly alter drainage patterns because Project-specific grading and drainage plans are required to be reviewed by the City before development approval. Such plans would ensure that precipitation and rainwater can effectively flow through the site. In addition, the Project proposes an on-site retention basin that has been adequately sized and located for capturing stormwater runoff before it is drained into the City's storm drainage system. As a result, the Project would not impede or redirect flood flows and a less than significant impact would occur as a result.

d) Would the project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundations?

Less than Significant Impact. The Project site is not in a flood hazard, tsunami, or seiche zone (i.e., standing waves on river, reservoirs, ponds, and lakes). In addition, the Project site is approximately 110 miles from the Pacific Ocean and there are no rivers, reservoirs, ponds, or lakes within the site or Project area. Furthermore, the Project site is designated as Zone X on the most recent Flood Insurance Rate Map (FIRM) No. 06039C1155E dated September 26, 2008. Zone X is an area of minimal flood hazards with a 0.2 percent-annual-chance of flood (i.e., 500-year flood). Lastly, the Project area as well as the city as a whole has historically been subject to low to moderate ground shaking and has a relatively low probability of shaking. As such, seiches are unlikely to form due to the low seismic energy produced in the area. Therefore, as a low-risk area, the Project would have a less than significant impact as it relates to the risk release of pollutants due to project inundations.

e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less than Significant Impact. The applicable water quality control plan for the Madera Subbasin is the Madera Subbasin Groundwater sustainability Plan (GSP) that was adopted in 2020. The GSP was prepared in response to the CA DWR identifying the subbasin as a critically over drafted basin. As a member agency of the Madera Subbasin GSAs, the City of Madera's land-use decisions must comply with the GSP by decreasing water demand and managing groundwater resources. The City's Water Division, Water Conservation Program oversees enforcement of water conservation regulations as outlined in the Chapter 5 – Water System of the MMC. In particular, Chapter 5 of the MMC requires all new construction to install Automatic Meter Reading and all landscaping irrigation to be compliant with the Model Water Efficient Landscape Ordinance (MWELo). In turn, the Project is subject to compliance with City-identified regulations to maintain groundwater resources. Compliance with such regulations would ensure that the Project would not conflict with or obstruct implementation of the GSP. For these reasons, a less than significant impact would occur as a result of the Project.

4.11 Land Use and Planning

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

4.11.1 Environmental Setting

The Project site is an undeveloped, vacant property within a developing industrial area of the city. The site is surrounded by several large, vacant, and undeveloped parcels in addition to existing industrial and residential uses.

4.11.2 Impact Assessment

a) Would the project physically divide an established community?

Less than Significant Impact. Typically, physical division of an established community would occur if a project introduced new incompatible uses inconsistent with the planned or existing land uses or created a physical barrier that impeded access within the community. Typical examples of physical barriers include the introduction of new, intersecting roadways, roadway closures, and construction of new major utility infrastructure (e.g., transmission lines, storm channels, etc.).

Surrounding Land Uses

The Project site has a planned land use designation of Industrial. The Project area is generally characterized by a mix of existing land uses including industrial (east and west), vacant land (north and south), and single-family residential (north). The surrounding properties are planned for industrial uses. Although the Project would introduce industrial uses adjacent to residential uses, a majority of the operations would take place within an enclosed facility. Furthermore, all shipping and receiving activities would occur approximately 550-ft. southwest of the single-family residences and, all vehicular activity would utilize Condor Road as to not affect roadways utilized by the residents (i.e., Boles Street or Golden State Boulevard). Implementation of the Project would thereby introduce an industrial use that is generally consistent with the existing and planned land uses within the Project area and not create a division between established communities.

Circulation System

Existing roadway infrastructure serves the Project area. The Project site would be accessible through expansion of Condor Road to Aviation Drive. Condor Road is a partially constructed north-south road that forms the westerly boundary of the Project site. The Madera General Plan Circulation Element designates Condor Road as an “other road,” which will be improved as a result of the Project. Therefore,

implementation of the Project would result in the expansion of an existing, partially constructed road and would thereby improve vehicular circulation for the Project area.

Utility Infrastructure

The Project site is within city limits and thus, will be required to connect to water, sewer, stormwater, and wastewater services. Natural gas, electricity, and telecommunications are provided by private companies. Utility systems are described and analyzed in Section 4.10 and Section 4.9. Based on the analysis, implementation of the Project would not result in the construction of new, major utility infrastructure. Overall, the Project would not represent a significant change in the surrounding area. Implementation of the Project would be generally consistent with the surrounding area and would not result in the physical separation of the established community. For these reasons, a less than significant impact would occur as a result of the Project.

b) Would the project cause a significant environmental conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Less than Significant Impact. Generally, policy conflicts are environmental impacts only when they would result in direct physical impacts or where those conflicts relate to avoiding or mitigating environmental impacts. As such, associated physical environmental impacts are discussed in this document under specific topical sections, such as Biological Resources, Cultural Resources, and Tribal Cultural Resources; however, a discussion of certain land use plans, policies, and regulations that are applicable to the proposed Project are included below in Table 4-13. Table 4-13 provides a comparison of the Project’s characteristics with all applicable policies included in the General Plan as they relate to land use issues. As discussed below, the proposed Project is generally consistent with the General Plan.

Table 4-13 Discussion on Land Use Policies in the General Plan

General Plan Policy	Project Consistency
Policy LU-28: To maintain the quality of life and aesthetic value of the major circulation routes used by both industrial and non-industrial traffic; the portions of industrial sites in public view along arterials and collectors shall be subject to the same standards for architectural review as commercial buildings, including architecture, street trees, frontage and parking lot landscaping, and screening of outdoor storage visible from public rights-of-way.	The Project site is an infill, interior lot that is not currently serviced by existing roadway infrastructure. Condor Road, designated by the Madera General Plan Circulation Element as an “other road,” is proposed to be expanded to provide access along Condor Road extension. Therefore, the Project is not proposed along arterials or collectors and Policy LU-28 is not applicable.
Policy LU-29: The inventory of industrially designated properties created by the Land Use Map is intended to support the long-term fiscal viability of the City and to ensure that there are sufficient opportunities for employment generating uses to develop over time. The City recognizes that some industrially designated sites may take longer to develop than others based on market conditions and the characteristics of a given site. It is the City’s policy to maintain its	The Project site is planned for industrial uses. The Project proposes a use consistent with the underlying land use designation, Industrial. The Project does not propose a General Plan Amendment but rather is proposing to develop an industrially planned site with industrial uses.

<p>inventory of industrially designated sites. Industrially designated properties shall not be re-designated to an alternative land use except in such limited instances where the City finds that the property is no longer suitable for industrial development and that is in the public's interest to redesignate the property.</p>	
<p>Policy CD-62 Development in industrial areas which are visible from public roadways and/or from adjacent properties shall incorporate high quality design principles, including:</p> <ul style="list-style-type: none"> • Offices and enclosed structures oriented toward street frontages. • Building facades that provide visual interest. • Loading facilities and storage areas which are screened from public view along collectors and arterials. • Visually appealing fences and walls. • The use of landscaped buffers around parking lots and industrial structures. <p>For the purposes of implementing this Policy, a "building" shall include any structure which is designed to be used by humans or whose purpose is to warehouse materials or enclose an industrial process.</p>	<p>Through the entitlement process, the Project is reviewed and conditioned by the City to comply with all applicable regulations and standards including those within the Development Code and General Plan. The Project site is within an industrial area, is visible from public roadways, and is visible from adjacent properties. The warehouse and enclosed structures are oriented to the south, facing away from the abutting residential uses and roadway infrastructure. Furthermore, a 20-ft. wide landscaped buffer is proposed along the Condor Road frontage.</p>
<p>Policy CD-63 The City supports the rehabilitation of appropriate industrial sites and should investigate funding opportunities for rehabilitation/remodeling of businesses.</p>	<p>The Project does not propose the rehabilitation of industrial sites and therefore, Policy CD-63 is not applicable.</p>
<p>Policy CD-64 Where industrial development abuts non-industrial uses, appropriate buffering techniques shall be employed such as, enhanced architecture, increased setbacks, screening landscaping, or some combination of these features.</p>	<p>The Project abuts residential uses (north). As such, the site design is oriented to the south. The proposed warehouse provides a physical separation between the single-family residences and enclosed drive-in truck loading area, accounting for an approximately 550-ft. separation. In addition, there is a 60-ft. setback between the northern property line and warehouse facility. Therefore, the Project employs several buffering techniques.</p>
<p>Policy CD-65 Regardless of building materials or construction techniques, such as tilt up concrete or prefabricated metal buildings, all buildings shall meet all of the City's standards and guidelines for excellence in design.</p>	<p>Through the entitlement process, the Project is reviewed and conditioned by the City to comply with all applicable regulations and standards including those within the Development Code and General Plan.</p>

Further, through the entitlement process, the Project is reviewed for compliance with applicable regulations inclusive of those adopted for the purpose of avoiding or mitigating environmental effects. Overall, the entitlement process would ensure that the Project complies with the General Plan, Municipal Code, and any other applicable policies. As such, the Project would have a less than significant impact.

4.12 Mineral Resources

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.12.1 Environmental Setting

The California Geological Survey (CGS) classifies and designates areas within California that contain or potentially contain significant mineral resources. Lands are classified into Aggregate and Mineral Resource Zones (MRZs), which identify known or inferred significant mineral resources. According to the California Department of Conservation, CGS’s Surface Mining and Reclamation Act (SMARA) Mineral Lands Classification (MLC) data portal, there are no mineral resource zones (MRZs) in the city of Madera and the Project area does not contain any state or locally designated mineral resource.²⁵ The nearest mineral resource areas to the city of Madera are in the San Joaquin River Resource Area which is classified as Mineral Resource Zone (MRZ)-2. The Project site is more than 14.2 miles northwest of the San Joaquin River Resource Area (see [Figure 4-8](#)). Further, according to the Madera General Plan EIR, the Project Area, inclusive of the Project site, does not have the potential to affect the availability of any state or locally designated mineral resource.

²⁵ California Department of Conservation. Surface Mining and Reclamation Act Mineral Lands Classification. Accessed on November 2, 2021, <https://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=mlc>

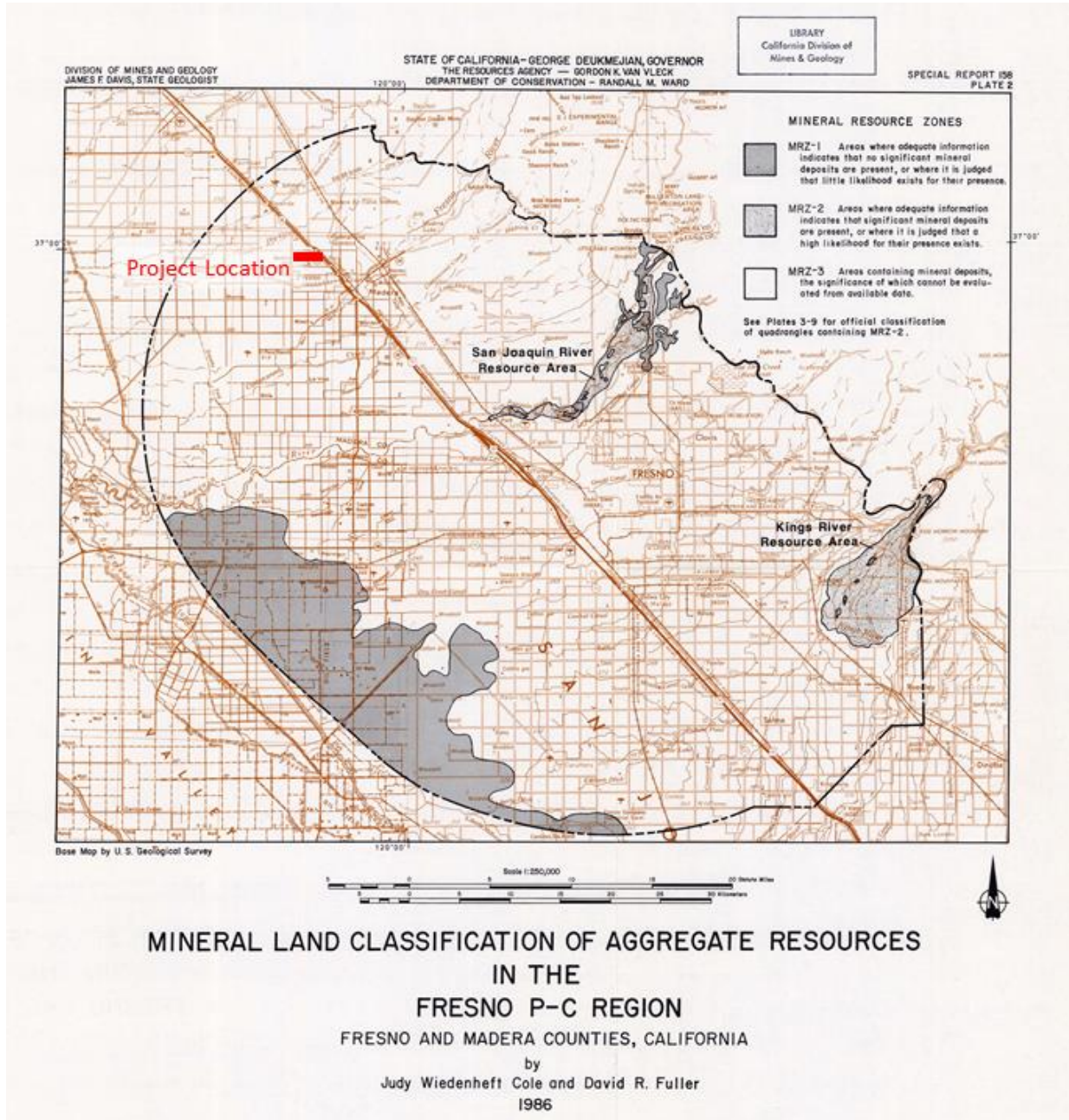


Figure 4-8 Mineral Resource Zones

Source: California Department of Conservation, 1986

4.12.2 Impact Assessment

- a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No Impact. The Project site is not located in an area designated for mineral resource preservation or recovery. Therefore, the Project would not result in the loss of availability of a known mineral resource that

would be of value to the region and the residents of the state. Therefore, no impact would occur as a result of the Project.

b) Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

No Impact. As described above, the Project site is not located in an area designated for mineral resource preservation or recovery and as a result, the Project would not result in the loss or availability of a known mineral resource that would be of value to the region and the residents of the state. Further, the site is not delineated on the General Plan, a Specific Plan, or other land use plan as a locally important mineral resource recovery site, thus it would not result in the loss of availability of a locally important mineral resource. Therefore, no impact would occur as a result of the Project.

4.13 Noise

Would the project result in:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive ground borne vibration or ground borne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

4.13.1 Environmental Setting

The Project proposes the development of a cold storage warehouse for agricultural products. Project components consist of refrigerated storage areas and tempering rooms, enclosed drive-in truck loading area, shipping office, and administrative office. All components would be contained within the proposed buildings. Generally, operations would consist of receiving agricultural nut products for storage followed by packaging and distribution. The facility would operate 24 hours per day, seven (7) days per week with business hours between 9 am and 5 pm, Monday through Sunday. Prospective customers, employees, and truck visits are expected during business hours. Approximately two (2) customers are expected to visit the facility per day, nine (9) employees are projected to work at the facility per day, and approximately 10-15 truck visits are expected per day, including refrigerated truck vans, single-trailer, and double trailers. Automobile and truck access is proposed on the southwestern corner of the site.

In general, there are two (2) types of noise sources: 1) mobile sources and 2) stationary sources. Mobile source noises are typically associated with transportation including automobiles, trucks, trains, and aircraft. Stationary sounds are sources that do not move such as machinery or construction sites. Stationary sources can also include events, recreational uses, amplified systems, automotive repair facilities, building mechanical systems, and landscape maintenance. These sources can vary based on factors such as site conditions, equipment operated, and specific activities conducted. Noises generated are also directional but can vary based on site and operational characteristics.

Noise-related impacts typically affect sensitive receptors and land uses such as residential, schools, churches, nursing homes, hospitals, and open space/recreation areas. Commercial, farmland, and industrial

areas are not considered noise sensitive and generally have higher tolerances for exterior and interior noise levels. Noise levels for noise-sensitive receptors will vary depending on location, distance from the source, shielding by terrain and structures, and ground attenuation rates. The nearest sensitive receptors to the Project site are four (4) single-family residences located approximately 40 ft. north of the Project site. The residences are planned and zoned for industrial use. The proposed 280-ft. wide warehouse and 60-ft. side yard setback provide a physical separation between the single-family residences and enclosed drive-in truck loading area, accounting for an approximately 550-ft. separation. Site circulation will ensure truck access is limited to the area of the site adjoining the residential properties. Mechanical equipment is positioned on elevations away from the residential properties.

Madera General Plan

The Madera General Plan Noise Element outlines goals and policies to mitigate health effects of noise in the community and prevent exposures to excessive noise levels. The following goals and policies are applicable to the Project.

Noise Policy N-1. *The City will protect residential areas and other noise-sensitive uses from excessive noise by doing the following:*

- 1) *Requiring that land uses, roadways, and other sources do not create incompatible noise levels on adjacent parcels.*
- 2) *Allowing homes or noise-sensitive uses to be developed only in places where existing and projected noise levels will meet the exterior noise guidelines and standards shown in Policies N-5 and N-6.*
- 3) *Requiring that City decisions which would cause or allow an increase in noise created by stationary or mobile sources (such as development of noise-generating land uses or the construction of new or wider roadways) be informed by a noise analysis and accompanied by noise reduction measures to keep noise at acceptable levels. The analysis may be accomplished by reviewing available noise data, by requiring additional information on potential noise that would be created, or by a noise analysis prepared as part of the project's environmental analysis. Roadway projects which are consistent with the Circulation Map in this General Plan will generally not require the preparation of a noise analysis.*

Noise Policy N-2. *To implement Policy N-1, the following shall apply:*

- 1) *No use regulated by the City shall be permitted to generate noise that would cause the ambient noise on any adjacent parcel to exceed the "completely compatible" 24-hour guidelines shown in Policy N-5 or the 30-minute noise standards in Policy N-6.*
- 2) *The City shall ensure that noise mitigation to achieve a "completely compatible" 24-hour exterior noise level and conformance with the 30-minute exterior noise standard is provided in conjunction with any decision it makes that would cause a violation of item 1) above.*
- 3) *Developers of new residential or other noise-sensitive uses which are placed in environments subject to existing or projected noise that exceeds the "completely compatible" guidelines in Policy N-5 shall be responsible for ensuring that acceptable exterior and interior noise levels will be achieved.*
- 4) *The City shall ensure that transportation projects such as new or widened roadways include mitigation measures to maintain at least "tentatively compatible" noise levels as shown in Policy N-5. Mitigation for roadway noise need not be provided where "tentatively compatible" noise guidelines would be exceeded on vacant lands but shall be installed as part of the transportation project where the noise would affect existing homes. In those instances where noise mitigation is not initially triggered, it shall be the responsibility of the project which places residential units on the vacant lands.*

Noise Policy N-3. *The following definitions shall be used to interpret and implement the policies in this Noise Element.*

- *“Noise-Sensitive Use” is any use other than residential or commercial for which an acceptable interior or exterior noise level is defined in this General Plan or other uses as determined by the City. Generally, noise-sensitive uses will be those which require a reasonable level of quiet as part of their ordinary functioning.*
- *Noise standards in residential areas shall be applied to outdoor activity areas. Where the outdoor activity areas are not known, the exterior noise standard shall be applied to all areas within 50 feet of the residential dwelling.*
- *“Outdoor Activity Areas” for residential uses include rear yard areas, including patios located in a rear yard; private ground-floor patios; and community play areas, pools, etc.*
- *“Projected Noise Levels” shall be those projected to exist at a time 20 (twenty) years in the future, based on projected future development, traffic, and other factors.*
- *“Residential Area” is any area designated for residential uses on the Land Use Map of this General Plan.*
- *“Transportation Noise” consists of noise generated by motor vehicles, trains, and aircraft takeoffs and landings.*

Noise Policy N-4. *The following compatibility standards shall be used to determine whether a proposed use is appropriate for its location, given the projected ambient noise level.*

- *“Completely Compatible” means that the specified land use is satisfactory, and both the indoor and outdoor environments are pleasant.*
- *“Tentatively Compatible” means that noise exposure may be of concern, but common building construction practices will make the indoor living environment acceptable, even for sleeping quarters, and outdoor activities will not be unduly disturbed by noise.*
- *“Normally Incompatible” means that noise exposure warrants special attention, and new construction or development should generally be undertaken only after a detailed analysis of noise reduction requirements is made and needed noise insulation features are included in the design. Careful site planning or exterior barriers may be needed to make the outdoor environment tolerable.*
- *“Completely Incompatible” means that the noise exposure is so severe that new construction or development should generally not be undertaken.*

Noise Policy N-5. *The following are the maximum 24-hour exterior noise levels for land designated by this General Plan for residential, commercial/retail, and public parks.*

- *See Policy N-4 for the definitions of these levels of compatibility.*
- *These guidelines apply to land designated by this General Plan for these uses. Residential, retail, or public parks which have been developed on land designated for other uses shall be subject to the exterior noise guidelines for the land on which they are located.*
- *Non-residential uses located on residentially designated land shall be subject to the exterior noise guidelines for residential lands.*
- *All uses on commercial lands, including non-commercial uses, shall be subject to the standards for commercial land.*
- *Land use designations not listed above do not have exterior noise compatibility standards. Land use designations with no exterior noise compatibility standard include office and industrial.*
- *Standards for public schools are set and enforced by the State of California and are not regulated by the City of Madera. Therefore, no standards for public schools are shown in Table N-B.*

TABLE N-B: EXTERIOR NOISE COMPATIBILITY GUIDELINES FOR NOISE FROM ALL SOURCES, INCLUDING TRANSPORTATION NOISE (24-HOUR DAY-NIGHT AVERAGE [CNEL/Ldn])

Land Use Designations	Completely Compatible	Tentatively Compatible	Normally Incompatible	Completely Incompatible
All Residential (Single- and Multi-Family)	Less than 60 dBA	60-70 dBA	70-75 dBA	Greater than 75 dBA
All Commercial	Less than 70 dBA	70-75 dBA	Greater than 75 dBA	(1)
Public Parks (Lands designated as Open Space on which public parks are located or planned)	Less than 65 dBA	65-70 dBA	70-75 dBA	Greater than 75 dBA

(1) No "Completely Incompatible" category is shown for commercial uses because not all commercial uses are incompatible with noisy environments. The City may determine as part of the review of individual development proposals that some types of commercial uses are incompatible with noise environments in excess of 75 dBA CNEL.

Noise Policy N-6. The following are the City's standards for maximum exterior non transportation noise levels to which land designated for residential land uses may be exposed for any 30-minute period on any day.

- Where existing ambient noise levels exceed these standards, the ambient noise level shall be highest allowable noise level as measured in dBA Leq (30 minutes).
- The noise levels specified above shall be lowered by 5 dB for simple tonal noises (such as humming sounds), noises consisting primarily of speech or music, or for recurring impulsive noises (such as pile drivers, punch presses, and similar machinery). Example: the Single Family/Duplex standard from 10 p.m. to 7 a.m. for these types of noises is 45 dBA.
- The City may impose exterior noise standards which are less restrictive than those specified above, provided that: 1) The noise impact on the residential or other noise-sensitive use is addressed in an environmental analysis, 2) A finding is made by the approving body stating the reasons for accepting a higher exterior noise standard, and 3) Interior noise standards will comply with those identified in Policy N-7.

TABLE N-C: EXTERIOR NOISE LEVEL STANDARDS FOR NON-TRANSPORTATION NOISE, MEASURED AS dBA Leq (30 MINUTES)⁷

Land Use Type	Time Period	Maximum Noise Level (dBA)
Single-Family Homes and Duplexes	10 p.m. to 7 a.m.	50
	7 a.m. to 10 p.m.	60
Multiple Residential 3 or More Units Per Building (Triplex +)	10 p.m. to 7 a.m.	55
	7 a.m. to 10 p.m.	60

Noise Policy N-7. The following are the City's standards for acceptable indoor noise levels for various types of land uses. These standards should receive special attention when projects are considered in "Tentatively Compatible" or "Normally Incompatible" areas.

- *Noise created inside a use listed above shall not count toward the acceptable noise levels to be maintained in accordance with this policy.*

Noise Policy N-9. *The City's preferences for providing noise mitigation are, in order (#1 is the most preferred, #5 the least)*

- 1) *Reduce noise at the source.*
- 2) *If #1 is not practical, seek to designate land uses which are compatible with projected noise levels.*
- 3) *If #1 or #2 are not practical, use distance from the source to reduce noise to acceptable levels.*
- 4) *If #1, #2, or #3 are not practical, use buildings, berms, or landscaping or a combination of these to reduce exterior noise to acceptable levels. Use construction techniques (sound-reducing windows, etc.) to reduce interior noise to acceptable levels.*
- 5) *The last measure which should be considered is the use of a sound wall to reduce noise to acceptable levels.*

Noise Policy N-10. *Where they are constructed, sound walls should be:*

- 1) *Considered only if proven effective by accompanying noise studies.*
- 2) *Be visually attractive, complement the surroundings, and require a minimum of maintenance. (See Community Design Element references to sound wall designs).*
- 3) *As small/low as possible consistent with the need to reduce noise to acceptable levels.*

Noise Policy N-13. *For the purposes of CEQA analysis, a 5 db increase in CNEL or Ldn noise levels shall be normally considered to be a significant increase in noise.*

Madera Municipal Code

Madera Municipal Code, Chapter 11, Noise Control, sets forth the City's noise controlling regulations. Specific noise prohibitions applicable to the Project are as follows.

§ 3-11.02 Specific Noise Prohibitions.

The following activities are specifically prohibited:

- A. *Operating, playing, or permitting the operation or playing of any radio, television set, loudspeaker, stereo, drum, musical instrument, or similar device which produces or reproduces sound which is in violation of the provisions of § 3-11.01 of this title.*
- B. *Between the hours of 8:00 p.m. and 6:00 a.m. of the following day. Noise sources associated with operating or causing the operation of any tools or equipment used in construction, drilling, repair, alteration, remodeling, paving, or grading of any real property or demolition work which creates sound which is in violation of §3-11.01 of this title is prohibited. Provided, however, the Community Development Director or their designated representative may, for good cause, exempt certain construction work from the provisions of this chapter for a limited time when an unforeseen or unavoidable condition occurs during a construction project and the nature of the project necessitates that work in process be continued until a specific phase is completed. In such circumstance, the contractor or owner shall be allowed to work after 8:00 p.m. and to operate machinery and equipment necessary until the specific work in progress can be completed in a manner which will not jeopardize the inspection or acceptance of a project or create undue financial hardships for the contractor or property owner.*

- C. *Between the hours of 10:00 p.m. and 6:00 a.m. of the following day. Operating or permitting the operation of any mechanically powered saw, drill, grinder, lawn or garden tool, or similar tool which creates sound which is in violation of §3-11.01 of this title.*

Environmental Noise Assessment

An environmental noise assessment for the proposed Project was conducted by WJV Acoustics, Inc. on January 24, 2022. Results are incorporated herein, and the full assessment is provided in [Appendix C](#).

Background Noise Level Measurements

Existing noise levels in the project vicinity are dominated by noise associated with vehicle traffic on California State Route 99 (SR 99) as well as nearby local roadways (Falcon Drive, Condor Drive, Aviation Drive, etc.). Additional sources of noise observed during site inspection included noise associated with aircraft overflights (Madera Municipal Airport) and nearby construction activities.

Measurements of existing ambient noise levels in the project vicinity were conducted on December 12, 2021. Long-term (24-hour) ambient noise level measurements were conducted at two (2) locations (site LT-1 and site LT-2). Long-term ambient noise measurement site LT-1 was located in the vicinity of the project site. The location of LT-1 was selected as a long-term noise monitoring site as it represents noise levels that would be representative of the existing sensitive receptors located southeast of the project site (RV Park) and provided a location to secure the noise meter. Long-term ambient noise measurements site LT-2 was located in the vicinity of the project site, near existing single-family residential land uses located north of the project site. Short term (15-minute) ambient noise measurements were conducted at two (2) additional sites (ST-1 and ST-2), in the vicinity of existing residential land uses.

Noise monitoring equipment consisted of a Larson-Davis Laboratories Model LDL-820 sound level analyzer equipped with a B&K Type 4176 1/2" microphone. The equipment complies with the specifications of the American National Standards Institute (ANSI) for Type I (Precision) sound level meters. The meter was calibrated with a B&K Type 4230 acoustic calibrator to ensure the accuracy of the measurements.

Measured hourly energy average noise levels (Leq) at site LT-1 ranged from a low of 45.3 dB between 2:00 a.m. and 3:00 a.m. to a high of 57.9 dB between 6:00 a.m. and 7:00 a.m. Hourly maximum (Lmax) noise levels at site LT-1 ranged from 57.4 to 70.1 dB. Residual noise levels at the monitoring site, as defined by the L90 statistical descriptor ranged from 32.0 to 53.9 dB. The L90 is a statistical descriptor that defines the noise level exceeded 90% of the time during each hour of the sample period. The L90 is generally considered to represent the residual (or background) noise level in the absence of identifiable single noise events from traffic, aircraft and other local noise sources. The measured Ldn value at site LT-1 during the 24-hour noise measurement period was 59.1 dB Ldn. Figure 3 graphically depicts hourly variations in ambient noise levels at the LT-1 long-term monitoring site.

Measured hourly energy average noise levels (Leq) at site LT-2 ranged from a low of 53.9 dB between 1:00 a.m. and 2:00 a.m. to a high of 63.4 dB between 4:00 p.m. and 5:00 p.m. Hourly maximum (Lmax) noise levels at site LT-1 ranged from 65.9 to 81.2 dB. Residual noise levels at the monitoring site, as defined by the L90 statistical descriptor ranged from 45.2 to 59.3 dB. The L90 is a statistical descriptor that defines the noise level exceeded 90% of the time during each hour of the sample period. The measured Ldn value at site LT-1 during the 24-hour noise measurement period was 65.9 dB Ldn. Figure 4 graphically depicts hourly variations in ambient noise levels at the LT-2 long-term monitoring site.

The short-term site noise measurement data included energy average (Leq) maximum (Lmax) as well as five (5) individual statistical parameters. Observations were made of the dominant noise sources affecting the measurements. The statistical parameters describe the percent of time a noise level was exceeded during the measurement period. For instance, the L90 describes the noise level exceeded 90 percent of the time during the measurement period and is generally considered to represent the residual (or background) noise level in the absence of identifiable single noise events from traffic, aircraft and other local noise sources. Table V summarizes short-term noise measurement results. The overall noise measurement data indicate that noise in the project vicinity is highly influenced by vehicular traffic on SR 99, and to a lesser extent, on other arterial roadways in the project vicinity.

4.13.2 Impact Assessment

- a) **Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?**

Less than Significant Impact with Mitigation Incorporated. The majority of noise-producing components associated with the Project would occur inside the two (2) proposed buildings. The project would include a total of six (6) refrigeration “pods” (three (3) per building) that produce exterior noise. The refrigeration pods and truck movements represent the only exterior noise-producing components of the project. Overall, the Project would result in a less than significant impact with mitigation incorporated in regard to noise.

Refrigeration Pods

The project will include six (6) equipment refrigeration room “pods” to be connected to the exterior of the proposed buildings (three per building). According to the project applicant, the refrigeration pods represent the only noise-producing equipment associated with project operations, that are not contained within the proposed building. According to the project applicant, the proposed refrigeration pods are the same as those currently in operation at Irigoyan Farms, located at 14677 S. Clovis Avenue, in Selma, California.

In order to assess noise levels associated with the refrigeration pods, WJVA staff conducted reference noise level measurements at the Irigoyan Farms on January 12, 2022. Noise measurement equipment was the same as that described above. WJVA staff coordinated with Barnett Refrigeration, to ensure that the refrigeration pod at Irigoyan Farms would be operating at full capacity at the time the noise measurements were conducted. Noise levels were measured at three individual angles from the refrigeration pod. The locations of these three measurement sites (M-1, M-2 and M-3) are provided as Figure 5. Each noise measurement site was located approximately 40 feet from the refrigeration pod. The measured noise levels were as follows:

- M-1: 61.6 dB
- M-2: 61.0 dB
- M-3: 59.2 dB

WJVA staff used the loudest measured noise levels to calculate project-related noise levels at the closest sensitive receptor locations to the proposed Madera project site. According to the project applicant, the refrigeration pods cycle on and off, as needed to maintain appropriate internal temperatures. The frequency and length of the cycles is dependent on several factors, including exterior temperatures as well as internal factors. For the purpose of this analysis, it was assumed that the refrigeration pods would be in

constant operation and should therefore be considered a worst-case assessment of project-related noise levels at sensitive receptor locations.

The refrigeration pods will be located along the southern portion of both buildings (Phase 1 and Phase 2 buildings). The buildings would provide acoustic shielding of the refrigeration pod noise at the residential land uses located north of the project site (in the vicinity of ambient noise measurement site LT-2).

WJVA utilized an insertion loss (noise reduction) model to calculate the noise level reduction that would be provided by the buildings. The model calculates the insertion loss of a barrier of a given height based on the effective height of the noise source, height of the receiver, distance from the receiver to the barrier, and distance from the noise source to the barrier. The model indicated that the buildings would be expected to provide approximately 15 dB of noise level reduction at the sensitive receptor locations north of the project site.

Applying the standard rate of noise attenuation with increased distance from a point source (-6dB/doubling of distance) as well as the above-described acoustical shielding provided by the proposed buildings (receptors north of the project site only), WJVA calculated project-related noise levels at nearby sensitive receptor locations. Noise levels associated with project operations were calculated to be approximately 32 dB at the residential land uses located northeast of the project and approximately 39 dB at the residential land uses located southeast of the project site. The above-described noise levels assume all six refrigeration pods (3 per building) are in constant simultaneous operation. Such levels do not exceed any City of Madera noise level standards. Additionally, such levels do not exceed existing (without project) ambient noise levels measured near sensitive receptor locations.

Slow Moving Trucks

Truck movements would occur on site throughout the day, exact times were not known at the time of this analysis. According to the project applicant, approximately 10-15 trucks are anticipated per day. According to the project applicant, all truck movements would occur along the south side of both buildings.

WJVA has conducted measurements of the noise levels produced by slowly moving trucks for a number of studies. Such truck movements would be expected to produce noise levels in the range of 71-77 dBA at a distance of 50 feet. The range in measured truck noise levels is due to differences in the size of trucks, their speed of movement and whether they have refrigeration units in operation during the pass-by. On-site truck movements could occur as close as 400 feet from the closest noise sensitive receptors. However, as described above, the proposed buildings would provide acoustic shielding to the single-family residential land uses north of the project site.

Taking into account the standard rate of attenuation with increased distance from a point source and the above-described acoustical shielding, at this distance, noise levels associated with on-site truck movements would be approximately 38-51 dB at the closest sensitive receptor locations. As noise associated with truck movements are relatively short in duration, noise levels would not exceed the non-transportation daytime or nighttime noise level standards provided above in Table II (See [Appendix C](#)). A noise impact could occur if truck movements were to occur along the north side of the proposed buildings, during nighttime hours. The following mitigation measure shall be applied during periods of project construction.

Mitigation Measure NOISE-1: *Truck movements should not occur along the north side of the building, between the nighttime hours of 10:00 p.m. to 7:00 a.m.*

Parking Lot Activities

Noise due to traffic in parking lots is typically limited by low speeds and is not usually considered to be significant. Human activity in parking lots that can produce noise includes voices, stereo systems and the opening and closing of car doors and trunk lids. Such activities can occur at any time. The noise levels associated with these activities cannot be precisely defined due to variables such as the number of parking movements, time of day and other factors. It is typical for a passing car in a parking lot to produce a maximum noise level of 60 to 65 dBA at a distance of 50 feet, which is comparable to the level of a raised voice.

For this project, parking would be dispersed throughout the overall project area. The closest proposed parking areas would be located at least 1,000 feet from the closest existing residential property lines to the north. At this distance, maximum (L_{max}) parking lot vehicle movements would be expected to be approximately 34 to 39 dB. Such levels would not exceed any of the City's applicable noise levels standards or exceed existing ambient noise levels at the closest residential land uses.

Construction

Construction noise would occur at various locations within and near the project site through the build-out period. The distance from the closest residences to the project site is approximately 100 feet. Table VIII (See **Appendix C**) provides typical construction-related noise levels at distances of 100 feet, 200 feet, and 300 feet. Construction noise is typically not considered to be a significant impact if construction is limited to the daytime hours and construction equipment is adequately maintained and muffled. Extraordinary noise-producing activities (e.g., pile driving) are not anticipated. The City of Madera Municipal Code restricts hours of construction activity to occur between the hours of 6:00 a.m. and 8:00 p.m., daily. Construction noise impacts could result in annoyance or sleep disruption for nearby residents if nighttime operations were to occur or if equipment is not properly muffled or maintained.

Noise levels associated with construction activities may be effectively mitigated by incorporating noise mitigation measures and appropriate best management practices. The following mitigation measure and best management practices shall be applied during periods of project construction.

Mitigation Measure NOISE-2:

- *Per the City of Madera Municipal Code, construction activities should not occur outside the hours of 6:00 a.m. to 8:00 p.m.*
- *All construction equipment shall be properly maintained and muffled as to minimize noise generation at the source.*
- *Noise-producing equipment shall not be operating, running, or idling while not in immediate use by a construction contractor.*
- *All noise-producing construction equipment shall be located and operated, to the extent possible, at the greatest possible distance from any noise-sensitive land uses.*
- *Locate construction staging areas, to the extent possible, at the greatest possible distances from any noise-sensitive land uses.*
- *Signs shall be posted at the construction site and near adjacent sensitive receptors displaying hours of construction activities and providing the contact phone number of a designated noise disturbance coordinator.*

Thus, the Project shall incorporate **Mitigation Measures NOISE-2** in order to reduce any potentially significant noise impacts to less than significant.

b) Would the project result in generation of excessive ground borne vibration or ground borne noise levels?

No Impact. The dominant sources of man-made vibration are sonic booms, blasting, pile driving, pavement breaking, demolition, diesel locomotives, and rail-car coupling. None of these activities are anticipated to occur with construction or operation of the proposed project. Due to the distances between the project site and the closest sensitive receptor locations, vibration from construction activities would not be expected to be detected at the closest sensitive land uses during any period of project construction. As a point of reference, typical vibration levels at distances of 100 feet and 300 feet are summarized by **Table IX** (See **Appendix C**). After full project build out, it is not expected that ongoing operational activities will result in any vibration impacts at nearby sensitive uses. Additional mitigation is not required. No impact would occur because of the Project.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The Project site is located approximately 0.5 miles from the Madera Municipal Airport. The Madera Countywide Airport Land Use Compatibility Plan⁴ (ALUCP / adopted September 29, 2015) provides land use compatibility guidelines for the area surrounding the Madera Municipal Airport. The ALUCP sets noise compatibility standards for specific land use types. According to the ALUCP Compatibility Policy Map for the Madera Municipal Airport, the project site is located within Compatibility Zone D, considered to be “Other Airport Environs”. According to the “Basic Compatibility Criteria” table provided in the ALUCP, land uses categorized as “Indoor Storage: wholesale sales, distribution centers, warehouses, mini/other indoor storage, barns, greenhouses” located within Zone D have “no limit” in respect to land use compatibility. The proposed project is not considered a “noise-sensitive land use” by the ALUCP and therefore no impact would occur because of the Project. In addition, there are no private airstrips operating within or near the Project. As a result, any noise associated with private airstrips would not result in substantial noise levels for the Project. Therefore, no impact would occur because of the Project.

4.14 Population and Housing

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.14.1 Environmental Setting

The Project proposes the development of a cold storage warehouse for agricultural products. The proposed use is consistent with the Madera General Plan land use designation for the Project site, which is Industrial. According to the Madera General Plan, the Industrial land use category provides for both light and heavy industrial development. The site is also within the I – Industrial Zone District, which has a purpose of providing a diverse range of industrial uses. The Project proposes a storage facility and is therefore a use that is consistent with the I – Industrial Zone District. Therefore, the Project proposes a non-residential use on a site that is planned and zoned for non-residential uses.

The Project site is in an area generally characterized by a mix of existing land uses including industrial (east and west), vacant land (north and south), and single-family residential (north). These surrounding properties are planned and zoned for industrial uses. Disced fields are located to the north and south, four (4) single-family residential dwellings are located to the north, and manufacturer, California Custom Processing, is to the south. Madera Self Storage bounds the site to the west and food-processing company, Ready Roast Co., bounds the site to the east. These surrounding properties are served by existing roadways and other infrastructure. As such, the Project would not require significant expansion of roadways and infrastructure and instead would result in necessary improvements to provide safe use of and access to the existing systems.

CEQA Guidelines and Population Growth

CEQA Guidelines *Section 15126.2(d)* requires that a CEQA document discuss the ways in which a proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. The CEQA Guidelines provide the example of a major expansion of a wastewater treatment plant that may allow for more construction within the service area. The CEQA Guidelines also note that the evaluation of growth inducement should consider the characteristics of a project that may encourage or facilitate other activities that could significantly affect the environment. Direct and Indirect Growth Inducement consists of activities that directly facilitate population growth, such as construction of new dwelling units.

A key consideration in evaluating growth inducement is whether the activity in question constitutes “planned growth.” A project that proposes a use that is consistent with the underlying General Plan land use designation and zone district would generally be considered “planned growth” because it was previously contemplated by long-range planning documents. In this case, a proposed use deemed consistent with the land use designation and zone district would not result in significant growth-inducing effects. In addition, the extension of urban infrastructure to serve a proposed project may be considered “growth accommodating” as it could facilitate growth.

4.14.2 Impact Assessment

- a) **Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?**

Less than Significant Impact. The Project proposes an industrial use that is consistent with the underlying land use designation and zone district. As such, the Project can be considered “planned growth” that has already been contemplated and evaluated within the City’s long-range planning documents. While the Project would generate employment (i.e., nine (9) employees), it is not at a level that could induce population growth. In addition, the Project would develop a site that is surrounded by existing roadways and other infrastructure. Because the Project would not require significant extensions of infrastructure, the improvements associated with the Project would not be considered to be “growth accommodating.” As a result, it can be concluded that the Project would not induce a substantial unplanned population growth directly or indirectly and a less than significant impact would occur as a result of the Project.

- b) **Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?**

No Impact. The Project site is vacant and undeveloped, with no improvements, people, or housing onsite. Thus, development of the Project site would not result in the physical displacement of people or housing, nor would the Project necessitate the construction of replacement housing elsewhere. Therefore, the Project would have no impact.

4.15 Public Services

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
<ul style="list-style-type: none"> Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: 				
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.15.1 Environmental Setting

The Project is located within the Madera city limits and thus, would receive public services provided by the City of Madera and will be subject to fees to provide such services. To address impacts to public facilities and services, the City of Madera has implemented development impact fees pursuant to *Section 10-8* of the MMC, which requires developers to pay the “fair share” of the costs of public improvements and facilities generated by new development. These services and fees include:

Fire Protection Services

Fire protection and emergency medical services in the city are provided by the Madera Fire Department (MFD), which is administered by the California Department of Forestry and Fire Protection (CalFire) through a cooperative fire protection agreement. Policy direction remains with the Madera City Council, and all permanent Fire Department staff are CalFire employees. The city operates three (3) fire stations that are staffed 24 hours a day, located at 317 North Lake Street (Station #56), 200 South Schnoor Avenue (Station #57), and 2558 Condor Drive (Station #58). Station #58 is within a 0.50-mile radius of the Project site. The MDF staffs two (2) fire engines and one (1) mini pumper. City fire protection services provided include fire prevention and suppression, emergency medical assistance, rescue, public assistance, fire menace standby, safety inspections, and review of building plans for compliance with applicable codes and ordinances. The City also receives automatic aid responses from the County Fire Station #1 located 14225 Road 28. A Fire Department Impact Fee will be assessed for the proposed Project based on the facility size.

Police Protection Services

Police protection services in the city are provided by the Madera Police Department (MPD). MPD Headquarters are located at 330 South C Street, approximately three (3) miles from the Project site. According to the MPD annual report for 2019, the MPD has 70 sworn officers and 34 non-sworn employees. In 2019, the MPD handled 60,432 events with an average response time of five (5) minutes and 21 seconds, including calls such as an armed robbery or burglary in progress, person not breathing, or traffic collisions involving injuries. Response times of emergency, priority 1, and priority 2 calls have decreased between 2017 and 2019.²⁶ A Police Facilities Fee will be assessed for the proposed Project based on the facility size.

Schools

Educational services within the Project area are primarily served by the Madera Unified School District (MUSD). The General Plan provides policy which focuses on collaboration with school districts serving Madera in order to obtain mitigation for impacts of new development in addition to planning of future land use and facilities. The development is consistent with the General Plan land use designation and would be subject to School Impact Fees in order to mitigate the effect of the Project on school facilities. In particular, funding for schools and school facilities impacts is outlined in Education Code *Section 17620* and Government Code *Section 65995 et. seq.*, which governs the amount of fees that can be levied against new development. These fees are used to construct new or expanded school facilities. Payment of fees authorized by the statute is deemed “full and complete mitigation.” The current developer fee rate for industrial development within the MUSD jurisdictional boundaries is \$0.66 per sf.

Parks and Recreation

Park and Recreation Facilities are overseen by the City of Madera Parks and Community Services (PCS) Department. The City of Madera owns and maintains 26 parkland facilities, including three (3) community parks, five (5) neighborhood parks, four (4) pocket parks, four (4) linear parks, two (2) trails, and eight (8) special use facilities. The facilities include 320 acres, not included building grounds, landscape buffer areas, median islands, and park strips. Pursuant of MMC *Section 10-2.1308*, Park Development Impact Fees are only applicable to residential development and therefore would not be required for the Project as the Project proposes a non-residential use.

4.15.2 Impact Assessment

- a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

Fire Protection

Less than Significant Impact. The Project site is within the city limits and therefore would be served by the MFD. MFD Station #58 is located within a 0.50-mile radius of the Project site. The Project’s proximity to

²⁶ City of Madera. (2019). City of Madera Police Department Annual Report 2019. Accessed on November 3, 2021, <https://www.madera.gov/wp-content/uploads/2020/10/PD-Annual-Report-Final.pdf>

existing stations would support adequate service ratios, response times, and other performance objectives for fire protection services. In addition, the MFD reviewed the Project for requirements related to water supply, fire hydrants, and fire apparatus access to the building(s) on site. Based on MFD's review, it can be determined that the Project can be served by existing facilities and would not result in the need for new or altered facilities. Further, to offset any potential impacts to fire protection services, the Project is subject to the Fire Department Impact Fee which would minimize the need for new or altered facilities. Therefore, through compliance with MFD requirements and payment of the impact fee for fire protection services, it can be concluded that the Project would have a less than significant impact.

Police Protection

Less than Significant Impact. The Project site is within the city limits and therefore would be served by the MPD. MPD headquarters are approximately three (3) miles from the site. Since the Project site is located immediately adjacent to a developing industrial area that is currently served by the MPD, it can be presumed that the addition of the Project within a growing industrial area would not cause the MPD to significantly expand its existing service area or construct a new facility to serve the Project. Further, the site would be secured by perimeter fencing and guarded access gates. Thus, the Project would be operated within a secured environment and is not anticipated to result in adverse physical impacts or the need for new or altered facilities for the City's Police Department. However, to further reduce potential Project impacts, the Project is subject to the Police Department Impact Fee which would minimize the need for new or altered facilities. Therefore, through the Project's proposed security measures and payment of the impact fee for police protection services, it can be concluded that the Project would have a less than significant impact.

Schools

Less than Significant Impact. The Project proposes an industrial use and would therefore not result in an increase in the area population. Thus, because of the nature of the Project, there would be no increased demand for schools as a result of the Project. However, to offset any potential impacts, the Project is subject to applicable School Impact Fees which is deemed "full and complete mitigation" by the state statute. Thus, through payment of the applicable impact fees, a less than significant impact would occur as a result of the Project.

Parks

No Impact. Park and recreational facilities are typically impacted by an increase in use from proposed residential development. The Project proposes an industrial use and would not result in a net increase in the area population. Thus, because of the nature of the Project, there would be no increased demand for existing neighborhood and regional parks, or other recreation facilities associated with the Project. The Project would thereby not result in adverse physical impacts or the need for altered or new park facilities. Therefore, the Project would have no impact.

Other Facilities

No Impact. As previously discussed, the Project would not result in an increase in residential population that would require other public services such as libraries or post offices. Thus, the Project would not result in the need for new or altered facilities to provide other public services and no impact would occur as a result of the Project.

4.16 Recreation

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.16.1 Environmental Setting

Park and Recreation Facilities are overseen by the City of Madera Parks and Community Services (PCS) Department. The City of Madera owns and maintains 26 parkland facilities, including three (3) community parks, five (5) neighborhood parks, four (4) pocket parks, four (4) linear parks, two (2) trails, and eight (8) special use facilities. The facilities include 320 acres, not included building grounds, landscape buffer areas, median islands, and park strips. Pursuant of MMC *Section 10-2.1308*, Park Development Impact Fees are only applicable to residential development and therefore would not be required for the Project as the Project proposes a non-residential use.

4.16.2 Impact Assessment

- a) **Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?**

No Impact. Park and recreational facilities are typically impacted by an increase in use from proposed residential development. The Project proposes an industrial use and would not result in a net increase in the area population. Thus, because of the nature of the Project and the characteristics of the area (i.e., industrial), there would be no increased demand for existing neighborhood and regional parks, or other recreation facilities associated with the Project. In addition, the Project would not generate enough employment to cause population growth that could result in the need for new or expanded parks. The Project would thereby not result in physical deterioration of such facilities. Therefore, the Project would have no impact.

- b) **Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?**

No Impact. The Project proposes an industrial use that does not include recreational facilities or require the construction or expansion of recreational facilities. Therefore, no impact would occur as a result of the Project.

4.17 Transportation

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)??	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

4.17.1 Environmental Setting

The Project site is located in the northwestern area of the City of Madera, California on the westside of Golden State Boulevard between Avenue 16 and Avenue 17. Golden State Boulevard, a two (2)-lane, northwest-southeast collector forms the easterly site boundary and the currently unimproved Condor Road, a north-south “other road” (designated as “other” in the General Plan Circulation Element) forms the westerly site boundary. No street frontage improvements are present (i.e., no curb, gutter, sidewalk, or streetlights). In addition, no fixed-route transit service, bicycle facilities, or pedestrian facilities currently serve the Project site.

The Project site would be accessible by automobiles and trucks via two (2) points of ingress/egress along Condor Road, which is proposed to be expanded from the site to Aviation Drive. The site would be secured by a six (6)-ft. tall chain link fence at the perimeter of the property in addition to security gates at the main entrance, controlled access to employee and visitor parking, and guarded truck access gates for the docks. Approximately 15 parking spaces, including two (2) accessible spaces, are proposed for employees and visitors for Phase I, and would be constructed per the MMC standards for parking spaces. Additional employee and visitor parking would be provided to the north of the proposed parking lot. Truck unloading and loading is proposed to the south of the facility. Lastly, fire department access gates are proposed via a separate point of ingress/egress along Condor Road, north of the on-site storm retention basin.

Agency Review

The City of Madera Department of Engineering reviewed the proposed Project and conditions related to streets:

- *The east half of Condor Road along the entire project frontage shall be improved to an 80-foot collector roadway standard. The east half of the street shall include but not be limited to fire*

hydrants, streetlights, curb and gutter, park strip, sidewalk, and a 28-foot paved asphalt section. The west half of the street shall include one permanently paved 12-foot travel lane, one half (6-foot) of a 12-foot center turn lane and a paved 1-foot shoulder and drainage swale; or one 12-foot travel lane, one half (6-foot) of a 12-foot center turn lane and a combination of shoulder/AC dike and drain inlets as may be necessary to accommodate existing and completed project storm runoff. The center three lanes (36-foot total) are eligible for reimbursement through the City's Development Impact Fee program, subject to the availability of funds.

- A 26-foot paved asphalt section with 24-foot striped shall be constructed on Condor Road from the southern property line of the project parcel to Aviation Drive with a minimum 50-foot transition to the full collector roadway or a sufficient length supported through presentation of turning moving templates for the largest anticipated vehicle accessing the site. The paved portion of this improvement, if constructed to permanent structural section, is eligible for reimbursement through the City's Development Impact Fee program, subject to the availability of funds.
- Note, there are existing design drawings for the ultimate road buildout of the west side of Condor Road adjacent to the Madera County Sheriff's building, available upon request.
- An approved off-site turn-around, or cul-de-sac, shall be provided at the end of Condor Road sufficient for fire apparatus turning movements or as may be determined by the Fire Marshal.
- A permanent curb return shall be constructed on the east half of Condor Road at the intersection of Condor Road and Aviation Drive in its ultimate location in accordance with City and ADA Standards.
- Curb access ramps shall be constructed at all curb returns in accordance with current City and ADA standards.
- All proposed drive approaches on Condor Road shall be constructed to street-type entrances in accordance with City and ADA standards with minimum face of curb radii of 15 feet and maximum width of 40 feet to accommodate truck turn movements into the site without impacting egress.
- The driveway approach shall have a minimum throat length of thirty (30) feet from face of curb. The throat length shall be justified based on anticipated operation of the facility and the ability to ensure vehicle queues do not extend into the public right-of-way.
- The developer shall confirm adequate sight distance is provided for vehicles exiting Condor Road at Aviation Drive and provide any necessary mitigation measures if sight distance at this location is insufficient. Mitigation of sight distance concerns may also be addressed through extension of Condor Road north to Yeager Drive. The paved portion of any extension using permanent structural section would be considered reimbursable.
- "No Parking" signs shall be installed along the Condor Road project frontage in accordance with City standards.
- The developer shall install streetlights along the Condor Road project frontage in accordance with current City Standards. Streetlights shall be LED using Beta Lighting standards or equivalent in accordance with City of Madera Standards.

- *The developer shall dedicate a Public Utility Easement 10-feet wide along the entire project parcel frontage on Condor Road. A \$466 fee or the fee in effect at that time for grant easement or deed acceptance shall be paid with the Engineering Department.*
- *The developer shall annex into and execute such required documents that may be required to participate in Landscape Maintenance District Zone 1 for the purpose of participating in the cost of maintaining landscape improvements within said zone.*

SB 743 and Vehicle Miles Traveled

Senate Bill (SB) 743 requires CEQA analysis of transportation impacts be conducted using the Vehicle Miles Traveled (VMT) metric instead of a Level of Service (LOS) metric. The VMT metric became mandatory on July 1, 2020.

CEQA Guidelines

To implement SB 743, the CEQA Guidelines were amended by adding Section 15064.3. According to Section 15064.3, VMT measures the automobile travel generated from a proposed project (i.e., the additional miles driven). Here, 'automobile' refers to on-road passenger vehicles such as cars and light trucks. If a proposed project adds excessive automobile travel on California roads thereby exceeding an applicable threshold of significance, then the project may cause a significant transportation impact.

Among its provisions, Section 15064.3(b) establishes criteria for analyzing transportation impacts. Specifically, Section 15064.3(b) (1) establishes a less than significant presumption for certain land use projects that are proposed within ½-mile of an existing major transit stop or along a high-quality transit corridor. If this presumption does not apply to a land use project, then the VMT can be qualitatively or quantitatively analyzed.

In the case that quantitative models or methods are not available to the lead agency to estimate the VMT for the project being considered, provisions of CEQA Guidelines Section 15064.3(b)(3) permits the lead agency to conduct a qualitative analysis. The qualitative analysis may evaluate factors including but not limited to the availability of transit, proximity to other destinations, and construction traffic.

Lastly, Section 15064.3(b)(4) of the CEQA Guidelines states that “[a] lead agency has discretion to evaluate a project’s vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project’s vehicle miles traveled and may revise those estimates to reflect professional judgment based on substantial evidence. Any assumptions used to estimate vehicle miles traveled and any revision to model outputs should be documented and explained in the environmental document prepared for the project. The standard of adequacy in Section 15151 shall apply to the analysis described in this section.”

OPR’s Technical Advisory

In April 2018, the Governor’s Office of Planning and Research (OPR) issued the *Technical Advisory on Evaluating Transportation Impacts in CEQA* (Technical Advisory) (revised December 2018) to provide technical recommendations regarding VMT, thresholds of significance, and mitigation measures for a variety of land use project types.

Thresholds of Significance

To-date, the lead agency has not set VMT thresholds or policies for which projects are eligible for screening. Therefore, the Project's VMT analysis utilizes OPR's guidance and most appropriate methodology currently available. Screening thresholds are described as follows.

According to OPR's Technical Advisory, lead agencies may use "screening thresholds" to identify when a project should be expected to create a less-than-significant impact without conducting a detailed study. The Technical Advisory suggests the following screening criteria to screen out VMT impacts including project size, maps, transit availability, and provision of affordable housing.

- *Screening Threshold for Small Projects (110 Daily Trips or Less).* Approximately nine (9) employees and two (2) customers are expected to work at and/or visit the facility per day. Assuming one (1) in and one (1) out trip per day, the total average daily trips (ADT) made by automobiles would be 22 total per day. As such, total ADTs for the Project would be significantly less than the 110 ADT threshold.
- *Map-Based Screening for Residential and Office Projects.* The Madera County Transportation Commission has established a VMT screening map. VRPA the traffic consultant²⁷ who assisted with the effort has indicated that this type of project can use the VMT/employee map for industrial, office, or any other use that is employment-related.
- *Presumption of Less than Significant Impact Near Transit Stations.* The Project site is not located within ½-mile of an existing major transit stop or an existing stop along a high-quality transit corridor, and therefore, the presumption of less than significant impact near transit stations is not applicable to the Project.
- *Presumption of Less than Significant Impact for Affordable Residential Development.* The Project does not propose a residential development or affordable residential units and therefore, the presumption of less than significant impact for affordable residential development is not applicable to the Project.

4.17.2 Impact Assessment

a) Would the project conflict with a plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

Less than Significant Impact. The proposed Project would be required to comply with all project-level requirements implemented by a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities, in addition to the Madera County Transportation Commission Active Transportation Plan adopted in May 2018. Based on Engineering comments prepared for the Project, standard improvements are required (See **Agency Review** above) for Condor Road including but not limited to curb, gutter, sidewalk, and paved asphalt which will address the circulation system. The Project is also required to submit improvement plans, including roadway improvements, for review and approval by the City Engineer to ensure improvements would be consistent with City standards. Therefore, through compliance with the programs, plans, ordinances, and policies addressing the circulation system (inclusive of transit, roadway, bicycle, and pedestrian facilities), a less than significant impact would occur because of the Project.

²⁷ E-mail exchange between PCE and Erik O Ruehr, PE, of VRPA on January 28, 2022.

b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3 subdivision (b)?

Less than Significant Impact. Pursuant to CEQA Guidelines Section 15064.3, “vehicle miles traveled” refers to the amount and distance of automobile travel attributable to a project.” The term “automobile” refers to on-road passenger vehicles, specifically cars and light trucks. Thus, trips associated with large trucks are excluded from the VMT analysis and only employee and customer trips must be considered for VMT analysis. Based on the expected customers or drivers resulting from the Project, passenger vehicles can be expected to generate a total of 22 ADTs per day.²⁸ Given that the ADTs will be below the 110 ADT threshold (i.e., OPR’s Screening Threshold for Small Projects), it can be determined that a less than significant impact would occur because of the Project.²⁹ Therefore, the Project would not conflict or be inconsistent with CEQA Guidelines Section 15064 (b).

In addition, the Madera County Transportation Commission has established a screening map to determine if projects impacts related to VMT can be determined less than significant based on proposed use and project location. The map utilized the Madera County Travel Demand Model. According to the VMT Baseline Table³⁰, “The SB743 VMT Tool can be used to calculate VMT per capita by TAZ for a residential development project, or VMT per job by (Transportation Analysis Zone) TAZ for an office development project for SB743 analysis using the MCTC Model outputs. The Madera County subregional baseline VMT per capita/job for the selected TAZ will also be reported for screening purposes.”

According to the above-mentioned document, “VMT per job were generated by home-based work (HW) trips at the attraction ends. Thus, for work VMT we summed up all inbound HW trips to each internal TAZ. The origin-destination (O-D) distances were skimmed off the highway network between each O-D pair in the model including gateway TAZs. For the IX/XI trips, external average trip lengths, per gateway, were added to the skimmed O-D distances. The product of total HW trips and the total O-D distance was the work VMT for that TAZ. The baseline VMT per job for an air basin was calculated by dividing the total work VMT by the total jobs in that air basin.”

As previously mentioned, VRPA the traffic consultant who assisted with the effort has indicated that this type of project can use the VMT/employee map for industrial, office, or any other use that is employment related.

According to the screening map, the proposed project is located in Transportation Analysis Zone (TAZ) 289. TAZ 289 has a total of 10,533 work/employment related vehicle miles traveled with a current employment population of 1,022. This is equivalent to 10.31 VMTs per job, which is more than 15% below the County Average of 16.9 VMTs per job. Given that this is below the identified threshold of significance, it can be determined that a less than significant impact would occur, and the Project would not conflict or be inconsistent with CEQA Guidelines Section 15064 (b).

28 Taking the anticipated employees and visitors per day (11), and assuming one (1) in and one (1) out trip per day, the total average daily trips (ADT) made by passenger vehicles would be 22 total per day.

29 If the VMT analysis considered large trucks, the Project would still generate ADTs below the thresholds. The number of large trucks is anticipated to be between 10 and 15 trucks per day.

30 <https://www.maderactc.org/transportation/page/vehicle-miles-traveled-resources> Accessed February 1, 2022

c) **Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?**

Less than Significant Impact. The Project design does not contain any geometric design features that would create hazards. Implementation of the Project would require the improvement and expansion of the roadway network serving the Project site (i.e., expansion of Condor Road). As discussed under criterion a) above, the Project is subject to standard frontage improvements which would be designed pursuant to applicable federal, state, and local design standards. Compliance with such standards would ensure that any traffic hazards are minimized. Further, the Project is generally consistent with other development in the area because it is similar in nature to surrounding uses (See [Section 4.11](#)). As a result, implementation of the Project would result in a less than significant impact related to hazards due to roadway design features or incompatible uses.

d) **Would the project result in inadequate emergency access?**

Less than Significant Impact. The Project does not involve a change to any emergency response plan. In addition, the City's Engineering Department and Fire Department have reviewed the Project and imposed standard conditions to ensure adequate site access including emergency access. In the case that Project construction requires lane closures, access through Condor Road would be maintained through standard traffic control and therefore, potential lane closures would not affect emergency evacuation plans. Thus, a less than significant impact would occur because of the Project.

4.18 Tribal Cultural Resources

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i) Listed or eligible for listing in the California Register of Historical Resources, or in the local register of historical resources as defined in Public Resources Code section 5020.1(k), or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

4.18.1 Environmental Setting

Generally, the term ‘cultural resources’ describes property types such as prehistoric and historical archaeological sites, buildings, bridges, roadways, and tribal cultural resources. As defined by CEQA, cultural resources are considered “historical resources” that meet criteria in Section 15064.5(a) of the CEQA Guidelines. If a Lead Agency determines that a project may have a significant effect on a historical resource, then the project is determined to have a significant impact on the environment. No further environmental review is required if a cultural resource is not found to be a historical resource.

Assembly Bill 52 (AB 52) requires consultation with California Native American tribes during the CEQA process to determine potential effects of proposed projects on a tribal cultural resource. Pursuant to Public Resources Code (PRC) Section 21080.3.1, the lead agency shall begin consultation with the California Native American tribe that is traditionally and culturally affiliated with the geographical area of the proposed project. Such significant cultural resources are either sites, features, places, cultural landscapes, sacred

places, and objects with cultural value to a tribe which is either on or eligible for inclusion in the California Historic Register or local historic register, or, the lead agency, at its discretion, and support by substantial evidence, choose to treat the resources as a Tribal Cultural Resources (PRC Section 21074(a) (1-2)). According to the most recent census data, California is home to 109 currently recognized Indian tribes. Tribes in California currently have nearly 100 separate reservations or Rancherias.

Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See PRC Section 21083.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per PRC Section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that PRC Section 21082.3(c) contains provisions specific to confidentiality.

Public Resources Code Section 21080.3.1, *et seq.* (codification of AB 52, 2013-14)) requires that a lead agency, within 14 days of determining that it will undertake a project, must notify in writing any California Native American Tribe traditionally and culturally affiliated with the geographic area of the project if that Tribe has previously requested notification about projects in that geographic area. The notice must briefly describe the project and inquire whether the Tribe wishes to initiate request formal consultation. Tribes have 30 days from receipt of notification to request formal consultation. The lead agency then has 30 days to initiate the consultation, which then continues until the parties come to an agreement regarding necessary mitigation or agree that no mitigation is needed, or one or both parties determine that negotiation occurred in good faith, but no agreement will be made. The City of Madera has not received written correspondence from any California Native American Tribe pursuant to Public Resources Code Section 21080.3.1 requesting notification of proposed Projects in the City of Madera.

Record Search

The Southern San Joaquin Valley Information Center (SJVIC) conducted a California Historical Resources Information System (CHRIS) Record Search for the Project site and surrounding area (0.50-mile radius) on October 22, 2021 (SJVIC File Number 21-404). The search results do not show any formally recorded prehistoric or historic archeological resources or historic buildings within the Project area. There is one recorded resource within the 0.5-mile radius, P-20-002308, the Madera Canal. There are no cultural resources within the Project area, or 0.5-mile radius listed in the National Register of Historic Places, the California Register of Historical Resources, the California Points of Historical Interest, California Inventory of Historic Resources, or the California State Historic Landmarks. In addition, no resources that are known to have value to local cultural groups have been formally reported to the SJVIC. The SJVIC Correspondence is provided in [Appendix B](#).

Site Visit

On October 15, 2021, PCE conducted a preliminary site investigation. Field conditions were typical for early fall at the site. The temperature was in the mid-60s during the day. The sky was clear and there was a light breeze. The photos taken during the preliminary site investigation are provided in [Section 4.4](#). From the preliminary site investigation, PCE confirmed that the site contained disced and graded fallow agricultural land that is vacant and undeveloped with no improvements, structures, vegetative cover, trees, or water features.

4.18.2 Impact Assessment

- a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
- i) *Listed or eligible for listing in the California Register of Historical Resources, or in the local register of historical resources as defined in Public Resources Code section 5020.1(k), or*

Less than Significant Impact. As discussed in Section 4.5, the Project site does not contain any known property or site features that are eligible for listing in the California Register of Historical Sources, or in a local register of historical resources as defined in PRC Section 5020.1(k). Nevertheless, there is some possibility that a non-visible, buried site may exist and may be uncovered during ground disturbing construction activities which would constitute a significant impact. Incorporation of Mitigation Measures CUL-1 and CUL-2 (described in Section 4.5) would reduce any potentially significant impacts to less than significant.

- ii) *A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.*

Less than Significant Impact. The Project site has not been determined by the City of Madera to be a significant resource pursuant to Public Resources Code Section 5024.1 and to-date, no substantial information has been provided to the City to indicate otherwise. Further, the Project site, inclusive of site features, is not listed in the California Register of Historical Sources. However, there is some possibility that a non-visible, buried site may exist and may be uncovered during ground disturbing construction activities which would constitute a significant impact. Incorporation of Mitigation Measures CUL-1, CUL-2, and CUL-3 (described in Section 4.5) would reduce any potentially significant impacts to less than significant. In such a case, the California Native American Heritage Commission would also be notified. Thus, if such resources were discovered, implementation of the required condition would further reduce the impact to less than significant. As such, the Project would have a less than significant impact.

4.19 Utilities and Service Systems

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

4.19.1 Environmental Setting

The Project site is within city limits and thus, will be required to connect to water, sewer, stormwater, and wastewater services. Natural gas, electricity, and telecommunications are provided by private companies. Each utility system is described below.

Water

The City of Madera water supply system is described in [Section 4.10](#).

Wastewater

In the City of Madera, wastewater is collected through a network of sanitary sewer collection pipelines ranging from eight (8) to 38 inches in diameter in addition to five (5) sewer lift stations. The influent is gravity-fed to the Wastewater Treatment Plant Facility (WWTF) that is located seven (7) miles west of the

city. Due to topography, the sanitary sewer system is divided into five (5) dendritic sewer collection basins including: Westberry, Schnoor, Fourth Street, Stadium, and Pecan. The Project site is within the Westberry Collection Basin which includes the Airport and two (2) trunk systems – Airport Trunk and Westberry Trunk – which flow into the WWTP. The Airport Lift Station is within the Project area, located southwest of the Project site.

According to the City’s 2014 Sanitary Sewer System Master Plan (SSSMP), the Madera WTP is a 10.1 MGD primary and secondary treatment facility that can accommodate peak dry weather flow up to 15.1 MGD. As of 2014, the WTP operates at an average flow of 5.7 MGD. To estimate the buildout wastewater flows from the City’s Planning Area (i.e., buildout accounted for in the General Plan), the SSSMP utilized unit flow factors based on land use designations. Based on this analysis, the unit factor was increased from 100 to 120 gallons per day per capita (GPDC) to account for large acres of industrial development identified in the General Plan. The SSSMP performed a system capacity evaluation during peak dry weather flows and peak wet weather flows for the existing and buildout flows. Based on the system analysis, there are no needed improvements to mitigate capacity deficiencies in the Project area. Analysis also shows that the Airport Lift Station area, inclusive of the Project site, has an adequate capacity for existing and future buildout flows.

Solid Water

Solid waste recycling and composting services are provided by a private contractor, Mid Valley Disposal. The Madera General Plan outlines goals and policies for source reduction and recycling including the following policies listed below.

Circulation and Infrastructure Policy CI-62: *The City will promote solid waste source reduction, reuse, recycling, composting and environmentally safe transformation of waste. The City will seek to comply with the requirements of AB 939 with regard to meeting state mandated targets for reductions in the amount of solid waste generated in Madera.*

Circulation and Infrastructure Policy CI-63: *The City itself will be a leader in promoting waste reduction and recycling through a variety of means when feasible, including:*

- *Adopting requirements for the use of recycled base materials (e.g., recycled raw batch materials, rubberized asphalt from recycled tires, and other appropriate materials), if practicable, in requests for bids for public roadway construction projects.*
- *Procurement policies and procedures, which facilitate purchase of recycled, recyclable, or reusable products and materials where feasible.*
- *Requiring contractors to provide products and services to the City, including printing services, demonstrating that they will comply with the City’s recycled materials policies.*

Circulation and Infrastructure Policy CI-64: *The City supports efforts to provide solid waste resource recovery facilities and household hazardous waste collection facilities convenient to residences, businesses, and industries.*

Circulation and Infrastructure Policy CI-65: *The City will promote waste diversion and material recycling in private development, business and operations, and will encourage businesses or nonprofit entities to provide source reduction services.*

Stormwater

The City of Madera storm drainage system is described in [Section 4.10](#).

Natural Gas and Electricity

PG&E, the natural gas and electric service provider for the area, incrementally expands and updates its service system as needed to serve its users.

Telecommunications

Accordingly, telecommunications providers in the area incrementally expand and update their service systems in response to usage and demand.

Agency Review

The City of Madera Department of Engineering reviewed the proposed Project and conditions related to water, sewer, and stormwater (See [Section 4.10](#)). The City also provided conditions relating to dry utilities: *“All existing and proposed public utilities (electric, telephone, cable, etc.) shall be undergrounded, except transformers, which may be mounted on pads. Public utility easements shall be dedicated outside and adjacent to all streets rights-of-way. All public utilities within the project property and adjacent to the project property frontage on peripheral streets (on the development side of the street centerline) shall be placed underground except those facilities exempted by the Public Utilities Commission Regulations or operating at 70,000 volts or greater.”*

4.19.2 Impact Assessment

- a) **Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?**

Less than Significant Impact. The Project site is within city limits and thus, will be required to connect to water, stormwater, solid waste, and wastewater services. Natural gas, electricity, and telecommunications are provided by private companies. The City and responsible agencies have reviewed the Project to determine adequate capacity in these systems and ensure compliance with applicable connection requirements. In addition to connections to water, stormwater, solid waste, and wastewater services, the Project will be served by PG&E for natural gas and electricity and by the appropriate telecommunications provider for the Project area. Overall, the review of the Project by the City and responsible agencies indicates that the Project would not require or result in the relocation or construction of new or expanded facilities and as such, would not cause significant environmental effects. Through compliance with the applicable connection requirements, a less than significant impact would occur as a result of the Project.

- b) **Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?**

Less than Significant Impact. As discussed in detail in [Section 4.10](#), groundwater is the sole source of water supply for the City. Groundwater is supplied through 18 active wells that pump from the Madera Subbasin of the San Joaquin groundwater basin directly into the City's distribution system. Management and

sustainability of groundwater supplies is discussed in the Madera Subbasin GSP, Madera Regional GMP, UWMP, and WSMP.

Anticipated buildout of the proposed Project would increase water demands within the area and would encourage the need for sustainable water sources. Because the Project is within city limits, it will be required to connect to water and stormwater services as provided by the City. As a new connection, the Project is required to comply with Chapter 5 of the MMC to meet water efficiency standards. Additionally, adherence to connection requirements and recommendations pursuant to the City's water supply planning efforts (i.e., compliance with California Plumbing Code, efficient appliances, efficient landscaping, etc.) should not negatively impact the City's water provision.

Furthermore, because the Project has been previously accounted for and analyzed within the General Plan and the City's system master plans (i.e., WSMP and SDSMP), it can be presumed that the existing and planned water distribution system and supplies should be adequate to serve the Project and future development during normal, dry, and multiple dry years, and the Project would thereby not interfere substantially with groundwater supplies. For these reasons, the Project would not decrease groundwater supplies would thereby have a less than significant impact.

c) Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Less than Significant Impact. The Project site is within the Westberry Collection Basin which includes the Airport and two (2) trunk systems – Airport Trunk and Westberry Trunk – which flow into the WWTP. The Airport Lift Station is within the Project area, located southwest of the Project site. According to the capacity analysis performed in the SSSMP for existing and buildout flows, there are no needed improvements to mitigate capacity deficiencies in the Project area. Analysis also shows that the Airport Lift Station area, inclusive of the Project site, has an adequate capacity for existing and future buildout flows. The unit flow factors utilized for the analyses were based on land use designations accounted for in the General Plan. Therefore, because the Project is consistent with the planned land use designation previously accounted for in the General Plan, it can be determined that the City's sanitary sewer system has adequate capacity to serve the Project's projected demand in addition to the existing commitments. As such, the Project would have a less than significant impact.

d) Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less than Significant Impact. The Project would be required to comply with Madera Municipal Code, Title V: Sanitation and Health, Chapter 3: Garbage, Refuse, and Recycling, which outlines requirements and specifications for solid waste collection. For construction and demolition recycling, the Project would be subject to compliance with Madera Municipal Code *Section 5-3.30*: Construction and Demolition Debris Recycling which is in accordance with Assembly Bill (AB) 939 and the California Green Building Code (CALGreen). Compliance with these measures and policies would serve to reduce impacts of solid waste by promoting regular collection and encouraging the recycling of materials. For this reason, the Project would have a less than significant impact.

e) **Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?**

Less than Significant Impact. As described under criterion d) above, Project construction and operations would not generate substantial amounts of solid waste and thus, the Project would not conflict with any federal, state, and local management and reduction statutes and regulations related to solid waste. Further, the Project would be subject to compliance with existing statutes and regulations by the City, state, or federal law. Therefore, the Project would have a less than significant impact.

4.20 Wildfire

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrollable spread of wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.20.1 Environmental Setting

The Project site is located on a relatively flat property within the City limits in an area planned for and developed with urban uses, including industrial and commercial uses. In addition, the site nor the City of Madera are identified by the California Department of Forestry and Fire Protection (Cal Fire) as being in a “Very High Fire Hazard Severity Zone” (VHFHSZ). Rather, the City inclusive of the Project site are located in an “area of local responsibility” that is considered to be an area of low fire risk.³¹ Lastly, the Project would be required to be developed and operate in compliance with all regulations of the current California Fire Code.

4.20.2 Impact Assessment

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

No Impact. The Project site is not located in or near state responsibility areas or lands classified as very high fire severity zones, rather the site is within an “area of local responsibility” that is considered to be an area

³¹ Cal Fire, “FHSZ Viewer.” Accessed on November 4, 2021, <https://egis.fire.ca.gov/FHSZ/>

of low fire risk. Further, development of the Project would not impair access to the existing roadway network and therefore would not impact circulation and emergency vehicle access for the site and surrounding properties. The Project proposes access from an extended Condor Road to Aviation Drive to the south, safe and convenient vehicular and pedestrian circulation on site, and adequate access for emergency vehicles as required by the City. Therefore, by providing safe access to and from the site, the Project would not substantially impair any emergency response plan and no impact would occur as a result of the Project.

b) Due to slope, prevailing winds, and other factors exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

No Impact. The Project site is not located in or near state responsibility areas or lands classified as very high fire severity zones, rather the site is within an “area of local responsibility” that is considered to be an area of low fire risk. Further, the Project site is located on a relatively flat property with minimal slope and is not in an area that is subject to strong prevailing winds or other factors that would exacerbate wildfire risks. For these reasons, no impact would occur as a result of this Project.

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

No Impact. The Project site is not located in or near state responsibility areas or lands classified as very high fire severity zones, rather the site is within an “area of local responsibility” that is considered to be an area of low fire risk. Further, the Project site is located within city limits in an area planned for future development. As a result of ongoing development, infrastructure such as roads and utilities will be installed and maintained accordingly. The Project itself would result in installation and maintenance of new infrastructure that has been reviewed and/or conditioned by the City. Through compliance with regulations and conditions, such infrastructure would not exacerbate fire risk or result in temporary or ongoing impacts to the environment and no impact would occur as a result of the Project.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

No Impact. The Project site is not located in or near state responsibility areas or lands classified as very high fire severity zones, rather the site is within an “area of local responsibility” that is considered to be an area of low fire risk. The Project site is located on a relatively flat property with minimal slope and is not subject to downslope, downstream flooding, or landslides. Therefore, the Project would not expose people or structures to significant risks and no impact would occur as a result of the Project.

4.21 CEQA Mandatory Findings of Significance

Does the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

4.21.1 Impact Assessment

- a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less than Significant Impact with Mitigation Incorporated. The analyses of environmental issues contained in this Initial Study indicate that the Project is not expected to have substantial impact on the environment or on any resources identified in the Initial Study. Standard requirements that will be implemented through the entitlement process and the mitigation monitoring and reporting program with mitigation measures that have been incorporated in the project to reduce all potentially significant impacts to less than significant. Therefore, the Project would have a less than significant impact.

- b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are

considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

Less than Significant Impact. CEQA Guidelines Section 15064(i) states that a Lead Agency shall consider whether the cumulative impact of a project is significant and whether the effects of the project are cumulatively considerable. The assessment of the significance of the cumulative effects of a project must, therefore, be conducted in connection with the effects of past projects, other current projects, and probable future projects. Due to the nature of the Project and consistency with environmental policies, incremental contributions to impacts are considered less than cumulatively considerable. All Project-related impacts were determined to be less than significant inclusion of mitigation measures. The Project would not contribute substantially to adverse cumulative conditions, or create any substantial indirect impacts (i.e., increase in population could lead to an increased need for housing, increase in traffic, air pollutants, etc.). As such, Project impacts are not considered to be cumulatively considerable given the effective mitigants proposed to ensure less than significant impacts. The impact is therefore less than significant.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less than Significant Impact. The analyses of environmental issues contained in this Initial Study indicate that the project is not expected to have substantial impact on human beings, either directly or indirectly. Standard requirements and conditions have been incorporated in the project to reduce all potentially significant impacts to less than significant. Therefore, the Project would have a less than significant impact.

Chapter 5 Mitigation Monitoring and Reporting Program

This Mitigation Monitoring and Reporting Program (MMRP) has been formulated based upon the findings of the Initial Study/Mitigated Negative Declaration (IS/MND) for the Amond World Cold Storage Warehouse (SDP 2021-041) in the City of Madera. The MMRP lists mitigation measures recommended in the IS/MND for the Project and identifies monitoring and reporting requirements.

Table presents the mitigation measures identified for the proposed Project. Each mitigation measure is numbered with a symbol indicating the topical section to which it pertains, a hyphen, and the impact number.

The first column of **Table** identifies the mitigation measure. The second column, entitled “When Monitoring is to Occur,” identifies the time the mitigation measure should be initiated. The third column, “Frequency of Monitoring,” identifies the frequency of the monitoring of the mitigation measure. The fourth column, “Agency Responsible for Monitoring,” names the party ultimately responsible for ensuring that the mitigation measure is implemented. The last columns will be used by the City of Madera to ensure that individual mitigation measures have been complied with and monitored.

Table 5-1 Mitigation Monitoring and Reporting Program

Mitigation Monitoring and Reporting Program					
Mitigation Measure/Condition of Approval	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance
Biological Resources					
<p>Mitigation Measure BIO-1.1: 14 days prior to Project activities, a pre-construction survey shall be conducted by a qualified biologist knowledgeable in the identification of burrowing owls. The pre-construction survey shall include walking transects to identify presence of burrowing owls and their burrows. For burrowing owls, the transects shall be spaced at no greater than 30-foot intervals to obtain a 100 percent coverage of the Project site and a 250-foot buffer.</p> <ol style="list-style-type: none"> 1. If no evidence of this species is detected, no further action is required. 2. If dens or burrows that could support these species are discovered during the pre-construction survey, avoidance buffers outlined below shall be established. Unless a qualified biologist approves and monitors development activity, no work shall occur within these buffers. 	14 days prior to Project Construction	Prior to and During Project Construction	City of Madera	Review of Documentation Submittal	

Mitigation Monitoring and Reporting Program					
Mitigation Measure/Condition of Approval	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance
Burrowing Owl (active burrows): <ol style="list-style-type: none"> a. Non-breeding season (September 1 to January 31): 160 feet b. Breeding season (February 1 to August 31): 250 feet 					
Mitigation Measure BIO-1.2: If Project activities must occur during the nesting season (February 1 to September 15), pre-activity nesting bird surveys shall be conducted within seven (7) days prior to the start of construction on the construction site and a 500-foot buffer for raptors (other than Swainson’s hawk). <ol style="list-style-type: none"> 1. If no active nests are found, no further action is required. However, existing nests may become active, and new nests may be built at any time prior to and throughout the nesting season, including when construction activities are in progress. 2. If active nests are found during the survey or at any time during construction of the Project, an avoidance 	7 days prior to Project Construction	Prior to and During Project Construction	City of Madera	Review of Documentation Submittal	

Mitigation Monitoring and Reporting Program					
Mitigation Measure/Condition of Approval	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance
buffer ranging from 50 feet to 500 feet may be required, with the avoidance buffer from any specific nest being determined by a qualified biologist. The avoidance buffer will remain in place until the biologist has determined that the young are no longer reliant on the adults or the nest. Work may occur within the avoidance buffer under the approval and guidance of the biologist, but full-time monitoring may be required. The biologist shall have the ability to stop construction if nesting adults show any sign of distress.					
Mitigation Measure BIO-1.3: If Project activities must occur during the Swainson's hawk nesting season (February 15 to August 31), pre-construction surveys shall be conducted for Swainson's hawk nests in accordance with the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's	Prior to Project Construction	Prior to and During Project Construction	City of Madera	Review of Documentation Submittal	

Mitigation Monitoring and Reporting Program					
Mitigation Measure/Condition of Approval	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance
<p>Central Valley, Swainson’s Hawk Technical Advisory Committee (CDFG, 2000). The surveys would be conducted on the Project site plus a 0.5-mile buffer. To meet the minimum level of protection for the species, surveys shall be conducted during at least two survey periods.</p> <ol style="list-style-type: none"> 1. If no Swainson’s hawk nests are found, no further action is required. 2. If an active Swainson’s hawk nest is discovered at any time within 0.5 miles of active construction, a qualified biologist shall complete an assessment of the potential for current construction activities to impact the nest. The assessment would consider the type of construction activities, the location of construction relative to the nest, the visibility of construction activities from the nest location, and other existing disturbances in the area that are not related to the construction activities of this Project. Based on this assessment, the 					

Mitigation Monitoring and Reporting Program					
Mitigation Measure/Condition of Approval	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance
<p>biologist will determine if construction activities can proceed and the level of nest monitoring required. Construction activities shall not occur within 500 feet of an active nest, but this distance may be reduced depending upon conditions at the site. Full-time monitoring to evaluate the effects of construction activities on nesting Swainson’s hawks may be required. The qualified biologist shall have the authority to stop work if it is determined that Project construction is disturbing the nest. These buffers may need to increase depending on the sensitivity of the nesting Swainson’s hawk to disturbances and at the discretion of the qualified biologist.</p>					
Cultural Resources					

Mitigation Monitoring and Reporting Program					
Mitigation Measure/Condition of Approval	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance
Mitigation Measure CUL-1: “The Planning Department shall be notified immediately if any prehistoric, archaeological, or fossil artifact or resource is uncovered during construction. All construction must stop and an archaeologist that meets the Secretary of the Interior’s Professional Qualifications Standards in prehistoric or historical archaeology shall be retained to evaluate the finds and recommend appropriate action.”	During Project Construction	During Project Construction	City of Madera	Review of Documentation Submittal	
Mitigation Measure CUL-2: “All construction must stop if any human remains are uncovered, and the County Coroner must be notified according to Section 7050.5 of California’s Health and Safety Code. If the remains are determined to be Native American, the procedures outlined in CEQA Section 15064.5 (d) and (e) shall be followed.”	During Project Construction	During Project Construction	City of Madera	Review of Documentation Submittal	
Mitigation Measure CUL-3: “All construction must stop if any human remains are uncovered, and the County Coroner must be notified according to Section 7050.5 of California’s Health	During Project Construction	During Project Construction	City of Madera	Review of Documentation Submittal	

Mitigation Monitoring and Reporting Program					
Mitigation Measure/Condition of Approval	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance
and Safety Code. In the event of discovery or recognition of any human remains, Public Resources Code Section 5097.98 must be followed. If the remains are determined to be Native American, the procedures outlined in CEQA Section 15064.5 (d) and (e) shall be followed.”					
Geology and Soils					
<p>Mitigation Measure GEO-1: “Subsequent to a preliminary City review of the project grading plans, a soils report, inclusive of information on expansive soils, shall be conducted. The following procedures shall be followed:</p> <ul style="list-style-type: none"> • If expansive soils are not found, excavation and/or construction activities can commence. • If there is evidence that the Project site includes expansive soils, foundations for buildings and structures founded on expansive soils shall be designed in accordance with IBC Section 	Prior to Project Construction	Prior to Project Construction	City of Madera	Review of Documentation Submittal	

Mitigation Monitoring and Reporting Program					
Mitigation Measure/Condition of Approval	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance
1808.6.1 or 1808.6.2 unless 1) the expansive soil is removed in accordance with Section 1808.6.3 or 2) the building official approves stabilization of the soil in accordance with Section 1808.6.4.”					
Hydrology					
Mitigation Measure HYD-1: Prior to issuing of grading or building permits, if required, (a) the Project applicant shall submit to the Lead Agency (1) the approved Storm Water Pollution Prevention Plan (SWPPP) and (2) the Notice of Intent (NOI) to comply with the General National Pollutant Discharge Elimination System (NPDES) from the Central Valley Regional Water Quality Control Board. The requirements of the SWPPP and NPDES shall be incorporated into design specifications and construction contracts.	Prior to issuing of grading or building permits	Prior to Project Construction	City of Madera	Review of Documentation Submittal	
Noise					
Mitigation Measure NOISE-1: Truck movements should not occur along the north side of the building,	During Project Operations	During Project Operations	City of Madera	Developer to provide (or comply), City of Madera to verify	

Mitigation Monitoring and Reporting Program					
Mitigation Measure/Condition of Approval	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance
between the nighttime hours of 10:00 p.m. to 7:00 a.m.					
<p>Mitigation Measure NOISE-2: Per the City of Madera Municipal Code, construction activities should not occur outside the hours of 6:00 a.m. to 8:00 p.m.</p> <p>All construction equipment shall be properly maintained and muffled as to minimize noise generation at the source.</p> <p>Noise-producing equipment shall not be operating, running, or idling while not in immediate use by a construction contractor.</p> <p>All noise-producing construction equipment shall be located and operated, to the extent possible, at the greatest possible distance from any noise-sensitive land uses.</p> <p>Locate construction staging areas, to the extent possible, at the greatest possible distances from any noise-sensitive land uses.</p> <p>Signs shall be posted at the construction site and near adjacent sensitive receptors displaying</p>	During Project Construction	During Project Construction	City of Madera	Developer to provide (or comply), City of Madera to verify	

Mitigation Monitoring and Reporting Program					
Mitigation Measure/Condition of Approval	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance
hours of construction activities and providing the contact phone number of a designated noise disturbance coordinator.					

Appendix A

Air Quality, Health Risk Analysis, and Greenhouse Gas Technical Memo

An Air Quality, Health Risk Analysis, and Greenhouse Gas Technical Memorandum was prepared for the proposed Project by Johnson Johnson and Miller Air Quality Consulting Services on February 8, 2022.

To: VR Design, Inc.
Attn: Hari Viswanathan, President
231 Market Place #255
San Ramon, CA 94582
Hari.viswanathan@vrdesignusa.com

From: Johnson Johnson and Miller Air Quality
Consulting Services
Contact: Richard Miller, Air Quality and
Climate Change Specialist
rmiller.jjm.environmental@gmail.com
kjohnson.jjm.environmental@gmail.com

Origo Cold Madera, LLC Secured Temperature Controlled Nuts Storage Facility

Date: February 8, 2022

Subject: Air Quality, Health Risk Analysis, and Greenhouse Gas Technical Memorandum

This Air Quality, Health Risk Analysis, and Greenhouse Gas Technical Memorandum was prepared to evaluate whether the estimated criteria air pollutant, ozone precursor, toxic air contaminant (TAC), and/or greenhouse gas (GHG) emissions generated from construction and/or operation of the Origo Cold Madera, LLC Secured Temperature Controlled Nuts Storage Facility (proposed project or project) would cause significant impacts to air or GHG resources. The methodology follows the Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI) prepared by the San Joaquin Valley Air Pollution Control District (SJVAPCD) for the quantification of emissions and evaluation of potential impacts to air resources.¹ The GHG Analysis follows and the SJVAPCD's Guidance for Valley Land-Use Agencies in Addressing GHG Emission Impacts for New Projects under the California Environmental Quality Act (CEQA).²

Project Location and Description

The project would consist of two (2) phases to occupy two (2) parcels that total 30.16 acres located on the westside of Golden State Boulevard between Avenue 16 and Avenue 17 in Madera, CA (APNs 013-200-004 and 013-200-005). Phase I involves the construction of a refrigerated warehouse and storage facility totaling 254,016 square feet on the parcel identified as APN 013-200-005. Phase II would include a 250,000-square-foot warehouse and storage facility on the adjoining parcel to the east identified as APN 013-200-004 and would include a ground mount solar PV array. An on-site stormwater retention basin is proposed to be constructed under Phase I and would be sized to accommodate total buildout of the project.

The project's location and site plan are included as part of Attachment A.

¹ San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. Guidance for Assessing and Mitigating Air Quality Impacts. February 19. Website: <https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF>. Accessed February 6, 2022.

² San Joaquin Valley Air Pollution Control District (SJVAPCD). 2009. Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA. December 17. Website: <https://www.valleyair.org/Programs/CCAP/12-17-09/3%20CCAP%20-%20FINAL%20LU%20Guidance%20-%20Dec%2017%202009.pdf>. Accessed September 20, 2021.

Modeling Parameters and Assumptions

The following modeling parameters and assumptions were used to generate criteria air pollutant, GHG, and TAC emissions for the proposed project.

Air Pollutants and GHGs Assessed

Criteria Pollutants Assessed

The following criteria air pollutants were assessed in this analysis: reactive organic gases (ROG),³ oxides of nitrogen (NO_x), carbon monoxide (CO), sulfur dioxide (SO₂), particulate matter less than 10 microns in diameter (PM₁₀), and particulate matter less than 2.5 microns in diameter (PM_{2.5}). Note that the proposed project would emit ozone precursors ROG and NO_x. However, the proposed project would not directly emit ozone since it is formed in the atmosphere during the photochemical reaction of ozone precursors.

General descriptions and most relevant effects from pollutant exposure of the criteria pollutants of concern are listed below.

Table 1: Descriptions of Criteria Pollutants of Concern

Criteria Pollutant	Physical Description and Properties	Sources	Most Relevant Effects from Pollutant Exposure
Ozone	Ozone is a photochemical pollutant as it is not emitted directly into the atmosphere, but is formed by a complex series of chemical reactions between volatile organic compounds (VOC), nitrous oxides (NO _x), and sunlight. Ozone is a regional pollutant that is generated over a large area and is transported and spread by the wind.	Ozone is a secondary pollutant; thus, it is not emitted directly into the lower level of the atmosphere. The primary sources of ozone precursors (VOC and NO _x) are mobile sources (on-road and off-road vehicle exhaust).	Irritate respiratory system; reduce lung function; breathing pattern changes; reduction of breathing capacity; inflame and damage cells that line the lungs; make lungs more susceptible to infection; aggravate asthma; aggravate other chronic lung diseases; cause permanent lung damage; some immunological changes; increased mortality risk; vegetation and property damage.
Particulate matter (PM ₁₀) Particulate matter (PM _{2.5})	Suspended particulate matter is a mixture of small particles that consist of dry solid fragments, droplets of water, or solid cores with liquid coatings. The particles vary in shape, size, and composition. PM ₁₀ refers to particulate matter that is between 2.5 and 10 microns in diameter, (one micron is one-millionth of a meter). PM _{2.5} refers to particulate matter that is 2.5 microns or less in diameter, about one-thirtieth	Stationary sources include fuel or wood combustion for electrical utilities, residential space heating, and industrial processes; construction and demolition; metals, minerals, and petrochemicals; wood products processing; mills and elevators used in agriculture; erosion from tilled lands; waste disposal, and recycling.	<ul style="list-style-type: none"> Short-term exposure (hours/days): irritation of the eyes, nose, throat; coughing; phlegm; chest tightness; shortness of breath; aggravate existing lung disease, causing asthma attacks and acute bronchitis; those with heart disease can suffer heart attacks and arrhythmias. Long-term exposure: reduced lung function; chronic

³ Note: Although there are slight differences in the definition of ROGs and VOCs, the two terms are often used interchangeably. VOC = volatile organic compounds

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Criteria Pollutant	Physical Description and Properties	Sources	Most Relevant Effects from Pollutant Exposure
	the size of the average human hair.	Mobile or transportation related sources are from vehicle exhaust and road dust. Secondary particles form from reactions in the atmosphere.	bronchitis; changes in lung morphology; death.
Nitrogen dioxide (NO ₂)	During combustion of fossil fuels, oxygen reacts with nitrogen to produce nitrogen oxides—NO _x (NO, NO ₂ , NO ₃ , N ₂ O, N ₂ O ₃ , N ₂ O ₄ , and N ₂ O ₅). NO _x is a precursor to ozone, PM ₁₀ , and PM _{2.5} formation. NO _x can react with compounds to form nitric acid and related small particles and result in particulate matter (PM) related health effects.	NO _x is produced in motor vehicle internal combustion engines and fossil fuel-fired electric utility and industrial boilers. Nitrogen dioxide forms quickly from NO _x emissions. NO ₂ concentrations near major roads can be 30 to 100 percent higher than those at monitoring stations.	Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; contributions to atmospheric discoloration; increased visits to hospital for respiratory illnesses.
Carbon monoxide (CO)	CO is a colorless, odorless, toxic gas. CO is somewhat soluble in water; therefore, rainfall and fog can suppress CO conditions. CO enters the body through the lungs, dissolves in the blood, replaces oxygen as an attachment to hemoglobin, and reduces available oxygen in the blood.	CO is produced by incomplete combustion of carbon-containing fuels (e.g., gasoline, diesel fuel, and biomass). Sources include motor vehicle exhaust, industrial processes (metals processing and chemical manufacturing), residential wood burning, and natural sources.	Ranges depending on exposure: slight headaches; nausea; aggravation of angina pectoris (chest pain) and other aspects of coronary heart disease; decreased exercise tolerance in persons with peripheral vascular disease and lung disease; impairment of central nervous system functions; possible increased risk to fetuses; death.
Sulfur dioxide (SO ₂)	Sulfur dioxide is a colorless, pungent gas. At levels greater than 0.5 parts per million (ppm), the gas has a strong odor, similar to rotten eggs. Sulfur oxides (SO _x) include sulfur dioxide and sulfur trioxide. Sulfuric acid is formed from sulfur dioxide, which can lead to acid deposition and can harm natural resources and materials. Although sulfur dioxide concentrations have been reduced to levels well below state and federal standards, further reductions are desirable because sulfur dioxide is a precursor to sulfate and PM ₁₀ .	Human caused sources include fossil-fuel combustion, mineral ore processing, and chemical manufacturing. Volcanic emissions are a natural source of sulfur dioxide. The gas can also be produced in the air by dimethyl sulfide and hydrogen sulfide. Sulfur dioxide is removed from the air by dissolution in water, chemical reactions, and transfer to soils and ice caps. The sulfur dioxide levels in the State are well below the maximum standards.	Bronchoconstriction accompanied by symptoms which may include wheezing, shortness of breath and chest tightness, during exercise or physical activity in persons with asthma. Some population-based studies indicate that the mortality and morbidity effects associated with fine particles show a similar association with ambient sulfur dioxide levels. It is not clear whether the two pollutants act synergistically or one pollutant alone is the predominant factor.
Source: U.S. Environmental Protection Agency (EPA). Criteria Air Pollutants. Website: https://www.epa.gov/criteria-air-pollutants . Accessed December 30, 2021.			

GHGs Assessed

This analysis was restricted to GHGs identified by AB 32, which include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF₆), and nitrogen trifluoride (NF₃). The proposed project would generate a variety of GHGs, including several defined by AB 32 such as CO₂, CH₄, and N₂O.

Water vapor could be emitted from evaporated water used for landscaping and other uses, but this is not a significant impact because water vapor concentrations in the upper atmosphere are primarily due to climate feedbacks rather than emissions from project-related activities.

Ozone is a GHG; however, unlike the other GHGs, ozone in the troposphere is relatively short-lived and can be reduced in the troposphere on a daily basis. Stratospheric ozone can be reduced through reactions with other pollutants.

Certain GHGs defined by AB 32 would not be emitted by the project. Perfluorocarbons and sulfur hexafluoride are typically used in industrial applications, none of which would be used by the project. Therefore, it is not anticipated that the project would emit perfluorocarbons or sulfur hexafluoride.

GHG emissions associated with the proposed project construction as well as future operations were estimated using CO₂ equivalent (CO_{2e}) emissions as a proxy for all GHG emissions. In order to obtain the CO_{2e}, an individual GHG is multiplied by its Global Warming Potential (GWP). The GWP designates on a pound for pound basis the potency of the GHG compared to CO₂.

Toxic Air Contaminants Assessed

Toxic Air Contaminants

A TAC is defined as an air pollutant that may cause or contribute to an increase in mortality or serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations.

The California Almanac of Emissions and Air Quality—2009 Edition presents the relevant concentration and cancer risk data for the ten TACs that pose the most substantial health risk in California based on available data.⁴ The ten TACs are acetaldehyde, benzene, 1,3-butadiene, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, perchloroethylene, and diesel particulate matter (DPM).

Some studies indicate that DPM poses the greatest health risk among the TACs listed above. A 10-year research program demonstrated that DPM from diesel-fueled engines is a human carcinogen and that chronic (long-term) inhalation exposure to DPM poses a chronic health risk.⁵ In addition to increasing the risk of lung cancer, exposure to diesel exhaust can have other health effects. Diesel exhaust can irritate the eyes, nose, throat, and lungs, and it can cause coughs, headaches, lightheadedness, and nausea. Diesel exhaust is a major source of fine particulate pollution as well, and studies have linked elevated particle levels in the air to increased hospital admissions, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems.

⁴ California Air Resources Board (CARB). 2009. The California Almanac of Emissions and Air Quality—2009 Edition. Website: <https://www.arb.ca.gov/aqd/almanac/almanac09/almanac2009.all.pdf>.

⁵ California Air Resources Board (CARB). 1998. The Toxic Air Contaminant Identification Process: Toxic Air Contaminant Emissions from Diesel-fueled Engines. Website: www.arb.ca.gov/toxics/dieseltac/factsht1.pdf.

DPM

For purposes of this study, DPM exhaust emissions are represented as PM₁₀.

The project would generate passenger vehicle and truck trips from employees, visitors, deliveries, and service vehicles traveling to and from the project site. The main source of DPM from the long-term operations of the proposed project would be from combustion of diesel fuel in diesel-powered engines in on-road trucks, while additional DPM would be emitted from on-site equipment. On-site motor vehicle emissions refer to DPM exhaust emissions from the motor vehicle traffic that would travel and idle within the project site each day.

Asbestos

Asbestos is the name given to a number of naturally occurring fibrous silicate minerals that have been mined for their useful properties such as thermal insulation, chemical and thermal stability, and high tensile strength. The three most common types of asbestos are chrysotile, amosite, and crocidolite. Chrysotile, also known as white asbestos, is the most common type of asbestos found in buildings. Chrysotile makes up approximately 90 to 95 percent of all asbestos contained in buildings in the United States. Exposure to asbestos is a health threat; exposure to asbestos fibers may result in health issues such as lung cancer, mesothelioma (a rare cancer of the thin membranes lining the lungs, chest, and abdominal cavity), and asbestosis (a non-cancerous lung disease that causes scarring of the lungs). Exposure to asbestos can occur during demolition or remodeling of buildings that were constructed prior to the 1977 ban on asbestos for use in buildings. Exposure to naturally occurring asbestos can occur during soil-disturbing activities in areas with deposits present.

Model Selection

Air pollutant emissions can be estimated by using emission factors and a level of activity. Emission factors are the emission rate of a pollutant given the activity over time; for example, grams of NO_x per horsepower-hour. CARB has published emission factors for on-road mobile vehicles/trucks in the EMFAC mobile source emissions model and emission factors for off-road equipment and vehicles in the OFFROAD emissions model. An air emissions model (or calculator) combines the emission factors and the various levels of activity and outputs the emissions for the various pieces of equipment.

The project is located in Madera and within the San Joaquin Valley Air Basin. The modeling follows SJVAPCD guidance where applicable from its GAMAQI. The models used in this analysis are summarized as follows:

- Construction emissions: CalEEMod, version 2020.4.0
- Operational emissions: CalEEMod, version 2020.4.0
- EMFAC 2017
- American Meteorological Society/ Environmental Protection Agency Regulatory Model (AERMOD), version 21112

Criteria Pollutants and GHG Emissions

The California Emissions Estimator Model (CalEEMod) is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and GHG emissions associated with both construction and operations from a variety of land use projects. CalEEMod quantifies direct emissions from construction and operation activities (including vehicle use), as well as indirect emissions, such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and

water use. Further, CalEEMod identifies mitigation measures to reduce criteria pollutant and GHG emissions along with calculating the benefits achieved from measures chosen by the user.

CalEEMod was developed for the California Air Pollution Control Officers Association (CAPCOA) in collaboration with the California Air Districts. Default data (e.g., emission factors, trip lengths, meteorology, source inventory, etc.) have been provided by the various California Air Districts to account for local requirements and conditions.

CalEEMod is a comprehensive tool for quantifying air quality impacts from land use projects located throughout California. The model can be used for a variety of situations where an air quality analysis is necessary or desirable such as preparing CEQA or National Environmental Policy Act documents, conducting pre-project planning, and, verifying compliance with local air quality rules and regulations, etc.

CalEEMod version CalEEMod.2020.4.0 was used to estimate construction and operational impacts of the proposed project. CalEEMod version was the most recent version of CalEEMod at the time emissions were estimated.

Assumptions

Construction Modeling Assumptions

Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation, and prevailing weather conditions. Construction emissions result from on-site and off-site activities. On-site emissions principally consist of exhaust emissions from the activity levels of heavy-duty construction equipment, motor vehicle operation, and fugitive dust (mainly PM₁₀) from disturbed soil. Additionally, paving operations and application of architectural coatings would release VOC emissions. Off-site emissions are caused by motor vehicle exhaust from delivery vehicles, worker traffic, and road dust (PM₁₀ and PM_{2.5}).

Schedule

CalEEMod includes default equipment lists and construction schedules. Where project-specific information was unknown, CalEEMod default values were used.

Table 2 shows the conceptual construction schedule for the proposed project. The construction schedule utilized in the analysis represents a “worst-case” analysis scenario, since emission factors for construction equipment decrease as the analysis year increases due to improvements in technology and more stringent regulatory requirements. Therefore, construction emission estimates would decrease if the construction schedule moved to later years. The duration of construction activity and associated equipment represent a reasonable approximation of the expected construction fleet as required per CEQA guidelines. The site-specific construction fleet may vary due to specific project needs at the time of construction.

Table 2: Project Construction Schedule

Construction Task	Start Date	End Date	Workdays	Notes
Phase 1				
Site Preparation	3/7/2022	3/18/2022	10	
Grading	3/19/2022	4/29/2022	30	
Paving	4/30/2022	5/27/2022	20	

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Construction Task	Start Date	End Date	Workdays	Notes
Building Construction	5/28/2022	2/19/2023	190	Adjusted to match applicant-provided schedule
Architectural Coating	2/20/2023	3/17/2023	20	
Phase 2				
Site Preparation	3/18/2023	3/31/2023	10	
Grading	4/1/2023	5/12/2023	30	
Paving	5/13/2023	6/9/2023	20	
Building Construction	6/10/2023	2/19/2024	181	Adjusted to match applicant-provided schedule
Architectural Coating	2/20/2024	3/18/2024	20	
Source: CalEEMod Output and Additional Supporting Information (Attachment A).				

Equipment

Construction equipment for each construction activity is shown in Table 3. Where the construction schedule was adjusted to match the applicant-provided schedule, construction equipment was increased to retain the CalEEMod-default construction HP-hours.

Table 3: Project Construction Equipment

Construction Task	Equipment Type	Pieces of Equipment	Usage (hours/day)	Horsepower	Load Factor	Fuel Type
Phase 1						
Site Preparation	Rubber Tired Dozers	3	8	247	0.40	Diesel
	Tractors/Loaders/Backhoes	4	8	97	0.37	Diesel
Grading	Excavators	2	8	158	0.38	Diesel
	Graders	1	8	187	0.41	Diesel
	Rubber Tired Dozers	1	8	247	0.40	Diesel
	Scrapers	2	8	367	0.48	Diesel
	Tractors/Loaders/Backhoes	2	8	97	0.37	Diesel
Paving	Pavers	2	8	130	0.42	Diesel
	Paving Equipment	2	8	132	0.36	Diesel
	Rollers	2	8	80	0.38	Diesel
Building Construction	Cranes	2	5.5	231	0.29	Diesel
	Forklifts	5	7.6	89	0.20	Diesel
	Generator Sets	2	6.3	84	0.74	Diesel
	Tractors/Loaders/Backhoes	5	6.6	97	0.37	Diesel
	Welders	2	6.3	46	0.45	Diesel
Architectural Coating	Air Compressors	1	6	78	0.48	Diesel
Phase 2						

Construction Task	Equipment Type	Pieces of Equipment	Usage (hours/day)	Horsepower	Load Factor	Fuel Type
Site Preparation	Rubber Tired Dozers	3	8	247	0.40	3
	Tractors/Loaders/Backhoes	4	8	97	0.37	4
Grading	Excavators	2	8	158	0.38	2
	Graders	1	8	187	0.41	1
	Rubber Tired Dozers	1	8	247	0.40	1
	Scrapers	2	8	367	0.48	2
	Tractors/Loaders/Backhoes	2	8	97	0.37	2
Paving	Pavers	2	8	130	0.42	2
	Paving Equipment	2	8	132	0.36	2
	Rollers	2	8	80	0.38	2
Building Construction	Cranes	2	5.8	231	0.29	2
	Forklifts	6	6.6	89	0.20	6
	Generator Sets	2	6.6	84	0.74	2
	Tractors/Loaders/Backhoes	6	5.8	97	0.37	6
	Welders	2	6.6	46	0.45	2
Architectural Coating	Air Compressors	1	6	78	0.48	1

Source: CalEEMod Output and Additional Supporting Information (Attachment A).

Vehicles Trips

Table 4 provides a summary of the construction-related vehicle trips. CalEEMod default values were used to estimate the number of construction-related vehicle trips. Additional haul trips were added to each construction activity to account for the mobilization of off-road equipment. Additional vendor trips were included in the paving phase to account for delivery of materials.

The default values for hauling trips are based on the assumption that a truck can haul 20 tons (or 16 cubic yards) of material per load. If one load of material is delivered, CalEEMod assumes that one haul truck importing material will also have a return trip with an empty truck (e.g., 2 one-way trips). Based on applicant-provided information, cut and fill and is expected to balance on-site. As noted in Table 4, additional haul trips were included to account for miscellaneous trips.

The fleet mix for worker trips is light-duty passenger vehicles to light-duty trucks. The vendor trips fleet mix is composed of a mixture of medium and heavy-duty diesel trucks. The hauling trips were assumed to be 100 percent heavy-duty diesel truck trips. CalEEMod default trip lengths for a project in Madera County were used for the construction trips.

Table 4: Construction Vehicle Trips

Construction Task	Worker Trips per Day	Vendor Trips per Day	Total Haul Truck Trips
Phase 1			
Site Preparation	18	0	54

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Grading	20	0	56
Paving	15	4	12
Building Construction	274	107	32
Architectural Coating	55	4	2
Phase 2			
Site Preparation	18	0	7
Grading	20	0	16
Paving	15	4	12
Building Construction	283	111	36
Architectural Coating	57	0	2
Notes: Additional haul trips for mobilization/demobilization of on-site equipment. Vendor trips were added to the paving phases to account for delivery of materials. Source: CalEEMod Output and Additional Supporting Information (Attachment A).			

Operational Modeling Assumptions

Operational emissions are those emissions that would occur during long-term operations of the proposed project.

Motor Vehicles

Motor vehicle emissions refer to exhaust and road dust emissions from the automobiles that would travel to and from the proposed project site. The CalEEMod default values for a refrigerated warehouse were used in the analysis to estimate total project trips. The project's daily trips were split into passenger vehicle and truck trips to estimate emissions. Truck trips associated with the facility would consist of refrigerated truck vans, single trailer trucks, and double trailer trucks. In total, the project applicant anticipates between 10 and 15 trucks per day. In addition to these anticipated trips, the facility is expected to send and receive UPS and FedEx shipments and deliveries. Solid waste collection is expected to occur once per week. For the purpose of estimate emissions, it was assumed that the daily truck estimate would apply to Phase 1 of the project, and Phase II would result in a similar amount of truck trips. Based on project-specific estimates that Phase 1 would result in 10-15 trucks per day with additional non-facility trips, it was assumed that the project could generate up to 70 truck trips per day at full buildout. Ten (10) of the total daily truck trips were assumed to be from non-facility uses (such as FedEx and UPS deliveries and shipments and waste pickup). The project-specific estimates were applied to calculate the daily truck trips, while the remaining project trips were assigned to passenger vehicles. Table 5 presents trip generation characteristics for projected trips for the project.

Table 5: Project Trip Generation Calculations used to Estimate Project Emissions

Description	Passenger Vehicles	Trucks	Total Daily Trips
Daily Trips (trips per day)	998.5	70.0	1068.5
Source: Appendix A.			

Trip Lengths and Vehicle Fleet Mix

Trip lengths are for primary trips. Trip purposes are primary, diverted, and pass-by trips. Diverted trips take a slightly different path than a primary trip. The CalEEMod default rates for percentages of primary, diverted, and pass-by trips were used for the passenger vehicle run.

The vehicle fleet mix is defined as the mix of motor vehicle classes active during the operation of the proposed project. Emission factors are assigned to the expected vehicle mix as a function of vehicle class, speed, and fuel use (gasoline- and diesel-powered vehicles).

Industrial land use projects can be expected to have longer than average truck trip lengths compared to the default trip length in CalEEMod (7.3 miles to 9.5 miles for urban areas of Madera County). To estimate mobile-source emissions from trucks during project operations, a one-way truck trip length of 50 miles was assumed based on recommendations from the SJVAPCD for industrial projects. To apply a longer trip length for trucks and to show a clear breakdown of emissions, modeling of the project's operations was split into two separate CalEEMod runs: (1) area-source emissions, energy-source emissions, and passenger vehicle mobile-source emissions; and (2) truck mobile-source emissions. The vehicle types in the first operational run were adjusted so that only passenger vehicles were represented, while the second run included trucks only. The adjusted fleet mixes used the CalEEMod default fleet mix for Madera County as the basis; the calculations for the adjusted fleet mix are included as part of Attachment A.

Transportation Refrigeration Units

As cold storage is included as part of the proposed project, it is not anticipated that trucks making trips to and from the project site associated with the facility would be equipped with a Transportation Refrigeration Unit (TRU). It was assumed that trailers with TRUs will remain on-site while loading, unloading, and awaiting departure. Of the 70 daily truck trips (35 incoming and 35 outgoing) used in the analysis to estimate emissions, 60 daily trips were assumed to be made from trucks equipped with a TRU.

Area Sources

Consumer Products

Consumer products are various solvents used in non-industrial applications, which emit VOCs during their product use. "Consumer Product" means a chemically formulated product used by household and institutional consumers, including but not limited to: detergents; cleaning compounds; polishes; floor finishes; cosmetics; personal care products; home, lawn, and garden products; disinfectants; sanitizers; aerosol paints; and automotive specialty products. It does not include other paint products, furniture coatings, or architectural coatings. CalEEMod includes default consumer product use rates based on building square footage. The default emission factors developed for CalEEMod were used for consumer products associated with parking uses and the general consumer product category.

Architectural Coatings (Painting)

Paints release VOC emissions during application and drying. The buildings in the project would be repainted on occasion. The project is required to comply with the SJVAPCD Rule 4601—Architectural Coatings. The rule required flat paints to meet a standard of 50 grams per liter (g/l) and gloss paints 100 g/l by 2012 for an average rate of 65 g/l. Effective January 1, 2022, nonflat gloss and semigloss paints are also required to meet the 50 g/l standard, providing lower VOC emissions for buildings constructed after that date. Therefore, the analysis uses the 50 g/l emission factor for the analysis.

Landscaping Emissions

CalEEMod estimates a total of 180 days for which landscaping equipment would be used to estimate potential emissions for the proposed project.

Indirect Emissions

For GHG emissions, CalEEMod contains calculations to estimate indirect GHG emissions. Indirect emissions are emissions where the location of consumption or activity is different from where actual emissions are generated. For example, electricity would be consumed at the proposed project site; however, emissions associated with producing that electricity are generated off-site at a power plant. Since the electricity can vary greatly based on locations, the user should override these values if they have more specific information regarding their specific water supply and treatment.

Energy Use

Electricity used by the project (for lighting, etc.) would result in emissions from the power plants that would generate electricity distributed on the electrical power grid. Electricity emissions estimates are only used in the GHG analysis.

The project would generate emissions from the combustion of natural gas for water heaters, heat, etc. CalEEMod has two categories for natural gas consumption: Title 24 and non-Title 24.

The emissions associated with the building electricity and natural gas usage (non-hearth) were estimated based on the land use type and size. Values for a project served by Pacific Gas and Electric (PG&E) were used in the analysis.

The carbon dioxide intensity factor for PG&E (from the CEC's year 2006 data) is as follows:

- Carbon dioxide: 641.35 pounds per megawatt hour (lbs/MWh)

The Renewable Electricity Standards took effect in 2020. The Renewable Electricity Standard requires that electricity providers include a minimum of 33 percent renewable energy in their portfolios by the year 2020. PG&E provides estimates of its emission factor per megawatt hour of electricity delivered to its customers. PG&E provides emission factors for the electricity it provides to customers for its energy portfolio that is used to estimate project emissions. CalEEMod 2020.4.0 includes PG&E emission factor based on actual rates reported by the utility.

The 2020.4.0 CalEEMod default emission factors for PG&E are as follows:

- Carbon dioxide: 203.98 lbs/MWh
- Methane: 0.033 lb/MWh
- Nitrous oxide: 0.004 lb/MWh

The utilities in California will be required to increase the use of renewable energy sources to 60 percent by 2030.

Other Indirect Emissions (Water Use, Wastewater Use, and Solid Waste)

CalEEMod includes calculations for indirect GHG emissions for electricity consumption, water consumption, and solid waste disposal. For water consumption, CalEEMod calculates embedded energy (e.g., treatment, conveyance, distribution) associated with providing each gallon of potable water to the project. For solid waste disposal, GHG emissions are associated with the disposal of solid waste generated by the proposed project into landfills. CalEEMod default data were used for inputs associated with solid waste.

Offroad Equipment

Stationary Equipment

Proposed or future stationary sources would require permits from the SJVAPCD prior to their installation or operation. Any future equipment that would be considered a stationary source would need to meet SJVAPCD emission limits for regulated pollutants pursuant to Rule 2201. The equipment will also meet SJVAPCD BPS for GHG emissions.

The project includes backup generator and fire pumps. The backup generator will be located on the south side of the proposed facility. In addition, a fire pump will be located as part of the admin/office space portion of the Phase 1 refrigerated warehouse facility. Based on applicant-provided information, the motor for the fire pump would be electric 125 HP. The anticipated annual run time is based on periodic required testing. There would be a smaller electric 1.5 HP jockey pump. Run time for the smaller pump would vary, as this would be a maintenance pump. However, based on the specifications and anticipated uses, the fire pumps would not be significant sources of toxic air containments.

Vegetation

There is currently limited carbon sequestration occurring on-site in the form of existing shrubbery and grassland. The proposed project would meet any requirements set forth by the City of Madera in regard to landscaping/open space that may result in the inclusion of vegetation. For this analysis, it was assumed that the loss and addition of carbon sequestration that are due to the proposed project would be balanced; therefore, emissions due to carbon sequestration were not included.

Refrigerants

Buildings requiring cold storage are envisioned as part of proposed project. Refrigerants that would result in GHG emissions would be subject to CARB's Refrigerant Management Program.

California's Refrigerant Management Program regulates refrigerants used in larger facilities, primarily industrial and supermarket land uses. Refrigerants regulated under the Refrigerant Management Program include any refrigerant that is an ozone depleting substance as defined in Title 40 of the Code of Federal Regulation, Part 82, and any compound with a GWP value equal to or greater than 150 according to the GWPs specified in the Intergovernmental Panel on Climate Change's (IPCC) Fourth Assessment Report of 2007. According to the California's Refrigerant Management Program, all supermarket and industrial refrigeration systems with a full recharge capacity of 50 pounds (22.7 kilograms) or greater will be required to limit the refrigerants used to no greater than 150 GWP beginning in 2022.⁶

Health Risk Assessment Assumptions

An HRA was completed to evaluate potential health risks associated with the generation of TACs during operational activities associated with the proposed project. Assumptions used in the HRA are summarized below, while complete calculations parameters are provided as part of Attachment B.

Model Selection and Parameters

An air dispersion model is a mathematical formulation used to estimate the air quality impacts at specific locations (receptors) surrounding a source of emissions given the rate of emissions and prevailing meteorological conditions. The air dispersion model applied in this assessment was the United States Environmental Protection Agency (EPA) AERMOD (version 21112) air dispersion model. Specifically, AERMOD was used to estimate levels of air emissions at sensitive receptor locations from potential sources of project-generated TACs. The use of AERMOD provides a refined methodology for estimating

⁶ California Air Resources Board (CARB). 2020. Proposed Amendments to CARB's HFC Regulation. December 10. Website: <https://ww3.arb.ca.gov/board/books/2020/121020/20-13-4pres.pdf>. Accessed February 2, 2022.

construction impacts by utilizing long-term, measured representative meteorological data for the project site and a representative construction schedule.

The modeling analysis also considered the spatial distribution and elevation of each emitting source in relation to the sensitive receptors. Direction-dependent calculations were obtained by identifying the Universal Transverse Mercator (UTM) coordinates for each source location. Terrain elevations were obtained for the project site using the AERMAP model, the AERMOD terrain data pre-processor. Elevation data for the area were obtained and included in the model runs to account for complex terrain. The air dispersion model assessment used meteorological data from the Madera Station (Station 93242), which is located approximately 0.47 mile west of the project site. The meteorological data used was preprocessed for use with AERMOD by the SJVAPCD and included data for the years 2009 to 2011; all years were used in the assessment. To evaluate the proposed project's localized impacts at the point of maximum impact, all receptors were placed within the breathing zone at 1.5 meters above ground level.

Emissions were assumed to occur over a 24-hour-per-day, 365 day-per-year averaging period. It is anticipated that operational times will be typical of other industrial use or warehouse-style projects, with truck deliveries that could occur any time in a 24-hour period. Detailed parameters and complete calculations are contained in Attachment B. Attachment B also includes a representation of the DPM modeling parameters, including modeled on-site vehicle travel, vehicle idling locations, and locations of sensitive receptors within approximately 1,000 feet of the project boundary.

Air Toxics Generated during Operations—DPM

The project would generate passenger vehicle and truck trips from visitors, vendors, and employees traveling to and from the project site. Customers visits to the property are expected to be limited, since the proposed operations is expected to involve light industrial uses. The main source of DPM from the long-term operations of the proposed project would be from combustion of diesel fuel in diesel-powered engines in on-road trucks. On-site motor vehicle emissions refer to DPM exhaust emissions from the motor vehicle traffic that would travel and idle within the project site each day.

The vehicle fleet mix representation in CalEEMod for trucks consists of Light-Heavy-Duty trucks (LHDT), Medium-Heavy-Duty trucks (MHDT), and Heavy-Heavy-Duty trucks (HHDT). Emission factors are assigned to the expected vehicle mix as a function of vehicle age, vehicle class, speed, and fuel type. The operational fleet mix used to assess emissions from the proposed project is included in Attachments A and B.

Each operational emission source to be evaluated requires geometrical and emission release specifications for use in the air dispersion model. The emission source configurations applied in this assessment of operational DPM emissions are shown in Table 6.

Table 6: Summary of Select Operational Emission Source Configurations

Emission Source Type	Relevant Assumptions
On-site Truck Traffic	<ul style="list-style-type: none"> • Configuration: line volume source • Release height: 10.2 feet (3.1 meters) • Vehicle Speed: 5 mph • Vehicle types: heavy-heavy duty trucks (HHDT) • Emission factors: EMFAC 2017
On-site Truck Idling	<ul style="list-style-type: none"> • Configuration: a total of three line volume sources, covering the check-in gate, loading, and truck parking areas • Release height: 10.2 feet (3.1 meters) • Vehicle type: HHDT diesel trucks • Additional Emissions: TRUs • Emission factors: EMFAC 2017 • Number of diesel truck idling instances per day: 172 (based on one occurrence per truck trip)
Off-site Truck Traffic	<ul style="list-style-type: none"> • Configuration: line volume source • One travel link was quantified to represent off-site emissions in the immediate project vicinity, on Condor Road to the site access point • Vehicle speeds: 25 mph (trucks) • Vehicle type: HHDT diesel trucks • Emission factors: EMFAC 2017
Facility Operations	<ul style="list-style-type: none"> • 365 days per year, 24 hours per day • Emissions to account for project trucks to be equipped with TRUs were included in the operational HRA
Source: Attachment B.	

Operational emissions for the proposed project were assessed assuming the first year of operations would occur in 2023. Exhaust emissions of DPM (as PM₁₀ exhaust) were estimated using EMFAC2017. EMFAC2017 was selected, as this is the database that informs the current version of CalEEMod that was used to estimate regional project-generated emissions. It was assumed that emission factors were constant for the years beyond 2023, which provides a conservative estimate of DPM emissions and associated health risks. DPM emissions are expected to decline as older, higher polluting vehicles continue to be replaced by newer cleaner vehicles. This decline is not fully accounted for in the HRA completed for the proposed project. The emission factors, AERMOD data, and emission estimation spreadsheets used to estimate motor vehicle DPM emissions during project operations are provided in Attachment B.

Cancer Risk

The model was run to obtain annual average concentration in micrograms per cubic meter [$\mu\text{g}/\text{m}^3$] at residential sensitive receptor locations. Consistent with SJVAPCD guidance, a health risk computation was performed to determine the risk of developing an excess cancer risk calculated on a 70-year exposure scenario. The chronic and carcinogenic health risk calculations are based on the standardized

equations contained in the U.S. EPA Human Health Evaluation Manual (1991) and OEHHA's 2015 Guidance Manual.^{7,8}

Based on the OEHHA methodology, the residential inhalation cancer risk from the annual average DPM concentrations is calculated by multiplying the daily inhalation or oral dose, by a cancer potency factor, the age sensitivity factor (ASF), the frequency of time spent at home (for residents only), and the exposure duration divided by averaging time, to yield the excess cancer risk. These factors are discussed in more detail below. Cancer risk must be separately calculated for specified age groups, because of age differences in sensitivity to carcinogens and age differences in intake rates (per kg body weight). Separate risk estimates for these age groups provide a health-protective estimate of cancer risk by accounting for greater susceptibility in early life, including both age-related sensitivity and amount of exposure.

Exposure through inhalation (Dose-air) is a function the breathing rate, the exposure frequency, and the concentration of a substance in the air. For residential exposure, the breathing rates are determined for specific age groups, so Dose-air is calculated for each of these age groups, 3rd trimester, 0<2, 2<9, 2<16, 16<30 and 16-70 years. To estimate cancer risk, the dose was estimated by applying the following formula to each ground-level concentration:

$$\text{Dose-air} = (C_{\text{air}} * \{BR/BW\} * A * EF * 10^{-6})$$

Where:

Dose-air	=	dose through inhalation (mg/kg/day)
C _{air}	=	air concentration (µg/m ³) from air dispersion model
{BR/BW}	=	daily breathing rate normalized to body weight (L/kg body weight – day) (361 L/kg BW-day for 3 rd Trimester, 1,090 L/kg BW-day for 0<2 years, 861 L/kg BW-day for 2<9 years, 745 L/kg BW-day for 2<16 years, 335 L/kg BW-day for 16<30 years, and 290 L/kg BW-day 30<70 years)
A	=	Inhalation absorption factor (unitless [1])
EF	=	exposure frequency (unitless), days/365 days (0.96 [approximately 350 days per year])
10 ⁻⁶	=	conversion factor (micrograms to milligrams, liters to cubic meters)

OEHHA developed ASFs to take into account the increased sensitivity to carcinogens during early-in-life exposure. In the absence of chemical-specific data, OEHHA recommends a default ASF of 10 for the third trimester to age 2 years, an ASF of 3 for ages 2 through 15 years to account for potential increased sensitivity to carcinogens during childhood and an ASF of 1 for ages 16 through 70 years.

Fraction of time at home (FAH) during the day is used to adjust exposure duration and cancer risk from a specific facility's emissions, based on the assumption that exposure to the facility's emissions are not occurring away from home. The following FAH values were used in this assessment:

⁷ U.S. Environmental Protection Agency (EPA). 1991. Human Health Evaluation Manual. Website: <https://www.epa.gov/sites/default/files/2015-11/documents/defaultExposureParams.pdf>. Accessed October 12, 2021.

⁸ California Office of Environmental Health Hazards Assessment (OEHHA). 2015. Air Toxics Hot Spots Program Risk Assessment Guidelines. Guidance Manual for Preparation of Health Risk Assessments. February. Website: <http://oehha.ca.gov/media/downloads/cmr/2015guidancemanual.pdf>. Accessed November 13, 2021.

- From the third trimester to age <2 years: 100 percent (the OEHHA-recommended value is 85 percent of time is spent at home; however, 100 percent was assumed in order to present a conservative analysis);
- From age 2 through <16 years: 100 percent (the OEHHA-recommended value is 72 percent of time is spent at home; however, 100 percent was assumed in order to present a conservative analysis); and
- From age 16 years and greater: 73 percent (the OEHHA-recommended value is 73 percent of time is spent at home).

To estimate the cancer risk, the dose is multiplied by the cancer potency factor, the ASF, the exposure duration divided by averaging time, and the frequency of time spent at home (for residents only):

$$\text{Risk}_{\text{inh-res}} = (\text{Dose}_{\text{air}} * \text{CPH} * \text{ASF} * \text{ED/AT} * \text{FAH})$$

Where:

$\text{Risk}_{\text{inh-res}}$ = residential inhalation cancer risk (potential chances per million)

Dose_{air} = daily dose through inhalation (mg/kg-day)

CPF = inhalation cancer potency factor (mg/kg-day⁻¹)

ASF = age sensitivity factor for a specified age group (unitless)

ED = exposure duration (in years) for a specified age group

AT = averaging time of lifetime cancer risk (years)

FAH = fraction of time spent at home (unitless)

Chronic Non-Cancer Hazard

Non-cancer chronic impacts are calculated by dividing the annual average concentration by the Reference Exposure Level (REL) for that substance. The REL is defined as the concentration at which no adverse non-cancer health effects are anticipated. The following equation was used to determine the non-cancer risk:

$$\text{Hazard Quotient} = C_i / \text{REL}_i$$

Where:

C_i = Concentration in the air of substance i (annual average concentration in $\mu\text{g}/\text{m}^3$)

REL_i = Chronic noncancer Reference Exposure Level for substance i ($\mu\text{g}/\text{m}^3$)

Thresholds

Air pollutant emissions have regional effects and localized effects. This analysis assesses the regional effects of the project's criteria pollutant emissions in comparison to SJVAPCD thresholds of significance for short-term construction activities and long-term operation of the project. Localized emissions from project construction and operation are also assessed using concentration-based thresholds that determine if the project would result in a localized exceedance of any ambient air quality standards or would make a cumulatively considerable contribution to an existing exceedance.

The primary pollutants of concern during project construction and operation are ROG, NO_x, PM₁₀, and PM_{2.5}. The SJVAPCD GAMAQI adopted in 2015 contains thresholds for ROG and NO_x; SO_x, CO, PM₁₀, and PM_{2.5}.

Ozone is a secondary pollutant that can be formed miles away from the source of emissions through reactions of ROG and NO_x emissions in the presence of sunlight. Therefore, ROG and NO_x are termed ozone precursors. The San Joaquin Valley Air Basin (SJVAB) often exceeds the state and national ozone standards. Therefore, if the project emits a substantial quantity of ozone precursors, the project may contribute to an exceedance of the ozone standard. The SJVAB also exceeds air quality standards for PM₁₀, and PM_{2.5}; therefore, substantial project emissions may contribute to an exceedance for these pollutants.

The SJVAPCD adopted significance thresholds for construction-related and operational ROG, NO_x, PM, CO, and SO_x, these thresholds are included in Table 7.

Table 7: SJVAPCD Proposed Project-Level Air Quality CEQA Thresholds of Significance

Pollutant	Significance Threshold	
	Construction Emissions (tons/year)	Operational Emission (tons/year)
CO	100	100
NO _x	10	10
ROG	10	10
SO _x	27	27
PM ₁₀	15	15
PM _{2.5}	15	15

Source: SJVAPCD. 2015. Guidance for Assessing and Mitigating Air Quality Impacts. Website: <https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF>. Accessed January 30, 2022.

Fugitive Dust

Construction

Fugitive dust would be generated from site grading and other earth-moving activities. Most of this fugitive dust would remain localized and would be deposited near the project site. However, the potential for impacts from fugitive dust exists unless control measures are implemented to reduce the emissions from the project site. Therefore, adherence to Regulation VIII would be required during construction of the proposed project. Regulation VIII would require fugitive dust control measures that are consistent with best management practices (BMPs) established by the SJVAPCD to reduce the proposed project's construction-generated fugitive dust impacts to a less than significant level.

The SJVAPCD (SJVAPCD or District) adopted Regulation VIII in 1993 and its most recent amendments became effective on October 1, 2004. This is a basic summary of the regulation's requirements as they

apply to construction sites. These regulations affect all workers at a regulated construction site, including everyone from the landowner to the subcontractors. Violations of Regulation VIII are subject to enforcement action including fines.⁹

Visible Dust Emissions may not exceed 20 percent opacity during periods when soil is being disturbed by equipment or by wind at any time. Visible Dust Emissions opacity of 20 percent means dust that would obstruct an observer's view of an object by 20 percent. District inspectors are state certified to evaluate visible emissions. Dust control may be achieved by applying water before/during earthwork and onto unpaved traffic areas, phasing work to limit dust, and setting up wind fences to limit windblown dust.

Soil Stabilization is required at regulated construction sites after normal working hours and on weekends and holidays. This requirement also applies to inactive construction areas such as phased projects where disturbed land is left unattended. Applying water to form a visible crust on the soil and restricting vehicle access are often effective for short-term stabilization of disturbed surface areas. Long-term methods including applying dust suppressants and establishing vegetative cover.

Carryout and Trackout occur when materials from emptied or loaded vehicles falls onto a paved surface or shoulder of a public road or when materials adhere to vehicle tires and are deposited onto a paved surface or shoulder of a public road. Should either occur, the material must be cleaned up at least daily, and immediately if it extends more than 50 feet from the exit point onto a paved road. The appropriate clean-up methods require the complete removal and cleanup of mud and dirt from the paved surface and shoulder. Using a blower device or dry sweeping with any mechanical device other than a PM₁₀-efficient street sweeper is a violation. Larger construction sites, or sites with a high amount of traffic on one or more days, must prevent carryout and trackout from occurring by installing gravel pads, grizzlies, wheel washers, paved interior roads, or a combination thereof at each exit point from the site. In many cases, cleaning up trackout with water is also prohibited as it may lead to plugged storm drains. Prevention is the best method.

Unpaved Access and Haul Roads, as well as unpaved vehicle and equipment traffic areas at construction sites must have dust control. Speed limit signs limiting vehicle speed to 15 mph or less at construction sites must be posted every 500 feet on uncontrolled and unpaved roads.

Storage Piles and Bulk Materials have handling, storage, and transportation requirements that include applying water when handling materials, wetting or covering stored materials, and installing wind barriers to limit visible dust emissions. Also, limiting vehicle speeds, loading haul trucks with a freeboard of six inches or greater along with applying water to the top of the load, and covering the cargo compartments are effective measures for reducing visible dust emissions and carryout from vehicles transporting bulk materials.

Dust Control Plans identify the dust sources and describe the dust control measures that will be implemented before, during, and after any dust generating activity for the duration of the project. Owners or operators are required to submit plans to the SJVAPCD at least 30 days prior to commencing the work for the following:

- Residential developments of ten or more acres of disturbed surface area.
- Non-residential developments of five or more acres of disturbed surface area.
- The relocation of more than 2,500 cubic yards per day of materials on at least three days.

Operations may not commence until the SJVAPCD has approved the Dust Control Plan. A copy of the plan must be on site and available to workers and District employees. All work on the site is subject to the

⁹ San Joaquin Valley Air Pollution Control District (SJVAPCD). 2007. Compliance Assistance Bulletin. Website: <http://www.valleyair.org/busind/comply/pm10/forms/RegVIIIICAB.pdf>. Accessed May 29, 2021.

requirements of the approved dust control plan. A failure to abide by the plan by anyone on site may be subject to enforcement action. Owners or operators of construction projects that are at least one acre in size and where a Dust Control Plan is not required, must provide written notification to the SJVAPCD at least 48 hours in advance of any earthmoving activity.

Record Keeping is required to document compliance with the rules and must be kept for each day any dust control measure is used. The SJVAPCD has developed record forms for water application, street sweeping, and “permanent” controls such as applying long term dust palliatives, vegetation, ground cover materials, paving, or other durable materials. Records must be kept for one year after the end of dust generating activities (Title V sources must keep records for five years).

Exemptions exist for several activities. Those occurring above 3,000 feet in elevation are exempt from all Regulation VIII requirements. Further, Rule 8021 – Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities exempts the following construction and earthmoving activities:

- Blasting activities permitted by California Division of Industrial Safety.
- Maintenance or remodeling of existing buildings provided the addition is less than 50% of the size of the existing building or less than 10,000 square feet (due to asbestos concerns, contact the SJVAPCD at least two weeks ahead of time).
- Additions to single family dwellings.
- The disking of weeds and vegetation for fire prevention on sites smaller than ½ acre.
- Spreading of daily landfill cover to preserve public health and safety and to comply with California Integrated Waste Management Board requirements.

Nuisances are prohibited at all times because District Rule 4102 – Nuisance applies to all construction sources of fugitive dust, whether or not they are exempt from Regulation VIII. It is important to monitor dust-generating activities and implement appropriate dust control measures to limit the public’s exposure to fugitive dust.

Rule 2201—New and Modified Stationary Source Review Rule. The review of new and modified Stationary Sources of air pollution and to provide mechanisms including emission trade-offs by which Authorities to Construct such sources may be granted, without interfering with the attainment or maintenance of Ambient Air Quality Standards.

Addressing Air Quality CEQA Impact Questions

Table 8: Summary of Air Quality Impact Analysis

Air Quality <i>Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.</i>	
Would the project:	Significance Finding
a) Conflict with or obstruct implementation of the applicable air quality plan?	Less than Significant Impact
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or State ambient air quality standard?	Less than Significant Impact
c) Expose sensitive receptors to substantial pollutant concentrations?	Less than Significant Impact
d) Result in other emissions (such as those leading to odors or) adversely affecting a substantial number of people?	Less than Significant Impact

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

Less Than Significant Impact.

Air Quality Plans (AQPs) are plans for reaching attainment of air quality standards. The assumptions, inputs, and control measures are analyzed to determine if the Air Basin can reach attainment for the ambient air quality standards. The proposed project site is located within the jurisdictional boundaries of the SJVAPCD. To show attainment of the standards, the SJVAPCD analyzes the growth projections in the Valley, contributing factors in air pollutant emissions and formations, and existing and adopted emissions controls. The SJVAPCD then formulates a control strategy to reach attainment that includes both State and SJVAPCD regulations and other local programs and measures. For projects that include stationary sources of emissions, the SJVAPCD relies on project compliance with Rule 2201—New and Modified Stationary Source Review to ensure that growth in stationary source emissions would not interfere with the applicable AQP. Projects exceeding the offset thresholds included in the rule are required to purchase offsets in the form of Emission Reduction Credits (ERCs).

The CEQA Guidelines indicate that a significant impact would occur if the project would conflict with or obstruct implementation of the applicable air quality plan. The GAMAQI indicates that projects that do not exceed SJVAPCD regional criteria pollutant emissions quantitative thresholds would not conflict with or obstruct the applicable AQP. An additional criterion regarding the project’s implementation of control measures was assessed to provide further evidence of the project’s consistency with current AQPs. This document proposes the following criteria for determining project consistency with the current AQPs:

1. Will the project result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQPs? This measure is determined by comparison to the regional and localized thresholds identified by the District for Regional and Local Air Pollutants.
2. Will the project comply with applicable control measures in the AQPs?

The use of the criteria listed above is a standard approach for CEQA analysis of projects in the SJVAPCD's jurisdiction, as well as within other air districts, for the following reasons:

- Significant contribution to existing or new exceedances of the air quality standards would be inconsistent with the goal of attaining the air quality standards.
- AQP emissions inventories and attainment modeling are based on growth assumptions for the area within the air district's jurisdiction.
- AQPs rely on a set of air district-initiated control measures as well as implementation of federal and state measures to reduce emissions within their jurisdictions, with the goal of attaining the air quality standards.

Contribution to Air Quality Violations

As discussed in Impact AIR-2 below, emissions of ROG, NO_x, CO, SO_x, PM₁₀, and PM_{2.5} associated with the proposed project would not exceed the SJVAPCD's significance thresholds (see Table 9 and Table 10). Therefore, the proposed project would not be considered to obstruct implementation of the applicable air quality plan or be in conflict with the applicable air quality plan.

Air Quality Plan Control Measures

The AQP contains a number of control measures that are enforceable requirements through the adoption of rules and regulations. The following rules and regulations are relevant to the project:

Rule 2201—New and Modified Stationary Source Review Rule. The review of new and modified Stationary Sources of air pollution and to provide mechanisms including emission trade-offs by which Authorities to Construct such sources may be granted, without interfering with the attainment or maintenance of Ambient Air Quality Standards

Rule 4201—Particulate Matter Concentration. This rule shall apply to any source operation that emits or may emit dust, fumes, or total suspended particulate matter.

Rule 4309—Boilers, Steam Generators, and Process Heaters. The purpose of this rule is to limit emissions of oxides of nitrogen (NO_x) and carbon monoxide (CO) from boilers, steam generators, and process heaters. This rule applies to any gaseous fuel or liquid fuel fired boiler, steam generator, or process heater with a total rated heat input greater than 5 million Btu per hour.

Rule 4601—Architectural Coatings. The purpose of this rule is to limit Volatile Organic Compounds (VOC) emissions from architectural coatings. Emissions are reduced by limits on VOC content and providing requirements on coatings storage, cleanup, and labeling. Only compliant components are available for purchase in the San Joaquin Valley.

Rule 4641—Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations. The purpose of this rule is to limit VOC emissions from asphalt paving and maintenance operations. If asphalt paving will be used, then the paving operations will be subject to Rule 4641. This regulation is enforced on the asphalt provider.

Rule 4702—Internal Combustion Engines. The purpose of this rule is to limit the emissions of NO_x, carbon monoxide (CO), VOC, and sulfur oxides (SO_x) from internal combustion engines. If the project includes emergency generators, the equipment is required to comply with Rule 4702.

Regulation VIII—Fugitive PM₁₀ Prohibitions. This regulation is a control measure that is one main strategies from the 2006 PM₁₀ for reducing the PM₁₀ emissions that are part of fugitive dust. Projects over 10 acres are required to file a Dust Control Plan (DCP) containing dust control practices sufficient to comply with Regulation VIII. Rule 8021 regulates construction and demolition activities, road construction, bulk materials storage, paved and unpaved roads, carryout and trackout, etc. All development projects that involve soil disturbance are subject to at least one provision of the Regulation VIII series of rules.

The project would comply with all applicable CARB and SJVAPCD rules and regulations. Therefore, the project complies with this criterion and would not conflict with or obstruct implementation of the applicable air quality attainment plan.

Conclusion

The project's emissions would be less than significant for all criteria pollutants and would not result in inconsistency with the AQP for this criterion. The project would comply with all applicable rules and regulations from the applicable air quality plans. Considering the project's less-than-significant contribution to air quality violations and the project's adherence to applicable rules and regulations, the project would not be considered inconsistent with the AQP; the impact would be less than significant.

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or State ambient air quality standard?

Less Than Significant Impact.

To result in a less than significant impact, emissions of nonattainment pollutants must be below the SJVAPCD's regional significance thresholds. This is an approach recommended by the SJVAPCD's in its GAMAQI. The SJVAB is in nonattainment for ozone, PM₁₀ (State only), and PM_{2.5}. Ozone is a secondary pollutant that can be formed miles from the source of emissions, through reactions of ROG and NO_x emissions in the presence of sunlight. Therefore, ROG and NO_x are termed ozone precursors. As such, the primary pollutants of concern during project construction and operation are ROG, NO_x, PM₁₀, and PM_{2.5}. The air quality standards were set to protect public health, including the health of sensitive individuals (such as children, the elderly, and the infirm). Therefore, when the concentration of those pollutants exceeds the standard, it is likely that some sensitive individuals in the population would adverse experience health effects. However, the health effects are a factor of the dose-response curve. Concentration of the pollutant in the air (dose), the length of time exposed, and the response of the individual are factors involved in the severity and nature of health impacts. If a significant health impact results from project emissions, it does not mean that 100 percent of the population would experience health effects.

Since the SJVAB is nonattainment for ozone, PM₁₀, and PM_{2.5}, it is considered to have an existing significant cumulative health impact without the project. When this occurs, the analysis considers whether the project's contribution to the existing violation of air quality standards is cumulatively considerable. The SJVAPCD regional thresholds for NO_x, ROG/VOC, PM₁₀, or PM_{2.5} are applied as cumulative contribution thresholds. Projects that exceed the regional thresholds would have a cumulatively considerable health impact.

The SJVAPCD GAMAQI adopted in 2015 contains thresholds for CO, NO_x, ROG, SO_x, PM₁₀, and PM_{2.5}. Air pollutant emissions have both regional and localized effects. The project's regional emissions are compared to the applicable SJVAPCD below.

Criteria Pollutant Emission Estimates

Construction Emissions (Regional)

Construction emissions associated with the project are shown in Table 9. As shown in Table 9, the emissions are below the significance thresholds and, therefore, are less than significant on a project basis.

Table 9: Summary of Construction-Generated Emissions of Criteria Air Pollutants – Unmitigated

Emissions Source	Emissions (Tons/Year)					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Phase 1—2022	0.40	3.29	3.49	0.01	0.48	0.24
Phase 1—2023	0.59	0.51	0.64	<0.01	0.08	0.03
Phase 2—2023	0.35	2.89	3.31	0.01	0.45	0.22
Phase 2—2024	0.73	0.51	0.68	<0.01	0.08	0.03
Project Total	2.08	7.20	8.12	0.02	1.09	0.53
Significance Thresholds	10	10	100	27	15	15
Exceed Significance Thresholds?	No	No	No	No	No	No

Notes:

PM₁₀ and PM_{2.5} emissions are from the mitigated output to reflect compliance with Regulation VIII—Fugitive PM₁₀ Prohibitions.

Source of Emissions: CalEEMod Output and Additional Supporting Information (Attachment A).

Totals may not appear to sum exactly due to rounding.

Source of Thresholds: San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. Guidance for Assessing and Mitigating Air Quality Impacts. February 19. Website: <https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF>. Accessed January 30, 2022.

Operational Emissions (Regional)—Non-Permitted

Operational emissions occur over the lifetime of the project. The SJVAPCD considers permitted and non-permitted emission sources separately when making significance determinations. In addition, the annual operational emissions are also considered separately from construction emissions. Operational emissions are shown in Table 10.

The emissions output for project operation at full buildout for 2023 are summarized in Table 10. As shown in Table 10, the operational emissions would be less than the thresholds of significance for all criteria air pollutants.

Table 10: Summary of Operational Emissions of Criteria Air Pollutants – Unmitigated

Source	Emissions (tons/year)					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Area	2.16	0.00	0.00	0.00	0.00	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00
Mobile (Passenger Vehicles)	0.33	0.32	3.84	0.01	1.08	0.29
Mobile (Trucks)	0.04	3.15	0.48	0.02	0.51	0.16
Annual Total (2023)	2.52	3.47	4.33	0.03	1.59	0.46
Significance Thresholds	10	10	100	27	15	15
Exceed Significance Thresholds?	No	No	No	No	No	No
Notes: Emissions were quantified using CalEEMod based on project details and estimated operating year for the proposed project. Totals may not sum exactly due to rounding. Source: CalEEMod Output and Additional Supporting Information (Attachment A).						

Operational Emissions (Regional)—Permitted

The SJVAPCD GAMAQI recommends assessing the emissions from permitted sources of emissions separate from non-permitted sources. The SJVAPCD’s permitting process ensures that emissions of criteria pollutants from permitted equipment and activities at stationary sources are reduced or mitigated to below the SJVAPCD’s thresholds of significance. SJVAPCD implementation of New Source Review (NSR) ensures that there is no net increase in emissions above specified thresholds from new and modified Stationary Sources subject to the rule for all nonattainment pollutants and their precursors. Permitted sources emitting more than the NSR Offset Thresholds for any criteria pollutant must, in general, offset all emission increases in excess of the thresholds.

The project will include stationary sources that require SJVAPCD permits, such as an emergency generator. The SJVAPCD will prepare an engineering evaluation of all permitted equipment to determine the controls required to achieve best available control technology (BACT) requirements. The permitted emissions are dependent on the control technology selected and any process limits included in the permit conditions.

Permitted sources will be required to comply with SJVAPCD BACT requirements. Compliance with regulations would ensure that the project’s stationary sources would not exceed SJVAPCD thresholds of significance; therefore, the project’s estimated permitted emissions would be less than significant.

Conclusion

As shown in Table 9 and Table 10, the project’s regional emissions would not exceed the applicable regional criteria pollutant emissions quantitative thresholds. In addition, any permitted sources will be required to comply with SJVAPCD BACT requirements. Therefore, the project would not result in significant cumulative health impacts.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact.

Emissions occurring at or near the project have the potential to create a localized impact that could expose sensitive receptors to substantial pollutant concentrations. Sensitive receptors are considered land uses or other types of population groups that are more sensitive to air pollution than others due to their exposure. Sensitive population groups include children, the elderly, the acutely and chronically ill, and those with cardio-respiratory diseases. The SJVAPCD considers a sensitive receptor to be a location that houses or attracts children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants. Examples of sensitive receptors include hospitals, residences, convalescent facilities, and schools.

The closest existing sensitive receptors (to the site area) are residences located approximately within 50 feet north of the project site. Other notable sensitive receptors include trailer homes south of the project site, the closest of which are located approximately 830 feet from the project site boundary.

Localized Impacts

Emissions occurring at or near the project have the potential to create a localized impact also referred to as an air pollutant hotspot. Localized emissions are considered significant if when combined with background emissions, they would result in exceedance of any health-based air quality standard. In locations that already exceed standards for these pollutants, significance is based on a significant impact level (SIL) that represents the amount that is considered a cumulatively considerable contribution to an existing violation of an air quality standard. The pollutants of concern for localized impact in the SJVAB are NO₂, SO_x, and CO.

The SJVAPCD has provided guidance for screening localized impacts in the GAMAQI that establishes a screening threshold of 100 pounds per day of any criteria pollutant. If a project exceeds 100 pounds per day of any criteria pollutant, then ambient air quality modeling would be necessary. If the project does not exceed 100 pounds per day of any criteria pollutant, then it can be assumed that it would not cause a violation of an ambient air quality standard.

Construction: Localized Concentrations of PM₁₀, PM_{2.5}, CO, and NO_x

Local construction impacts would be short-term in nature lasting only during the duration of construction. As shown in Table 11 below, on-site construction emissions would be less than 100 pounds per day for each of the criteria pollutants. To present a conservative estimate, on-site emissions for on-road construction vehicles were included in the localized analysis. Based on the SJVAPCD's guidance, the construction emissions would not cause an ambient air quality standard violation.

Table 11: Localized Concentrations of PM₁₀, PM_{2.5}, CO, and NO_x for Construction

Source	On-site Emissions (pounds per day)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Phase 1—2022	3.67	38.90	29.24	10.47	6.03
Phase 1—2023	52.81	24.45	28.87	1.27	1.09
Phase 2—2023	3.37	34.55	30.56	10.13	5.72
Phase 2—2024	67.08	24.35	30.29	1.35	1.05
Maximum Daily On-site Emissions	67.08	38.90	30.56	10.47	6.03
Significance Thresholds	—	100	100	100	100
Exceed Significance Thresholds?	—	No	No	No	No

Note: Overlap of construction activities is based on the construction schedule shown in Table 2 and Attachment A.
 Source of Emissions: CalEEMod Output and Additional Supporting Information (Attachment A). Maximum daily emissions of NO_x, CO, PM₁₀, and PM_{2.5} were highest in the Winter scenario, while maximum daily emissions of ROG were highest in the Summer scenario.
 Source of Thresholds: San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. Guidance for Assessing and Mitigating Air Quality Impacts. February 19. Website: <https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF>. Accessed February 6, 2022.

Operation: Localized Concentrations of PM₁₀, PM_{2.5}, CO, and NO_x

Localized impacts could occur in areas with a single large source of emissions such as a power plant or with multiple sources concentrated in a small area such as a distribution center. The maximum daily operational emissions would occur at project buildout, which was assumed to occur in 2023. Operational emissions include those generated on-site by area sources such as consumer products, and landscape maintenance, energy use from natural gas combustion, and motor vehicles operation at the project site. Motor vehicle emissions are estimated for on-site operations using trip lengths for on-site travel. The trip lengths used to analyze on-site emissions was selected by measuring possible on-site paths using Google Earth; the length for the longest measured route for the appropriate vehicle type was selected to present a conservative estimate of on-site emissions.

As shown in Table 12 below, operational modeling of on-site emissions for the project indicate that the project would not exceed 100 pounds per day for each of the criteria pollutants. Therefore, based on the SJVAPCD’s guidance, the operational emissions would not cause an ambient air quality standard violation. As such, impacts would be less than significant.

Table 12: Localized Concentrations of PM₁₀, PM_{2.5}, CO, and NO_x for Operations

Source	On-site Emissions (pounds per day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
Area	<0.01	0.05	<0.01	<0.01
Energy	0.02	0.02	<0.01	<0.01
Mobile - Passenger Vehicles Trips	0.66	7.21	0.12	0.03
Mobile - Truck Trips	1.51	1.18	0.03	0.01
Total	2.20	8.46	0.15	0.05
Significance Thresholds	100	100	100	100
Exceed Significance Thresholds?	No	No	No	No

Source of Emissions: CalEEMod Output and Additional Supporting Information (Attachment A). Maximum daily emissions of NO_x, CO, PM₁₀, and PM_{2.5} were highest in the Winter scenario.

Source of Thresholds: San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. Guidance for Assessing and Mitigating Air Quality Impacts. February 19. Website: <https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF>. Accessed February 6, 2022.

Toxic Air Contaminants

Construction

Project construction would involve the use of diesel-fueled vehicles and equipment that emit DPM, which is considered a TAC. The SJVAPCD's current threshold of significance for TAC emissions is an increase in cancer risk for the maximally exposed individual of 20 in a million (formerly 10 in a million). The SJVAPCD's 2015 GAMAQI does not currently recommend analysis of TAC emissions from project construction activities, but instead focuses on projects with operational emissions that would expose sensitive receptors over a typical lifetime of 70 years. In addition, the most intense construction activities of the project's construction would occur during site preparation and grading phases over a short period. There are no conditions unique to the project site that would require more intense construction activity compared to typical development. Examples of situations that would warrant closer scrutiny may include sites that would require extensive excavation and hauling due to existing site conditions. Building construction typically requires limited amounts of diesel equipment relative to site clearing activities.

Operations

For reasons previously discussed (see Modeling Parameters and Assumptions), an analysis of TACs (including DPM) was performed using the EPA-approved AERMOD model, which is an air dispersion model accepted by the SJVAPCD for preparing HRAs. AERMOD version 21112 was used for this analysis. Consistent with SJVAPCD guidance, the health risk computation was performed to determine the risk of developing an excess cancer risk calculated on a 70-year exposure scenario. Results of the HRA are summarized in Table 13. The complete HRA prepared for the proposed project, including calculations and AERMOD output data, are included in Attachment B.

Table 13: Summary of the Health Impacts from Operations of the Proposed Project (70-year Scenario)

Exposure Scenario	Maximum Cancer Risk (Risk per Million)	Chronic Non-Cancer Hazard Index
70-Year Exposure at the MER (from DPM Emissions)	3.54	0.0007
Applicable Threshold of Significance	20	1
Threshold Exceeded?	No	No
Notes: MER = Maximally Exposed Receptor Origo Cold Madera Project Total DPM MER UTM: 758610.13, 4097186.34 Source: Attachment B.		

As shown in Table 13, the project would not exceed the cancer risk, chronic risk, and acute risk threshold levels. The primary source of the emissions responsible for chronic risk are from diesel trucks and diesel-powered TRUs. DPM does not have an acute risk factor. Since the project does not exceed the applicable SJVAPCD thresholds for cancer risk, acute risk, or chronic risk, the impact related to the project's potential to expose sensitive receptors to substantial pollutant concentrations would be less than significant.

Valley Fever

Valley fever, or coccidioidomycosis, is an infection caused by inhalation of the spores of the fungus, *Coccidioides immitis* (*C. immitis*). The spores live in soil and can live for an extended time in harsh environmental conditions. Activities or conditions that increase the amount of fugitive dust contribute to greater exposure, and they include dust storms, grading, and recreational off-road activities.

The San Joaquin Valley is considered an endemic area for Valley fever. The San Joaquin Valley is considered an endemic area for Valley fever. During 2000–2018, a total of 65,438 coccidioidomycosis cases were reported in California; median statewide annual incidence was 7.9 per 100,000 population and varied by region from 1.1 in Northern and Eastern California to 90.6 in the Southern San Joaquin Valley, with the largest increase (15-fold) occurring in the Northern San Joaquin Valley. Incidence has been consistently high in six counties in the Southern San Joaquin Valley (Fresno, Kern, Kings, Madera, Tulare, and Merced counties) and Central Coast (San Luis Obispo County) regions.¹⁰ California experienced 7,962 new probable or confirmed cases of Valley fever in 2021. A total of 46 Valley fever cases were reported in Madera County in 2021.¹¹

The distribution of *C. immitis* within endemic areas is not uniform and growth sites are commonly small (a few tens of meters) and widely scattered. Known sites appear to have some ecological factors in common suggesting that certain physical, chemical, and biological conditions are more favorable for *C. immitis* growth. Avoidance, when possible, of sites favorable for the occurrence of *C. immitis* is a prudent risk

¹⁰ Centers for Disease Control and Prevention (CDC). 2020. Regional Analysis of Coccidioidomycosis Incidence—California, 2000–2018. Website: https://www.cdc.gov/mmwr/volumes/69/wr/mm6948a4.htm?s_cid=mm6948a4_e. Accessed March 17, 2021.

¹¹ California Department of Public Health (CDPH). 2021. Coccidioidomycosis in California Provisional Monthly Report January 2021. Website: <https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH%20Document%20Library/CocciinCAProvisionalMonthlyReport.pdf>. Accessed January 15, 2022 and February 6, 2022.

management strategy. Listed below are ecologic factors and sites favorable for the occurrence of *C. immitis*:

- 1) Rodent burrows (often a favorable site for *C. immitis*, perhaps because temperatures are more moderate and humidity higher than on the ground surface)
- 2) Old (prehistoric) Indian campsites near fire pits
- 3) Areas with sparse vegetation and alkaline soils
- 4) Areas with high salinity soils
- 5) Areas adjacent to arroyos (where residual moisture may be available)
- 6) Packrat middens
- 7) Upper 30 centimeters of the soil horizon, especially in virgin undisturbed soils
- 8) Sandy, well-aerated soil with relatively high water-holding capacities

Sites within endemic areas less favorable for the occurrence of *C. immitis* include:

- 1) Cultivated fields
- 2) Heavily vegetated areas (e.g., grassy lawns)
- 3) Higher elevations (above 7,000 feet)
- 4) Areas where commercial fertilizers (e.g., ammonium sulfate) have been applied
- 5) Areas that are continually wet
- 6) Paved (asphalt or concrete) or oiled areas
- 7) Soils containing abundant microorganisms
- 8) Heavily urbanized areas where there is little undisturbed virgin soil.¹²

The project is situated on a site previously disturbed that does not provide a suitable habitat for spores. Specifically, the project site is primarily covered with existing shrubbery and grassland. Therefore, implementation of the proposed project would have a low probability of the site having *C. immitis* growth sites and exposure to the spores from disturbed soil.

Although conditions are not favorable, construction activities could generate fugitive dust that contain *C. immitis* spores. The project will minimize the generation of fugitive dust during construction activities by complying with SJVAPCD's Regulation VIII. Therefore, this regulation, combined with the relatively low probability of the presence of *C. immitis* spores would reduce Valley fever impacts to less than significant.

During operations, dust emissions are anticipated to be relatively small, because most of the project area where operational activities would occur would be occupied by the proposed industrial buildings and pavement. This condition would lessen the possibility of the project from providing habitat suitable for *C. immitis* spores and for generating fugitive dust that may contribute to Valley fever exposure. Impacts would be less than significant.

¹² United States Geological Survey (USGS). 2000. Operational Guidelines (Version 1.0) for Geological Fieldwork in Areas Endemic for Coccidioidomycosis (Valley Fever), 2000, Open-File Report 2000-348. Website: <https://pubs.usgs.gov/of/2000/0348/pdf/of00-348.pdf>. Accessed November 8, 2021.

Naturally Occurring Asbestos

Review of the map of areas where naturally occurring asbestos in California are likely to occur found no such areas in the project area. Therefore, development of the project is not anticipated to expose receptors to naturally occurring asbestos.¹³ Impacts would be less than significant.

Impact Analysis Summary

In summary, the project would not exceed SJVAPCD localized emission daily screening levels for any criteria pollutant. The project is not a significant source of TAC emissions during construction or operation. The project is not in an area with suitable habitat for Valley fever spores and is not in area known to have naturally occurring asbestos. Therefore, the project would not result in significant impacts to sensitive receptors.

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

Less Than Significant Impact.

Two situations create a potential for odor impact. The first occurs when a new odor source is located near an existing sensitive receptor. The second occurs when a new sensitive receptor locates near an existing source of odor. The proposed project is of the first type only since it involves a potential new odor source and would not locate any new sensitive receptors.

Odor impacts on residential areas and other sensitive receptors, such as hospitals, day-care centers, schools, etc. warrant the closest scrutiny, but consideration should also be given to other land uses where people may congregate, such as recreational facilities, worksites, and commercial areas.

Although the project is less than one mile from the nearest sensitive receptor, the project is not expected to be a significant source of odors. The screening levels for these land use types are shown in Table 14.

¹³ U.S. Geological Survey. 2011. Van Gosen, B.S., and Clinkenbeard, J.P. California Geological Survey Map Sheet 59. Reported Historic Asbestos Mines, Historic Asbestos Prospects, and Other Natural Occurrences of Asbestos in California. Open-File Report 2011-1188 Website: <https://pubs.usgs.gov/of/2011/1188/>. Accessed February 6, 2022.

Table 14: Screening Levels for Potential Odor Sources

Odor Generator	Screening Distance
Wastewater Treatment Facilities	2 miles
Sanitary Landfill	1 mile
Transfer Station	1 mile
Composting Facility	1 mile
Petroleum Refinery	2 miles
Asphalt Batch Plant	1 mile
Chemical Manufacturing	1 mile
Fiberglass Manufacturing	1 mile
Painting/Coating Operations (e.g., auto body shop)	1 mile
Food Processing Facility	1 mile
Feed Lot/Dairy	1 mile
Rendering Plant	1 mile
Wastewater Treatment Facilities	2 miles
Source of Thresholds: San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. Guidance for Assessing and Mitigating Air Quality Impacts. February 19. Website: https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF . Accessed February 6, 2022.	

Construction

During construction, various diesel-powered vehicles and equipment in use on-site would create localized odors. These odors would be temporary and intermittent, which would decrease the likelihood of the odors concentrating in a single area or lingering for any notable period of time. As such, these odors would likely not be noticeable for extended periods of time beyond the project’s site boundaries. The potential for odor impacts from construction of the proposed project would, therefore, be less than significant.

Operations

The development of the proposed project would not substantially increase objectionable odors in the area and would not introduce any new sensitive receptors to the area that could be affected by any existing objectionable odor sources in the area. Land uses that are typically identified as sources of objectionable odors include landfills, transfer stations, sewage treatment plants, wastewater pump stations, composting facilities, asphalt batch plants, rendering plants, and other land uses outlined in Table 14. The proposed project would not engage in any of these activities. Minor sources of odors that would be associated with uses typical of temperature-controlled storage facilities, such as exhaust from mobile sources (including diesel-fueled heavy trucks), are known to have temporary and less concentrated odors. Considering the low intensity of potential odor emissions, the proposed project’s operational activities would not expose receptors to objectionable odor emissions. Therefore, the proposed project would not be considered to be a generator of objectionable odors during operations. As such, impacts would be less than significant.

Greenhouse Gas Emissions Estimation Summary and Greenhouse Gas Impact Analysis

Thresholds of Significance

San Joaquin Valley Air Pollution Control District

The SJVAPCD's Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA presents a tiered approach to analyzing project significance with respect to GHG emissions. Project GHG emissions are considered less than significant if they can meet any of the following conditions, evaluated in the order presented:

- Project is exempt from CEQA requirements;
- Project complies with an approved GHG emission reduction plan or GHG mitigation program;
- Project implements Best Performance Standards (BPS); or
- Project demonstrates that specific GHG emissions would be reduced or mitigated by at least 29 percent compared to Business-as-Usual (BAU), including GHG emission reductions achieved since the 2002-2004 baseline period.

The SJVAPCD's Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA includes thresholds based on whether the project will reduce or mitigate GHG levels by 29 percent from BAU levels compared with 2005 levels by 2020.¹⁴ This level of GHG reduction is based on the target established by CARB's AB 32 Scoping Plan, approved in 2008. First occupancy at the project site is expected to occur in 2023. This date is past the AB 32 2020 milestone year. Given recent legislative and legal scrutiny on post-2020 compliance, additional discussion is provided to show progress towards GHG reduction goals identified in CARB's 2017 Scoping Plan for the year 2030. Additionally, although not included in a formal GHG reduction plan, Executive Order S-3-05 also includes a goal of reducing GHG emissions 80 percent below 1990 levels by 2050 and Executive Order B-55-18 set the goal to achieve carbon neutrality statewide by 2045.

Project-level Thresholds

Section 15064.4(b) of the CEQA Guidelines' amendments for GHG emissions states that a lead agency may take into account the following three considerations in assessing the significance of impacts from GHG emissions.

- Consideration #1: The extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting.
- Consideration #2: Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
- Consideration #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 GHG emissions. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must include specific requirements that reduce or mitigate the project's incremental contribution of GHG emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable

¹⁴ San Joaquin Valley Air Pollution Control District (SJVAPCD). 2009. "Final Staff Report, Addressing Greenhouse Gas Emissions Impacts under the California Environmental Quality Act." Website: http://www.valleyair.org/programs/CCAP/11-05-09/1_CCAP_FINAL_CEQA_GHG_Draft_Staff_Report_Nov_05_2009.pdf. December 2009. Accessed February 6, 2022.

notwithstanding compliance with the adopted regulations or requirements, an Environmental Impact Report (EIR) must be prepared for the project.

The SJVAPCD's Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA includes thresholds based on whether the project will reduce or mitigate GHG levels by 29 percent from BAU levels compared with 2005 levels by 2020.¹⁵ This level of GHG reduction is based on the target established by CARB's AB 32 Scoping Plan, approved in 2008. First occupancy at the project site is expected to occur in 2023. This date is past the AB 32 2020 milestone year. Given recent legislative and legal scrutiny on post-2020 compliance, additional discussion is provided to show progress towards GHG reduction goals identified in CARB's 2017 Scoping Plan for the year 2030. Additionally, although not included in a formal GHG reduction plan, Executive Order S-3-05 also includes a goal of reducing GHG emissions 80 percent below 1990 levels by 2050 and Executive Order B-55-18 set the goal to achieve carbon neutrality statewide by 2045. The proposed project briefly addresses those two Executive Orders.

Newhall Ranch

The California Supreme Court decision in the *Center for Biological Diversity et al. vs. California Department of Fish and Wildlife, the Newhall Land and Farming Company* (62 Cal.4th 204 [2015], and known as the Newhall Ranch decision), confirmed that the use of BAU analysis (e.g., 29 percent below BAU), a performance-based approach, would be satisfactory. However, for a project-level analysis that uses CARB's statewide BAU targets, substantial evidence must be presented to support the use of those targets for a particular project at a specific location. The court noted that this may require examination of the data behind the statewide model and adjustment to the levels of reduction from BAU used for project evaluation. To date, neither CARB nor any lead agencies have provided any guidance on how to adjust AB 32's statewide BAU target for use at the project level.

The regulations in the State's 2008 Scoping Plan have been adopted and the State is on track to meet the 2020 target and achieve continued progress towards meeting the 2017 Scoping Plan target for 2030.

In the Newhall case, the Supreme Court was concerned that new development may need to reduce GHG emissions more than existing development to demonstrate it is meeting its fair share of reductions. New development does do more than its fair share through compliance with enhanced regulations, particularly with respect to motor vehicles, energy efficiency, and electricity generation. If no additional reductions are required from an individual project beyond that achieved by regulations, then the amount needed to reach the 2020 target is the amount of GHG emissions a project must reduce to comply with Statewide goals.

¹⁵ San Joaquin Valley Air Pollution Control District (SJVAPCD). 2009. "Final Staff Report, Addressing Greenhouse Gas Emissions Impacts under the California Environmental Quality Act." Website: http://www.valleyair.org/programs/CCAP/11-05-09/1_CCAP_FINAL_CEQA_GHG_Draft_Staff_Report_Nov_05_2009.pdf. December 2009. Accessed October 30, 2021.

Addressing Greenhouse Gas CEQA Impact Questions

Table 15: Summary of Greenhouse Gas Impact Analysis

Greenhouse Gas Emissions	
Would the project:	Significance Finding
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Less than Significant Impact
b) Conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Less than Significant Impact

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

Less Than Significant Impact.

The CAP is utilized to determine the significance from the project’s contribution of GHG emissions. The project’s long-term GHG emissions are provided for informational purposes only.

Quantification of Greenhouse Gas Emissions for Informational Purposes

Construction

GHG emissions generated during all phases of construction were combined and are shown in Table 16. The SJVAPCD does not have a recommendation for assessing the significance of construction related emissions, however, other jurisdictions such as the South Coast Air Quality Management District (SCAQMD) and the Sacramento Metropolitan Air Quality Management District (SMAQMD) have concluded that construction emissions should be included since they may remain in the atmosphere for years after construction is complete. In order to account for the construction emissions, amortization of the total emissions generated during construction were based on the life of the development (non-residential—30 years) and added to the operational emissions.

Table 16: Summary of Construction-Generated Greenhouse Gas Emissions

Emissions Source	MT CO _{2e} per Year
Phase 1—2022	736
Phase 1—2023	142
Phase 2—2023	707
Phase 2—2024	149
Project Construction Total	1,734
Amortized over 30 Years	58
Notes: MT CO _{2e} = metric tons of carbon dioxide equivalent Totals summed using unrounded numbers; totals may not appear to sum exactly due to rounding. Source: CalEEMod Output and Additional Supporting Information (Attachment A).	

Operations

Operational or long-term emissions occur over the life of the project. Sources of emissions may include motor vehicles and trucks, energy usage, water usage, waste generation, and area sources, such as landscaping activities. Operational GHG emissions associated with the proposed project were estimated using CalEEMod 2020.4.0. Please see the “Assumptions” sections of this technical memorandum for details regarding assumptions and methodology used to estimate emissions. Complete CalEEMod output files and additional supporting information are also included in Attachment A.

Business-as-Usual Operational Emissions

Operational emissions under the business-as-usual scenario were modeled using CalEEMod 2020.4.0. Modeling assumptions for the year 2005 were used to represent business as usual conditions (without the benefit of regulations adopted to reduce GHG emissions). The CARB and SJVAPCD guidance recommend using regulatory conditions in 2002-2004 in the baseline scenario to represent conditions as if regulations had not been adopted to allow the effect of projected growth on achieving reduction targets to be clearly defined. CalEEMod defaults were used for project energy usage, water usage, waste generation, and area sources (architectural coating, consumer products, and landscaping). The vehicle fleet mixes were revised to reflect the project fleet mixes.

Buildout Year Operational Emissions

Operational emissions for the year 2023 were modeled using CalEEMod. CalEEMod assumes compliance with some, but not all, applicable rules and regulations regarding energy efficiency, vehicle fuel efficiency, renewable energy usage, and other GHG reduction policies, as described in the CalEEMod User’s Guide.¹⁶

The reductions obtained from each regulation and the source of the reduction amount used in the analysis are described below.

The following regulations are incorporated into the CalEEMod emission factors:

- Pavley I and Pavley II (LEV III) motor vehicle emission standards
- CARB Medium and Heavy-Duty Vehicle Regulation
- 2005, 2008, 2013, 2016, and 2019 Title 24 Energy Efficiency Standards

The following regulations have not been incorporated into the CalEEMod emission factors and require alternative methods to account for emission reductions provided by the regulations:

- Renewables Portfolio Standard (RPS) requirements for year 2030
- Green Building Code Standards (indoor water use)
- California Model Water Efficient Landscape Ordinance (outdoor water)
- CalRecycle 75 Percent Initiative (solid waste)

Title 24 reductions for 2013 and 2016 updates were added to CalEEMod 2016.3.2 and were carried into CalEEMod 2020.4.0. Title 24 reductions for 2019 were added to CalEEMod 2020.4.0.

RPS is not accounted for in CalEEMod 2020.4.0. Reductions from RPS for operational years 2030 and beyond are addressed by revising the electricity emission intensity factor in CalEEMod to account for the utility RPS rate forecast for 2030. The utilities will be required by SB 100 to increase the use of renewable energy sources to 60 percent by 2030. The latest power content label for PG&E and compliance with

¹⁶ California Air Pollution Control Officers Association (CAPCOA). 2021. California Emission Estimator Model (CalEEMod) Version 2020.4.0 User’s Guide. Website: https://www.aqmd.gov/docs/default-source/caleemod/user-guide-2021/01_user-39-s-guide2020-4-0.pdf?sfvrsn=6. Accessed February 6, 2022.

RPS were used to estimate a revised CO₂ intensity factor for use in modeling the 2030 operational year scenario.

GHG reductions from some design features and compliance with regulations that are not otherwise accounted for can be quantified in CalEEMod. Note that CalEEMod nominally treats these design elements and conditions as “mitigation measures,” despite their inclusion in the project description. Therefore, reported operational emissions are considered to represent unmitigated project conditions.

Operational GHG emissions by source are shown in Table 17. Full buildout of the project is anticipated to occur in 2023.

Table 17: Unmitigated Project Operational GHG Emissions (Buildout Year Scenario)

Emission Source	Emissions (MT CO ₂ e per year)	
	Business as Usual Total Emissions (MT CO ₂ e per year)	Buildout Year (2023) Total Emissions with Regulations and Design Features (MT CO ₂ e per year)
Area	0.01	0.01
Energy	3,921	492
Mobile (Passenger Vehicles)	1,302	950
Mobile (Trucks)	2,102	1,589
Fugitive Refrigerants	2,249	241
Waste	238	238
Water	343	218
Amortized Construction Emissions	58	58
Total	10,213	3,786
Reduction from BAU		6,427
Percent Reduction		62.9%
SJVAPCD Significance Threshold (Shown for Informational Proposes Only)		29%
MT CO ₂ e = metric tons of carbon dioxide equivalent. Totals were calculated using unrounded emissions; totals may not appear to sum exactly due to rounding. The project achieves the SJVAPCD 29 percent reduction from BAU threshold, and the 21.7 percent required to show consistency with AB 32 targets. Source of SJVAPCD Significance Threshold: San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. Final Draft Guidance for Assessing and Mitigating Air Quality Impacts. Website: https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF . Accessed February 6, 2022. Source of Business as Usual Emissions: CalEEMod output for the buildout year BAU scenario (see Attachment A). Source of Buildout Year Emissions: CalEEMod output for the year 2023 (Attachment A).		

Emissions were assessed for full buildout operations in years 2023 and 2030. The 2030 scenario summarized in Table 18.

Table 18: Unmitigated Project Operational GHG Emissions (Year 2030 Scenario)

Emission Source	Emissions (MT CO ₂ e per year)	
	Business as Usual Total Emissions (MT CO ₂ e per year)	2030 Year Total Emissions with Regulations and Design Features (MT CO ₂ e per year)
Area	0.01	0.01
Energy	3,921	445
Mobile (Passenger Vehicles)	1,279	766
Mobile (Trucks)	2,102	1,361
Fugitive Refrigerants	2,249	241
Waste	238	238
Water	343	212
Amortized Construction Emissions	58	58
Total	10,190	3,321
Reduction from BAU		6,868
Percent Reduction		67.4%
Significance Threshold (Shown for Informational Purposes Only)		29%
MT CO ₂ e = metric tons of carbon dioxide equivalent. Totals were calculated using unrounded emissions; totals may not appear to sum exactly due to rounding. Source of Business-as-Usual Emissions: CalEEMod output for 2030 BAU scenario (see Attachment A). Source of 2030 Emissions: CalEEMod output for the year 2030 (Attachment A).		

As shown in Table 17 and Table 18, the project would achieve a 62.9 percent reduction from BAU at project buildout (2023) and 67.4 percent reduction from BAU by the year 2030 with adopted regulations and design features incorporated. This is above the 29 percent reduction required by the SJVAPCD threshold, and the required 21.7 percent average reduction from all GHG emission sources to meet the AB 32 targets. The CARB originally identified a reduction of 29 percent from business as usual as needed to achieve AB 32 targets. The 2008 recession and slower growth in the years since 2008 have reduced the growth forecasted for 2020 and the amount needed to be reduced to achieve 1990 levels as required by AB 32; the target was revised to 21.7 percent.

The 62.9 percent reduction from BAU is 41.2 percent beyond the average reduction required by the State from all sources to achieve the AB 32 2020 target. This surplus addresses the Supreme Court’s concern in the Newhall case that new development must do more than average to meet its fair share of emission reductions.

By 2030, the proposed project would achieve a 67.4 percent reduction from BAU or 45.7 percent above the 21.7 percent reduction necessary to meet the 2020 target (38.4 percent above the SJVAPCD-identified target). No new threshold has been adopted by the SJVAPCD for the 2030 target, so in the interim the project must make continued progress toward the 2030 goal.

The project’s occupancy is anticipated to be fully built out in 2023, thus an additional analysis is provided to show consistency with post-2020 State legislative GHG goals. The SB 32 goal of 40 percent below 1990 emission levels by 2030 is the target established by the 2017 Scoping Plan Update.

The 2017 Scoping Plan includes new strategies that are not incorporated in the analysis above. Many measures that are likely to proceed include zero net energy buildings in future updates to Title 24 and enhanced motor vehicle fuel efficiency standards beyond 2025. The 2017 Scoping Plan identified an emission limit of 260 million metric tons of carbon dioxide equivalents (MMTCO_{2e}). The 2030 BAU Inventory is estimated to be 392 MMTCO_{2e}. The 2017 Scoping Plan identified that the bulk of its reductions would come from the Electric Power, Industrial fuel combustion, and Transportation. The continuance of the Cap and Trade would provide additional reductions. Although the 2017 Scoping Plan largely relies on state actions to achieve the GHG emissions limit, the CARB considers local governments partners in achieving the State's goals for reducing GHG emissions. The 2017 Scoping Plan suggests that all new land use development implement feasible measures to reduce GHG emissions, however, it does not define feasible measures nor assign a required reduction amount to new development. A fair share quantitative threshold based on the 2017 Scoping Plan is not presently feasible as the nexus between a project's contribution and its fair share mitigation is not well defined.

Based on the 62.9 percent reduction from BAU for the buildout year (2023), the proposed project would not have a significant impact on GHG emissions as it would meet the SJVAPCD's threshold of 29 percent and exceed the CARB's 21.7 percent reduction necessary from all sources to meet the AB 32 emissions limit.

For the year 2030, the project achieves a 67.4 percent reduction from BAU, which demonstrates substantial progress towards achieving the 2030 target.

Regarding the years 2045 and 2050, there have been Executive Orders issued to address carbon neutrality and GHG reduction targets, respectively for those years, however, there are no existing GHG reduction measures or plans that specifically address those Orders. Historically, the State would take the lead in developing regulatory and market measures to achieve the required reductions. The proposed project would participate in the reductions through adherence with regulations and continued improvements to the motor vehicle efficiencies accessing the project site. Studies have shown that in order to meet the 2050 targets, aggressive pursuit of technologies in the transportation and energy sectors, including electrification and the decarbonization of fuel, will be required. Because of the technological shifts required and the unknown parameters of the regulatory framework in 2050, quantitatively analyzing the proposed project's impacts further relative to the 2050 goals is speculative for purposes of CEQA.

Conclusion

In summary, the proposed project exceeds the required 29 percent below BAU guidance provided by the SJVAPCD. Furthermore, the proposed project shows significant reductions in the year 2030, demonstrating that it would not inhibit the State's progress in achieving the 2030 GHG emissions target. The GHG emissions impact would be less than significant with respect to Consideration #1 and #2.

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

Less Than Significant Impact.

The following analysis assesses the proposed project's compliance with Consideration No. 3 regarding consistency with adopted plans to reduce GHG emissions. City of Madera has not adopted a GHG Reduction Plan that would meet the criteria of the CEQA Guidelines 15064.4(b)(3) in order to evaluate a project's contribution to GHG emissions. Therefore, the proposed project is also assessed for its consistency with CARB's adopted Scoping Plans to determine its consistence with adopted plans to reduce GHG emissions.

Consistency with CARB's Adopted Scoping Plans

The State's regulatory program implementing the 2008 Scoping Plan is now fully mature. All regulations envisioned in the Scoping Plan have been adopted, and the effectiveness of those regulations has been estimated by the agencies during the adoption process and then tracked to verify their effectiveness after implementation. The combined effect of this successful effort is that the State now projects that it will meet the 2020 target and achieve continued progress toward meeting post-2020 targets. Governor Brown, in the introduction to Executive Order B-30-15, stated "California is on track to meet or exceed the current target of reducing greenhouse gas emissions to 1990 levels by 2020, as established in the California Global Warming Solutions Act of 2006 (AB 32)."

The State's regulatory program is able to target both new and existing development because the two most important strategies, motor vehicle fuel efficiency and emissions from electricity generation, obtain reductions equally from existing sources and new sources. This is because all vehicle operators use cleaner low carbon fuels and buy vehicles subject to the fuel efficiency regulations and all building owners or operators purchase cleaner energy from the grid that is produced by increasing percentages of renewable fuels. This includes regulations on mobile sources such as the Pavley standards that apply to all vehicles purchased in California, the LCFS (Low Carbon Fuel Standard) that applies to all fuel sold in California, and the Renewable Portfolio Standard and Renewable Energy Standard under SB 100 that apply to utilities providing electricity to all California end users.

Moreover, the Scoping Plan strategy will achieve more than average reductions from energy and mobile source sectors that are the primary sources related to development projects and lower than average reductions from other sources such as agriculture. The proposed project's operational GHG emissions would principally be generated from electricity consumption and vehicle use (including heavy trucks), which are directly under the purview of the Scoping Plan strategy and have experienced reductions above the State average reduction. The project includes renewable energy production for the project's consumption. In addition, refrigerants used in the cold storage facility will be subject to the latest CARB regulations in the form of California's Refrigerant Management Program. The Refrigerant Management Program requires all supermarket and industrial refrigeration systems with a full recharge capacity of 50 pounds (22.7 kilograms) or greater to limit the refrigerants used to 150 GWP. Considering this information, the proposed project would be consistent with the State's AB 32 and SB 32 GHG reduction goals. As such, the proposed project's GHG impacts would be less than significant.

Consistency Regarding GHG Reduction Goals for 2050 under Executive Order S-3-05

Regarding goals for 2050 under Executive Order S-3-05, at this time it is not possible to quantify the emissions savings from future regulatory measures, as they have not yet been developed; nevertheless, it can be anticipated that operation of the proposed project would comply with whatever measures are enacted that State lawmakers decide would lead to an 80 percent reduction below 1990 levels by 2050. In its 2008 Scoping Plan, CARB acknowledged that the "measures needed to meet the 2050 are too far in the future to define in detail." In the First Scoping Plan Update; however, CARB generally described the type of activities required to achieve the 2050 target: "energy demand reduction through efficiency and activity changes; large scale electrification of on-road vehicles, buildings, and industrial machinery; decarbonizing electricity and fuel supplies; and rapid market penetration of efficiency and clean energy technologies that requires significant efforts to deploy and scale markets for the cleanest technologies immediately." The 2017 Scoping Plan provides an intermediate target that is intended to achieve reasonable progress toward the 2050 target.

Accordingly, taking into account the proposed project's design features and the progress being made by the State towards reducing emissions in key sectors such as transportation, industry, and electricity, the

**Origo Cold Madera, LLC Secured Temperature Controlled Nuts Storage Facility
Air Quality, Health Risk Analysis, and Greenhouse Gas Technical Memorandum
February 8, 2022**

proposed project would be consistent with State GHG Plans and would further the State's goals of reducing GHG emissions 40 percent below 1990 levels by 2030, and 80 percent below 1990 levels by 2050, and does not obstruct their attainment.

Attachments

Attachment A – CalEEMod Output and Additional Supporting Information

Attachment B – Health Risk Assessment

ATTACHMENT A

CalEEMod Output and Additional Supporting Information

CalEEMod Output and Additional Supporting Information

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

**Origo Cold Madera - Phase 1 Unmitigated Construction
Madera County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	254.02	1000sqft	5.83	254,016.00	0
Other Asphalt Surfaces	1.50	Acre	1.50	65,340.00	0
Other Non-Asphalt Surfaces	1.50	Acre	1.50	65,340.00	0
Parking Lot	6.17	Acre	6.17	268,765.20	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.9	Precipitation Freq (Days)	51
Climate Zone	3			Operational Year	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MW hr)	203.98	CH4 Intensity (lb/MW hr)	0.033	N2O Intensity (lb/MW hr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Origo Cold Madera - Temperature Controlled Storage Facility
Earliest Construction Start Date: March 2022

Land Use - Phase 1 Land Use Development
Total Building Area: 254,016 sq ft
15.00 Total Acres

Construction Phase - Earliest Construction Start Date: March 2022
Site vacant - no demolition
Phase 1 Construction Duration: 12 months

Off-road Equipment - Adjusted construction equipment usage to match CalEEMod default total building construction HP hours.

Trips and VMT - Cut and fill to balance on-site for the entire project; hauling trips added to provide a conservative estimate.
Additional haul trips for mobilization/demobilization of on-site equipment.
Vendor trips added to the paving phase for delivery of materials.

Origo Cold Madera - Phase 1 Unmitigated Construction - Madera County, Annual

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

Grading - Cut and fill expected to balance on-site for the entire project.

Architectural Coating - SJVAPCD Rule 4601 Architectural Coatings

Vehicle Trips - Construction run only

Area Coating - SJVAPCD Rule 4601 Architectural Coatings

Construction Off-road Equipment Mitigation - Compliance with SJVAPCD Regulation VIII

Area Mitigation - --

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	127,008.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	50
tblAreaCoating	Area_EF_Nonresidential_Interior	150	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	300.00	190.00
tblLandUse	LandUseSquareFeet	254,020.00	254,016.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	7.00	5.50
tblOffRoadEquipment	UsageHours	8.00	7.60
tblOffRoadEquipment	UsageHours	8.00	6.30
tblOffRoadEquipment	UsageHours	7.00	6.60
tblOffRoadEquipment	UsageHours	8.00	6.30
tblTripsAndVMT	HaulingTripNumber	0.00	54.00
tblTripsAndVMT	HaulingTripNumber	0.00	56.00
tblTripsAndVMT	HaulingTripNumber	0.00	32.00

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tblTripsAndVMT	HaulingTripNumber	0.00	12.00
tblTripsAndVMT	HaulingTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblVehicleTrips	ST_TR	2.12	0.00
tblVehicleTrips	SU_TR	2.12	0.00
tblVehicleTrips	WD_TR	2.12	0.00

2.0 Emissions Summary

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

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.4008	3.2923	3.4915	8.0700e-003	0.4662	0.1435	0.6096	0.1677	0.1343	0.3020	0.0000	723.7722	723.7722	0.1125	0.0302	735.5802
2023	0.5909	0.5064	0.6433	1.5500e-003	0.0553	0.0208	0.0761	0.0150	0.0196	0.0346	0.0000	139.4421	139.4421	0.0167	6.5600e-003	141.8126
Maximum	0.5909	3.2923	3.4915	8.0700e-003	0.4662	0.1435	0.6096	0.1677	0.1343	0.3020	0.0000	723.7722	723.7722	0.1125	0.0302	735.5802

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					
2022	0.4008	3.2923	3.4915	8.0700e-003	0.3362	0.1435	0.4797	0.1098	0.1343	0.2441	0.0000	723.7717	723.7717	0.1125	0.0302	735.5797
2023	0.5909	0.5064	0.6433	1.5500e-003	0.0553	0.0208	0.0761	0.0150	0.0196	0.0346	0.0000	139.4420	139.4420	0.0167	6.5600e-003	141.8125
Maximum	0.5909	3.2923	3.4915	8.0700e-003	0.3362	0.1435	0.4797	0.1098	0.1343	0.2441	0.0000	723.7717	723.7717	0.1125	0.0302	735.5797

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	24.93	0.00	18.96	31.71	0.00	17.21	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	3-7-2022	6-6-2022	1.0645	1.0645
2	6-7-2022	9-6-2022	1.1518	1.1518
3	9-7-2022	12-6-2022	1.1480	1.1480
4	12-7-2022	3-6-2023	1.1755	1.1755
5	3-7-2023	6-6-2023	0.2142	0.2142
		Highest	1.1755	1.1755

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	1.0853	2.0000e-005	2.4200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.7000e-003	4.7000e-003	1.0000e-005	0.0000	5.0100e-003
Energy	2.1000e-004	1.8700e-003	1.5700e-003	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	595.0094	595.0094	0.0960	0.0117	600.8850
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	48.4702	0.0000	48.4702	2.8645	0.0000	120.0828
Water						0.0000	0.0000		0.0000	0.0000	18.6362	29.4090	48.0452	1.9189	0.0458	109.6573
Total	1.0855	1.8900e-003	3.9900e-003	1.0000e-005	0.0000	1.5000e-004	1.5000e-004	0.0000	1.5000e-004	1.5000e-004	67.1064	624.4231	691.5295	4.8794	0.0574	830.6301

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.0853	2.0000e-005	2.4200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.7000e-003	4.7000e-003	1.0000e-005	0.0000	5.0100e-003
Energy	2.1000e-004	1.8700e-003	1.5700e-003	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	595.0094	595.0094	0.0960	0.0117	600.8850
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	48.4702	0.0000	48.4702	2.8645	0.0000	120.0828
Water						0.0000	0.0000		0.0000	0.0000	18.6362	29.4090	48.0452	1.9189	0.0458	109.6573
Total	1.0855	1.8900e-003	3.9900e-003	1.0000e-005	0.0000	1.5000e-004	1.5000e-004	0.0000	1.5000e-004	1.5000e-004	67.1064	624.4231	691.5295	4.8794	0.0574	830.6301

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/7/2022	3/18/2022	5	10	
2	Grading	Grading	3/19/2022	4/29/2022	5	30	
3	Paving	Paving	4/30/2022	5/27/2022	5	20	

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4	Building Construction	Building Construction	5/28/2022	2/19/2023	5	190
5	Architectural Coating	Architectural Coating	2/20/2023	3/17/2023	5	20

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 90

Acres of Paving: 9.17

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 381,024; Non-Residential Outdoor: 50; Striped Parking Area: 23,967 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	2	5.50	231	0.29
Building Construction	Forklifts	5	7.60	89	0.20
Building Construction	Generator Sets	2	6.30	84	0.74
Building Construction	Tractors/Loaders/Backhoes	5	6.60	97	0.37
Building Construction	Welders	2	6.30	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	54.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	56.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	16	274.00	107.00	32.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	4.00	12.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	55.00	4.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0159	0.1654	0.0985	1.9000e-004		8.0600e-003	8.0600e-003		7.4200e-003	7.4200e-003	0.0000	16.7197	16.7197	5.4100e-003	0.0000	16.8549
Total	0.0159	0.1654	0.0985	1.9000e-004	0.0983	8.0600e-003	0.1064	0.0505	7.4200e-003	0.0579	0.0000	16.7197	16.7197	5.4100e-003	0.0000	16.8549

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

3.2 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-004	4.0900e-003	8.0000e-004	2.0000e-005	4.6000e-004	4.0000e-005	5.0000e-004	1.3000e-004	4.0000e-005	1.7000e-004	0.0000	1.5721	1.5721	0.0000	2.5000e-004	1.6459
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.4000e-004	2.3000e-004	2.7500e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.6156	0.6156	2.0000e-005	2.0000e-005	0.6219
Total	4.4000e-004	4.3200e-003	3.5500e-003	3.0000e-005	1.1800e-003	4.0000e-005	1.2200e-003	3.2000e-004	4.0000e-005	3.6000e-004	0.0000	2.1877	2.1877	2.0000e-005	2.7000e-004	2.2678

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0442	0.0000	0.0442	0.0227	0.0000	0.0227	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0159	0.1654	0.0985	1.9000e-004		8.0600e-003	8.0600e-003		7.4200e-003	7.4200e-003	0.0000	16.7197	16.7197	5.4100e-003	0.0000	16.8549
Total	0.0159	0.1654	0.0985	1.9000e-004	0.0442	8.0600e-003	0.0523	0.0227	7.4200e-003	0.0302	0.0000	16.7197	16.7197	5.4100e-003	0.0000	16.8549

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

3.2 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-004	4.0900e-003	8.0000e-004	2.0000e-005	4.6000e-004	4.0000e-005	5.0000e-004	1.3000e-004	4.0000e-005	1.7000e-004	0.0000	1.5721	1.5721	0.0000	2.5000e-004	1.6459
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.4000e-004	2.3000e-004	2.7500e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.6156	0.6156	2.0000e-005	2.0000e-005	0.6219
Total	4.4000e-004	4.3200e-003	3.5500e-003	3.0000e-005	1.1800e-003	4.0000e-005	1.2200e-003	3.2000e-004	4.0000e-005	3.6000e-004	0.0000	2.1877	2.1877	2.0000e-005	2.7000e-004	2.2678

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1381	0.0000	0.1381	0.0548	0.0000	0.0548	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0544	0.5827	0.4356	9.3000e-004		0.0245	0.0245		0.0226	0.0226	0.0000	81.8019	81.8019	0.0265	0.0000	82.4633
Total	0.0544	0.5827	0.4356	9.3000e-004	0.1381	0.0245	0.1626	0.0548	0.0226	0.0774	0.0000	81.8019	81.8019	0.0265	0.0000	82.4633

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3.3 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.1000e-004	4.2400e-003	8.3000e-004	2.0000e-005	4.8000e-004	4.0000e-005	5.2000e-004	1.3000e-004	4.0000e-005	1.7000e-004	0.0000	1.6303	1.6303	1.0000e-005	2.6000e-004	1.7068
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	1.1200e-003	7.7000e-004	9.1800e-003	2.0000e-005	2.3900e-003	2.0000e-005	2.4000e-003	6.4000e-004	1.0000e-005	6.5000e-004	0.0000	2.0518	2.0518	7.0000e-005	6.0000e-005	2.0729
Total	1.2300e-003	5.0100e-003	0.0100	4.0000e-005	2.8700e-003	6.0000e-005	2.9200e-003	7.7000e-004	5.0000e-005	8.2000e-004	0.0000	3.6822	3.6822	8.0000e-005	3.2000e-004	3.7798

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0621	0.0000	0.0621	0.0247	0.0000	0.0247	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0544	0.5827	0.4356	9.3000e-004		0.0245	0.0245		0.0226	0.0226	0.0000	81.8018	81.8018	0.0265	0.0000	82.4632
Total	0.0544	0.5827	0.4356	9.3000e-004	0.0621	0.0245	0.0866	0.0247	0.0226	0.0472	0.0000	81.8018	81.8018	0.0265	0.0000	82.4632

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3.3 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.1000e-004	4.2400e-003	8.3000e-004	2.0000e-005	4.8000e-004	4.0000e-005	5.2000e-004	1.3000e-004	4.0000e-005	1.7000e-004	0.0000	1.6303	1.6303	1.0000e-005	2.6000e-004	1.7068
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	1.1200e-003	7.7000e-004	9.1800e-003	2.0000e-005	2.3900e-003	2.0000e-005	2.4000e-003	6.4000e-004	1.0000e-005	6.5000e-004	0.0000	2.0518	2.0518	7.0000e-005	6.0000e-005	2.0729
Total	1.2300e-003	5.0100e-003	0.0100	4.0000e-005	2.8700e-003	6.0000e-005	2.9200e-003	7.7000e-004	5.0000e-005	8.2000e-004	0.0000	3.6822	3.6822	8.0000e-005	3.2000e-004	3.7798

3.4 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0110	0.1113	0.1458	2.3000e-004		5.6800e-003	5.6800e-003		5.2200e-003	5.2200e-003	0.0000	20.0276	20.0276	6.4800e-003	0.0000	20.1895
Paving	0.0101					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0211	0.1113	0.1458	2.3000e-004		5.6800e-003	5.6800e-003		5.2200e-003	5.2200e-003	0.0000	20.0276	20.0276	6.4800e-003	0.0000	20.1895

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

3.4 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	9.1000e-004	1.8000e-004	0.0000	1.0000e-004	1.0000e-005	1.1000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.3494	0.3494	0.0000	5.0000e-005	0.3658
Vendor	9.0000e-005	2.2100e-003	7.0000e-004	1.0000e-005	2.6000e-004	3.0000e-005	2.9000e-004	8.0000e-005	2.0000e-005	1.0000e-004	0.0000	0.8122	0.8122	0.0000	1.2000e-004	0.8478
Worker	5.6000e-004	3.9000e-004	4.5900e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	1.0259	1.0259	4.0000e-005	3.0000e-005	1.0365
Total	6.7000e-004	3.5100e-003	5.4700e-003	2.0000e-005	1.5500e-003	5.0000e-005	1.6000e-003	4.3000e-004	4.0000e-005	4.6000e-004	0.0000	2.1875	2.1875	4.0000e-005	2.0000e-004	2.2501

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0110	0.1113	0.1458	2.3000e-004		5.6800e-003	5.6800e-003		5.2200e-003	5.2200e-003	0.0000	20.0275	20.0275	6.4800e-003	0.0000	20.1895
Paving	0.0101					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0211	0.1113	0.1458	2.3000e-004		5.6800e-003	5.6800e-003		5.2200e-003	5.2200e-003	0.0000	20.0275	20.0275	6.4800e-003	0.0000	20.1895

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

3.4 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	9.1000e-004	1.8000e-004	0.0000	1.0000e-004	1.0000e-005	1.1000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.3494	0.3494	0.0000	5.0000e-005	0.3658
Vendor	9.0000e-005	2.2100e-003	7.0000e-004	1.0000e-005	2.6000e-004	3.0000e-005	2.9000e-004	8.0000e-005	2.0000e-005	1.0000e-004	0.0000	0.8122	0.8122	0.0000	1.2000e-004	0.8478
Worker	5.6000e-004	3.9000e-004	4.5900e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	1.0259	1.0259	4.0000e-005	3.0000e-005	1.0365
Total	6.7000e-004	3.5100e-003	5.4700e-003	2.0000e-005	1.5500e-003	5.0000e-005	1.6000e-003	4.3000e-004	4.0000e-005	4.6000e-004	0.0000	2.1875	2.1875	4.0000e-005	2.0000e-004	2.2501

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2083	1.9059	1.9975	3.2900e-003		0.0988	0.0988		0.0929	0.0929	0.0000	282.7885	282.7885	0.0677	0.0000	284.4821
Total	0.2083	1.9059	1.9975	3.2900e-003		0.0988	0.0988		0.0929	0.0929	0.0000	282.7885	282.7885	0.0677	0.0000	284.4821

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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 - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.0000e-005	1.9800e-003	3.8000e-004	1.0000e-005	2.2000e-004	2.0000e-005	2.4000e-004	6.0000e-005	2.0000e-005	8.0000e-005	0.0000	0.7600	0.7600	0.0000	1.2000e-004	0.7957
Vendor	0.0194	0.4576	0.1452	1.7600e-003	0.0548	5.2000e-003	0.0600	0.0159	4.9800e-003	0.0208	0.0000	168.3813	168.3813	9.9000e-004	0.0247	175.7680
Worker	0.0795	0.0547	0.6495	1.5800e-003	0.1691	1.0800e-003	0.1702	0.0450	9.9000e-004	0.0460	0.0000	145.2360	145.2360	5.2600e-003	4.5700e-003	146.7292
Total	0.0989	0.5143	0.7950	3.3500e-003	0.2242	6.3000e-003	0.2305	0.0609	5.9900e-003	0.0669	0.0000	314.3773	314.3773	6.2500e-003	0.0294	323.2929

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	0.2083	1.9059	1.9975	3.2900e-003		0.0988	0.0988		0.0929	0.0929	0.0000	282.7882	282.7882	0.0677	0.0000	284.4817
Total	0.2083	1.9059	1.9975	3.2900e-003		0.0988	0.0988		0.0929	0.0929	0.0000	282.7882	282.7882	0.0677	0.0000	284.4817

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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 - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.0000e-005	1.9800e-003	3.8000e-004	1.0000e-005	2.2000e-004	2.0000e-005	2.4000e-004	6.0000e-005	2.0000e-005	8.0000e-005	0.0000	0.7600	0.7600	0.0000	1.2000e-004	0.7957
Vendor	0.0194	0.4576	0.1452	1.7600e-003	0.0548	5.2000e-003	0.0600	0.0159	4.9800e-003	0.0208	0.0000	168.3813	168.3813	9.9000e-004	0.0247	175.7680
Worker	0.0795	0.0547	0.6495	1.5800e-003	0.1691	1.0800e-003	0.1702	0.0450	9.9000e-004	0.0460	0.0000	145.2360	145.2360	5.2600e-003	4.5700e-003	146.7292
Total	0.0989	0.5143	0.7950	3.3500e-003	0.2242	6.3000e-003	0.2305	0.0609	5.9900e-003	0.0669	0.0000	314.3773	314.3773	6.2500e-003	0.0294	323.2929

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	0.0434	0.3964	0.4478	7.4000e-004		0.0193	0.0193		0.0182	0.0182	0.0000	63.8773	63.8773	0.0152	0.0000	64.2572
Total	0.0434	0.3964	0.4478	7.4000e-004		0.0193	0.0193		0.0182	0.0182	0.0000	63.8773	63.8773	0.0152	0.0000	64.2572

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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	1.0000e-005	3.6000e-004	8.0000e-005	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	2.0000e-005	0.0000	0.1646	0.1646	0.0000	3.0000e-005	0.1723
Vendor	2.2400e-003	0.0827	0.0279	3.8000e-004	0.0124	5.4000e-004	0.0129	3.5800e-003	5.2000e-004	4.1000e-003	0.0000	36.6303	36.6303	1.3000e-004	5.3500e-003	38.2291
Worker	0.0164	0.0108	0.1335	3.5000e-004	0.0382	2.3000e-004	0.0384	0.0102	2.1000e-004	0.0104	0.0000	31.7378	31.7378	1.0600e-003	9.5000e-004	32.0460
Total	0.0187	0.0938	0.1615	7.3000e-004	0.0506	7.7000e-004	0.0514	0.0137	7.3000e-004	0.0145	0.0000	68.5327	68.5327	1.1900e-003	6.3300e-003	70.4475

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	0.0434	0.3964	0.4478	7.4000e-004		0.0193	0.0193		0.0182	0.0182	0.0000	63.8773	63.8773	0.0152	0.0000	64.2571
Total	0.0434	0.3964	0.4478	7.4000e-004		0.0193	0.0193		0.0182	0.0182	0.0000	63.8773	63.8773	0.0152	0.0000	64.2571

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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	1.0000e-005	3.6000e-004	8.0000e-005	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	2.0000e-005	0.0000	0.1646	0.1646	0.0000	3.0000e-005	0.1723
Vendor	2.2400e-003	0.0827	0.0279	3.8000e-004	0.0124	5.4000e-004	0.0129	3.5800e-003	5.2000e-004	4.1000e-003	0.0000	36.6303	36.6303	1.3000e-004	5.3500e-003	38.2291
Worker	0.0164	0.0108	0.1335	3.5000e-004	0.0382	2.3000e-004	0.0384	0.0102	2.1000e-004	0.0104	0.0000	31.7378	31.7378	1.0600e-003	9.5000e-004	32.0460
Total	0.0187	0.0938	0.1615	7.3000e-004	0.0506	7.7000e-004	0.0514	0.0137	7.3000e-004	0.0145	0.0000	68.5327	68.5327	1.1900e-003	6.3300e-003	70.4475

3.6 Architectural Coating - 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					
Archit. Coating	0.5250					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9200e-003	0.0130	0.0181	3.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	2.5533	2.5533	1.5000e-004	0.0000	2.5571
Total	0.5269	0.0130	0.0181	3.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	2.5533	2.5533	1.5000e-004	0.0000	2.5571

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3.6 Architectural Coating - 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	1.2000e-004	3.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0558	0.0558	0.0000	1.0000e-005	0.0585
Vendor	5.0000e-005	1.7700e-003	5.9000e-004	1.0000e-005	2.6000e-004	1.0000e-005	2.8000e-004	8.0000e-005	1.0000e-005	9.0000e-005	0.0000	0.7825	0.7825	0.0000	1.1000e-004	0.8166
Worker	1.8800e-003	1.2400e-003	0.0153	4.0000e-005	4.3800e-003	3.0000e-005	4.4100e-003	1.1600e-003	2.0000e-005	1.1900e-003	0.0000	3.6404	3.6404	1.2000e-004	1.1000e-004	3.6758
Total	1.9300e-003	3.1300e-003	0.0159	5.0000e-005	4.6600e-003	4.0000e-005	4.7100e-003	1.2400e-003	3.0000e-005	1.2900e-003	0.0000	4.4788	4.4788	1.2000e-004	2.3000e-004	4.5509

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	0.5250					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9200e-003	0.0130	0.0181	3.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	2.5533	2.5533	1.5000e-004	0.0000	2.5571
Total	0.5269	0.0130	0.0181	3.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	2.5533	2.5533	1.5000e-004	0.0000	2.5571

Origo Cold Madera - Phase 1 Unmitigated Construction - Madera County, Annual

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

3.6 Architectural Coating - 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	1.2000e-004	3.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0558	0.0558	0.0000	1.0000e-005	0.0585
Vendor	5.0000e-005	1.7700e-003	5.9000e-004	1.0000e-005	2.6000e-004	1.0000e-005	2.8000e-004	8.0000e-005	1.0000e-005	9.0000e-005	0.0000	0.7825	0.7825	0.0000	1.1000e-004	0.8166
Worker	1.8800e-003	1.2400e-003	0.0153	4.0000e-005	4.3800e-003	3.0000e-005	4.4100e-003	1.1600e-003	2.0000e-005	1.1900e-003	0.0000	3.6404	3.6404	1.2000e-004	1.1000e-004	3.6758
Total	1.9300e-003	3.1300e-003	0.0159	5.0000e-005	4.6600e-003	4.0000e-005	4.7100e-003	1.2400e-003	3.0000e-005	1.2900e-003	0.0000	4.4788	4.4788	1.2000e-004	2.3000e-004	4.5509

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Origo Cold Madera - Phase 1 Unmitigated Construction - Madera County, 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
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Origo Cold Madera - Phase 1 Unmitigated Construction - Madera County, Annual

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

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.491491	0.052949	0.173689	0.164683	0.034990	0.008766	0.010778	0.027771	0.000810	0.000210	0.026873	0.002020	0.004972
Other Non-Asphalt Surfaces	0.491491	0.052949	0.173689	0.164683	0.034990	0.008766	0.010778	0.027771	0.000810	0.000210	0.026873	0.002020	0.004972
Parking Lot	0.491491	0.052949	0.173689	0.164683	0.034990	0.008766	0.010778	0.027771	0.000810	0.000210	0.026873	0.002020	0.004972
Refrigerated Warehouse-No Rail	0.491491	0.052949	0.173689	0.164683	0.034990	0.008766	0.010778	0.027771	0.000810	0.000210	0.026873	0.002020	0.004972

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	592.9761	592.9761	0.0959	0.0116	598.8396
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	592.9761	592.9761	0.0959	0.0116	598.8396
NaturalGas Mitigated	2.1000e-004	1.8700e-003	1.5700e-003	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	2.0333	2.0333	4.0000e-005	4.0000e-005	2.0454
NaturalGas Unmitigated	2.1000e-004	1.8700e-003	1.5700e-003	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	2.0333	2.0333	4.0000e-005	4.0000e-005	2.0454

Origo Cold Madera - Phase 1 Unmitigated Construction - Madera County, Annual

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					
Other Asphalt Surfaces	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
Other Non-Asphalt Surfaces	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
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
Refrigerated Warehouse-No Rail	38102.4	2.1000e-004	1.8700e-003	1.5700e-003	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	2.0333	2.0333	4.0000e-005	4.0000e-005	2.0454
Total		2.1000e-004	1.8700e-003	1.5700e-003	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	2.0333	2.0333	4.0000e-005	4.0000e-005	2.0454

Origo Cold Madera - Phase 1 Unmitigated Construction - Madera County, Annual

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					
Other Asphalt Surfaces	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
Other Non-Asphalt Surfaces	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
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
Refrigerated Warehouse-No Rail	38102.4	2.1000e-004	1.8700e-003	1.5700e-003	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	2.0333	2.0333	4.0000e-005	4.0000e-005	2.0454
Total		2.1000e-004	1.8700e-003	1.5700e-003	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	2.0333	2.0333	4.0000e-005	4.0000e-005	2.0454

Origo Cold Madera - Phase 1 Unmitigated Construction - Madera County, Annual

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			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	94067.8	8.7035	1.4100e-003	1.7000e-004	8.7896
Refrigerated Warehouse-No Rail	6.31484e+006	584.2726	0.0945	0.0115	590.0500
Total		592.9761	0.0959	0.0116	598.8396

Origo Cold Madera - Phase 1 Unmitigated Construction - Madera County, Annual

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			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	94067.8	8.7035	1.4100e-003	1.7000e-004	8.7896
Refrigerated Warehouse-No Rail	6.31484e+006	584.2726	0.0945	0.0115	590.0500
Total		592.9761	0.0959	0.0116	598.8396

6.0 Area Detail

6.1 Mitigation Measures Area

Origo Cold Madera - Phase 1 Unmitigated Construction - Madera County, 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
Category	tons/yr										MT/yr					
Mitigated	1.0853	2.0000e-005	2.4200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.7000e-003	4.7000e-003	1.0000e-005	0.0000	5.0100e-003
Unmitigated	1.0853	2.0000e-005	2.4200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.7000e-003	4.7000e-003	1.0000e-005	0.0000	5.0100e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0672					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0179					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.2000e-004	2.0000e-005	2.4200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.7000e-003	4.7000e-003	1.0000e-005	0.0000	5.0100e-003
Total	1.0853	2.0000e-005	2.4200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.7000e-003	4.7000e-003	1.0000e-005	0.0000	5.0100e-003

Origo Cold Madera - Phase 1 Unmitigated Construction - Madera County, Annual

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	0.0672					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0179					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.2000e-004	2.0000e-005	2.4200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.7000e-003	4.7000e-003	1.0000e-005	0.0000	5.0100e-003
Total	1.0853	2.0000e-005	2.4200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.7000e-003	4.7000e-003	1.0000e-005	0.0000	5.0100e-003

7.0 Water Detail

7.1 Mitigation Measures Water

Origo Cold Madera - Phase 1 Unmitigated Construction - Madera County, Annual

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	48.0452	1.9189	0.0458	109.6573
Unmitigated	48.0452	1.9189	0.0458	109.6573

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	58.7421 / 0	48.0452	1.9189	0.0458	109.6573
Total		48.0452	1.9189	0.0458	109.6573

Origo Cold Madera - Phase 1 Unmitigated Construction - Madera County, Annual

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			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	58.7421 / 0	48.0452	1.9189	0.0458	109.6573
Total		48.0452	1.9189	0.0458	109.6573

8.0 Waste Detail

8.1 Mitigation Measures Waste

Origo Cold Madera - Phase 1 Unmitigated Construction - Madera County, Annual

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	48.4702	2.8645	0.0000	120.0828
Unmitigated	48.4702	2.8645	0.0000	120.0828

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	238.78	48.4702	2.8645	0.0000	120.0828
Total		48.4702	2.8645	0.0000	120.0828

Origo Cold Madera - Phase 1 Unmitigated Construction - Madera County, Annual

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			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	238.78	48.4702	2.8645	0.0000	120.0828
Total		48.4702	2.8645	0.0000	120.0828

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

Origo Cold Madera - Phase 1 Unmitigated Construction - Madera County, Annual

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

Equipment Type	Number
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11.0 Vegetation

Origo Cold Madera - Phase 2 Unmitigated Construction - Madera County, Annual

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

**Origo Cold Madera - Phase 2 Unmitigated Construction
Madera County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-Rail	250.00	1000sqft	5.74	250,000.00	0
Other Asphalt Surfaces	1.50	Acre	1.56	65,340.00	0
Other Non-Asphalt Surfaces	1.50	Acre	1.56	65,340.00	0
Parking Lot	6.74	Acre	6.74	293,594.40	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.9	Precipitation Freq (Days)	51
Climate Zone	3			Operational Year	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Phase 2: Earliest construction start date immediately following the completion of Phase 1

Land Use - Phase 2 Land Use Development

Total Building Area: Up to 250,000 sq ft

15.60 Total Acres

Construction Phase - Earliest Construction Start Date (Phase 2): March 2023

Site vacant - no demolition

Phase 2 Construction Duration: 12 months

Off-road Equipment -

Off-road Equipment - Adjusted construction equipment usage to match CalEEMod default total building construction HP hours.

Off-road Equipment -

Architectural Coating - SJVAPCD Rule 4601 Architectural Coatings

Origo Cold Madera - Phase 2 Unmitigated Construction - Madera County, Annual

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

Vehicle Trips - Construction run only

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Construction Off-road Equipment Mitigation - Compliance with SJVAPCD Regulation VIII

Fleet Mix -

Trips and VMT - Cut and fill to balance on-site for the entire project.

Additional haul trips for mobilization/demobilization of on-site equipment.

Vendor trips added to the paving phase for delivery of materials.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	50.00
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	300.00	181.00
tblLandUse	LotAcreage	1.50	1.56
tblLandUse	LotAcreage	1.50	1.56
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	7.00	5.80
tblOffRoadEquipment	UsageHours	8.00	6.60
tblOffRoadEquipment	UsageHours	8.00	6.60
tblOffRoadEquipment	UsageHours	7.00	5.80
tblOffRoadEquipment	UsageHours	8.00	6.60
tblTripsAndVMT	HaulingTripNumber	0.00	7.00
tblTripsAndVMT	HaulingTripNumber	0.00	16.00
tblTripsAndVMT	HaulingTripNumber	0.00	12.00

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

tblTripsAndVMT	HaulingTripNumber	0.00	36.00
tblTripsAndVMT	HaulingTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblVehicleTrips	ST_TR	2.12	0.00
tblVehicleTrips	SU_TR	2.12	0.00
tblVehicleTrips	WD_TR	2.12	0.00

2.0 Emissions Summary

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

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.3547	2.8901	3.3124	7.7700e-003	0.4581	0.1201	0.5782	0.1655	0.1123	0.2778	0.0000	695.8236	695.8236	0.1097	0.0276	706.7788
2024	0.7337	0.5124	0.6753	1.6400e-003	0.0584	0.0197	0.0781	0.0158	0.0186	0.0344	0.0000	146.8726	146.8726	0.0178	6.6900e-003	149.3107
Maximum	0.7337	2.8901	3.3124	7.7700e-003	0.4581	0.1201	0.5782	0.1655	0.1123	0.2778	0.0000	695.8236	695.8236	0.1097	0.0276	706.7788

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	0.3547	2.8901	3.3124	7.7700e-003	0.3281	0.1201	0.4482	0.1076	0.1123	0.2199	0.0000	695.8231	695.8231	0.1097	0.0276	706.7783
2024	0.7337	0.5124	0.6753	1.6400e-003	0.0584	0.0197	0.0781	0.0158	0.0186	0.0344	0.0000	146.8726	146.8726	0.0178	6.6900e-003	149.3106
Maximum	0.7337	2.8901	3.3124	7.7700e-003	0.3281	0.1201	0.4482	0.1076	0.1123	0.2199	0.0000	695.8231	695.8231	0.1097	0.0276	706.7783

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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
Percent Reduction	0.00	0.00	0.00	0.00	25.17	0.00	19.81	31.94	0.00	18.55	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	3-18-2023	6-17-2023	0.9429	0.9429
2	6-18-2023	9-17-2023	1.0827	1.0827
3	9-18-2023	12-17-2023	1.0796	1.0796
4	12-18-2023	3-17-2024	1.3873	1.3873
5	3-18-2024	6-17-2024	0.0245	0.0245
		Highest	1.3873	1.3873

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	1.1867	2.0000e-005	2.3900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.6400e-003	4.6400e-003	1.0000e-005	0.0000	4.9500e-003
Energy	2.0000e-004	1.8400e-003	1.5400e-003	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	586.5439	586.5439	0.0946	0.0115	592.3359
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	47.7029	0.0000	47.7029	2.8192	0.0000	118.1819
Water						0.0000	0.0000		0.0000	0.0000	18.3412	28.9436	47.2848	1.8885	0.0451	107.9219
Total	1.1869	1.8600e-003	3.9300e-003	1.0000e-005	0.0000	1.5000e-004	1.5000e-004	0.0000	1.5000e-004	1.5000e-004	66.0441	615.4922	681.5363	4.8023	0.0566	818.4447

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.1867	2.0000e-005	2.3900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.6400e-003	4.6400e-003	1.0000e-005	0.0000	4.9500e-003
Energy	2.0000e-004	1.8400e-003	1.5400e-003	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	586.5439	586.5439	0.0946	0.0115	592.3359
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	47.7029	0.0000	47.7029	2.8192	0.0000	118.1819
Water						0.0000	0.0000		0.0000	0.0000	18.3412	28.9436	47.2848	1.8885	0.0451	107.9219
Total	1.1869	1.8600e-003	3.9300e-003	1.0000e-005	0.0000	1.5000e-004	1.5000e-004	0.0000	1.5000e-004	1.5000e-004	66.0441	615.4922	681.5363	4.8023	0.0566	818.4447

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/18/2023	3/31/2023	5	10	
2	Grading	Grading	4/1/2023	5/12/2023	5	30	
3	Paving	Paving	5/13/2023	6/9/2023	5	20	

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

4	Building Construction	Building Construction	6/10/2023	2/19/2024	5	181
5	Architectural Coating	Architectural Coating	2/20/2024	3/18/2024	5	20

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 90

Acres of Paving: 9.86

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 375,000; Non-Residential Outdoor: 125,000; Striped Parking Area: 25,456 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	2	5.80	231	0.29
Building Construction	Forklifts	6	6.60	89	0.20
Building Construction	Generator Sets	2	6.60	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	5.80	97	0.37
Building Construction	Welders	2	6.60	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	7.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	16.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	4.00	12.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	283.00	111.00	36.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	57.00	0.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 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					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.1376	0.0912	1.9000e-004		6.3300e-003	6.3300e-003		5.8200e-003	5.8200e-003	0.0000	16.7254	16.7254	5.4100e-003	0.0000	16.8606
Total	0.0133	0.1376	0.0912	1.9000e-004	0.0983	6.3300e-003	0.1046	0.0505	5.8200e-003	0.0563	0.0000	16.7254	16.7254	5.4100e-003	0.0000	16.8606

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

3.2 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	1.0000e-005	4.3000e-004	9.0000e-005	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.1955	0.1955	0.0000	3.0000e-005	0.2046
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	2.0000e-004	2.5100e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5957	0.5957	2.0000e-005	2.0000e-005	0.6015
Total	3.2000e-004	6.3000e-004	2.6000e-003	1.0000e-005	7.8000e-004	0.0000	7.8000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.7912	0.7912	2.0000e-005	5.0000e-005	0.8061

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0442	0.0000	0.0442	0.0227	0.0000	0.0227	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.1376	0.0912	1.9000e-004		6.3300e-003	6.3300e-003		5.8200e-003	5.8200e-003	0.0000	16.7253	16.7253	5.4100e-003	0.0000	16.8606
Total	0.0133	0.1376	0.0912	1.9000e-004	0.0442	6.3300e-003	0.0506	0.0227	5.8200e-003	0.0286	0.0000	16.7253	16.7253	5.4100e-003	0.0000	16.8606

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

3.2 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	1.0000e-005	4.3000e-004	9.0000e-005	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.1955	0.1955	0.0000	3.0000e-005	0.2046
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	2.0000e-004	2.5100e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5957	0.5957	2.0000e-005	2.0000e-005	0.6015
Total	3.2000e-004	6.3000e-004	2.6000e-003	1.0000e-005	7.8000e-004	0.0000	7.8000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.7912	0.7912	2.0000e-005	5.0000e-005	0.8061

3.3 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					0.1381	0.0000	0.1381	0.0548	0.0000	0.0548	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0498	0.5177	0.4208	9.3000e-004		0.0214	0.0214		0.0197	0.0197	0.0000	81.8028	81.8028	0.0265	0.0000	82.4642
Total	0.0498	0.5177	0.4208	9.3000e-004	0.1381	0.0214	0.1594	0.0548	0.0197	0.0745	0.0000	81.8028	81.8028	0.0265	0.0000	82.4642

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

3.3 Grading - 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	2.0000e-005	9.9000e-004	2.1000e-004	0.0000	1.4000e-004	1.0000e-005	1.5000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.4468	0.4468	0.0000	7.0000e-005	0.4677
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	1.0300e-003	6.7000e-004	8.3500e-003	2.0000e-005	2.3900e-003	1.0000e-005	2.4000e-003	6.4000e-004	1.0000e-005	6.5000e-004	0.0000	1.9857	1.9857	7.0000e-005	6.0000e-005	2.0050
Total	1.0500e-003	1.6600e-003	8.5600e-003	2.0000e-005	2.5300e-003	2.0000e-005	2.5500e-003	6.8000e-004	2.0000e-005	7.0000e-004	0.0000	2.4324	2.4324	7.0000e-005	1.3000e-004	2.4727

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0621	0.0000	0.0621	0.0247	0.0000	0.0247	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0498	0.5177	0.4208	9.3000e-004		0.0214	0.0214		0.0197	0.0197	0.0000	81.8027	81.8027	0.0265	0.0000	82.4641
Total	0.0498	0.5177	0.4208	9.3000e-004	0.0621	0.0214	0.0835	0.0247	0.0197	0.0443	0.0000	81.8027	81.8027	0.0265	0.0000	82.4641

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

3.3 Grading - 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	2.0000e-005	9.9000e-004	2.1000e-004	0.0000	1.4000e-004	1.0000e-005	1.5000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.4468	0.4468	0.0000	7.0000e-005	0.4677
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	1.0300e-003	6.7000e-004	8.3500e-003	2.0000e-005	2.3900e-003	1.0000e-005	2.4000e-003	6.4000e-004	1.0000e-005	6.5000e-004	0.0000	1.9857	1.9857	7.0000e-005	6.0000e-005	2.0050
Total	1.0500e-003	1.6600e-003	8.5600e-003	2.0000e-005	2.5300e-003	2.0000e-005	2.5500e-003	6.8000e-004	2.0000e-005	7.0000e-004	0.0000	2.4324	2.4324	7.0000e-005	1.3000e-004	2.4727

3.4 Paving - 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	0.0103	0.1019	0.1458	2.3000e-004		5.1000e-003	5.1000e-003		4.6900e-003	4.6900e-003	0.0000	20.0269	20.0269	6.4800e-003	0.0000	20.1888
Paving	0.0109					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0212	0.1019	0.1458	2.3000e-004		5.1000e-003	5.1000e-003		4.6900e-003	4.6900e-003	0.0000	20.0269	20.0269	6.4800e-003	0.0000	20.1888

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

3.4 Paving - 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	1.0000e-005	7.4000e-004	1.6000e-004	0.0000	1.0000e-004	1.0000e-005	1.1000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.3351	0.3351	0.0000	5.0000e-005	0.3508
Vendor	5.0000e-005	1.7700e-003	5.9000e-004	1.0000e-005	2.6000e-004	1.0000e-005	2.8000e-004	8.0000e-005	1.0000e-005	9.0000e-005	0.0000	0.7825	0.7825	0.0000	1.1000e-004	0.8166
Worker	5.1000e-004	3.4000e-004	4.1800e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9928	0.9928	3.0000e-005	3.0000e-005	1.0025
Total	5.7000e-004	2.8500e-003	4.9300e-003	2.0000e-005	1.5500e-003	3.0000e-005	1.5900e-003	4.3000e-004	3.0000e-005	4.5000e-004	0.0000	2.1104	2.1104	3.0000e-005	1.9000e-004	2.1699

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	0.0103	0.1019	0.1458	2.3000e-004		5.1000e-003	5.1000e-003		4.6900e-003	4.6900e-003	0.0000	20.0268	20.0268	6.4800e-003	0.0000	20.1888
Paving	0.0109					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0212	0.1019	0.1458	2.3000e-004		5.1000e-003	5.1000e-003		4.6900e-003	4.6900e-003	0.0000	20.0268	20.0268	6.4800e-003	0.0000	20.1888

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

3.4 Paving - 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	1.0000e-005	7.4000e-004	1.6000e-004	0.0000	1.0000e-004	1.0000e-005	1.1000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.3351	0.3351	0.0000	5.0000e-005	0.3508
Vendor	5.0000e-005	1.7700e-003	5.9000e-004	1.0000e-005	2.6000e-004	1.0000e-005	2.8000e-004	8.0000e-005	1.0000e-005	9.0000e-005	0.0000	0.7825	0.7825	0.0000	1.1000e-004	0.8166
Worker	5.1000e-004	3.4000e-004	4.1800e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9928	0.9928	3.0000e-005	3.0000e-005	1.0025
Total	5.7000e-004	2.8500e-003	4.9300e-003	2.0000e-005	1.5500e-003	3.0000e-005	1.5900e-003	4.3000e-004	3.0000e-005	4.5000e-004	0.0000	2.1104	2.1104	3.0000e-005	1.9000e-004	2.1699

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	0.1885	1.7246	1.9471	3.2300e-003		0.0839	0.0839		0.0789	0.0789	0.0000	277.8980	277.8980	0.0662	0.0000	279.5520
Total	0.1885	1.7246	1.9471	3.2300e-003		0.0839	0.0839		0.0789	0.0789	0.0000	277.8980	277.8980	0.0662	0.0000	279.5520

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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	3.0000e-005	1.7800e-003	3.8000e-004	1.0000e-005	2.5000e-004	2.0000e-005	2.6000e-004	7.0000e-005	2.0000e-005	8.0000e-005	0.0000	0.8053	0.8053	0.0000	1.3000e-004	0.8430
Vendor	9.6200e-003	0.3552	0.1197	1.6500e-003	0.0532	2.3200e-003	0.0555	0.0154	2.2200e-003	0.0176	0.0000	157.4271	157.4271	5.6000e-004	0.0230	164.2986
Worker	0.0703	0.0461	0.5714	1.4800e-003	0.1634	9.8000e-004	0.1644	0.0435	9.0000e-004	0.0444	0.0000	135.8041	135.8041	4.5400e-003	4.0400e-003	137.1229
Total	0.0799	0.4031	0.6914	3.1400e-003	0.2169	3.3200e-003	0.2202	0.0589	3.1400e-003	0.0620	0.0000	294.0365	294.0365	5.1000e-003	0.0272	302.2645

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	0.1885	1.7246	1.9471	3.2300e-003		0.0839	0.0839		0.0789	0.0789	0.0000	277.8977	277.8977	0.0662	0.0000	279.5517
Total	0.1885	1.7246	1.9471	3.2300e-003		0.0839	0.0839		0.0789	0.0789	0.0000	277.8977	277.8977	0.0662	0.0000	279.5517

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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	3.0000e-005	1.7800e-003	3.8000e-004	1.0000e-005	2.5000e-004	2.0000e-005	2.6000e-004	7.0000e-005	2.0000e-005	8.0000e-005	0.0000	0.8053	0.8053	0.0000	1.3000e-004	0.8430
Vendor	9.6200e-003	0.3552	0.1197	1.6500e-003	0.0532	2.3200e-003	0.0555	0.0154	2.2200e-003	0.0176	0.0000	157.4271	157.4271	5.6000e-004	0.0230	164.2986
Worker	0.0703	0.0461	0.5714	1.4800e-003	0.1634	9.8000e-004	0.1644	0.0435	9.0000e-004	0.0444	0.0000	135.8041	135.8041	4.5400e-003	4.0400e-003	137.1229
Total	0.0799	0.4031	0.6914	3.1400e-003	0.2169	3.3200e-003	0.2202	0.0589	3.1400e-003	0.0620	0.0000	294.0365	294.0365	5.1000e-003	0.0272	302.2645

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	0.0438	0.4002	0.4811	8.0000e-004		0.0183	0.0183		0.0172	0.0172	0.0000	69.0086	69.0086	0.0163	0.0000	69.4169
Total	0.0438	0.4002	0.4811	8.0000e-004		0.0183	0.0183		0.0172	0.0172	0.0000	69.0086	69.0086	0.0163	0.0000	69.4169

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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	1.0000e-005	4.4000e-004	9.0000e-005	0.0000	6.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.1964	0.1964	0.0000	3.0000e-005	0.2056
Vendor	2.3000e-003	0.0882	0.0285	4.0000e-004	0.0132	5.8000e-004	0.0138	3.8200e-003	5.6000e-004	4.3700e-003	0.0000	38.4873	38.4873	1.3000e-004	5.6200e-003	40.1648
Worker	0.0161	0.0101	0.1326	3.6000e-004	0.0406	2.4000e-004	0.0408	0.0108	2.2000e-004	0.0110	0.0000	32.8917	32.8917	1.0300e-003	9.3000e-004	33.1948
Total	0.0184	0.0988	0.1612	7.6000e-004	0.0539	8.2000e-004	0.0547	0.0146	7.8000e-004	0.0154	0.0000	71.5755	71.5755	1.1600e-003	6.5800e-003	73.5652

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	0.0438	0.4002	0.4811	8.0000e-004		0.0183	0.0183		0.0172	0.0172	0.0000	69.0085	69.0085	0.0163	0.0000	69.4168
Total	0.0438	0.4002	0.4811	8.0000e-004		0.0183	0.0183		0.0172	0.0172	0.0000	69.0085	69.0085	0.0163	0.0000	69.4168

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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

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	1.0000e-005	4.4000e-004	9.0000e-005	0.0000	6.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.1964	0.1964	0.0000	3.0000e-005	0.2056
Vendor	2.3000e-003	0.0882	0.0285	4.0000e-004	0.0132	5.8000e-004	0.0138	3.8200e-003	5.6000e-004	4.3700e-003	0.0000	38.4873	38.4873	1.3000e-004	5.6200e-003	40.1648
Worker	0.0161	0.0101	0.1326	3.6000e-004	0.0406	2.4000e-004	0.0408	0.0108	2.2000e-004	0.0110	0.0000	32.8917	32.8917	1.0300e-003	9.3000e-004	33.1948
Total	0.0184	0.0988	0.1612	7.6000e-004	0.0539	8.2000e-004	0.0547	0.0146	7.8000e-004	0.0154	0.0000	71.5755	71.5755	1.1600e-003	6.5800e-003	73.5652

3.6 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	0.6679					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0122	0.0181	3.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5569
Total	0.6697	0.0122	0.0181	3.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5569

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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 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	1.2000e-004	3.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0549	0.0549	0.0000	1.0000e-005	0.0574
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	1.8000e-003	1.1300e-003	0.0148	4.0000e-005	4.5400e-003	3.0000e-005	4.5700e-003	1.2100e-003	2.0000e-005	1.2300e-003	0.0000	3.6805	3.6805	1.1000e-004	1.0000e-004	3.7144
Total	1.8000e-003	1.2500e-003	0.0149	4.0000e-005	4.5600e-003	3.0000e-005	4.5900e-003	1.2100e-003	2.0000e-005	1.2400e-003	0.0000	3.7353	3.7353	1.1000e-004	1.1000e-004	3.7718

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	0.6679					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0122	0.0181	3.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5568
Total	0.6697	0.0122	0.0181	3.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5568

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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 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	1.2000e-004	3.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0549	0.0549	0.0000	1.0000e-005	0.0574
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	1.8000e-003	1.1300e-003	0.0148	4.0000e-005	4.5400e-003	3.0000e-005	4.5700e-003	1.2100e-003	2.0000e-005	1.2300e-003	0.0000	3.6805	3.6805	1.1000e-004	1.0000e-004	3.7144
Total	1.8000e-003	1.2500e-003	0.0149	4.0000e-005	4.5600e-003	3.0000e-005	4.5900e-003	1.2100e-003	2.0000e-005	1.2400e-003	0.0000	3.7353	3.7353	1.1000e-004	1.1000e-004	3.7718

4.0 Operational Detail - Mobile

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-Rail	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

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

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.491491	0.052949	0.173689	0.164683	0.034990	0.008766	0.010778	0.027771	0.000810	0.000210	0.026873	0.002020	0.004972
Other Non-Asphalt Surfaces	0.491491	0.052949	0.173689	0.164683	0.034990	0.008766	0.010778	0.027771	0.000810	0.000210	0.026873	0.002020	0.004972
Parking Lot	0.491491	0.052949	0.173689	0.164683	0.034990	0.008766	0.010778	0.027771	0.000810	0.000210	0.026873	0.002020	0.004972
Refrigerated Warehouse-Rail	0.491491	0.052949	0.173689	0.164683	0.034990	0.008766	0.010778	0.027771	0.000810	0.000210	0.026873	0.002020	0.004972

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	584.5428	584.5428	0.0946	0.0115	590.3229
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	584.5428	584.5428	0.0946	0.0115	590.3229
NaturalGas Mitigated	2.0000e-004	1.8400e-003	1.5400e-003	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	2.0011	2.0011	4.0000e-005	4.0000e-005	2.0130
NaturalGas Unmitigated	2.0000e-004	1.8400e-003	1.5400e-003	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	2.0011	2.0011	4.0000e-005	4.0000e-005	2.0130

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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 - 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	tons/yr										MT/yr					
Other Asphalt Surfaces	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
Other Non-Asphalt Surfaces	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
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
Refrigerated Warehouse-Rail	37500	2.0000e-004	1.8400e-003	1.5400e-003	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	2.0011	2.0011	4.0000e-005	4.0000e-005	2.0130
Total		2.0000e-004	1.8400e-003	1.5400e-003	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	2.0011	2.0011	4.0000e-005	4.0000e-005	2.0130

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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 - 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	tons/yr										MT/yr					
Other Asphalt Surfaces	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
Other Non-Asphalt Surfaces	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
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
Refrigerated Warehouse-Rail	37500	2.0000e-004	1.8400e-003	1.5400e-003	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	2.0011	2.0011	4.0000e-005	4.0000e-005	2.0130
Total		2.0000e-004	1.8400e-003	1.5400e-003	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	2.0011	2.0011	4.0000e-005	4.0000e-005	2.0130

Origo Cold Madera - Phase 2 Unmitigated Construction - Madera County, Annual

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			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	102758	9.5076	1.5400e-003	1.9000e-004	9.6016
Refrigerated Warehouse-Rail	6.215e+006	575.0352	0.0930	0.0113	580.7213
Total		584.5428	0.0946	0.0115	590.3229

Origo Cold Madera - Phase 2 Unmitigated Construction - Madera County, Annual

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			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	102758	9.5076	1.5400e-003	1.9000e-004	9.6016
Refrigerated Warehouse-Rail	6.215e+006	575.0352	0.0930	0.0113	580.7213
Total		584.5428	0.0946	0.0115	590.3229

6.0 Area Detail

6.1 Mitigation Measures Area

Origo Cold Madera - Phase 2 Unmitigated Construction - Madera County, 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
Category	tons/yr										MT/yr					
Mitigated	1.1867	2.0000e-005	2.3900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.6400e-003	4.6400e-003	1.0000e-005	0.0000	4.9500e-003
Unmitigated	1.1867	2.0000e-005	2.3900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.6400e-003	4.6400e-003	1.0000e-005	0.0000	4.9500e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1827					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0038					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.2000e-004	2.0000e-005	2.3900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.6400e-003	4.6400e-003	1.0000e-005	0.0000	4.9500e-003
Total	1.1867	2.0000e-005	2.3900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.6400e-003	4.6400e-003	1.0000e-005	0.0000	4.9500e-003

Origo Cold Madera - Phase 2 Unmitigated Construction - Madera County, Annual

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	0.1827					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0038					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.2000e-004	2.0000e-005	2.3900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.6400e-003	4.6400e-003	1.0000e-005	0.0000	4.9500e-003
Total	1.1867	2.0000e-005	2.3900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.6400e-003	4.6400e-003	1.0000e-005	0.0000	4.9500e-003

7.0 Water Detail

7.1 Mitigation Measures Water

Origo Cold Madera - Phase 2 Unmitigated Construction - Madera County, Annual

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	47.2848	1.8885	0.0451	107.9219
Unmitigated	47.2848	1.8885	0.0451	107.9219

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-Rail	57.8125 / 0	47.2848	1.8885	0.0451	107.9219
Total		47.2848	1.8885	0.0451	107.9219

Origo Cold Madera - Phase 2 Unmitigated Construction - Madera County, Annual

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			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-Rail	57.8125 / 0	47.2848	1.8885	0.0451	107.9219
Total		47.2848	1.8885	0.0451	107.9219

8.0 Waste Detail

8.1 Mitigation Measures Waste

Origo Cold Madera - Phase 2 Unmitigated Construction - Madera County, Annual

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	47.7029	2.8192	0.0000	118.1819
Unmitigated	47.7029	2.8192	0.0000	118.1819

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-Rail	235	47.7029	2.8192	0.0000	118.1819
Total		47.7029	2.8192	0.0000	118.1819

Origo Cold Madera - Phase 2 Unmitigated Construction - Madera County, Annual

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			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-Rail	235	47.7029	2.8192	0.0000	118.1819
Total		47.7029	2.8192	0.0000	118.1819

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

Origo Cold Madera - Phase 2 Unmitigated Construction - Madera County, Annual

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

Equipment Type	Number
----------------	--------

11.0 Vegetation

Origo Cold Madera - Buildout Scenario in the Earliest Occupancy Year (2023) - Madera County, Annual

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

Origo Cold Madera - Buildout Scenario in the Earliest Occupancy Year (2023)

Madera County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	504.02	1000sqft	11.57	504,016.00	0
Other Asphalt Surfaces	3.06	Acre	3.06	133,293.60	0
Other Non-Asphalt Surfaces	3.06	Acre	3.06	133,293.60	0
Parking Lot	12.91	Acre	12.91	562,359.60	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.9	Precipitation Freq (Days)	51
Climate Zone	3			Operational Year	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Origo Cold Madera - Temperature Controlled Storage Facility
 Earliest Construction Operational Year: 2023

Land Use - Project Land Use Development
 Building Area: 254,016 sq ft in P1; 250,000 sq ft in P2
 30.6 Total Acres (15.00 + 15.60)

Construction Phase - Operational run only

Trips and VMT - Operational run only

Grading -

Architectural Coating - SJVAPCD Rule 4601 Architectural Coatings

Vehicle Trips - Passenger car trip generation rate
 daily passenger trips based on ITE rate with trucks analyzed in a separate run

Origo Cold Madera - Buildout Scenario in the Earliest Occupancy Year (2023) - Madera County, Annual

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

Area Coating - SJVAPCD Rule 4601 Architectural Coatings

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation -

Area Mitigation -

Fleet Mix - Passenger vehicles consisting of LDA, LDT1, LDT2, and MDV
Adjusted based on the Madera County fleet mix for the 2023 operational year

Off-road Equipment - Operational run only

Energy Mitigation - Anticipated on-site renewable energy production (kWh/year): ~7,500,000 kWh

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	50
tblAreaCoating	Area_EF_Nonresidential_Interior	150	50
tblConstructionPhase	NumDays	35.00	1.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	LDA	0.49	0.56
tblFleetMix	LDT1	0.05	0.06
tblFleetMix	LDT2	0.17	0.20
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD2	8.7660e-003	0.00
tblFleetMix	MCY	0.03	0.00
tblFleetMix	MDV	0.16	0.19
tblFleetMix	MH	4.9720e-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	8.1000e-004	0.00
tblFleetMix	SBUS	2.0200e-003	0.00
tblFleetMix	UBUS	2.1000e-004	0.00
tblLandUse	LandUseSquareFeet	504,020.00	504,016.00

Origo Cold Madera - Buildout Scenario in the Earliest Occupancy Year (2023) - Madera County, Annual

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

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	6.00	0.00
tblTripsAndVMT	WorkerTripNumber	112.00	0.00
tblVehicleTrips	ST_TR	2.12	1.98
tblVehicleTrips	SU_TR	2.12	1.98
tblVehicleTrips	WD_TR	2.12	1.98

2.0 Emissions Summary

Origo Cold Madera - Buildout Scenario in the Earliest Occupancy Year (2023) - Madera County, Annual

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

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	1.3410	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	1.3410	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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					
2022	1.3410	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	1.3410	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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

Origo Cold Madera - Buildout Scenario in the Earliest Occupancy Year (2023) - Madera County, Annual

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	3-7-2022	6-6-2022	0.9578	0.9578
		Highest	0.9578	0.9578

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	2.1566	4.0000e-005	4.8100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.3500e-003	9.3500e-003	2.0000e-005	0.0000	9.9600e-003
Energy	4.1000e-004	3.7100e-003	3.1100e-003	2.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	1,181.5534	1,181.5534	0.1906	0.0232	1,193.2209
Mobile	0.3254	0.3224	3.8394	0.0103	1.0737	6.2000e-003	1.0799	0.2853	5.7100e-003	0.2910	0.0000	940.2022	940.2022	0.0351	0.0299	949.9837
Waste						0.0000	0.0000		0.0000	0.0000	96.1731	0.0000	96.1731	5.6837	0.0000	238.2647
Water						0.0000	0.0000		0.0000	0.0000	36.9774	58.3526	95.3300	3.8074	0.0908	217.5793
Total	2.4823	0.3262	3.8473	0.0103	1.0737	6.5000e-003	1.0802	0.2853	6.0100e-003	0.2913	133.1505	2,180.1175	2,313.2680	9.7167	0.1439	2,599.0585

Origo Cold Madera - Buildout Scenario in the Earliest Occupancy Year (2023) - Madera County, Annual

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.1566	4.0000e-005	4.8100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.3500e-003	9.3500e-003	2.0000e-005	0.0000	9.9600e-003
Energy	4.1000e-004	3.7100e-003	3.1100e-003	2.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	487.6251	487.6251	0.0783	9.5600e-003	492.4309
Mobile	0.3254	0.3224	3.8394	0.0103	1.0737	6.2000e-003	1.0799	0.2853	5.7100e-003	0.2910	0.0000	940.2022	940.2022	0.0351	0.0299	949.9837
Waste						0.0000	0.0000		0.0000	0.0000	96.1731	0.0000	96.1731	5.6837	0.0000	238.2647
Water						0.0000	0.0000		0.0000	0.0000	36.9774	58.3526	95.3300	3.8074	0.0908	217.5793
Total	2.4823	0.3262	3.8473	0.0103	1.0737	6.5000e-003	1.0802	0.2853	6.0100e-003	0.2913	133.1505	1,486.1892	1,619.3397	9.6044	0.1303	1,898.2685

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	31.83	30.00	1.16	9.45	26.96

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	3/7/2022	3/7/2022	5	1	

Acres of Grading (Site Preparation Phase): 0

Origo Cold Madera - Buildout Scenario in the Earliest Occupancy Year (2023) - Madera County, Annual

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

Acres of Grading (Grading Phase): 0

Acres of Paving: 19.03

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 756,024; Non-Residential Outdoor: 252,008; Striped Parking Area: 49,737 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	0.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.3410					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.3410	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Origo Cold Madera - Buildout Scenario in the Earliest Occupancy Year (2023) - Madera County, Annual

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

3.2 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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	1.3410					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.3410	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Origo Cold Madera - Buildout Scenario in the Earliest Occupancy Year (2023) - Madera County, Annual

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

3.2 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Origo Cold Madera - Buildout Scenario in the Earliest Occupancy Year (2023) - Madera County, 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
Category	tons/yr										MT/yr					
Mitigated	0.3254	0.3224	3.8394	0.0103	1.0737	6.2000e-003	1.0799	0.2853	5.7100e-003	0.2910	0.0000	940.2022	940.2022	0.0351	0.0299	949.9837
Unmitigated	0.3254	0.3224	3.8394	0.0103	1.0737	6.2000e-003	1.0799	0.2853	5.7100e-003	0.2910	0.0000	940.2022	940.2022	0.0351	0.0299	949.9837

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	998.52	998.52	998.52	2,915,196	2,915,196
Total	998.52	998.52	998.52	2,915,196	2,915,196

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
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Origo Cold Madera - Buildout Scenario in the Earliest Occupancy Year (2023) - Madera County, Annual

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

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.491491	0.052949	0.173689	0.164683	0.034990	0.008766	0.010778	0.027771	0.000810	0.000210	0.026873	0.002020	0.004972
Other Non-Asphalt Surfaces	0.491491	0.052949	0.173689	0.164683	0.034990	0.008766	0.010778	0.027771	0.000810	0.000210	0.026873	0.002020	0.004972
Parking Lot	0.491491	0.052949	0.173689	0.164683	0.034990	0.008766	0.010778	0.027771	0.000810	0.000210	0.026873	0.002020	0.004972
Refrigerated Warehouse-No Rail	0.556730	0.059980	0.196750	0.186540	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Kilowatt Hours of Renewable Electricity Generated

	ROG	NOx	CO	SO2	Fugitive 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	483.5906	483.5906	0.0782	9.4800e-003	488.3725
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,177.5189	1,177.5189	0.1905	0.0231	1,189.1625
NaturalGas Mitigated	4.1000e-004	3.7100e-003	3.1100e-003	2.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	4.0344	4.0344	8.0000e-005	7.0000e-005	4.0584
NaturalGas Unmitigated	4.1000e-004	3.7100e-003	3.1100e-003	2.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	4.0344	4.0344	8.0000e-005	7.0000e-005	4.0584

Origo Cold Madera - Buildout Scenario in the Earliest Occupancy Year (2023) - Madera County, Annual

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					
Other Asphalt Surfaces	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
Other Non-Asphalt Surfaces	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
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
Refrigerated Warehouse-No Rail	75602.4	4.1000e-004	3.7100e-003	3.1100e-003	2.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	4.0344	4.0344	8.0000e-005	7.0000e-005	4.0584
Total		4.1000e-004	3.7100e-003	3.1100e-003	2.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	4.0344	4.0344	8.0000e-005	7.0000e-005	4.0584

Origo Cold Madera - Buildout Scenario in the Earliest Occupancy Year (2023) - Madera County, Annual

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					
Other Asphalt Surfaces	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
Other Non-Asphalt Surfaces	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
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
Refrigerated Warehouse-No Rail	75602.4	4.1000e-004	3.7100e-003	3.1100e-003	2.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	4.0344	4.0344	8.0000e-005	7.0000e-005	4.0584
Total		4.1000e-004	3.7100e-003	3.1100e-003	2.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	4.0344	4.0344	8.0000e-005	7.0000e-005	4.0584

Origo Cold Madera - Buildout Scenario in the Earliest Occupancy Year (2023) - Madera County, Annual

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			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	196826	18.2111	2.9500e-003	3.6000e-004	18.3912
Refrigerated Warehouse-No Rail	1.25298e+007	1,159.3079	0.1876	0.0227	1,170.7713
Total		1,177.5189	0.1905	0.0231	1,189.1625

Origo Cold Madera - Buildout Scenario in the Earliest Occupancy Year (2023) - Madera County, Annual

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			
Other Asphalt Surfaces	-1.875e+006	-173.4821	-0.0281	-0.0034	-175.1975
Other Non-Asphalt Surfaces	-1.875e+006	-173.4821	-0.0281	-0.0034	-175.1975
Parking Lot	-1.67817e+006	-155.2710	-0.0251	-0.0030	-156.8064
Refrigerated Warehouse-No Rail	1.06548e+007	985.8258	0.1595	0.0193	995.5738
Total		483.5906	0.0782	9.4900e-003	488.3725

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Electric Lawnmower
- Use Electric Leafblower
- Use Electric Chainsaw
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior

Origo Cold Madera - Buildout Scenario in the Earliest Occupancy Year (2023) - Madera County, 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
Category	tons/yr										MT/yr					
Mitigated	2.1566	4.0000e-005	4.8100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.3500e-003	9.3500e-003	2.0000e-005	0.0000	9.9600e-003
Unmitigated	2.1566	4.0000e-005	4.8100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.3500e-003	9.3500e-003	2.0000e-005	0.0000	9.9600e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1341					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.0220					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.5000e-004	4.0000e-005	4.8100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.3500e-003	9.3500e-003	2.0000e-005	0.0000	9.9600e-003
Total	2.1566	4.0000e-005	4.8100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.3500e-003	9.3500e-003	2.0000e-005	0.0000	9.9600e-003

Origo Cold Madera - Buildout Scenario in the Earliest Occupancy Year (2023) - Madera County, Annual

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	0.1341					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.0220					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.5000e-004	4.0000e-005	4.8100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.3500e-003	9.3500e-003	2.0000e-005	0.0000	9.9600e-003
Total	2.1566	4.0000e-005	4.8100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.3500e-003	9.3500e-003	2.0000e-005	0.0000	9.9600e-003

7.0 Water Detail

7.1 Mitigation Measures Water

Origo Cold Madera - Buildout Scenario in the Earliest Occupancy Year (2023) - Madera County, Annual

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	95.3300	3.8074	0.0908	217.5793
Unmitigated	95.3300	3.8074	0.0908	217.5793

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	116.555 / 0	95.3300	3.8074	0.0908	217.5793
Total		95.3300	3.8074	0.0908	217.5793

Origo Cold Madera - Buildout Scenario in the Earliest Occupancy Year (2023) - Madera County, Annual

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			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	116.555 / 0	95.3300	3.8074	0.0908	217.5793
Total		95.3300	3.8074	0.0908	217.5793

8.0 Waste Detail

8.1 Mitigation Measures Waste

Origo Cold Madera - Buildout Scenario in the Earliest Occupancy Year (2023) - Madera County, Annual

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	96.1731	5.6837	0.0000	238.2647
Unmitigated	96.1731	5.6837	0.0000	238.2647

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	473.78	96.1731	5.6837	0.0000	238.2647
Total		96.1731	5.6837	0.0000	238.2647

Origo Cold Madera - Buildout Scenario in the Earliest Occupancy Year (2023) - Madera County, Annual

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			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	473.78	96.1731	5.6837	0.0000	238.2647
Total		96.1731	5.6837	0.0000	238.2647

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

Origo Cold Madera - Buildout Scenario in the Earliest Occupancy Year (2023) - Madera County, Annual

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

Equipment Type	Number
----------------	--------

11.0 Vegetation

Origo Cold Madera - Project Truck Trips - Madera County, Annual

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

Origo Cold Madera - Project Truck Trips

Madera County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	1.00	1000sqft	0.02	1,000.00	0
User Defined Industrial	1.00	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.9	Precipitation Freq (Days)	51
Climate Zone	3			Operational Year	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Origo Cold Madera - Project Truck Trips

Land Use - Truck only run

1 k used to separate out truck emissions only (land use development evaluated in a separate run)

Construction Phase - Truck only run (zeroed out construction inputs)

Off-road Equipment - Truck only run (zeroed out construction equipment)

Architectural Coating - Truck only run (zeroed out construction inputs)

Vehicle Trips - Phase 1 Trucks: 15 trucks, resulting in 30 daily truck trips

Phase 2: Assumed addition storage could result in a similar increase in trips

Additional truck trips added to account for shipments/deliveries and other miscellaneous trucks

Fleet Mix - Truck only fleet mixes

100% HHD for project trips

MHD and HHD trucks for other trucks (UPS/FedEX deliveries and shipments) - split based on County averages (see calculations)

Area Coating -

Origo Cold Madera - Project Truck Trips - Madera County, Annual

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

Landscape Equipment - Truck only run

Energy Use - Truck only run (zeroed out energy use - analyzed in a separate run)

Water And Wastewater - Truck only run (water and wastewater analyzed in a separate run)

Solid Waste - Truck only run

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	0.00
tblArchitecturalCoating	EF_Parking	150.00	0.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstructionPhase	NumDays	5.00	1.00
tblConstructionPhase	PhaseEndDate	3/11/2022	3/7/2022
tblEnergyUse	LightingElect	2.45	0.00
tblEnergyUse	NT24E	21.99	0.00
tblEnergyUse	T24E	0.42	0.00
tblEnergyUse	T24NG	0.15	0.00
tblFleetMix	HHD	0.03	1.00
tblFleetMix	HHD	0.03	0.72
tblFleetMix	LDA	0.49	0.00
tblFleetMix	LDA	0.49	0.00
tblFleetMix	LDT1	0.05	0.00
tblFleetMix	LDT1	0.05	0.00
tblFleetMix	LDT2	0.17	0.00
tblFleetMix	LDT2	0.17	0.00
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD2	8.7660e-003	0.00
tblFleetMix	LHD2	8.7660e-003	0.00
tblFleetMix	MCY	0.03	0.00

Origo Cold Madera - Project Truck Trips - Madera County, Annual

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

tblFleetMix	MCY	0.03	0.00
tblFleetMix	MDV	0.16	0.00
tblFleetMix	MDV	0.16	0.00
tblFleetMix	MH	4.9720e-003	0.00
tblFleetMix	MH	4.9720e-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	MHD	0.01	0.28
tblFleetMix	OBUS	8.1000e-004	0.00
tblFleetMix	OBUS	8.1000e-004	0.00
tblFleetMix	SBUS	2.0200e-003	0.00
tblFleetMix	SBUS	2.0200e-003	0.00
tblFleetMix	UBUS	2.1000e-004	0.00
tblFleetMix	UBUS	2.1000e-004	0.00
tblLandscapeEquipment	NumberSummerDays	180	1
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	6.00	0.00
tblSolidWaste	SolidWasteGenerationRate	0.94	0.00
tblVehicleTrips	CC_TL	7.30	50.00
tblVehicleTrips	CNW_TL	7.30	50.00
tblVehicleTrips	CNW_TTP	0.00	41.00
tblVehicleTrips	CW_TL	9.50	50.00
tblVehicleTrips	CW_TTP	0.00	59.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	2.12	60.00
tblVehicleTrips	ST_TR	0.00	10.00
tblVehicleTrips	SU_TR	2.12	60.00

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tblVehicleTrips	SU_TR	0.00	10.00
tblVehicleTrips	WD_TR	2.12	60.00
tblVehicleTrips	WD_TR	0.00	10.00
tblWater	IndoorWaterUseRate	231,250.00	0.00

2.0 Emissions Summary

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

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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					
2022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)

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

		Highest	
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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	3.9100e-003	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0414	3.1460	0.4812	0.0158	0.4793	0.0332	0.5125	0.1319	0.0318	0.1637	0.0000	1,517.7866	1,517.7866	2.5000e-003	0.2383	1,588.8709
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0453	3.1460	0.4812	0.0158	0.4793	0.0332	0.5125	0.1319	0.0318	0.1637	0.0000	1,517.7866	1,517.7866	2.5000e-003	0.2383	1,588.8709

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.9100e-003	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0414	3.1460	0.4812	0.0158	0.4793	0.0332	0.5125	0.1319	0.0318	0.1637	0.0000	1,517.7866	1,517.7866	2.5000e-003	0.2383	1,588.8709
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0453	3.1460	0.4812	0.0158	0.4793	0.0332	0.5125	0.1319	0.0318	0.1637	0.0000	1,517.7866	1,517.7866	2.5000e-003	0.2383	1,588.8709

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	3/7/2022	3/7/2022	5	1	

Acres of Grading (Site Preparation Phase): 0

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Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,500; Non-Residential Outdoor: 500; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	0.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 2022

Unmitigated Construction On-Site

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

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

3.2 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction On-Site

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

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

3.2 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.0 Operational Detail - Mobile

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	0.0414	3.1460	0.4812	0.0158	0.4793	0.0332	0.5125	0.1319	0.0318	0.1637	0.0000	1,517.7866	1,517.7866	2.5000e-003	0.2383	1,588.8709
Unmitigated	0.0414	3.1460	0.4812	0.0158	0.4793	0.0332	0.5125	0.1319	0.0318	0.1637	0.0000	1,517.7866	1,517.7866	2.5000e-003	0.2383	1,588.8709

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Refrigerated Warehouse-No Rail	60.00	60.00	60.00	1,092,000	1,092,000
User Defined Industrial	10.00	10.00	10.00	31,297	31,297
Total	70.00	70.00	70.00	1,123,297	1,123,297

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
Refrigerated Warehouse-No	50.00	50.00	50.00	59.00	0.00	41.00	100	0	0
User Defined Industrial	9.50	7.30	7.30	59.00	0.00	41.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Refrigerated Warehouse-No Rail	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000
User Defined Industrial	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.279592	0.720408	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

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

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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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 - 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	tons/yr										MT/yr					
Refrigerated Warehouse-No Rail	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
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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	tons/yr										MT/yr					
Refrigerated Warehouse-No Rail	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
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Refrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Refrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

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

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.9100e-003	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	3.9100e-003	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.9100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	3.9100e-003	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.9100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	3.9100e-003	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

7.0 Water Detail

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	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Refrigerated Warehouse-No Rail	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

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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			
Refrigerated Warehouse-No Rail	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

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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

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Refrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Refrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

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

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

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

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, Summer

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

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only)

Madera County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	254.02	1000sqft	5.83	254,016.00	0
Other Asphalt Surfaces	1.50	Acre	1.50	65,340.00	0
Other Non-Asphalt Surfaces	1.50	Acre	1.50	65,340.00	0
Parking Lot	6.17	Acre	6.17	268,765.20	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.9	Precipitation Freq (Days)	51
Climate Zone	3			Operational Year	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Localized Screening Analysis
 Origo Cold Madera - Temperature Controlled Storage Facility
 Earliest Construction Start Date: March 2022

Land Use - Phase 1 Land Use Development
 Total Building Area: 254,016 sq ft
 15.00 Total Acres

Construction Phase - Earliest Construction Start Date: March 2022
 Site vacant - no demolition
 Phase 1 Construction Duration: 12 months

Off-road Equipment - Adjusted construction equipment usage to match CalEEMod default total building construction HP hours.

Trips and VMT - Adjusted construction trip lengths to reflect on-site travel only for localized screening analysis.

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, Summer

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

Grading - Cut and fill expected to balance on-site for the entire project.

Architectural Coating - SJVAPCD Rule 4601 Architectural Coatings

Vehicle Trips - Construction run only

Area Coating - SJVAPCD Rule 4601 Architectural Coatings

Construction Off-road Equipment Mitigation - Compliance with SJVAPCD Regulation VIII

Area Mitigation - --

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	127,008.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	50
tblAreaCoating	Area_EF_Nonresidential_Interior	150	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	300.00	190.00
tblLandUse	LandUseSquareFeet	254,020.00	254,016.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	7.00	5.50
tblOffRoadEquipment	UsageHours	8.00	7.60
tblOffRoadEquipment	UsageHours	8.00	6.30
tblOffRoadEquipment	UsageHours	7.00	6.60
tblOffRoadEquipment	UsageHours	8.00	6.30
tblTripsAndVMT	HaulingTripLength	20.00	0.51
tblTripsAndVMT	HaulingTripLength	20.00	0.51
tblTripsAndVMT	HaulingTripLength	20.00	0.51

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, Summer

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

tbITripsAndVMT	HaulingTripLength	20.00	0.51
tbITripsAndVMT	HaulingTripLength	20.00	0.51
tbITripsAndVMT	HaulingTripNumber	0.00	54.00
tbITripsAndVMT	HaulingTripNumber	0.00	56.00
tbITripsAndVMT	HaulingTripNumber	0.00	12.00
tbITripsAndVMT	HaulingTripNumber	0.00	32.00
tbITripsAndVMT	HaulingTripNumber	0.00	2.00
tbITripsAndVMT	VendorTripLength	7.30	0.51
tbITripsAndVMT	VendorTripLength	7.30	0.51
tbITripsAndVMT	VendorTripLength	7.30	0.51
tbITripsAndVMT	VendorTripLength	7.30	0.51
tbITripsAndVMT	VendorTripLength	7.30	0.51
tbITripsAndVMT	VendorTripNumber	0.00	4.00
tbITripsAndVMT	VendorTripNumber	0.00	4.00
tbITripsAndVMT	WorkerTripLength	10.80	0.51
tbITripsAndVMT	WorkerTripLength	10.80	0.51
tbITripsAndVMT	WorkerTripLength	10.80	0.51
tbITripsAndVMT	WorkerTripLength	10.80	0.51
tbITripsAndVMT	WorkerTripLength	10.80	0.51
tbIVehicleTrips	ST_TR	2.12	0.00
tbIVehicleTrips	SU_TR	2.12	0.00
tbIVehicleTrips	WD_TR	2.12	0.00

2.0 Emissions Summary

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, Summer

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

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					
2022	3.6734	38.8984	29.1973	0.0623	19.6667	1.6351	21.2797	10.1051	1.5043	11.5890	0.0000	6,031.883 2	6,031.883 2	1.9471	0.0727	6,081.402 1
2023	52.8112	24.3132	28.3108	0.0471	0.1623	1.1071	1.2694	0.0449	1.0418	1.0866	0.0000	4,512.310 7	4,512.310 7	0.9965	0.0695	4,557.939 1
Maximum	52.8112	38.8984	29.1973	0.0623	19.6667	1.6351	21.2797	10.1051	1.5043	11.5890	0.0000	6,031.883 2	6,031.883 2	1.9471	0.0727	6,081.402 1

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					
2022	3.6734	38.8984	29.1973	0.0623	8.8553	1.6351	10.4683	4.5487	1.5043	6.0327	0.0000	6,031.883 2	6,031.883 2	1.9471	0.0727	6,081.402 1
2023	52.8112	24.3132	28.3108	0.0471	0.1623	1.1071	1.2694	0.0449	1.0418	1.0866	0.0000	4,512.310 7	4,512.310 7	0.9965	0.0695	4,557.939 1
Maximum	52.8112	38.8984	29.1973	0.0623	8.8553	1.6351	10.4683	4.5487	1.5043	6.0327	0.0000	6,031.883 2	6,031.883 2	1.9471	0.0727	6,081.402 1

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, 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	54.52	0.00	47.95	54.74	0.00	43.83	0.00	0.00	0.00	0.00	0.00	0.00

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, 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	5.9481	2.4000e-004	0.0269	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0576	0.0576	1.5000e-004		0.0614
Energy	1.1300e-003	0.0102	8.6000e-003	6.0000e-005		7.8000e-004	7.8000e-004		7.8000e-004	7.8000e-004		12.2812	12.2812	2.4000e-004	2.3000e-004	12.3542
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	5.9493	0.0105	0.0355	6.0000e-005	0.0000	8.8000e-004	8.8000e-004	0.0000	8.8000e-004	8.8000e-004		12.3388	12.3388	3.9000e-004	2.3000e-004	12.4156

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	5.9481	2.4000e-004	0.0269	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0576	0.0576	1.5000e-004		0.0614
Energy	1.1300e-003	0.0102	8.6000e-003	6.0000e-005		7.8000e-004	7.8000e-004		7.8000e-004	7.8000e-004		12.2812	12.2812	2.4000e-004	2.3000e-004	12.3542
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	5.9493	0.0105	0.0355	6.0000e-005	0.0000	8.8000e-004	8.8000e-004	0.0000	8.8000e-004	8.8000e-004		12.3388	12.3388	3.9000e-004	2.3000e-004	12.4156

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, 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	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	Site Preparation	Site Preparation	3/7/2022	3/18/2022	5	10	
2	Grading	Grading	3/19/2022	4/29/2022	5	30	
3	Paving	Paving	4/30/2022	5/27/2022	5	20	
4	Building Construction	Building Construction	5/28/2022	2/19/2023	5	190	
5	Architectural Coating	Architectural Coating	2/20/2023	3/17/2023	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 90

Acres of Paving: 9.17

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 381,024; Non-Residential Outdoor: 50; Striped Parking Area: 23,967 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, Summer

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

Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	2	5.50	231	0.29
Building Construction	Forklifts	5	7.60	89	0.20
Building Construction	Generator Sets	2	6.30	84	0.74
Building Construction	Tractors/Loaders/Backhoes	5	6.60	97	0.37
Building Construction	Welders	2	6.30	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	54.00	0.51	0.51	0.51	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	56.00	0.51	0.51	0.51	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	4.00	12.00	0.51	0.51	0.51	LD_Mix	HDT_Mix	HHDT
Building Construction	16	274.00	107.00	32.00	0.51	0.51	0.51	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	55.00	4.00	2.00	0.51	0.51	0.51	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, Summer

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

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	3.1701	33.0835	19.6978	0.0380	19.6570	1.6126	21.2696	10.1025	1.4836	11.5860		3,686.0619	3,686.0619	1.1922		3,715.8655

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	6.9500e-003	0.1207	0.0870	2.4000e-004	2.5300e-003	2.9000e-004	2.8200e-003	7.0000e-004	2.8000e-004	9.8000e-004		25.3616	25.3616	3.3000e-004	3.9900e-003	26.5578
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	0.0416	0.0119	0.1131	1.0000e-004	7.1500e-003	1.3000e-004	7.2900e-003	1.9200e-003	1.2000e-004	2.0400e-003		10.5351	10.5351	2.4900e-003	1.3000e-003	10.9852
Total	0.0485	0.1325	0.2001	3.4000e-004	9.6800e-003	4.2000e-004	0.0101	2.6200e-003	4.0000e-004	3.0200e-003		35.8967	35.8967	2.8200e-003	5.2900e-003	37.5430

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, Summer

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

3.2 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.8457	0.0000	8.8457	4.5461	0.0000	4.5461			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	3.1701	33.0835	19.6978	0.0380	8.8457	1.6126	10.4582	4.5461	1.4836	6.0297	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655

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	6.9500e-003	0.1207	0.0870	2.4000e-004	2.5300e-003	2.9000e-004	2.8200e-003	7.0000e-004	2.8000e-004	9.8000e-004		25.3616	25.3616	3.3000e-004	3.9900e-003	26.5578
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	0.0416	0.0119	0.1131	1.0000e-004	7.1500e-003	1.3000e-004	7.2900e-003	1.9200e-003	1.2000e-004	2.0400e-003		10.5351	10.5351	2.4900e-003	1.3000e-003	10.9852
Total	0.0485	0.1325	0.2001	3.4000e-004	9.6800e-003	4.2000e-004	0.0101	2.6200e-003	4.0000e-004	3.0200e-003		35.8967	35.8967	2.8200e-003	5.2900e-003	37.5430

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, Summer

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

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	3.6248	38.8435	29.0415	0.0621	9.2036	1.6349	10.8385	3.6538	1.5041	5.1579		6,011.4105	6,011.4105	1.9442		6,060.0158

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	2.4000e-003	0.0417	0.0301	8.0000e-005	8.7000e-004	1.0000e-004	9.7000e-004	2.4000e-004	1.0000e-004	3.4000e-004		8.7670	8.7670	1.1000e-004	1.3800e-003	9.1805
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	0.0462	0.0132	0.1257	1.2000e-004	7.9500e-003	1.5000e-004	8.1000e-003	2.1300e-003	1.4000e-004	2.2700e-003		11.7057	11.7057	2.7600e-003	1.4500e-003	12.2058
Total	0.0486	0.0549	0.1558	2.0000e-004	8.8200e-003	2.5000e-004	9.0700e-003	2.3700e-003	2.4000e-004	2.6100e-003		20.4727	20.4727	2.8700e-003	2.8300e-003	21.3862

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, Summer

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

3.3 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.1416	0.0000	4.1416	1.6442	0.0000	1.6442			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	3.6248	38.8435	29.0415	0.0621	4.1416	1.6349	5.7765	1.6442	1.5041	3.1483	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158

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	2.4000e-003	0.0417	0.0301	8.0000e-005	8.7000e-004	1.0000e-004	9.7000e-004	2.4000e-004	1.0000e-004	3.4000e-004		8.7670	8.7670	1.1000e-004	1.3800e-003	9.1805
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	0.0462	0.0132	0.1257	1.2000e-004	7.9500e-003	1.5000e-004	8.1000e-003	2.1300e-003	1.4000e-004	2.2700e-003		11.7057	11.7057	2.7600e-003	1.4500e-003	12.2058
Total	0.0486	0.0549	0.1558	2.0000e-004	8.8200e-003	2.5000e-004	9.0700e-003	2.3700e-003	2.4000e-004	2.6100e-003		20.4727	20.4727	2.8700e-003	2.8300e-003	21.3862

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, Summer

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

3.4 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	1.0048					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.1076	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104

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	7.7000e-004	0.0134	9.6700e-003	3.0000e-005	2.8000e-004	3.0000e-005	3.1000e-004	8.0000e-005	3.0000e-005	1.1000e-004		2.8180	2.8180	4.0000e-005	4.4000e-004	2.9509
Vendor	3.4100e-003	0.0595	0.0401	1.2000e-004	1.9900e-003	2.2000e-004	2.2200e-003	5.8000e-004	2.2000e-004	8.0000e-004		12.9429	12.9429	2.0000e-004	1.9700e-003	13.5354
Worker	0.0346	9.8800e-003	0.0943	9.0000e-005	5.9600e-003	1.1000e-004	6.0700e-003	1.6000e-003	1.0000e-004	1.7000e-003		8.7793	8.7793	2.0700e-003	1.0800e-003	9.1543
Total	0.0388	0.0828	0.1440	2.4000e-004	8.2300e-003	3.6000e-004	8.6000e-003	2.2600e-003	3.5000e-004	2.6100e-003		24.5401	24.5401	2.3100e-003	3.4900e-003	25.6406

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, Summer

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

3.4 Paving - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.660 3	2,207.660 3	0.7140		2,225.510 4
Paving	1.0048					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.1076	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.660 3	2,207.660 3	0.7140		2,225.510 4

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	7.7000e-004	0.0134	9.6700e-003	3.0000e-005	2.8000e-004	3.0000e-005	3.1000e-004	8.0000e-005	3.0000e-005	1.1000e-004		2.8180	2.8180	4.0000e-005	4.4000e-004	2.9509
Vendor	3.4100e-003	0.0595	0.0401	1.2000e-004	1.9900e-003	2.2000e-004	2.2200e-003	5.8000e-004	2.2000e-004	8.0000e-004		12.9429	12.9429	2.0000e-004	1.9700e-003	13.5354
Worker	0.0346	9.8800e-003	0.0943	9.0000e-005	5.9600e-003	1.1000e-004	6.0700e-003	1.6000e-003	1.0000e-004	1.7000e-003		8.7793	8.7793	2.0700e-003	1.0800e-003	9.1543
Total	0.0388	0.0828	0.1440	2.4000e-004	8.2300e-003	3.6000e-004	8.6000e-003	2.2600e-003	3.5000e-004	2.6100e-003		24.5401	24.5401	2.3100e-003	3.4900e-003	25.6406

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, Summer

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

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6875	24.5922	25.7743	0.0424		1.2746	1.2746		1.1992	1.1992		4,022.2057	4,022.2057	0.9635		4,046.2940
Total	2.6875	24.5922	25.7743	0.0424		1.2746	1.2746		1.1992	1.1992		4,022.2057	4,022.2057	0.9635		4,046.2940

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	2.2000e-004	3.7600e-003	2.7100e-003	1.0000e-005	8.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005		0.7910	0.7910	1.0000e-005	1.2000e-004	0.8283
Vendor	0.0912	1.5905	1.0718	3.2800e-003	0.0533	6.0200e-003	0.0593	0.0156	5.7600e-003	0.0214		346.2221	346.2221	5.2200e-003	0.0528	362.0710
Worker	0.6325	0.1804	1.7216	1.5900e-003	0.1089	2.0400e-003	0.1109	0.0292	1.8800e-003	0.0311		160.3678	160.3678	0.0378	0.0198	167.2190
Total	0.7239	1.7747	2.7961	4.8800e-003	0.1623	8.0700e-003	0.1703	0.0449	7.6500e-003	0.0525		507.3809	507.3809	0.0431	0.0727	530.1183

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, Summer

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

3.5 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6875	24.5922	25.7743	0.0424		1.2746	1.2746		1.1992	1.1992	0.0000	4,022.2057	4,022.2057	0.9635		4,046.2940
Total	2.6875	24.5922	25.7743	0.0424		1.2746	1.2746		1.1992	1.1992	0.0000	4,022.2057	4,022.2057	0.9635		4,046.2940

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	2.2000e-004	3.7600e-003	2.7100e-003	1.0000e-005	8.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005		0.7910	0.7910	1.0000e-005	1.2000e-004	0.8283
Vendor	0.0912	1.5905	1.0718	3.2800e-003	0.0533	6.0200e-003	0.0593	0.0156	5.7600e-003	0.0214		346.2221	346.2221	5.2200e-003	0.0528	362.0710
Worker	0.6325	0.1804	1.7216	1.5900e-003	0.1089	2.0400e-003	0.1109	0.0292	1.8800e-003	0.0311		160.3678	160.3678	0.0378	0.0198	167.2190
Total	0.7239	1.7747	2.7961	4.8800e-003	0.1623	8.0700e-003	0.1703	0.0449	7.6500e-003	0.0525		507.3809	507.3809	0.0431	0.0727	530.1183

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, 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	2.4772	22.6539	25.5863	0.0424		1.1024	1.1024		1.0373	1.0373		4,023.5828	4,023.5828	0.9571		4,047.5097
Total	2.4772	22.6539	25.5863	0.0424		1.1024	1.1024		1.0373	1.0373		4,023.5828	4,023.5828	0.9571		4,047.5097

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	2.1000e-004	3.5400e-003	2.8500e-003	1.0000e-005	8.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005		0.7586	0.7586	1.0000e-005	1.2000e-004	0.7944
Vendor	0.0807	1.4915	1.0924	3.1500e-003	0.0533	2.8200e-003	0.0562	0.0156	2.7000e-003	0.0183		332.7805	332.7805	4.7500e-003	0.0506	347.9886
Worker	0.5797	0.1643	1.6292	1.5400e-003	0.1089	1.9200e-003	0.1108	0.0292	1.7700e-003	0.0310		155.1888	155.1888	0.0346	0.0188	161.6464
Total	0.6606	1.6593	2.7245	4.7000e-003	0.1623	4.7500e-003	0.1670	0.0449	4.4800e-003	0.0493		488.7279	488.7279	0.0394	0.0695	510.4294

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, 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	2.4772	22.6539	25.5863	0.0424		1.1024	1.1024		1.0373	1.0373	0.0000	4,023.5828	4,023.5828	0.9571		4,047.5097
Total	2.4772	22.6539	25.5863	0.0424		1.1024	1.1024		1.0373	1.0373	0.0000	4,023.5828	4,023.5828	0.9571		4,047.5097

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	2.1000e-004	3.5400e-003	2.8500e-003	1.0000e-005	8.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005		0.7586	0.7586	1.0000e-005	1.2000e-004	0.7944
Vendor	0.0807	1.4915	1.0924	3.1500e-003	0.0533	2.8200e-003	0.0562	0.0156	2.7000e-003	0.0183		332.7805	332.7805	4.7500e-003	0.0506	347.9886
Worker	0.5797	0.1643	1.6292	1.5400e-003	0.1089	1.9200e-003	0.1108	0.0292	1.7700e-003	0.0310		155.1888	155.1888	0.0346	0.0188	161.6464
Total	0.6606	1.6593	2.7245	4.7000e-003	0.1623	4.7500e-003	0.1670	0.0449	4.4800e-003	0.0493		488.7279	488.7279	0.0394	0.0695	510.4294

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, Summer

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

3.6 Architectural Coating - 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					
Archit. Coating	52.5001					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	52.6917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690

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	1.2000e-004	2.1000e-003	1.6900e-003	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	2.0000e-005		0.4504	0.4504	1.0000e-005	7.0000e-005	0.4717
Vendor	3.0200e-003	0.0558	0.0408	1.2000e-004	1.9900e-003	1.1000e-004	2.1000e-003	5.8000e-004	1.0000e-004	6.9000e-004		12.4404	12.4404	1.8000e-004	1.8900e-003	13.0089
Worker	0.1164	0.0330	0.3270	3.1000e-004	0.0219	3.9000e-004	0.0222	5.8600e-003	3.6000e-004	6.2200e-003		31.1510	31.1510	6.9500e-003	3.7700e-003	32.4473
Total	0.1195	0.0908	0.3696	4.3000e-004	0.0239	5.0000e-004	0.0244	6.4500e-003	4.6000e-004	6.9300e-003		44.0419	44.0419	7.1400e-003	5.7300e-003	45.9279

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, Summer

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

3.6 Architectural Coating - 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					
Archit. Coating	52.5001					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	52.6917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690

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	1.2000e-004	2.1000e-003	1.6900e-003	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	2.0000e-005		0.4504	0.4504	1.0000e-005	7.0000e-005	0.4717
Vendor	3.0200e-003	0.0558	0.0408	1.2000e-004	1.9900e-003	1.1000e-004	2.1000e-003	5.8000e-004	1.0000e-004	6.9000e-004		12.4404	12.4404	1.8000e-004	1.8900e-003	13.0089
Worker	0.1164	0.0330	0.3270	3.1000e-004	0.0219	3.9000e-004	0.0222	5.8600e-003	3.6000e-004	6.2200e-003		31.1510	31.1510	6.9500e-003	3.7700e-003	32.4473
Total	0.1195	0.0908	0.3696	4.3000e-004	0.0239	5.0000e-004	0.0244	6.4500e-003	4.6000e-004	6.9300e-003		44.0419	44.0419	7.1400e-003	5.7300e-003	45.9279

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, Summer

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

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
Refrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.491491	0.052949	0.173689	0.164683	0.034990	0.008766	0.010778	0.027771	0.000810	0.000210	0.026873	0.002020	0.004972
Other Non-Asphalt Surfaces	0.491491	0.052949	0.173689	0.164683	0.034990	0.008766	0.010778	0.027771	0.000810	0.000210	0.026873	0.002020	0.004972
Parking Lot	0.491491	0.052949	0.173689	0.164683	0.034990	0.008766	0.010778	0.027771	0.000810	0.000210	0.026873	0.002020	0.004972
Refrigerated Warehouse-No Rail	0.491491	0.052949	0.173689	0.164683	0.034990	0.008766	0.010778	0.027771	0.000810	0.000210	0.026873	0.002020	0.004972

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
NaturalGas Mitigated	1.1300e-003	0.0102	8.6000e-003	6.0000e-005		7.8000e-004	7.8000e-004		7.8000e-004	7.8000e-004		12.2812	12.2812	2.4000e-004	2.3000e-004	12.3542
NaturalGas Unmitigated	1.1300e-003	0.0102	8.6000e-003	6.0000e-005		7.8000e-004	7.8000e-004		7.8000e-004	7.8000e-004		12.2812	12.2812	2.4000e-004	2.3000e-004	12.3542

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, 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 - 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	lb/day										lb/day					
Other Asphalt Surfaces	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
Other Non-Asphalt Surfaces	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
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
Refrigerated Warehouse-No Rail	104.39	1.1300e-003	0.0102	8.6000e-003	6.0000e-005		7.8000e-004	7.8000e-004		7.8000e-004	7.8000e-004		12.2812	12.2812	2.4000e-004	2.3000e-004	12.3542
Total		1.1300e-003	0.0102	8.6000e-003	6.0000e-005		7.8000e-004	7.8000e-004		7.8000e-004	7.8000e-004		12.2812	12.2812	2.4000e-004	2.3000e-004	12.3542

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, 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 - 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	lb/day										lb/day					
Other Asphalt Surfaces	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
Other Non-Asphalt Surfaces	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
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
Refrigerated Warehouse-No Rail	0.10439	1.1300e-003	0.0102	8.6000e-003	6.0000e-005		7.8000e-004	7.8000e-004		7.8000e-004	7.8000e-004		12.2812	12.2812	2.4000e-004	2.3000e-004	12.3542
Total		1.1300e-003	0.0102	8.6000e-003	6.0000e-005		7.8000e-004	7.8000e-004		7.8000e-004	7.8000e-004		12.2812	12.2812	2.4000e-004	2.3000e-004	12.3542

6.0 Area Detail

6.1 Mitigation Measures Area

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, 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	5.9481	2.4000e-004	0.0269	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0576	0.0576	1.5000e-004		0.0614
Unmitigated	5.9481	2.4000e-004	0.0269	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0576	0.0576	1.5000e-004		0.0614

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	0.3682					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.5774					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.4900e-003	2.4000e-004	0.0269	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0576	0.0576	1.5000e-004		0.0614
Total	5.9481	2.4000e-004	0.0269	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0576	0.0576	1.5000e-004		0.0614

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, 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	0.3682					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.5774					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.4900e-003	2.4000e-004	0.0269	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0576	0.0576	1.5000e-004		0.0614
Total	5.9481	2.4000e-004	0.0269	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0576	0.0576	1.5000e-004		0.0614

7.0 Water Detail

7.1 Mitigation Measures Water

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, Summer

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

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
----------------	--------	-----------	------------	-------------	-------------	-----------

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

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, Winter

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

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only)

Madera County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	254.02	1000sqft	5.83	254,016.00	0
Other Asphalt Surfaces	1.50	Acre	1.50	65,340.00	0
Other Non-Asphalt Surfaces	1.50	Acre	1.50	65,340.00	0
Parking Lot	6.17	Acre	6.17	268,765.20	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.9	Precipitation Freq (Days)	51
Climate Zone	3			Operational Year	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Localized Screening Analysis
 Origo Cold Madera - Temperature Controlled Storage Facility
 Earliest Construction Start Date: March 2022

Land Use - Phase 1 Land Use Development
 Total Building Area: 254,016 sq ft
 15.00 Total Acres

Construction Phase - Earliest Construction Start Date: March 2022
 Site vacant - no demolition
 Phase 1 Construction Duration: 12 months

Off-road Equipment - Adjusted construction equipment usage to match CalEEMod default total building construction HP hours.

Trips and VMT - Adjusted construction trip lengths to reflect on-site travel only for localized screening analysis.

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, Winter

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

Grading - Cut and fill expected to balance on-site for the entire project.

Architectural Coating - SJVAPCD Rule 4601 Architectural Coatings

Vehicle Trips - Construction run only

Area Coating - SJVAPCD Rule 4601 Architectural Coatings

Construction Off-road Equipment Mitigation - Compliance with SJVAPCD Regulation VIII

Area Mitigation - --

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	127,008.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	50
tblAreaCoating	Area_EF_Nonresidential_Interior	150	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	300.00	190.00
tblLandUse	LandUseSquareFeet	254,020.00	254,016.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	7.00	5.50
tblOffRoadEquipment	UsageHours	8.00	7.60
tblOffRoadEquipment	UsageHours	8.00	6.30
tblOffRoadEquipment	UsageHours	7.00	6.60
tblOffRoadEquipment	UsageHours	8.00	6.30
tblTripsAndVMT	HaulingTripLength	20.00	0.51
tblTripsAndVMT	HaulingTripLength	20.00	0.51
tblTripsAndVMT	HaulingTripLength	20.00	0.51

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, Winter

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

tbITripsAndVMT	HaulingTripLength	20.00	0.51
tbITripsAndVMT	HaulingTripLength	20.00	0.51
tbITripsAndVMT	HaulingTripNumber	0.00	54.00
tbITripsAndVMT	HaulingTripNumber	0.00	56.00
tbITripsAndVMT	HaulingTripNumber	0.00	12.00
tbITripsAndVMT	HaulingTripNumber	0.00	32.00
tbITripsAndVMT	HaulingTripNumber	0.00	2.00
tbITripsAndVMT	VendorTripLength	7.30	0.51
tbITripsAndVMT	VendorTripLength	7.30	0.51
tbITripsAndVMT	VendorTripLength	7.30	0.51
tbITripsAndVMT	VendorTripLength	7.30	0.51
tbITripsAndVMT	VendorTripLength	7.30	0.51
tbITripsAndVMT	VendorTripNumber	0.00	4.00
tbITripsAndVMT	VendorTripNumber	0.00	4.00
tbITripsAndVMT	WorkerTripLength	10.80	0.51
tbITripsAndVMT	WorkerTripLength	10.80	0.51
tbITripsAndVMT	WorkerTripLength	10.80	0.51
tbITripsAndVMT	WorkerTripLength	10.80	0.51
tbITripsAndVMT	WorkerTripLength	10.80	0.51
tbIVehicleTrips	ST_TR	2.12	0.00
tbIVehicleTrips	SU_TR	2.12	0.00
tbIVehicleTrips	WD_TR	2.12	0.00

2.0 Emissions Summary

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, Winter

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

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					
2022	3.6585	38.9038	29.2357	0.0623	19.6667	1.6351	21.2797	10.1051	1.5043	11.5891	0.0000	6,031.071 3	6,031.071 3	1.9481	0.0758	6,080.677 0
2023	52.7737	24.4530	28.8678	0.0471	0.1623	1.1072	1.2695	0.0449	1.0418	1.0867	0.0000	4,505.019 9	4,505.019 9	1.0090	0.0729	4,551.952 8
Maximum	52.7737	38.9038	29.2357	0.0623	19.6667	1.6351	21.2797	10.1051	1.5043	11.5891	0.0000	6,031.071 3	6,031.071 3	1.9481	0.0758	6,080.677 0

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					
2022	3.6585	38.9038	29.2357	0.0623	8.8553	1.6351	10.4683	4.5487	1.5043	6.0327	0.0000	6,031.071 3	6,031.071 3	1.9481	0.0758	6,080.677 0
2023	52.7737	24.4530	28.8678	0.0471	0.1623	1.1072	1.2695	0.0449	1.0418	1.0867	0.0000	4,505.019 9	4,505.019 9	1.0090	0.0729	4,551.952 8
Maximum	52.7737	38.9038	29.2357	0.0623	8.8553	1.6351	10.4683	4.5487	1.5043	6.0327	0.0000	6,031.071 3	6,031.071 3	1.9481	0.0758	6,080.677 0

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, 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	0.00	0.00	0.00	0.00	54.52	0.00	47.95	54.74	0.00	43.83	0.00	0.00	0.00	0.00	0.00	0.00

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, 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	5.9481	2.4000e-004	0.0269	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0576	0.0576	1.5000e-004		0.0614
Energy	1.1300e-003	0.0102	8.6000e-003	6.0000e-005		7.8000e-004	7.8000e-004		7.8000e-004	7.8000e-004		12.2812	12.2812	2.4000e-004	2.3000e-004	12.3542
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	5.9493	0.0105	0.0355	6.0000e-005	0.0000	8.8000e-004	8.8000e-004	0.0000	8.8000e-004	8.8000e-004		12.3388	12.3388	3.9000e-004	2.3000e-004	12.4156

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	5.9481	2.4000e-004	0.0269	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0576	0.0576	1.5000e-004		0.0614
Energy	1.1300e-003	0.0102	8.6000e-003	6.0000e-005		7.8000e-004	7.8000e-004		7.8000e-004	7.8000e-004		12.2812	12.2812	2.4000e-004	2.3000e-004	12.3542
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	5.9493	0.0105	0.0355	6.0000e-005	0.0000	8.8000e-004	8.8000e-004	0.0000	8.8000e-004	8.8000e-004		12.3388	12.3388	3.9000e-004	2.3000e-004	12.4156

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, 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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/7/2022	3/18/2022	5	10	
2	Grading	Grading	3/19/2022	4/29/2022	5	30	
3	Paving	Paving	4/30/2022	5/27/2022	5	20	
4	Building Construction	Building Construction	5/28/2022	2/19/2023	5	190	
5	Architectural Coating	Architectural Coating	2/20/2023	3/17/2023	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 90

Acres of Paving: 9.17

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 381,024; Non-Residential Outdoor: 50; Striped Parking Area: 23,967 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, Winter

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

Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	2	5.50	231	0.29
Building Construction	Forklifts	5	7.60	89	0.20
Building Construction	Generator Sets	2	6.30	84	0.74
Building Construction	Tractors/Loaders/Backhoes	5	6.60	97	0.37
Building Construction	Welders	2	6.30	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	54.00	0.51	0.51	0.51	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	56.00	0.51	0.51	0.51	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	4.00	12.00	0.51	0.51	0.51	LD_Mix	HDT_Mix	HHDT
Building Construction	16	274.00	107.00	32.00	0.51	0.51	0.51	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	55.00	4.00	2.00	0.51	0.51	0.51	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, Winter

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

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	3.1701	33.0835	19.6978	0.0380	19.6570	1.6126	21.2696	10.1025	1.4836	11.5860		3,686.0619	3,686.0619	1.1922		3,715.8655

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	6.2000e-003	0.1291	0.0908	2.4000e-004	2.5300e-003	3.0000e-004	2.8300e-003	7.0000e-004	2.9000e-004	9.9000e-004		25.6089	25.6089	2.9000e-004	4.0300e-003	26.8158
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	0.0284	0.0142	0.1466	1.0000e-004	7.1500e-003	1.3000e-004	7.2900e-003	1.9200e-003	1.2000e-004	2.0400e-003		9.7275	9.7275	3.4100e-003	1.4800e-003	10.2523
Total	0.0346	0.1433	0.2374	3.4000e-004	9.6800e-003	4.3000e-004	0.0101	2.6200e-003	4.1000e-004	3.0300e-003		35.3364	35.3364	3.7000e-003	5.5100e-003	37.0682

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, Winter

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

3.2 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.8457	0.0000	8.8457	4.5461	0.0000	4.5461			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	3.1701	33.0835	19.6978	0.0380	8.8457	1.6126	10.4582	4.5461	1.4836	6.0297	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655

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	6.2000e-003	0.1291	0.0908	2.4000e-004	2.5300e-003	3.0000e-004	2.8300e-003	7.0000e-004	2.9000e-004	9.9000e-004		25.6089	25.6089	2.9000e-004	4.0300e-003	26.8158
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	0.0284	0.0142	0.1466	1.0000e-004	7.1500e-003	1.3000e-004	7.2900e-003	1.9200e-003	1.2000e-004	2.0400e-003		9.7275	9.7275	3.4100e-003	1.4800e-003	10.2523
Total	0.0346	0.1433	0.2374	3.4000e-004	9.6800e-003	4.3000e-004	0.0101	2.6200e-003	4.1000e-004	3.0300e-003		35.3364	35.3364	3.7000e-003	5.5100e-003	37.0682

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, Winter

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

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	3.6248	38.8435	29.0415	0.0621	9.2036	1.6349	10.8385	3.6538	1.5041	5.1579		6,011.4105	6,011.4105	1.9442		6,060.0158

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	2.1400e-003	0.0446	0.0314	8.0000e-005	8.7000e-004	1.0000e-004	9.8000e-004	2.4000e-004	1.0000e-004	3.4000e-004		8.8525	8.8525	1.0000e-004	1.3900e-003	9.2697
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	0.0316	0.0157	0.1628	1.1000e-004	7.9500e-003	1.5000e-004	8.1000e-003	2.1300e-003	1.4000e-004	2.2700e-003		10.8083	10.8083	3.7900e-003	1.6400e-003	11.3915
Total	0.0337	0.0604	0.1942	1.9000e-004	8.8200e-003	2.5000e-004	9.0800e-003	2.3700e-003	2.4000e-004	2.6100e-003		19.6608	19.6608	3.8900e-003	3.0300e-003	20.6612

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, Winter

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

3.3 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.1416	0.0000	4.1416	1.6442	0.0000	1.6442			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	3.6248	38.8435	29.0415	0.0621	4.1416	1.6349	5.7765	1.6442	1.5041	3.1483	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158

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	2.1400e-003	0.0446	0.0314	8.0000e-005	8.7000e-004	1.0000e-004	9.8000e-004	2.4000e-004	1.0000e-004	3.4000e-004		8.8525	8.8525	1.0000e-004	1.3900e-003	9.2697
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	0.0316	0.0157	0.1628	1.1000e-004	7.9500e-003	1.5000e-004	8.1000e-003	2.1300e-003	1.4000e-004	2.2700e-003		10.8083	10.8083	3.7900e-003	1.6400e-003	11.3915
Total	0.0337	0.0604	0.1942	1.9000e-004	8.8200e-003	2.5000e-004	9.0800e-003	2.3700e-003	2.4000e-004	2.6100e-003		19.6608	19.6608	3.8900e-003	3.0300e-003	20.6612

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, Winter

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

3.4 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	1.0048					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.1076	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104

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	6.9000e-004	0.0144	0.0101	3.0000e-005	2.8000e-004	3.0000e-005	3.1000e-004	8.0000e-005	3.0000e-005	1.1000e-004		2.8454	2.8454	3.0000e-005	4.5000e-004	2.9795
Vendor	3.1300e-003	0.0630	0.0429	1.2000e-004	1.9900e-003	2.3000e-004	2.2200e-003	5.8000e-004	2.2000e-004	8.1000e-004		13.0254	13.0254	1.9000e-004	1.9900e-003	13.6227
Worker	0.0237	0.0118	0.1221	8.0000e-005	5.9600e-003	1.1000e-004	6.0700e-003	1.6000e-003	1.0000e-004	1.7000e-003		8.1062	8.1062	2.8400e-003	1.2300e-003	8.5436
Total	0.0275	0.0892	0.1751	2.3000e-004	8.2300e-003	3.7000e-004	8.6000e-003	2.2600e-003	3.5000e-004	2.6200e-003		23.9770	23.9770	3.0600e-003	3.6700e-003	25.1459

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, Winter

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

3.4 Paving - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.660 3	2,207.660 3	0.7140		2,225.510 4
Paving	1.0048					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.1076	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.660 3	2,207.660 3	0.7140		2,225.510 4

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	6.9000e-004	0.0144	0.0101	3.0000e-005	2.8000e-004	3.0000e-005	3.1000e-004	8.0000e-005	3.0000e-005	1.1000e-004		2.8454	2.8454	3.0000e-005	4.5000e-004	2.9795
Vendor	3.1300e-003	0.0630	0.0429	1.2000e-004	1.9900e-003	2.3000e-004	2.2200e-003	5.8000e-004	2.2000e-004	8.1000e-004		13.0254	13.0254	1.9000e-004	1.9900e-003	13.6227
Worker	0.0237	0.0118	0.1221	8.0000e-005	5.9600e-003	1.1000e-004	6.0700e-003	1.6000e-003	1.0000e-004	1.7000e-003		8.1062	8.1062	2.8400e-003	1.2300e-003	8.5436
Total	0.0275	0.0892	0.1751	2.3000e-004	8.2300e-003	3.7000e-004	8.6000e-003	2.2600e-003	3.5000e-004	2.6200e-003		23.9770	23.9770	3.0600e-003	3.6700e-003	25.1459

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, Winter

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

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6875	24.5922	25.7743	0.0424		1.2746	1.2746		1.1992	1.1992		4,022.2057	4,022.2057	0.9635		4,046.2940
Total	2.6875	24.5922	25.7743	0.0424		1.2746	1.2746		1.1992	1.1992		4,022.2057	4,022.2057	0.9635		4,046.2940

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	1.9000e-004	4.0300e-003	2.8300e-003	1.0000e-005	8.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005		0.7987	0.7987	1.0000e-005	1.3000e-004	0.8364
Vendor	0.0838	1.6863	1.1475	3.3000e-003	0.0533	6.2000e-003	0.0595	0.0156	5.9300e-003	0.0216		348.4290	348.4290	5.0400e-003	0.0532	364.4075
Worker	0.4325	0.2157	2.2308	1.4700e-003	0.1089	2.0400e-003	0.1109	0.0292	1.8800e-003	0.0311		148.0737	148.0737	0.0519	0.0225	156.0633
Total	0.5165	1.9060	3.3811	4.7800e-003	0.1623	8.2500e-003	0.1705	0.0449	7.8200e-003	0.0527		497.3014	497.3014	0.0569	0.0758	521.3072

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, Winter

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

3.5 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6875	24.5922	25.7743	0.0424		1.2746	1.2746		1.1992	1.1992	0.0000	4,022.2057	4,022.2057	0.9635		4,046.2940
Total	2.6875	24.5922	25.7743	0.0424		1.2746	1.2746		1.1992	1.1992	0.0000	4,022.2057	4,022.2057	0.9635		4,046.2940

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	1.9000e-004	4.0300e-003	2.8300e-003	1.0000e-005	8.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005		0.7987	0.7987	1.0000e-005	1.3000e-004	0.8364
Vendor	0.0838	1.6863	1.1475	3.3000e-003	0.0533	6.2000e-003	0.0595	0.0156	5.9300e-003	0.0216		348.4290	348.4290	5.0400e-003	0.0532	364.4075
Worker	0.4325	0.2157	2.2308	1.4700e-003	0.1089	2.0400e-003	0.1109	0.0292	1.8800e-003	0.0311		148.0737	148.0737	0.0519	0.0225	156.0633
Total	0.5165	1.9060	3.3811	4.7800e-003	0.1623	8.2500e-003	0.1705	0.0449	7.8200e-003	0.0527		497.3014	497.3014	0.0569	0.0758	521.3072

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, 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	2.4772	22.6539	25.5863	0.0424		1.1024	1.1024		1.0373	1.0373		4,023.5828	4,023.5828	0.9571		4,047.5097
Total	2.4772	22.6539	25.5863	0.0424		1.1024	1.1024		1.0373	1.0373		4,023.5828	4,023.5828	0.9571		4,047.5097

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	1.8000e-004	3.8400e-003	2.9400e-003	1.0000e-005	8.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005		0.7728	0.7728	1.0000e-005	1.2000e-004	0.8092
Vendor	0.0721	1.5990	1.1554	3.1900e-003	0.0533	2.9200e-003	0.0562	0.0156	2.7900e-003	0.0184		337.3532	337.3532	4.5100e-003	0.0515	352.7995
Worker	0.3946	0.1964	2.1232	1.4200e-003	0.1089	1.9200e-003	0.1108	0.0292	1.7700e-003	0.0310		143.3111	143.3111	0.0474	0.0213	150.8344
Total	0.4669	1.7992	3.2815	4.6200e-003	0.1623	4.8500e-003	0.1671	0.0449	4.5700e-003	0.0494		481.4371	481.4371	0.0520	0.0729	504.4432

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, 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	2.4772	22.6539	25.5863	0.0424		1.1024	1.1024		1.0373	1.0373	0.0000	4,023.5828	4,023.5828	0.9571		4,047.5097
Total	2.4772	22.6539	25.5863	0.0424		1.1024	1.1024		1.0373	1.0373	0.0000	4,023.5828	4,023.5828	0.9571		4,047.5097

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	1.8000e-004	3.8400e-003	2.9400e-003	1.0000e-005	8.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005		0.7728	0.7728	1.0000e-005	1.2000e-004	0.8092
Vendor	0.0721	1.5990	1.1554	3.1900e-003	0.0533	2.9200e-003	0.0562	0.0156	2.7900e-003	0.0184		337.3532	337.3532	4.5100e-003	0.0515	352.7995
Worker	0.3946	0.1964	2.1232	1.4200e-003	0.1089	1.9200e-003	0.1108	0.0292	1.7700e-003	0.0310		143.3111	143.3111	0.0474	0.0213	150.8344
Total	0.4669	1.7992	3.2815	4.6200e-003	0.1623	4.8500e-003	0.1671	0.0449	4.5700e-003	0.0494		481.4371	481.4371	0.0520	0.0729	504.4432

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, Winter

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

3.6 Architectural Coating - 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					
Archit. Coating	52.5001					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	52.6917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690

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	1.1000e-004	2.2800e-003	1.7500e-003	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	2.0000e-005		0.4589	0.4589	1.0000e-005	7.0000e-005	0.4805
Vendor	2.7000e-003	0.0598	0.0432	1.2000e-004	1.9900e-003	1.1000e-004	2.1000e-003	5.8000e-004	1.0000e-004	6.9000e-004		12.6113	12.6113	1.7000e-004	1.9200e-003	13.1888
Worker	0.0792	0.0394	0.4262	2.8000e-004	0.0219	3.9000e-004	0.0222	5.8600e-003	3.6000e-004	6.2200e-003		28.7668	28.7668	9.5200e-003	4.2700e-003	30.2770
Total	0.0820	0.1015	0.4711	4.0000e-004	0.0239	5.0000e-004	0.0244	6.4500e-003	4.6000e-004	6.9300e-003		41.8370	41.8370	9.7000e-003	6.2600e-003	43.9462

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, Winter

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

3.6 Architectural Coating - 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					
Archit. Coating	52.5001					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	52.6917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690

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	1.1000e-004	2.2800e-003	1.7500e-003	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	2.0000e-005		0.4589	0.4589	1.0000e-005	7.0000e-005	0.4805
Vendor	2.7000e-003	0.0598	0.0432	1.2000e-004	1.9900e-003	1.1000e-004	2.1000e-003	5.8000e-004	1.0000e-004	6.9000e-004		12.6113	12.6113	1.7000e-004	1.9200e-003	13.1888
Worker	0.0792	0.0394	0.4262	2.8000e-004	0.0219	3.9000e-004	0.0222	5.8600e-003	3.6000e-004	6.2200e-003		28.7668	28.7668	9.5200e-003	4.2700e-003	30.2770
Total	0.0820	0.1015	0.4711	4.0000e-004	0.0239	5.0000e-004	0.0244	6.4500e-003	4.6000e-004	6.9300e-003		41.8370	41.8370	9.7000e-003	6.2600e-003	43.9462

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, Winter

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

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
Refrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.491491	0.052949	0.173689	0.164683	0.034990	0.008766	0.010778	0.027771	0.000810	0.000210	0.026873	0.002020	0.004972
Other Non-Asphalt Surfaces	0.491491	0.052949	0.173689	0.164683	0.034990	0.008766	0.010778	0.027771	0.000810	0.000210	0.026873	0.002020	0.004972
Parking Lot	0.491491	0.052949	0.173689	0.164683	0.034990	0.008766	0.010778	0.027771	0.000810	0.000210	0.026873	0.002020	0.004972
Refrigerated Warehouse-No Rail	0.491491	0.052949	0.173689	0.164683	0.034990	0.008766	0.010778	0.027771	0.000810	0.000210	0.026873	0.002020	0.004972

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
NaturalGas Mitigated	1.1300e-003	0.0102	8.6000e-003	6.0000e-005		7.8000e-004	7.8000e-004		7.8000e-004	7.8000e-004		12.2812	12.2812	2.4000e-004	2.3000e-004	12.3542
NaturalGas Unmitigated	1.1300e-003	0.0102	8.6000e-003	6.0000e-005		7.8000e-004	7.8000e-004		7.8000e-004	7.8000e-004		12.2812	12.2812	2.4000e-004	2.3000e-004	12.3542

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, 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 - 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	lb/day										lb/day					
Other Asphalt Surfaces	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
Other Non-Asphalt Surfaces	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
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
Refrigerated Warehouse-No Rail	104.39	1.1300e-003	0.0102	8.6000e-003	6.0000e-005		7.8000e-004	7.8000e-004		7.8000e-004	7.8000e-004		12.2812	12.2812	2.4000e-004	2.3000e-004	12.3542
Total		1.1300e-003	0.0102	8.6000e-003	6.0000e-005		7.8000e-004	7.8000e-004		7.8000e-004	7.8000e-004		12.2812	12.2812	2.4000e-004	2.3000e-004	12.3542

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, 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 - 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	lb/day										lb/day					
Other Asphalt Surfaces	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
Other Non-Asphalt Surfaces	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
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
Refrigerated Warehouse-No Rail	0.10439	1.1300e-003	0.0102	8.6000e-003	6.0000e-005		7.8000e-004	7.8000e-004		7.8000e-004	7.8000e-004		12.2812	12.2812	2.4000e-004	2.3000e-004	12.3542
Total		1.1300e-003	0.0102	8.6000e-003	6.0000e-005		7.8000e-004	7.8000e-004		7.8000e-004	7.8000e-004		12.2812	12.2812	2.4000e-004	2.3000e-004	12.3542

6.0 Area Detail

6.1 Mitigation Measures Area

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, 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	5.9481	2.4000e-004	0.0269	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0576	0.0576	1.5000e-004		0.0614
Unmitigated	5.9481	2.4000e-004	0.0269	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0576	0.0576	1.5000e-004		0.0614

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	0.3682					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.5774					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.4900e-003	2.4000e-004	0.0269	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0576	0.0576	1.5000e-004		0.0614
Total	5.9481	2.4000e-004	0.0269	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0576	0.0576	1.5000e-004		0.0614

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, 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	0.3682					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.5774					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.4900e-003	2.4000e-004	0.0269	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0576	0.0576	1.5000e-004		0.0614
Total	5.9481	2.4000e-004	0.0269	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0576	0.0576	1.5000e-004		0.0614

7.0 Water Detail

7.1 Mitigation Measures Water

Origo Cold Madera - Phase 1 Unmitigated Construction (On-site Only) - Madera County, Winter

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

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

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, Summer

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

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only)

Madera County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-Rail	250.00	1000sqft	5.74	250,000.00	0
Other Asphalt Surfaces	1.50	Acre	1.56	65,340.00	0
Other Non-Asphalt Surfaces	1.50	Acre	1.56	65,340.00	0
Parking Lot	6.74	Acre	6.74	293,594.40	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.9	Precipitation Freq (Days)	51
Climate Zone	3			Operational Year	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Localized Screening Analysis
 Phase 2: Earliest construction start date immediately following the completion of Phase 1
 Land Use - Phase 2 Land Use Development
 Total Building Area: Up to 250,000 sq ft
 15.60 Total Acres
 Construction Phase - Earliest Construction Start Date (Phase 2): March 2023
 Site vacant - no demolition
 Phase 2 Construction Duration: 12 months
 Off-road Equipment -
 Off-road Equipment - Adjusted construction equipment usage to match CalEEMod default total building construction HP hours.
 Off-road Equipment -

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, Summer

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

Trips and VMT - Adjusted construction trip lengths to reflect on-site travel only for localized screening analysis.

Phase 2 length (assumed to travel through Phase 1: 1.02 miles on-site)

Architectural Coating - SJVAPCD Rule 4601 Architectural Coatings

Vehicle Trips - Construction run only

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Construction Off-road Equipment Mitigation - Compliance with SJVAPCD Regulation VIII

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	50.00
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	300.00	181.00
tblLandUse	LotAcreage	1.50	1.56
tblLandUse	LotAcreage	1.50	1.56
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	7.00	5.80
tblOffRoadEquipment	UsageHours	8.00	6.60
tblOffRoadEquipment	UsageHours	8.00	6.60
tblOffRoadEquipment	UsageHours	7.00	5.80
tblOffRoadEquipment	UsageHours	8.00	6.60
tblTripsAndVMT	HaulingTripLength	20.00	1.02
tblTripsAndVMT	HaulingTripLength	20.00	1.02
tblTripsAndVMT	HaulingTripLength	20.00	1.02

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, Summer

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

tbITripsAndVMT	HaulingTripLength	20.00	1.02
tbITripsAndVMT	HaulingTripLength	20.00	1.02
tbITripsAndVMT	HaulingTripNumber	0.00	7.00
tbITripsAndVMT	HaulingTripNumber	0.00	16.00
tbITripsAndVMT	HaulingTripNumber	0.00	12.00
tbITripsAndVMT	HaulingTripNumber	0.00	36.00
tbITripsAndVMT	HaulingTripNumber	0.00	2.00
tbITripsAndVMT	VendorTripLength	7.30	1.02
tbITripsAndVMT	VendorTripLength	7.30	1.02
tbITripsAndVMT	VendorTripLength	7.30	1.02
tbITripsAndVMT	VendorTripLength	7.30	1.02
tbITripsAndVMT	VendorTripLength	7.30	1.02
tbITripsAndVMT	VendorTripLength	7.30	1.02
tbITripsAndVMT	VendorTripNumber	0.00	4.00
tbITripsAndVMT	WorkerTripLength	10.80	1.02
tbITripsAndVMT	WorkerTripLength	10.80	1.02
tbITripsAndVMT	WorkerTripLength	10.80	1.02
tbITripsAndVMT	WorkerTripLength	10.80	1.02
tbITripsAndVMT	WorkerTripLength	10.80	1.02
tbIVehicleTrips	ST_TR	2.12	0.00
tbIVehicleTrips	SU_TR	2.12	0.00
tbIVehicleTrips	WD_TR	2.12	0.00

2.0 Emissions Summary

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, Summer

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

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	3.3666	34.5416	30.0798	0.0623	19.6718	1.4247	20.9380	10.1064	1.3107	11.2713	0.0000	6,033.2840	6,033.2840	1.9469	0.0963	6,082.5553
2024	67.0831	24.1884	29.8249	0.0518	0.3300	1.0217	1.3517	0.0906	0.9611	1.0516	0.0000	4,974.3831	4,974.3831	1.0393	0.0938	5,028.3265
Maximum	67.0831	34.5416	30.0798	0.0623	19.6718	1.4247	20.9380	10.1064	1.3107	11.2713	0.0000	6,033.2840	6,033.2840	1.9469	0.0963	6,082.5553

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	3.3666	34.5416	30.0798	0.0623	8.8604	1.4247	10.1267	4.5501	1.3107	5.7150	0.0000	6,033.2840	6,033.2840	1.9469	0.0963	6,082.5553
2024	67.0831	24.1884	29.8249	0.0518	0.3300	1.0217	1.3517	0.0906	0.9611	1.0516	0.0000	4,974.3831	4,974.3831	1.0393	0.0938	5,028.3265
Maximum	67.0831	34.5416	30.0798	0.0623	8.8604	1.4247	10.1267	4.5501	1.3107	5.7150	0.0000	6,033.2840	6,033.2840	1.9469	0.0963	6,082.5553

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, 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	54.05	0.00	48.50	54.49	0.00	45.09	0.00	0.00	0.00	0.00	0.00	0.00

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, 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	6.5036	2.4000e-004	0.0265	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0568	0.0568	1.5000e-004		0.0606
Energy	1.1100e-003	0.0101	8.4600e-003	6.0000e-005		7.7000e-004	7.7000e-004		7.7000e-004	7.7000e-004		12.0870	12.0870	2.3000e-004	2.2000e-004	12.1589
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.5047	0.0103	0.0350	6.0000e-005	0.0000	8.6000e-004	8.6000e-004	0.0000	8.6000e-004	8.6000e-004		12.1439	12.1439	3.8000e-004	2.2000e-004	12.2194

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	6.5036	2.4000e-004	0.0265	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0568	0.0568	1.5000e-004		0.0606
Energy	1.1100e-003	0.0101	8.4600e-003	6.0000e-005		7.7000e-004	7.7000e-004		7.7000e-004	7.7000e-004		12.0870	12.0870	2.3000e-004	2.2000e-004	12.1589
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.5047	0.0103	0.0350	6.0000e-005	0.0000	8.6000e-004	8.6000e-004	0.0000	8.6000e-004	8.6000e-004		12.1439	12.1439	3.8000e-004	2.2000e-004	12.2194

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, 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	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	Site Preparation	Site Preparation	3/18/2023	3/31/2023	5	10	
2	Grading	Grading	4/1/2023	5/12/2023	5	30	
3	Paving	Paving	5/13/2023	6/9/2023	5	20	
4	Building Construction	Building Construction	6/10/2023	2/19/2024	5	181	
5	Architectural Coating	Architectural Coating	2/20/2024	3/18/2024	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 90

Acres of Paving: 9.86

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 375,000; Non-Residential Outdoor: 125,000; Striped Parking Area: 25,456 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, Summer

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

Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	2	5.80	231	0.29
Building Construction	Forklifts	6	6.60	89	0.20
Building Construction	Generator Sets	2	6.60	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	5.80	97	0.37
Building Construction	Welders	2	6.60	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	7.00	1.02	1.02	1.02	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	16.00	1.02	1.02	1.02	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	4.00	12.00	1.02	1.02	1.02	LD_Mix	HDT_Mix	HHDT
Building Construction	18	283.00	111.00	36.00	1.02	1.02	1.02	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	57.00	0.00	2.00	1.02	1.02	1.02	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, Summer

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

3.2 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					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.308 1	3,687.308 1	1.1926		3,717.121 9
Total	2.6595	27.5242	18.2443	0.0381	19.6570	1.2660	20.9230	10.1025	1.1647	11.2672		3,687.308 1	3,687.308 1	1.1926		3,717.121 9

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	8.9000e-004	0.0165	0.0120	4.0000e-005	6.4000e-004	5.0000e-005	6.9000e-004	1.8000e-004	5.0000e-005	2.2000e-004		4.1975	4.1975	4.0000e-005	6.6000e-004	4.3952
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	0.0397	0.0121	0.1304	1.7000e-004	0.0141	1.6000e-004	0.0143	3.7700e-003	1.5000e-004	3.9200e-003		16.7474	16.7474	2.3700e-003	1.3600e-003	17.2108
Total	0.0406	0.0286	0.1424	2.1000e-004	0.0148	2.1000e-004	0.0150	3.9500e-003	2.0000e-004	4.1400e-003		20.9449	20.9449	2.4100e-003	2.0200e-003	21.6059

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, Summer

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

3.2 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					8.8457	0.0000	8.8457	4.5461	0.0000	4.5461			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647	0.0000	3,687.308 1	3,687.308 1	1.1926		3,717.121 9
Total	2.6595	27.5242	18.2443	0.0381	8.8457	1.2660	10.1117	4.5461	1.1647	5.7108	0.0000	3,687.308 1	3,687.308 1	1.1926		3,717.121 9

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	8.9000e-004	0.0165	0.0120	4.0000e-005	6.4000e-004	5.0000e-005	6.9000e-004	1.8000e-004	5.0000e-005	2.2000e-004		4.1975	4.1975	4.0000e-005	6.6000e-004	4.3952
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	0.0397	0.0121	0.1304	1.7000e-004	0.0141	1.6000e-004	0.0143	3.7700e-003	1.5000e-004	3.9200e-003		16.7474	16.7474	2.3700e-003	1.3600e-003	17.2108
Total	0.0406	0.0286	0.1424	2.1000e-004	0.0148	2.1000e-004	0.0150	3.9500e-003	2.0000e-004	4.1400e-003		20.9449	20.9449	2.4100e-003	2.0200e-003	21.6059

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, Summer

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

3.3 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					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	3.3217	34.5156	28.0512	0.0621	9.2036	1.4245	10.6281	3.6538	1.3105	4.9643		6,011.4777	6,011.4777	1.9442		6,060.0836

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	6.8000e-004	0.0126	9.1600e-003	3.0000e-005	4.9000e-004	4.0000e-005	5.3000e-004	1.3000e-004	4.0000e-005	1.7000e-004		3.1981	3.1981	3.0000e-005	5.0000e-004	3.3487
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	0.0441	0.0135	0.1449	1.8000e-004	0.0157	1.8000e-004	0.0159	4.1900e-003	1.7000e-004	4.3500e-003		18.6082	18.6082	2.6300e-003	1.5100e-003	19.1231
Total	0.0448	0.0260	0.1540	2.1000e-004	0.0162	2.2000e-004	0.0164	4.3200e-003	2.1000e-004	4.5200e-003		21.8063	21.8063	2.6600e-003	2.0100e-003	22.4718

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, Summer

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

3.3 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					4.1416	0.0000	4.1416	1.6442	0.0000	1.6442			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	3.3217	34.5156	28.0512	0.0621	4.1416	1.4245	5.5661	1.6442	1.3105	2.9547	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836

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	6.8000e-004	0.0126	9.1600e-003	3.0000e-005	4.9000e-004	4.0000e-005	5.3000e-004	1.3000e-004	4.0000e-005	1.7000e-004		3.1981	3.1981	3.0000e-005	5.0000e-004	3.3487
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	0.0441	0.0135	0.1449	1.8000e-004	0.0157	1.8000e-004	0.0159	4.1900e-003	1.7000e-004	4.3500e-003		18.6082	18.6082	2.6300e-003	1.5100e-003	19.1231
Total	0.0448	0.0260	0.1540	2.1000e-004	0.0162	2.2000e-004	0.0164	4.3200e-003	2.1000e-004	4.5200e-003		21.8063	21.8063	2.6600e-003	2.0100e-003	22.4718

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, Summer

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

3.4 Paving - 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	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	1.0873					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.1200	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336

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	7.6000e-004	0.0141	0.0103	3.0000e-005	5.5000e-004	4.0000e-005	5.9000e-004	1.5000e-004	4.0000e-005	1.9000e-004		3.5978	3.5978	4.0000e-005	5.7000e-004	3.7673
Vendor	3.1600e-003	0.0643	0.0422	1.7000e-004	3.8800e-003	1.8000e-004	4.0700e-003	1.1300e-003	1.8000e-004	1.3000e-003		17.9793	17.9793	1.9000e-004	2.7000e-003	18.7874
Worker	0.0331	0.0101	0.1087	1.4000e-004	0.0118	1.4000e-004	0.0119	3.1400e-003	1.2000e-004	3.2600e-003		13.9562	13.9562	1.9800e-003	1.1300e-003	14.3423
Total	0.0370	0.0885	0.1612	3.4000e-004	0.0162	3.6000e-004	0.0166	4.4200e-003	3.4000e-004	4.7500e-003		35.5333	35.5333	2.2100e-003	4.4000e-003	36.8970

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, Summer

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

3.4 Paving - 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	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.584 1	2,207.584 1	0.7140		2,225.433 6
Paving	1.0873					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.1200	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.584 1	2,207.584 1	0.7140		2,225.433 6

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	7.6000e-004	0.0141	0.0103	3.0000e-005	5.5000e-004	4.0000e-005	5.9000e-004	1.5000e-004	4.0000e-005	1.9000e-004		3.5978	3.5978	4.0000e-005	5.7000e-004	3.7673
Vendor	3.1600e-003	0.0643	0.0422	1.7000e-004	3.8800e-003	1.8000e-004	4.0700e-003	1.1300e-003	1.8000e-004	1.3000e-003		17.9793	17.9793	1.9000e-004	2.7000e-003	18.7874
Worker	0.0331	0.0101	0.1087	1.4000e-004	0.0118	1.4000e-004	0.0119	3.1400e-003	1.2000e-004	3.2600e-003		13.9562	13.9562	1.9800e-003	1.1300e-003	14.3423
Total	0.0370	0.0885	0.1612	3.4000e-004	0.0162	3.6000e-004	0.0166	4.4200e-003	3.4000e-004	4.7500e-003		35.5333	35.5333	2.2100e-003	4.4000e-003	36.8970

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, 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	2.6001	23.7877	26.8559	0.0446		1.1570	1.1570		1.0886	1.0886		4,225.2436	4,225.2436	1.0059		4,250.3911
Total	2.6001	23.7877	26.8559	0.0446		1.1570	1.1570		1.0886	1.0886		4,225.2436	4,225.2436	1.0059		4,250.3911

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	2.5000e-004	4.6800e-003	3.4200e-003	1.0000e-005	1.8000e-004	1.0000e-005	2.0000e-004	5.0000e-005	1.0000e-005	6.0000e-005		1.1927	1.1927	1.0000e-005	1.9000e-004	1.2488
Vendor	0.0877	1.7835	1.1705	4.7300e-003	0.1077	5.1100e-003	0.1128	0.0313	4.8900e-003	0.0362		498.9249	498.9249	5.2100e-003	0.0748	521.3505
Worker	0.6246	0.1905	2.0500	2.6100e-003	0.2221	2.5600e-003	0.2247	0.0592	2.3500e-003	0.0616		263.3065	263.3065	0.0373	0.0213	270.5914
Total	0.7126	1.9786	3.2239	7.3500e-003	0.3300	7.6800e-003	0.3377	0.0906	7.2500e-003	0.0978		763.4241	763.4241	0.0425	0.0963	793.1908

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, 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	2.6001	23.7877	26.8559	0.0446		1.1570	1.1570		1.0886	1.0886	0.0000	4,225.2436	4,225.2436	1.0059		4,250.3911
Total	2.6001	23.7877	26.8559	0.0446		1.1570	1.1570		1.0886	1.0886	0.0000	4,225.2436	4,225.2436	1.0059		4,250.3911

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	2.5000e-004	4.6800e-003	3.4200e-003	1.0000e-005	1.8000e-004	1.0000e-005	2.0000e-004	5.0000e-005	1.0000e-005	6.0000e-005		1.1927	1.1927	1.0000e-005	1.9000e-004	1.2488
Vendor	0.0877	1.7835	1.1705	4.7300e-003	0.1077	5.1100e-003	0.1128	0.0313	4.8900e-003	0.0362		498.9249	498.9249	5.2100e-003	0.0748	521.3505
Worker	0.6246	0.1905	2.0500	2.6100e-003	0.2221	2.5600e-003	0.2247	0.0592	2.3500e-003	0.0616		263.3065	263.3065	0.0373	0.0213	270.5914
Total	0.7126	1.9786	3.2239	7.3500e-003	0.3300	7.6800e-003	0.3377	0.0906	7.2500e-003	0.0978		763.4241	763.4241	0.0425	0.0963	793.1908

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, 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	2.4329	22.2313	26.7283	0.0446		1.0141	1.0141		0.9539	0.9539		4,226.0539	4,226.0539	1.0001		4,251.0573
Total	2.4329	22.2313	26.7283	0.0446		1.0141	1.0141		0.9539	0.9539		4,226.0539	4,226.0539	1.0001		4,251.0573

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	2.5000e-004	4.6600e-003	3.3900e-003	1.0000e-005	1.8000e-004	1.0000e-005	2.0000e-004	5.0000e-005	1.0000e-005	6.0000e-005		1.1701	1.1701	1.0000e-005	1.8000e-004	1.2252
Vendor	0.0857	1.7790	1.1461	4.6500e-003	0.1077	5.1400e-003	0.1128	0.0313	4.9200e-003	0.0362		490.6111	490.6111	5.0700e-003	0.0735	512.6431
Worker	0.5739	0.1735	1.9472	2.5400e-003	0.2221	2.4700e-003	0.2246	0.0592	2.2700e-003	0.0615		256.5481	256.5481	0.0341	0.0201	263.4009
Total	0.6599	1.9572	3.0966	7.2000e-003	0.3300	7.6200e-003	0.3376	0.0906	7.2000e-003	0.0978		748.3293	748.3293	0.0392	0.0938	777.2692

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, 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	2.4329	22.2313	26.7283	0.0446		1.0141	1.0141		0.9539	0.9539	0.0000	4,226.0539	4,226.0539	1.0001		4,251.0573
Total	2.4329	22.2313	26.7283	0.0446		1.0141	1.0141		0.9539	0.9539	0.0000	4,226.0539	4,226.0539	1.0001		4,251.0573

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	2.5000e-004	4.6600e-003	3.3900e-003	1.0000e-005	1.8000e-004	1.0000e-005	2.0000e-004	5.0000e-005	1.0000e-005	6.0000e-005		1.1701	1.1701	1.0000e-005	1.8000e-004	1.2252
Vendor	0.0857	1.7790	1.1461	4.6500e-003	0.1077	5.1400e-003	0.1128	0.0313	4.9200e-003	0.0362		490.6111	490.6111	5.0700e-003	0.0735	512.6431
Worker	0.5739	0.1735	1.9472	2.5400e-003	0.2221	2.4700e-003	0.2246	0.0592	2.2700e-003	0.0615		256.5481	256.5481	0.0341	0.0201	263.4009
Total	0.6599	1.9572	3.0966	7.2000e-003	0.3300	7.6200e-003	0.3376	0.0906	7.2000e-003	0.0978		748.3293	748.3293	0.0392	0.0938	777.2692

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, Summer

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

3.6 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	66.7866					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
Total	66.9674	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443

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	1.3000e-004	2.3400e-003	1.7100e-003	1.0000e-005	9.0000e-005	1.0000e-005	1.0000e-004	3.0000e-005	1.0000e-005	3.0000e-005		0.5883	0.5883	1.0000e-005	9.0000e-005	0.6160
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	0.1156	0.0349	0.3922	5.1000e-004	0.0447	5.0000e-004	0.0452	0.0119	4.6000e-004	0.0124		51.6722	51.6722	6.8700e-003	4.0600e-003	53.0525
Total	0.1157	0.0373	0.3939	5.2000e-004	0.0448	5.1000e-004	0.0453	0.0120	4.7000e-004	0.0124		52.2605	52.2605	6.8800e-003	4.1500e-003	53.6685

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, Summer

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

3.6 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	66.7866					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
Total	66.9674	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

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	1.3000e-004	2.3400e-003	1.7100e-003	1.0000e-005	9.0000e-005	1.0000e-005	1.0000e-004	3.0000e-005	1.0000e-005	3.0000e-005		0.5883	0.5883	1.0000e-005	9.0000e-005	0.6160
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	0.1156	0.0349	0.3922	5.1000e-004	0.0447	5.0000e-004	0.0452	0.0119	4.6000e-004	0.0124		51.6722	51.6722	6.8700e-003	4.0600e-003	53.0525
Total	0.1157	0.0373	0.3939	5.2000e-004	0.0448	5.1000e-004	0.0453	0.0120	4.7000e-004	0.0124		52.2605	52.2605	6.8800e-003	4.1500e-003	53.6685

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, Summer

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

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
Refrigerated Warehouse-Rail	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.491491	0.052949	0.173689	0.164683	0.034990	0.008766	0.010778	0.027771	0.000810	0.000210	0.026873	0.002020	0.004972
Other Non-Asphalt Surfaces	0.491491	0.052949	0.173689	0.164683	0.034990	0.008766	0.010778	0.027771	0.000810	0.000210	0.026873	0.002020	0.004972
Parking Lot	0.491491	0.052949	0.173689	0.164683	0.034990	0.008766	0.010778	0.027771	0.000810	0.000210	0.026873	0.002020	0.004972
Refrigerated Warehouse-Rail	0.491491	0.052949	0.173689	0.164683	0.034990	0.008766	0.010778	0.027771	0.000810	0.000210	0.026873	0.002020	0.004972

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
NaturalGas Mitigated	1.1100e-003	0.0101	8.4600e-003	6.0000e-005		7.7000e-004	7.7000e-004		7.7000e-004	7.7000e-004		12.0870	12.0870	2.3000e-004	2.2000e-004	12.1589
NaturalGas Unmitigated	1.1100e-003	0.0101	8.4600e-003	6.0000e-005		7.7000e-004	7.7000e-004		7.7000e-004	7.7000e-004		12.0870	12.0870	2.3000e-004	2.2000e-004	12.1589

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, 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 - NaturalGas

Unmitigated

	NaturalGas s 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					
Other Asphalt Surfaces	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
Other Non-Asphalt Surfaces	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
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
Refrigerated Warehouse-Rail	102.74	1.1100e-003	0.0101	8.4600e-003	6.0000e-005		7.7000e-004	7.7000e-004		7.7000e-004	7.7000e-004		12.0870	12.0870	2.3000e-004	2.2000e-004	12.1589
Total		1.1100e-003	0.0101	8.4600e-003	6.0000e-005		7.7000e-004	7.7000e-004		7.7000e-004	7.7000e-004		12.0870	12.0870	2.3000e-004	2.2000e-004	12.1589

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, 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 - 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	lb/day										lb/day					
Other Asphalt Surfaces	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
Other Non-Asphalt Surfaces	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
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
Refrigerated Warehouse-Rail	0.10274	1.1100e-003	0.0101	8.4600e-003	6.0000e-005		7.7000e-004	7.7000e-004		7.7000e-004	7.7000e-004		12.0870	12.0870	2.3000e-004	2.2000e-004	12.1589
Total		1.1100e-003	0.0101	8.4600e-003	6.0000e-005		7.7000e-004	7.7000e-004		7.7000e-004	7.7000e-004		12.0870	12.0870	2.3000e-004	2.2000e-004	12.1589

6.0 Area Detail

6.1 Mitigation Measures Area

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, 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	6.5036	2.4000e-004	0.0265	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0568	0.0568	1.5000e-004		0.0606
Unmitigated	6.5036	2.4000e-004	0.0265	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0568	0.0568	1.5000e-004		0.0606

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	1.0009					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.5003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.4600e-003	2.4000e-004	0.0265	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0568	0.0568	1.5000e-004		0.0606
Total	6.5036	2.4000e-004	0.0265	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0568	0.0568	1.5000e-004		0.0606

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, 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	1.0009					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.5003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.4600e-003	2.4000e-004	0.0265	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0568	0.0568	1.5000e-004		0.0606
Total	6.5036	2.4000e-004	0.0265	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0568	0.0568	1.5000e-004		0.0606

7.0 Water Detail

7.1 Mitigation Measures Water

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, Summer

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, Winter

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

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only)

Madera County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-Rail	250.00	1000sqft	5.74	250,000.00	0
Other Asphalt Surfaces	1.50	Acre	1.56	65,340.00	0
Other Non-Asphalt Surfaces	1.50	Acre	1.56	65,340.00	0
Parking Lot	6.74	Acre	6.74	293,594.40	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.9	Precipitation Freq (Days)	51
Climate Zone	3			Operational Year	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Localized Screening Analysis
 Phase 2: Earliest construction start date immediately following the completion of Phase 1
 Land Use - Phase 2 Land Use Development
 Total Building Area: Up to 250,000 sq ft
 15.60 Total Acres
 Construction Phase - Earliest Construction Start Date (Phase 2): March 2023
 Site vacant - no demolition
 Phase 2 Construction Duration: 12 months
 Off-road Equipment -
 Off-road Equipment - Adjusted construction equipment usage to match CalEEMod default total building construction HP hours.
 Off-road Equipment -

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, Winter

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

Trips and VMT - Adjusted construction trip lengths to reflect on-site travel only for localized screening analysis.

Phase 2 length (assumed to travel through Phase 1: 1.02 miles on-site)

Architectural Coating - SJVAPCD Rule 4601 Architectural Coatings

Vehicle Trips - Construction run only

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Construction Off-road Equipment Mitigation - Compliance with SJVAPCD Regulation VIII

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	50.00
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	300.00	181.00
tblLandUse	LotAcreage	1.50	1.56
tblLandUse	LotAcreage	1.50	1.56
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	7.00	5.80
tblOffRoadEquipment	UsageHours	8.00	6.60
tblOffRoadEquipment	UsageHours	8.00	6.60
tblOffRoadEquipment	UsageHours	7.00	5.80
tblOffRoadEquipment	UsageHours	8.00	6.60
tblTripsAndVMT	HaulingTripLength	20.00	1.02
tblTripsAndVMT	HaulingTripLength	20.00	1.02
tblTripsAndVMT	HaulingTripLength	20.00	1.02

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, Winter

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

tbITripsAndVMT	HaulingTripLength	20.00	1.02
tbITripsAndVMT	HaulingTripLength	20.00	1.02
tbITripsAndVMT	HaulingTripNumber	0.00	7.00
tbITripsAndVMT	HaulingTripNumber	0.00	16.00
tbITripsAndVMT	HaulingTripNumber	0.00	12.00
tbITripsAndVMT	HaulingTripNumber	0.00	36.00
tbITripsAndVMT	HaulingTripNumber	0.00	2.00
tbITripsAndVMT	VendorTripLength	7.30	1.02
tbITripsAndVMT	VendorTripLength	7.30	1.02
tbITripsAndVMT	VendorTripLength	7.30	1.02
tbITripsAndVMT	VendorTripLength	7.30	1.02
tbITripsAndVMT	VendorTripLength	7.30	1.02
tbITripsAndVMT	VendorTripNumber	0.00	4.00
tbITripsAndVMT	WorkerTripLength	10.80	1.02
tbITripsAndVMT	WorkerTripLength	10.80	1.02
tbITripsAndVMT	WorkerTripLength	10.80	1.02
tbITripsAndVMT	WorkerTripLength	10.80	1.02
tbITripsAndVMT	WorkerTripLength	10.80	1.02
tbIVehicleTrips	ST_TR	2.12	0.00
tbIVehicleTrips	SU_TR	2.12	0.00
tbIVehicleTrips	WD_TR	2.12	0.00

2.0 Emissions Summary

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, Winter

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

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	3.3532	34.5453	30.5640	0.0623	19.6718	1.4247	20.9380	10.1064	1.3107	11.2713	0.0000	6,031.665 2	6,031.665 2	1.9478	0.1000	6,081.020 6
2024	67.0480	24.3498	30.2944	0.0516	0.3300	1.0218	1.3518	0.0906	0.9612	1.0517	0.0000	4,956.145 3	4,956.145 3	1.0509	0.0974	5,011.426 1
Maximum	67.0480	34.5453	30.5640	0.0623	19.6718	1.4247	20.9380	10.1064	1.3107	11.2713	0.0000	6,031.665 2	6,031.665 2	1.9478	0.1000	6,081.020 6

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	3.3532	34.5453	30.5640	0.0623	8.8604	1.4247	10.1267	4.5501	1.3107	5.7150	0.0000	6,031.665 2	6,031.665 2	1.9478	0.1000	6,081.020 6
2024	67.0480	24.3498	30.2944	0.0516	0.3300	1.0218	1.3518	0.0906	0.9612	1.0517	0.0000	4,956.145 3	4,956.145 3	1.0509	0.0974	5,011.426 1
Maximum	67.0480	34.5453	30.5640	0.0623	8.8604	1.4247	10.1267	4.5501	1.3107	5.7150	0.0000	6,031.665 2	6,031.665 2	1.9478	0.1000	6,081.020 6

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, 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	0.00	0.00	0.00	0.00	54.05	0.00	48.50	54.49	0.00	45.09	0.00	0.00	0.00	0.00	0.00	0.00

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, 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	6.5036	2.4000e-004	0.0265	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0568	0.0568	1.5000e-004		0.0606
Energy	1.1100e-003	0.0101	8.4600e-003	6.0000e-005		7.7000e-004	7.7000e-004		7.7000e-004	7.7000e-004		12.0870	12.0870	2.3000e-004	2.2000e-004	12.1589
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.5047	0.0103	0.0350	6.0000e-005	0.0000	8.6000e-004	8.6000e-004	0.0000	8.6000e-004	8.6000e-004		12.1439	12.1439	3.8000e-004	2.2000e-004	12.2194

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	6.5036	2.4000e-004	0.0265	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0568	0.0568	1.5000e-004		0.0606
Energy	1.1100e-003	0.0101	8.4600e-003	6.0000e-005		7.7000e-004	7.7000e-004		7.7000e-004	7.7000e-004		12.0870	12.0870	2.3000e-004	2.2000e-004	12.1589
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.5047	0.0103	0.0350	6.0000e-005	0.0000	8.6000e-004	8.6000e-004	0.0000	8.6000e-004	8.6000e-004		12.1439	12.1439	3.8000e-004	2.2000e-004	12.2194

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, 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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/18/2023	3/31/2023	5	10	
2	Grading	Grading	4/1/2023	5/12/2023	5	30	
3	Paving	Paving	5/13/2023	6/9/2023	5	20	
4	Building Construction	Building Construction	6/10/2023	2/19/2024	5	181	
5	Architectural Coating	Architectural Coating	2/20/2024	3/18/2024	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 90

Acres of Paving: 9.86

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 375,000; Non-Residential Outdoor: 125,000; Striped Parking Area: 25,456 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, Winter

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

Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	2	5.80	231	0.29
Building Construction	Forklifts	6	6.60	89	0.20
Building Construction	Generator Sets	2	6.60	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	5.80	97	0.37
Building Construction	Welders	2	6.60	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	7.00	1.02	1.02	1.02	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	16.00	1.02	1.02	1.02	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	4.00	12.00	1.02	1.02	1.02	LD_Mix	HDT_Mix	HHDT
Building Construction	18	283.00	111.00	36.00	1.02	1.02	1.02	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	57.00	0.00	2.00	1.02	1.02	1.02	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, Winter

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

3.2 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					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.308 1	3,687.308 1	1.1926		3,717.121 9
Total	2.6595	27.5242	18.2443	0.0381	19.6570	1.2660	20.9230	10.1025	1.1647	11.2672		3,687.308 1	3,687.308 1	1.1926		3,717.121 9

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	7.7000e-004	0.0178	0.0124	4.0000e-005	6.4000e-004	5.0000e-005	6.9000e-004	1.8000e-004	5.0000e-005	2.3000e-004		4.2565	4.2565	4.0000e-005	6.7000e-004	4.4568
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	0.0278	0.0145	0.1571	1.5000e-004	0.0141	1.6000e-004	0.0143	3.7700e-003	1.5000e-004	3.9200e-003		15.2500	15.2500	3.1900e-003	1.5300e-003	15.7872
Total	0.0286	0.0323	0.1695	1.9000e-004	0.0148	2.1000e-004	0.0150	3.9500e-003	2.0000e-004	4.1500e-003		19.5064	19.5064	3.2300e-003	2.2000e-003	20.2440

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, Winter

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

3.2 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					8.8457	0.0000	8.8457	4.5461	0.0000	4.5461			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647	0.0000	3,687.308 1	3,687.308 1	1.1926		3,717.121 9
Total	2.6595	27.5242	18.2443	0.0381	8.8457	1.2660	10.1117	4.5461	1.1647	5.7108	0.0000	3,687.308 1	3,687.308 1	1.1926		3,717.121 9

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	7.7000e-004	0.0178	0.0124	4.0000e-005	6.4000e-004	5.0000e-005	6.9000e-004	1.8000e-004	5.0000e-005	2.3000e-004		4.2565	4.2565	4.0000e-005	6.7000e-004	4.4568
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	0.0278	0.0145	0.1571	1.5000e-004	0.0141	1.6000e-004	0.0143	3.7700e-003	1.5000e-004	3.9200e-003		15.2500	15.2500	3.1900e-003	1.5300e-003	15.7872
Total	0.0286	0.0323	0.1695	1.9000e-004	0.0148	2.1000e-004	0.0150	3.9500e-003	2.0000e-004	4.1500e-003		19.5064	19.5064	3.2300e-003	2.2000e-003	20.2440

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, Winter

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

3.3 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					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	3.3217	34.5156	28.0512	0.0621	9.2036	1.4245	10.6281	3.6538	1.3105	4.9643		6,011.4777	6,011.4777	1.9442		6,060.0836

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	5.9000e-004	0.0136	9.4400e-003	3.0000e-005	4.9000e-004	4.0000e-005	5.3000e-004	1.3000e-004	4.0000e-005	1.7000e-004		3.2430	3.2430	3.0000e-005	5.1000e-004	3.3956
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	0.0309	0.0161	0.1746	1.7000e-004	0.0157	1.8000e-004	0.0159	4.1900e-003	1.7000e-004	4.3500e-003		16.9444	16.9444	3.5500e-003	1.7100e-003	17.5414
Total	0.0315	0.0297	0.1840	2.0000e-004	0.0162	2.2000e-004	0.0164	4.3200e-003	2.1000e-004	4.5200e-003		20.1874	20.1874	3.5800e-003	2.2200e-003	20.9370

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, Winter

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

3.3 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					4.1416	0.0000	4.1416	1.6442	0.0000	1.6442			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	3.3217	34.5156	28.0512	0.0621	4.1416	1.4245	5.5661	1.6442	1.3105	2.9547	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836

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	5.9000e-004	0.0136	9.4400e-003	3.0000e-005	4.9000e-004	4.0000e-005	5.3000e-004	1.3000e-004	4.0000e-005	1.7000e-004		3.2430	3.2430	3.0000e-005	5.1000e-004	3.3956
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	0.0309	0.0161	0.1746	1.7000e-004	0.0157	1.8000e-004	0.0159	4.1900e-003	1.7000e-004	4.3500e-003		16.9444	16.9444	3.5500e-003	1.7100e-003	17.5414
Total	0.0315	0.0297	0.1840	2.0000e-004	0.0162	2.2000e-004	0.0164	4.3200e-003	2.1000e-004	4.5200e-003		20.1874	20.1874	3.5800e-003	2.2200e-003	20.9370

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, Winter

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

3.4 Paving - 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	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	1.0873					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.1200	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336

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	6.6000e-004	0.0153	0.0106	3.0000e-005	5.5000e-004	4.0000e-005	5.9000e-004	1.5000e-004	4.0000e-005	1.9000e-004		3.6484	3.6484	3.0000e-005	5.7000e-004	3.8201
Vendor	2.8400e-003	0.0689	0.0445	1.7000e-004	3.8800e-003	1.9000e-004	4.0700e-003	1.1300e-003	1.8000e-004	1.3100e-003		18.1502	18.1502	1.8000e-004	2.7300e-003	18.9675
Worker	0.0232	0.0121	0.1309	1.3000e-004	0.0118	1.4000e-004	0.0119	3.1400e-003	1.2000e-004	3.2600e-003		12.7083	12.7083	2.6600e-003	1.2800e-003	13.1560
Total	0.0267	0.0962	0.1860	3.3000e-004	0.0162	3.7000e-004	0.0166	4.4200e-003	3.4000e-004	4.7600e-003		34.5069	34.5069	2.8700e-003	4.5800e-003	35.9436

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, Winter

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

3.4 Paving - 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	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.584 1	2,207.584 1	0.7140		2,225.433 6
Paving	1.0873					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.1200	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.584 1	2,207.584 1	0.7140		2,225.433 6

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	6.6000e-004	0.0153	0.0106	3.0000e-005	5.5000e-004	4.0000e-005	5.9000e-004	1.5000e-004	4.0000e-005	1.9000e-004		3.6484	3.6484	3.0000e-005	5.7000e-004	3.8201
Vendor	2.8400e-003	0.0689	0.0445	1.7000e-004	3.8800e-003	1.9000e-004	4.0700e-003	1.1300e-003	1.8000e-004	1.3100e-003		18.1502	18.1502	1.8000e-004	2.7300e-003	18.9675
Worker	0.0232	0.0121	0.1309	1.3000e-004	0.0118	1.4000e-004	0.0119	3.1400e-003	1.2000e-004	3.2600e-003		12.7083	12.7083	2.6600e-003	1.2800e-003	13.1560
Total	0.0267	0.0962	0.1860	3.3000e-004	0.0162	3.7000e-004	0.0166	4.4200e-003	3.4000e-004	4.7600e-003		34.5069	34.5069	2.8700e-003	4.5800e-003	35.9436

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, 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	2.6001	23.7877	26.8559	0.0446		1.1570	1.1570		1.0886	1.0886		4,225.2436	4,225.2436	1.0059		4,250.3911
Total	2.6001	23.7877	26.8559	0.0446		1.1570	1.1570		1.0886	1.0886		4,225.2436	4,225.2436	1.0059		4,250.3911

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	2.2000e-004	5.0700e-003	3.5200e-003	1.0000e-005	1.8000e-004	1.0000e-005	2.0000e-004	5.0000e-005	1.0000e-005	6.0000e-005		1.2094	1.2094	1.0000e-005	1.9000e-004	1.2663
Vendor	0.0789	1.9113	1.2347	4.7700e-003	0.1077	5.2100e-003	0.1129	0.0313	4.9800e-003	0.0363		503.6666	503.6666	4.9500e-003	0.0757	526.3479
Worker	0.4367	0.2275	2.4699	2.3700e-003	0.2221	2.5600e-003	0.2247	0.0592	2.3500e-003	0.0616		239.7634	239.7634	0.0502	0.0241	248.2105
Total	0.5159	2.1439	3.7081	7.1500e-003	0.3300	7.7800e-003	0.3378	0.0906	7.3400e-003	0.0979		744.6394	744.6394	0.0552	0.1000	775.8247

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, 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	2.6001	23.7877	26.8559	0.0446		1.1570	1.1570		1.0886	1.0886	0.0000	4,225.2436	4,225.2436	1.0059		4,250.3911
Total	2.6001	23.7877	26.8559	0.0446		1.1570	1.1570		1.0886	1.0886	0.0000	4,225.2436	4,225.2436	1.0059		4,250.3911

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	2.2000e-004	5.0700e-003	3.5200e-003	1.0000e-005	1.8000e-004	1.0000e-005	2.0000e-004	5.0000e-005	1.0000e-005	6.0000e-005		1.2094	1.2094	1.0000e-005	1.9000e-004	1.2663
Vendor	0.0789	1.9113	1.2347	4.7700e-003	0.1077	5.2100e-003	0.1129	0.0313	4.9800e-003	0.0363		503.6666	503.6666	4.9500e-003	0.0757	526.3479
Worker	0.4367	0.2275	2.4699	2.3700e-003	0.2221	2.5600e-003	0.2247	0.0592	2.3500e-003	0.0616		239.7634	239.7634	0.0502	0.0241	248.2105
Total	0.5159	2.1439	3.7081	7.1500e-003	0.3300	7.7800e-003	0.3378	0.0906	7.3400e-003	0.0979		744.6394	744.6394	0.0552	0.1000	775.8247

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, 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	2.4329	22.2313	26.7283	0.0446		1.0141	1.0141		0.9539	0.9539		4,226.0539	4,226.0539	1.0001		4,251.0573
Total	2.4329	22.2313	26.7283	0.0446		1.0141	1.0141		0.9539	0.9539		4,226.0539	4,226.0539	1.0001		4,251.0573

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	2.2000e-004	5.0400e-003	3.5000e-003	1.0000e-005	1.8000e-004	1.0000e-005	2.0000e-004	5.0000e-005	1.0000e-005	6.0000e-005		1.1866	1.1866	1.0000e-005	1.9000e-004	1.2424
Vendor	0.0771	1.9063	1.2083	4.6900e-003	0.1077	5.2400e-003	0.1129	0.0313	5.0100e-003	0.0363		495.2881	495.2881	4.8000e-003	0.0744	517.5702
Worker	0.3998	0.2072	2.3544	2.3100e-003	0.2221	2.4700e-003	0.2246	0.0592	2.2700e-003	0.0615		233.6168	233.6168	0.0459	0.0228	241.5562
Total	0.4771	2.1185	3.5661	7.0100e-003	0.3300	7.7200e-003	0.3377	0.0906	7.2900e-003	0.0979		730.0915	730.0915	0.0507	0.0974	760.3688

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, 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	2.4329	22.2313	26.7283	0.0446		1.0141	1.0141		0.9539	0.9539	0.0000	4,226.0539	4,226.0539	1.0001		4,251.0573
Total	2.4329	22.2313	26.7283	0.0446		1.0141	1.0141		0.9539	0.9539	0.0000	4,226.0539	4,226.0539	1.0001		4,251.0573

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	2.2000e-004	5.0400e-003	3.5000e-003	1.0000e-005	1.8000e-004	1.0000e-005	2.0000e-004	5.0000e-005	1.0000e-005	6.0000e-005		1.1866	1.1866	1.0000e-005	1.9000e-004	1.2424
Vendor	0.0771	1.9063	1.2083	4.6900e-003	0.1077	5.2400e-003	0.1129	0.0313	5.0100e-003	0.0363		495.2881	495.2881	4.8000e-003	0.0744	517.5702
Worker	0.3998	0.2072	2.3544	2.3100e-003	0.2221	2.4700e-003	0.2246	0.0592	2.2700e-003	0.0615		233.6168	233.6168	0.0459	0.0228	241.5562
Total	0.4771	2.1185	3.5661	7.0100e-003	0.3300	7.7200e-003	0.3377	0.0906	7.2900e-003	0.0979		730.0915	730.0915	0.0507	0.0974	760.3688

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, Winter

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

3.6 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	66.7866					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
Total	66.9674	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443

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	1.1000e-004	2.5400e-003	1.7600e-003	1.0000e-005	9.0000e-005	1.0000e-005	1.0000e-004	3.0000e-005	1.0000e-005	3.0000e-005		0.5966	0.5966	1.0000e-005	9.0000e-005	0.6247
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	0.0805	0.0417	0.4742	4.7000e-004	0.0447	5.0000e-004	0.0452	0.0119	4.6000e-004	0.0124		47.0536	47.0536	9.2500e-003	4.5900e-003	48.6527
Total	0.0806	0.0443	0.4760	4.8000e-004	0.0448	5.1000e-004	0.0453	0.0120	4.7000e-004	0.0124		47.6501	47.6501	9.2600e-003	4.6800e-003	49.2773

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, Winter

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

3.6 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	66.7866					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
Total	66.9674	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

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	1.1000e-004	2.5400e-003	1.7600e-003	1.0000e-005	9.0000e-005	1.0000e-005	1.0000e-004	3.0000e-005	1.0000e-005	3.0000e-005		0.5966	0.5966	1.0000e-005	9.0000e-005	0.6247
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	0.0805	0.0417	0.4742	4.7000e-004	0.0447	5.0000e-004	0.0452	0.0119	4.6000e-004	0.0124		47.0536	47.0536	9.2500e-003	4.5900e-003	48.6527
Total	0.0806	0.0443	0.4760	4.8000e-004	0.0448	5.1000e-004	0.0453	0.0120	4.7000e-004	0.0124		47.6501	47.6501	9.2600e-003	4.6800e-003	49.2773

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, Winter

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

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
Refrigerated Warehouse-Rail	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.491491	0.052949	0.173689	0.164683	0.034990	0.008766	0.010778	0.027771	0.000810	0.000210	0.026873	0.002020	0.004972
Other Non-Asphalt Surfaces	0.491491	0.052949	0.173689	0.164683	0.034990	0.008766	0.010778	0.027771	0.000810	0.000210	0.026873	0.002020	0.004972
Parking Lot	0.491491	0.052949	0.173689	0.164683	0.034990	0.008766	0.010778	0.027771	0.000810	0.000210	0.026873	0.002020	0.004972
Refrigerated Warehouse-Rail	0.491491	0.052949	0.173689	0.164683	0.034990	0.008766	0.010778	0.027771	0.000810	0.000210	0.026873	0.002020	0.004972

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
NaturalGas Mitigated	1.1100e-003	0.0101	8.4600e-003	6.0000e-005		7.7000e-004	7.7000e-004		7.7000e-004	7.7000e-004		12.0870	12.0870	2.3000e-004	2.2000e-004	12.1589
NaturalGas Unmitigated	1.1100e-003	0.0101	8.4600e-003	6.0000e-005		7.7000e-004	7.7000e-004		7.7000e-004	7.7000e-004		12.0870	12.0870	2.3000e-004	2.2000e-004	12.1589

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, 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 - NaturalGas

Unmitigated

	NaturalGas s 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					
Other Asphalt Surfaces	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
Other Non-Asphalt Surfaces	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
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
Refrigerated Warehouse-Rail	102.74	1.1100e-003	0.0101	8.4600e-003	6.0000e-005		7.7000e-004	7.7000e-004		7.7000e-004	7.7000e-004		12.0870	12.0870	2.3000e-004	2.2000e-004	12.1589
Total		1.1100e-003	0.0101	8.4600e-003	6.0000e-005		7.7000e-004	7.7000e-004		7.7000e-004	7.7000e-004		12.0870	12.0870	2.3000e-004	2.2000e-004	12.1589

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, 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 - 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	lb/day										lb/day					
Other Asphalt Surfaces	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
Other Non-Asphalt Surfaces	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
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
Refrigerated Warehouse-Rail	0.10274	1.1100e-003	0.0101	8.4600e-003	6.0000e-005		7.7000e-004	7.7000e-004		7.7000e-004	7.7000e-004		12.0870	12.0870	2.3000e-004	2.2000e-004	12.1589
Total		1.1100e-003	0.0101	8.4600e-003	6.0000e-005		7.7000e-004	7.7000e-004		7.7000e-004	7.7000e-004		12.0870	12.0870	2.3000e-004	2.2000e-004	12.1589

6.0 Area Detail

6.1 Mitigation Measures Area

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, 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	6.5036	2.4000e-004	0.0265	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0568	0.0568	1.5000e-004		0.0606
Unmitigated	6.5036	2.4000e-004	0.0265	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0568	0.0568	1.5000e-004		0.0606

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	1.0009					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.5003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.4600e-003	2.4000e-004	0.0265	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0568	0.0568	1.5000e-004		0.0606
Total	6.5036	2.4000e-004	0.0265	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0568	0.0568	1.5000e-004		0.0606

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, 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	1.0009					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.5003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.4600e-003	2.4000e-004	0.0265	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0568	0.0568	1.5000e-004		0.0606
Total	6.5036	2.4000e-004	0.0265	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0568	0.0568	1.5000e-004		0.0606

7.0 Water Detail

7.1 Mitigation Measures Water

Origo Cold Madera - Phase 2 Unmitigated Construction (On-site Only) - Madera County, Winter

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

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

Project Operations (Autos, Building, Area) - Localized Assessment - Madera County, Summer

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

Project Operations (Autos, Building, Area) - Localized Assessment

Madera County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	504.02	1000sqft	11.57	504,016.00	0
Other Asphalt Surfaces	3.06	Acre	3.06	133,293.60	0
Other Non-Asphalt Surfaces	3.06	Acre	3.06	133,293.60	0
Parking Lot	12.91	Acre	12.91	562,359.60	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.9	Precipitation Freq (Days)	51
Climate Zone	3			Operational Year	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MW hr)	203.98	CH4 Intensity (lb/MW hr)	0.033	N2O Intensity (lb/MW hr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Origo Cold Madera - Temperature Controlled Storage Facility
 Area, Building Operations, and Passenger Vehicle Operations (full buildout scenario analyzed in the earliest occupancy year)

Land Use - Project Land Use Development
 Building Area: 254,016 sq ft in P1; 250,000 sq ft in P2
 30.6 Total Acres (15.00 + 15.60)

Construction Phase - Operational run only

Off-road Equipment - Operational run only

Trips and VMT - Operational run only

Grading -

Architectural Coating - SJVAPCD Rule 4601 Architectural Coatings

Project Operations (Autos, Building, Area) - Localized Assessment - Madera County, Summer

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

Vehicle Trips - Passenger car trip generation rate
 daily passenger trips based on ITE rate with trucks analyzed in a separate run
 Trip lengths updated to 0.15 mile to account for on-site emissions from mobile sources

Area Coating - SJVAPCD Rule 4601 Architectural Coatings

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation -

Area Mitigation -

Energy Mitigation - Anticipated on-site renewable energy production (kWh/year): ~7,500,000 kWh

Fleet Mix - Passenger vehicles consisting of LDA, LDT1, LDT2, and MDV
 Adjusted based on the Madera County fleet mix for the 2023 operational year

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	50
tblAreaCoating	Area_EF_Nonresidential_Interior	150	50
tblConstructionPhase	NumDays	35.00	1.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	LDA	0.49	0.56
tblFleetMix	LDT1	0.05	0.06
tblFleetMix	LDT2	0.17	0.20
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD2	8.7660e-003	0.00
tblFleetMix	MCY	0.03	0.00
tblFleetMix	MDV	0.16	0.19
tblFleetMix	MH	4.9720e-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	8.1000e-004	0.00
tblFleetMix	SBUS	2.0200e-003	0.00
tblFleetMix	UBUS	2.1000e-004	0.00

Project Operations (Autos, Building, Area) - Localized Assessment - Madera County, Summer

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

tblLandUse	LandUseSquareFeet	504,020.00	504,016.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	6.00	0.00
tblTripsAndVMT	WorkerTripNumber	112.00	0.00
tblVehicleTrips	CC_TL	7.30	0.15
tblVehicleTrips	CNW_TL	7.30	0.15
tblVehicleTrips	CW_TL	9.50	0.15
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	2.12	1.98
tblVehicleTrips	SU_TR	2.12	1.98
tblVehicleTrips	WD_TR	2.12	1.98

2.0 Emissions Summary

Project Operations (Autos, Building, Area) - Localized Assessment - Madera County, Summer

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

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					
2022	2,681.9107	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	2,681.9107	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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					
2022	2,681.9107	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	2,681.9107	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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

Project Operations (Autos, Building, Area) - Localized Assessment - Madera County, 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	11.8193	4.9000e-004	0.0534	0.0000		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		0.1145	0.1145	3.0000e-004		0.1220
Energy	2.2300e-003	0.0203	0.0171	1.2000e-004		1.5400e-003	1.5400e-003		1.5400e-003	1.5400e-003		24.3682	24.3682	4.7000e-004	4.5000e-004	24.5130
Mobile	1.9295	0.5542	4.9866	2.4800e-003	0.1138	4.8100e-003	0.1186	0.0302	4.4200e-003	0.0346		250.3957	250.3957	0.1218	0.0639	272.4912
Total	13.7510	0.5750	5.0570	2.6000e-003	0.1138	6.5400e-003	0.1203	0.0302	6.1500e-003	0.0363		274.8784	274.8784	0.1226	0.0644	297.1262

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	11.8193	4.9000e-004	0.0534	0.0000		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		0.1145	0.1145	3.0000e-004		0.1220
Energy	2.2300e-003	0.0203	0.0171	1.2000e-004		1.5400e-003	1.5400e-003		1.5400e-003	1.5400e-003		24.3682	24.3682	4.7000e-004	4.5000e-004	24.5130
Mobile	1.9295	0.5542	4.9866	2.4800e-003	0.1138	4.8100e-003	0.1186	0.0302	4.4200e-003	0.0346		250.3957	250.3957	0.1218	0.0639	272.4912
Total	13.7510	0.5750	5.0570	2.6000e-003	0.1138	6.5400e-003	0.1203	0.0302	6.1500e-003	0.0363		274.8784	274.8784	0.1226	0.0644	297.1262

Project Operations (Autos, Building, Area) - Localized Assessment - Madera County, 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	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	Architectural Coating	Architectural Coating	3/7/2022	3/7/2022	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 19.03

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 756,024; Non-Residential Outdoor: 252,008; Striped Parking Area: 49,737 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	0.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Project Operations (Autos, Building, Area) - Localized Assessment - Madera County, Summer

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

3.2 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	2,681.9107					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	2,681.9107	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Project Operations (Autos, Building, Area) - Localized Assessment - Madera County, Summer

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

3.2 Architectural Coating - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	2,681.9107					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	2,681.9107	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Project Operations (Autos, Building, Area) - Localized Assessment - Madera County, 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	1.9295	0.5542	4.9866	2.4800e-003	0.1138	4.8100e-003	0.1186	0.0302	4.4200e-003	0.0346		250.3957	250.3957	0.1218	0.0639	272.4912
Unmitigated	1.9295	0.5542	4.9866	2.4800e-003	0.1138	4.8100e-003	0.1186	0.0302	4.4200e-003	0.0346		250.3957	250.3957	0.1218	0.0639	272.4912

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	998.52	998.52	998.52	54,519	54,519
Total	998.52	998.52	998.52	54,519	54,519

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
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

Project Operations (Autos, Building, Area) - Localized Assessment - Madera County, Summer

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

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
Refrigerated Warehouse-No	0.15	0.15	0.15	59.00	0.00	41.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.491491	0.052949	0.173689	0.164683	0.034990	0.008766	0.010778	0.027771	0.000810	0.000210	0.026873	0.002020	0.004972
Other Non-Asphalt Surfaces	0.491491	0.052949	0.173689	0.164683	0.034990	0.008766	0.010778	0.027771	0.000810	0.000210	0.026873	0.002020	0.004972
Parking Lot	0.491491	0.052949	0.173689	0.164683	0.034990	0.008766	0.010778	0.027771	0.000810	0.000210	0.026873	0.002020	0.004972
Refrigerated Warehouse-No Rail	0.556730	0.059980	0.196750	0.186540	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Kilowatt Hours of Renewable Electricity Generated

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
NaturalGas Mitigated	2.2300e-003	0.0203	0.0171	1.2000e-004		1.5400e-003	1.5400e-003		1.5400e-003	1.5400e-003		24.3682	24.3682	4.7000e-004	4.5000e-004	24.5130
NaturalGas Unmitigated	2.2300e-003	0.0203	0.0171	1.2000e-004		1.5400e-003	1.5400e-003		1.5400e-003	1.5400e-003		24.3682	24.3682	4.7000e-004	4.5000e-004	24.5130

Project Operations (Autos, Building, Area) - Localized Assessment - Madera County, 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 - 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	lb/day										lb/day					
Other Asphalt Surfaces	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
Other Non-Asphalt Surfaces	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
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
Refrigerated Warehouse-No Rail	207.13	2.2300e-003	0.0203	0.0171	1.2000e-004		1.5400e-003	1.5400e-003		1.5400e-003	1.5400e-003		24.3682	24.3682	4.7000e-004	4.5000e-004	24.5130
Total		2.2300e-003	0.0203	0.0171	1.2000e-004		1.5400e-003	1.5400e-003		1.5400e-003	1.5400e-003		24.3682	24.3682	4.7000e-004	4.5000e-004	24.5130

Project Operations (Autos, Building, Area) - Localized Assessment - Madera County, 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 - 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	lb/day										lb/day					
Other Asphalt Surfaces	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
Other Non-Asphalt Surfaces	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
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
Refrigerated Warehouse-No Rail	0.20713	2.2300e-003	0.0203	0.0171	1.2000e-004		1.5400e-003	1.5400e-003		1.5400e-003	1.5400e-003		24.3682	24.3682	4.7000e-004	4.5000e-004	24.5130
Total		2.2300e-003	0.0203	0.0171	1.2000e-004		1.5400e-003	1.5400e-003		1.5400e-003	1.5400e-003		24.3682	24.3682	4.7000e-004	4.5000e-004	24.5130

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Electric Lawnmower
- Use Electric Leafblower
- Use Electric Chainsaw
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior

Project Operations (Autos, Building, Area) - Localized Assessment - Madera County, 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	11.8193	4.9000e-004	0.0534	0.0000		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		0.1145	0.1145	3.0000e-004		0.1220
Unmitigated	11.8193	4.9000e-004	0.0534	0.0000		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		0.1145	0.1145	3.0000e-004		0.1220

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	0.7348					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	11.0796					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.9500e-003	4.9000e-004	0.0534	0.0000		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		0.1145	0.1145	3.0000e-004		0.1220
Total	11.8193	4.9000e-004	0.0534	0.0000		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		0.1145	0.1145	3.0000e-004		0.1220

Project Operations (Autos, Building, Area) - Localized Assessment - Madera County, 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	0.7348					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	11.0796					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.9500e-003	4.9000e-004	0.0534	0.0000		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		0.1145	0.1145	3.0000e-004		0.1220
Total	11.8193	4.9000e-004	0.0534	0.0000		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		0.1145	0.1145	3.0000e-004		0.1220

7.0 Water Detail

7.1 Mitigation Measures Water

Project Operations (Autos, Building, Area) - Localized Assessment - Madera County, Summer

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

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

Project Operations (Autos, Building, Area) - Localized Assessment - Madera County, Winter

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

Project Operations (Autos, Building, Area) - Localized Assessment

Madera County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	504.02	1000sqft	11.57	504,016.00	0
Other Asphalt Surfaces	3.06	Acre	3.06	133,293.60	0
Other Non-Asphalt Surfaces	3.06	Acre	3.06	133,293.60	0
Parking Lot	12.91	Acre	12.91	562,359.60	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.9	Precipitation Freq (Days)	51
Climate Zone	3			Operational Year	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MW hr)	203.98	CH4 Intensity (lb/MW hr)	0.033	N2O Intensity (lb/MW hr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Origo Cold Madera - Temperature Controlled Storage Facility
 Area, Building Operations, and Passenger Vehicle Operations (full buildout scenario analyzed in the earliest occupancy year)

Land Use - Project Land Use Development
 Building Area: 254,016 sq ft in P1; 250,000 sq ft in P2
 30.6 Total Acres (15.00 + 15.60)

Construction Phase - Operational run only

Off-road Equipment - Operational run only

Trips and VMT - Operational run only

Grading -

Architectural Coating - SJVAPCD Rule 4601 Architectural Coatings

Project Operations (Autos, Building, Area) - Localized Assessment - Madera County, Winter

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

Vehicle Trips - Passenger car trip generation rate

daily passenger trips based on ITE rate with trucks analyzed in a separate run

Trip lengths updated to 0.15 mile to account for on-site emissions from mobile sources

Area Coating - SJVAPCD Rule 4601 Architectural Coatings

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation -

Area Mitigation -

Energy Mitigation - Anticipated on-site renewable energy production (kWh/year): ~7,500,000 kWh

Fleet Mix - Passenger vehicles consisting of LDA, LDT1, LDT2, and MDV

Adjusted based on the Madera County fleet mix for the 2023 operational year

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	50
tblAreaCoating	Area_EF_Nonresidential_Interior	150	50
tblConstructionPhase	NumDays	35.00	1.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	LDA	0.49	0.56
tblFleetMix	LDT1	0.05	0.06
tblFleetMix	LDT2	0.17	0.20
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD2	8.7660e-003	0.00
tblFleetMix	MCY	0.03	0.00
tblFleetMix	MDV	0.16	0.19
tblFleetMix	MH	4.9720e-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	8.1000e-004	0.00
tblFleetMix	SBUS	2.0200e-003	0.00
tblFleetMix	UBUS	2.1000e-004	0.00

Project Operations (Autos, Building, Area) - Localized Assessment - Madera County, Winter

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

tblLandUse	LandUseSquareFeet	504,020.00	504,016.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	6.00	0.00
tblTripsAndVMT	WorkerTripNumber	112.00	0.00
tblVehicleTrips	CC_TL	7.30	0.15
tblVehicleTrips	CNW_TL	7.30	0.15
tblVehicleTrips	CW_TL	9.50	0.15
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	2.12	1.98
tblVehicleTrips	SU_TR	2.12	1.98
tblVehicleTrips	WD_TR	2.12	1.98

2.0 Emissions Summary

Project Operations (Autos, Building, Area) - Localized Assessment - Madera County, Winter

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

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					
2022	2,681.9107	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	2,681.9107	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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					
2022	2,681.9107	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	2,681.9107	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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

Project Operations (Autos, Building, Area) - Localized Assessment - Madera County, 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	11.8193	4.9000e-004	0.0534	0.0000		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		0.1145	0.1145	3.0000e-004		0.1220
Energy	2.2300e-003	0.0203	0.0171	1.2000e-004		1.5400e-003	1.5400e-003		1.5400e-003	1.5400e-003		24.3682	24.3682	4.7000e-004	4.5000e-004	24.5130
Mobile	1.3945	0.6626	7.2057	2.4000e-003	0.1138	4.8100e-003	0.1186	0.0302	4.4200e-003	0.0346		243.0943	243.0943	0.1693	0.0725	268.9398
Total	13.2160	0.6834	7.2761	2.5200e-003	0.1138	6.5400e-003	0.1203	0.0302	6.1500e-003	0.0363		267.5770	267.5770	0.1701	0.0730	293.5748

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	11.8193	4.9000e-004	0.0534	0.0000		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		0.1145	0.1145	3.0000e-004		0.1220
Energy	2.2300e-003	0.0203	0.0171	1.2000e-004		1.5400e-003	1.5400e-003		1.5400e-003	1.5400e-003		24.3682	24.3682	4.7000e-004	4.5000e-004	24.5130
Mobile	1.3945	0.6626	7.2057	2.4000e-003	0.1138	4.8100e-003	0.1186	0.0302	4.4200e-003	0.0346		243.0943	243.0943	0.1693	0.0725	268.9398
Total	13.2160	0.6834	7.2761	2.5200e-003	0.1138	6.5400e-003	0.1203	0.0302	6.1500e-003	0.0363		267.5770	267.5770	0.1701	0.0730	293.5748

Project Operations (Autos, Building, Area) - Localized Assessment - Madera County, 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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	3/7/2022	3/7/2022	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 19.03

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 756,024; Non-Residential Outdoor: 252,008; Striped Parking Area: 49,737 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	0.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Project Operations (Autos, Building, Area) - Localized Assessment - Madera County, Winter

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

3.2 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	2,681.9107					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	2,681.9107	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Project Operations (Autos, Building, Area) - Localized Assessment - Madera County, Winter

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

3.2 Architectural Coating - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	2,681.910 7					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	2,681.910 7	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Project Operations (Autos, Building, Area) - Localized Assessment - Madera County, 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	1.3945	0.6626	7.2057	2.4000e-003	0.1138	4.8100e-003	0.1186	0.0302	4.4200e-003	0.0346		243.0943	243.0943	0.1693	0.0725	268.9398
Unmitigated	1.3945	0.6626	7.2057	2.4000e-003	0.1138	4.8100e-003	0.1186	0.0302	4.4200e-003	0.0346		243.0943	243.0943	0.1693	0.0725	268.9398

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	998.52	998.52	998.52	54,519	54,519
Total	998.52	998.52	998.52	54,519	54,519

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
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

Project Operations (Autos, Building, Area) - Localized Assessment - Madera County, Winter

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

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
Refrigerated Warehouse-No	0.15	0.15	0.15	59.00	0.00	41.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.491491	0.052949	0.173689	0.164683	0.034990	0.008766	0.010778	0.027771	0.000810	0.000210	0.026873	0.002020	0.004972
Other Non-Asphalt Surfaces	0.491491	0.052949	0.173689	0.164683	0.034990	0.008766	0.010778	0.027771	0.000810	0.000210	0.026873	0.002020	0.004972
Parking Lot	0.491491	0.052949	0.173689	0.164683	0.034990	0.008766	0.010778	0.027771	0.000810	0.000210	0.026873	0.002020	0.004972
Refrigerated Warehouse-No Rail	0.556730	0.059980	0.196750	0.186540	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Kilowatt Hours of Renewable Electricity Generated

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
NaturalGas Mitigated	2.2300e-003	0.0203	0.0171	1.2000e-004		1.5400e-003	1.5400e-003		1.5400e-003	1.5400e-003		24.3682	24.3682	4.7000e-004	4.5000e-004	24.5130
NaturalGas Unmitigated	2.2300e-003	0.0203	0.0171	1.2000e-004		1.5400e-003	1.5400e-003		1.5400e-003	1.5400e-003		24.3682	24.3682	4.7000e-004	4.5000e-004	24.5130

Project Operations (Autos, Building, Area) - Localized Assessment - Madera County, 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 - 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	lb/day										lb/day					
Other Asphalt Surfaces	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
Other Non-Asphalt Surfaces	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
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
Refrigerated Warehouse-No Rail	207.13	2.2300e-003	0.0203	0.0171	1.2000e-004		1.5400e-003	1.5400e-003		1.5400e-003	1.5400e-003		24.3682	24.3682	4.7000e-004	4.5000e-004	24.5130
Total		2.2300e-003	0.0203	0.0171	1.2000e-004		1.5400e-003	1.5400e-003		1.5400e-003	1.5400e-003		24.3682	24.3682	4.7000e-004	4.5000e-004	24.5130

Project Operations (Autos, Building, Area) - Localized Assessment - Madera County, 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 - 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	lb/day										lb/day					
Other Asphalt Surfaces	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
Other Non-Asphalt Surfaces	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
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
Refrigerated Warehouse-No Rail	0.20713	2.2300e-003	0.0203	0.0171	1.2000e-004		1.5400e-003	1.5400e-003		1.5400e-003	1.5400e-003		24.3682	24.3682	4.7000e-004	4.5000e-004	24.5130
Total		2.2300e-003	0.0203	0.0171	1.2000e-004		1.5400e-003	1.5400e-003		1.5400e-003	1.5400e-003		24.3682	24.3682	4.7000e-004	4.5000e-004	24.5130

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Electric Lawnmower
- Use Electric Leafblower
- Use Electric Chainsaw
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior

Project Operations (Autos, Building, Area) - Localized Assessment - Madera County, 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	11.8193	4.9000e-004	0.0534	0.0000		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		0.1145	0.1145	3.0000e-004		0.1220
Unmitigated	11.8193	4.9000e-004	0.0534	0.0000		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		0.1145	0.1145	3.0000e-004		0.1220

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	0.7348					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	11.0796					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.9500e-003	4.9000e-004	0.0534	0.0000		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		0.1145	0.1145	3.0000e-004		0.1220
Total	11.8193	4.9000e-004	0.0534	0.0000		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		0.1145	0.1145	3.0000e-004		0.1220

Project Operations (Autos, Building, Area) - Localized Assessment - Madera County, 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	0.7348					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	11.0796					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.9500e-003	4.9000e-004	0.0534	0.0000		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		0.1145	0.1145	3.0000e-004		0.1220
Total	11.8193	4.9000e-004	0.0534	0.0000		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		0.1145	0.1145	3.0000e-004		0.1220

7.0 Water Detail

7.1 Mitigation Measures Water

Project Operations (Autos, Building, Area) - Localized Assessment - Madera County, Winter

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

Origo Cold Madera - Project Truck Operations (Localized Screening Analysis) - Madera County, Summer

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

Origo Cold Madera - Project Truck Operations (Localized Screening Analysis)

Madera County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	1.00	1000sqft	0.02	1,000.00	0
User Defined Industrial	1.00	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.9	Precipitation Freq (Days)	51
Climate Zone	3			Operational Year	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Localized Screening Analysis - Truck Operations

Land Use - Truck only run

1 k used to separate out truck emissions only (land use development evaluated in a separate run)

Construction Phase - Truck only run (zeroed out construction inputs)

Off-road Equipment - Truck only run (zeroed out construction equipment)

Architectural Coating - Truck only run (zeroed out construction inputs)

Vehicle Trips - Truck trip generation rate

Trip lengths updated to 0.51 mile to account for on-site emissions from mobile sources. On-site truck trip length measured in Google Earth.

Area Coating -

Landscape Equipment - Truck only run

Energy Use - Truck only run (zeroed out energy use - analyzed in a separate run)

Water And Wastewater - Truck only run (water and wastewater analyzed in a separate run)

Origo Cold Madera - Project Truck Operations (Localized Screening Analysis) - Madera County, Summer

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

Solid Waste - Truck only run

Fleet Mix - Truck only fleet mixes

100% HHD for project trips

MHD and HHD trucks for other trucks (UPS/FedEX deliveries and shipments) - split based on County averages (see calculations)

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	0.00
tblArchitecturalCoating	EF_Parking	150.00	0.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstructionPhase	NumDays	5.00	1.00
tblEnergyUse	LightingElect	2.45	0.00
tblEnergyUse	NT24E	21.99	0.00
tblEnergyUse	T24E	0.42	0.00
tblEnergyUse	T24NG	0.15	0.00
tblFleetMix	HHD	0.03	1.00
tblFleetMix	HHD	0.03	0.72
tblFleetMix	LDA	0.49	0.00
tblFleetMix	LDA	0.49	0.00
tblFleetMix	LDT1	0.05	0.00
tblFleetMix	LDT1	0.05	0.00
tblFleetMix	LDT2	0.17	0.00
tblFleetMix	LDT2	0.17	0.00
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD2	8.7660e-003	0.00
tblFleetMix	LHD2	8.7660e-003	0.00
tblFleetMix	MCY	0.03	0.00
tblFleetMix	MCY	0.03	0.00
tblFleetMix	MDV	0.16	0.00

Origo Cold Madera - Project Truck Operations (Localized Screening Analysis) - Madera County, Summer

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

tblFleetMix	MDV	0.16	0.00
tblFleetMix	MH	4.9720e-003	0.00
tblFleetMix	MH	4.9720e-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	MHD	0.01	0.28
tblFleetMix	OBUS	8.1000e-004	0.00
tblFleetMix	OBUS	8.1000e-004	0.00
tblFleetMix	SBUS	2.0200e-003	0.00
tblFleetMix	SBUS	2.0200e-003	0.00
tblFleetMix	UBUS	2.1000e-004	0.00
tblFleetMix	UBUS	2.1000e-004	0.00
tblLandscapeEquipment	NumberSummerDays	180	1
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	6.00	0.00
tblSolidWaste	SolidWasteGenerationRate	0.94	0.00
tblVehicleTrips	CC_TL	7.30	0.51
tblVehicleTrips	CC_TL	7.30	0.51
tblVehicleTrips	CNW_TL	7.30	0.51
tblVehicleTrips	CNW_TL	7.30	0.51
tblVehicleTrips	CNW_TTP	0.00	41.00
tblVehicleTrips	CW_TL	9.50	0.51
tblVehicleTrips	CW_TL	9.50	0.51
tblVehicleTrips	CW_TTP	0.00	59.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	2.12	60.00
tblVehicleTrips	ST_TR	0.00	10.00

Origo Cold Madera - Project Truck Operations (Localized Screening Analysis) - Madera County, Summer

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

tblVehicleTrips	SU_TR	2.12	60.00
tblVehicleTrips	SU_TR	0.00	10.00
tblVehicleTrips	WD_TR	2.12	60.00
tblVehicleTrips	WD_TR	0.00	10.00
tblWater	IndoorWaterUseRate	231,250.00	0.00

2.0 Emissions Summary

Origo Cold Madera - Project Truck Operations (Localized Screening Analysis) - Madera County, Summer

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

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					
2022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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					
2022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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

Origo Cold Madera - Project Truck Operations (Localized Screening Analysis) - Madera County, 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	0.0214	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.4000e-004	4.4000e-004	0.0000		4.7000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0838	1.3954	1.1442	2.7100e-003	0.0314	2.3800e-003	0.0338	8.6500e-003	2.2800e-003	0.0109		287.1493	287.1493	4.0000e-003	0.0451	300.6798
Total	0.1052	1.3954	1.1444	2.7100e-003	0.0314	2.3800e-003	0.0338	8.6500e-003	2.2800e-003	0.0109		287.1498	287.1498	4.0000e-003	0.0451	300.6803

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	0.0214	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.4000e-004	4.4000e-004	0.0000		4.7000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0838	1.3954	1.1442	2.7100e-003	0.0314	2.3800e-003	0.0338	8.6500e-003	2.2800e-003	0.0109		287.1493	287.1493	4.0000e-003	0.0451	300.6798
Total	0.1052	1.3954	1.1444	2.7100e-003	0.0314	2.3800e-003	0.0338	8.6500e-003	2.2800e-003	0.0109		287.1498	287.1498	4.0000e-003	0.0451	300.6803

Origo Cold Madera - Project Truck Operations (Localized Screening Analysis) - Madera County, 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	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	Architectural Coating	Architectural Coating	3/7/2022	3/7/2022	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,500; Non-Residential Outdoor: 500; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	0.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Origo Cold Madera - Project Truck Operations (Localized Screening Analysis) - Madera County, Summer

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

3.2 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Origo Cold Madera - Project Truck Operations (Localized Screening Analysis) - Madera County, Summer

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

3.2 Architectural Coating - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Origo Cold Madera - Project Truck Operations (Localized Screening Analysis) - Madera County, 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	0.0838	1.3954	1.1442	2.7100e-003	0.0314	2.3800e-003	0.0338	8.6500e-003	2.2800e-003	0.0109		287.1493	287.1493	4.0000e-003	0.0451	300.6798
Unmitigated	0.0838	1.3954	1.1442	2.7100e-003	0.0314	2.3800e-003	0.0338	8.6500e-003	2.2800e-003	0.0109		287.1493	287.1493	4.0000e-003	0.0451	300.6798

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Refrigerated Warehouse-No Rail	60.00	60.00	60.00	11,138	11,138
User Defined Industrial	10.00	10.00	10.00	1,856	1,856
Total	70.00	70.00	70.00	12,995	12,995

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
Refrigerated Warehouse-No	0.51	0.51	0.51	59.00	0.00	41.00	100	0	0
User Defined Industrial	0.51	0.51	0.51	59.00	0.00	41.00	100	0	0

4.4 Fleet Mix

Origo Cold Madera - Project Truck Operations (Localized Screening Analysis) - Madera County, Summer

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

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Refrigerated Warehouse-No Rail	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000
User Defined Industrial	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.279592	0.720408	0.000000	0.000000	0.000000	0.000000	0.000000

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	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Origo Cold Madera - Project Truck Operations (Localized Screening Analysis) - Madera County, 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 - 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	lb/day										lb/day					
Refrigerated Warehouse-No Rail	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
User Defined Industrial	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
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

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	lb/day										lb/day					
Refrigerated Warehouse-No Rail	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
User Defined Industrial	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
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

Origo Cold Madera - Project Truck Operations (Localized Screening Analysis) - Madera County, Summer

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

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0214	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.4000e-004	4.4000e-004	0.0000		4.7000e-004
Unmitigated	0.0214	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.4000e-004	4.4000e-004	0.0000		4.7000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0214					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.4000e-004	4.4000e-004	0.0000		4.7000e-004
Total	0.0214	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.4000e-004	4.4000e-004	0.0000		4.7000e-004

Origo Cold Madera - Project Truck Operations (Localized Screening Analysis) - Madera County, 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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0214					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.4000e-004	4.4000e-004	0.0000		4.7000e-004
Total	0.0214	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.4000e-004	4.4000e-004	0.0000		4.7000e-004

7.0 Water Detail

7.1 Mitigation Measures Water

Origo Cold Madera - Project Truck Operations (Localized Screening Analysis) - Madera County, Summer

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

Equipment Type	Number
----------------	--------

11.0 Vegetation

Origo Cold Madera - Project Truck Operations (Localized Screening Analysis) - Madera County, Winter

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

Origo Cold Madera - Project Truck Operations (Localized Screening Analysis)

Madera County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	1.00	1000sqft	0.02	1,000.00	0
User Defined Industrial	1.00	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.9	Precipitation Freq (Days)	51
Climate Zone	3			Operational Year	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Localized Screening Analysis - Truck Operations

Land Use - Truck only run

1 k used to separate out truck emissions only (land use development evaluated in a separate run)

Construction Phase - Truck only run (zeroed out construction inputs)

Off-road Equipment - Truck only run (zeroed out construction equipment)

Architectural Coating - Truck only run (zeroed out construction inputs)

Vehicle Trips - Truck trip generation rate

Trip lengths updated to 0.51 mile to account for on-site emissions from mobile sources. On-site truck trip length measured in Google Earth.

Area Coating -

Landscape Equipment - Truck only run

Energy Use - Truck only run (zeroed out energy use - analyzed in a separate run)

Water And Wastewater - Truck only run (water and wastewater analyzed in a separate run)

Origo Cold Madera - Project Truck Operations (Localized Screening Analysis) - Madera County, Winter

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

Solid Waste - Truck only run

Fleet Mix - Truck only fleet mixes

100% HHD for project trips

MHD and HHD trucks for other trucks (UPS/FedEX deliveries and shipments) - split based on County averages (see calculations)

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	0.00
tblArchitecturalCoating	EF_Parking	150.00	0.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstructionPhase	NumDays	5.00	1.00
tblEnergyUse	LightingElect	2.45	0.00
tblEnergyUse	NT24E	21.99	0.00
tblEnergyUse	T24E	0.42	0.00
tblEnergyUse	T24NG	0.15	0.00
tblFleetMix	HHD	0.03	1.00
tblFleetMix	HHD	0.03	0.72
tblFleetMix	LDA	0.49	0.00
tblFleetMix	LDA	0.49	0.00
tblFleetMix	LDT1	0.05	0.00
tblFleetMix	LDT1	0.05	0.00
tblFleetMix	LDT2	0.17	0.00
tblFleetMix	LDT2	0.17	0.00
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD2	8.7660e-003	0.00
tblFleetMix	LHD2	8.7660e-003	0.00
tblFleetMix	MCY	0.03	0.00
tblFleetMix	MCY	0.03	0.00
tblFleetMix	MDV	0.16	0.00

Origo Cold Madera - Project Truck Operations (Localized Screening Analysis) - Madera County, Winter

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

tblFleetMix	MDV	0.16	0.00
tblFleetMix	MH	4.9720e-003	0.00
tblFleetMix	MH	4.9720e-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	MHD	0.01	0.28
tblFleetMix	OBUS	8.1000e-004	0.00
tblFleetMix	OBUS	8.1000e-004	0.00
tblFleetMix	SBUS	2.0200e-003	0.00
tblFleetMix	SBUS	2.0200e-003	0.00
tblFleetMix	UBUS	2.1000e-004	0.00
tblFleetMix	UBUS	2.1000e-004	0.00
tblLandscapeEquipment	NumberSummerDays	180	1
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	6.00	0.00
tblSolidWaste	SolidWasteGenerationRate	0.94	0.00
tblVehicleTrips	CC_TL	7.30	0.51
tblVehicleTrips	CC_TL	7.30	0.51
tblVehicleTrips	CNW_TL	7.30	0.51
tblVehicleTrips	CNW_TL	7.30	0.51
tblVehicleTrips	CNW_TTP	0.00	41.00
tblVehicleTrips	CW_TL	9.50	0.51
tblVehicleTrips	CW_TL	9.50	0.51
tblVehicleTrips	CW_TTP	0.00	59.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	2.12	60.00
tblVehicleTrips	ST_TR	0.00	10.00

Origo Cold Madera - Project Truck Operations (Localized Screening Analysis) - Madera County, Winter

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

tblVehicleTrips	SU_TR	2.12	60.00
tblVehicleTrips	SU_TR	0.00	10.00
tblVehicleTrips	WD_TR	2.12	60.00
tblVehicleTrips	WD_TR	0.00	10.00
tblWater	IndoorWaterUseRate	231,250.00	0.00

2.0 Emissions Summary

Origo Cold Madera - Project Truck Operations (Localized Screening Analysis) - Madera County, Winter

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

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					
2022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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					
2022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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

Origo Cold Madera - Project Truck Operations (Localized Screening Analysis) - Madera County, 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	0.0214	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.4000e-004	4.4000e-004	0.0000		4.7000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0729	1.5137	1.1814	2.7700e-003	0.0314	2.4800e-003	0.0339	8.6500e-003	2.3700e-003	0.0110		292.8154	292.8154	3.5000e-003	0.0460	306.6004
Total	0.0944	1.5137	1.1816	2.7700e-003	0.0314	2.4800e-003	0.0339	8.6500e-003	2.3700e-003	0.0110		292.8158	292.8158	3.5000e-003	0.0460	306.6008

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	0.0214	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.4000e-004	4.4000e-004	0.0000		4.7000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0729	1.5137	1.1814	2.7700e-003	0.0314	2.4800e-003	0.0339	8.6500e-003	2.3700e-003	0.0110		292.8154	292.8154	3.5000e-003	0.0460	306.6004
Total	0.0944	1.5137	1.1816	2.7700e-003	0.0314	2.4800e-003	0.0339	8.6500e-003	2.3700e-003	0.0110		292.8158	292.8158	3.5000e-003	0.0460	306.6008

Origo Cold Madera - Project Truck Operations (Localized Screening Analysis) - Madera County, 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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	3/7/2022	3/7/2022	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,500; Non-Residential Outdoor: 500; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	0.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Origo Cold Madera - Project Truck Operations (Localized Screening Analysis) - Madera County, Winter

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

3.2 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Origo Cold Madera - Project Truck Operations (Localized Screening Analysis) - Madera County, Winter

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

3.2 Architectural Coating - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Origo Cold Madera - Project Truck Operations (Localized Screening Analysis) - Madera County, 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	0.0729	1.5137	1.1814	2.7700e-003	0.0314	2.4800e-003	0.0339	8.6500e-003	2.3700e-003	0.0110		292.8154	292.8154	3.5000e-003	0.0460	306.6004
Unmitigated	0.0729	1.5137	1.1814	2.7700e-003	0.0314	2.4800e-003	0.0339	8.6500e-003	2.3700e-003	0.0110		292.8154	292.8154	3.5000e-003	0.0460	306.6004

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Refrigerated Warehouse-No Rail	60.00	60.00	60.00	11,138	11,138
User Defined Industrial	10.00	10.00	10.00	1,856	1,856
Total	70.00	70.00	70.00	12,995	12,995

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
Refrigerated Warehouse-No	0.51	0.51	0.51	59.00	0.00	41.00	100	0	0
User Defined Industrial	0.51	0.51	0.51	59.00	0.00	41.00	100	0	0

4.4 Fleet Mix

Origo Cold Madera - Project Truck Operations (Localized Screening Analysis) - Madera County, Winter

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

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Refrigerated Warehouse-No Rail	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000
User Defined Industrial	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.279592	0.720408	0.000000	0.000000	0.000000	0.000000	0.000000

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	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Origo Cold Madera - Project Truck Operations (Localized Screening Analysis) - Madera County, 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 - 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	lb/day										lb/day					
Refrigerated Warehouse-No Rail	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
User Defined Industrial	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
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

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	lb/day										lb/day					
Refrigerated Warehouse-No Rail	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
User Defined Industrial	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
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

Origo Cold Madera - Project Truck Operations (Localized Screening Analysis) - Madera County, Winter

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

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0214	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.4000e-004	4.4000e-004	0.0000		4.7000e-004
Unmitigated	0.0214	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.4000e-004	4.4000e-004	0.0000		4.7000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0214					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.4000e-004	4.4000e-004	0.0000		4.7000e-004
Total	0.0214	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.4000e-004	4.4000e-004	0.0000		4.7000e-004

Origo Cold Madera - Project Truck Operations (Localized Screening Analysis) - Madera County, 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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0214					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.4000e-004	4.4000e-004	0.0000		4.7000e-004
Total	0.0214	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.4000e-004	4.4000e-004	0.0000		4.7000e-004

7.0 Water Detail

7.1 Mitigation Measures Water

Origo Cold Madera - Project Truck Operations (Localized Screening Analysis) - Madera County, Winter

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

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
----------------	--------	-----------	------------	-------------	-------------	-----------

Boilers

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

User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Origo Cold Madera - Passenger Vehicles + Building (BAU Operations) - Madera County, Annual

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

Origo Cold Madera - Passenger Vehicles + Building (BAU Operations)

Madera County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	504.02	1000sqft	11.57	504,016.00	0
Other Asphalt Surfaces	3.06	Acre	3.06	133,293.60	0
Other Non-Asphalt Surfaces	3.06	Acre	3.06	133,293.60	0
Parking Lot	12.91	Acre	12.91	562,359.60	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.9	Precipitation Freq (Days)	51
Climate Zone	3			Operational Year	2005
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.033	N2O Intensity (lb/MW hr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Area, Building Operations, and Passenger Vehicle Operations - 2005
 2023 BAU Scenario
 PG&E CO2 Intensity Factors for 2005
 Land Use - Project Land Use Development
 Building Area: 254,016 sq ft in P1; 250,000 sq ft in P2
 30.6 Total Acres (15.00 + 15.60)
 Construction Phase - Operational run only
 Off-road Equipment - Operational run only
 Trips and VMT - Operational run only
 Grading -
 Architectural Coating - SJVAPCD Rule 4601 Architectural Coatings

Origo Cold Madera - Passenger Vehicles + Building (BAU Operations) - Madera County, Annual

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

Vehicle Trips - Passenger car trip generation rate
 daily passenger trips based on ITE rate with trucks analyzed in a separate run

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Area Coating -

Energy Use -

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation -

Area Mitigation -

Energy Mitigation -

Fleet Mix - Passenger vehicles consisting of LDA, LDT1, LDT2, and MDV
 Adjusted based on the Madera County fleet mix for the 2023 operational year

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	50.00
tblConstructionPhase	NumDays	35.00	1.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.43	0.56
tblFleetMix	LDT1	0.08	0.06
tblFleetMix	LDT2	0.18	0.20
tblFleetMix	LHD1	0.05	0.00
tblFleetMix	LHD2	7.4020e-003	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.17	0.19
tblFleetMix	MH	0.01	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	1.3600e-003	0.00

Origo Cold Madera - Passenger Vehicles + Building (BAU Operations) - Madera County, Annual

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

tblFleetMix	SBUS	1.5460e-003	0.00
tblFleetMix	UBUS	1.5700e-004	0.00
tblLandUse	LandUseSquareFeet	504,020.00	504,016.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	6.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	203.98	641.35
tblTripsAndVMT	WorkerTripNumber	112.00	0.00
tblVehicleTrips	ST_TR	2.12	1.98
tblVehicleTrips	SU_TR	2.12	1.98
tblVehicleTrips	WD_TR	2.12	1.98

2.0 Emissions Summary

Origo Cold Madera - Passenger Vehicles + Building (BAU Operations) - Madera County, Annual

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

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	1.3410	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	1.3410	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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					
2022	1.3410	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	1.3410	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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

Origo Cold Madera - Passenger Vehicles + Building (BAU Operations) - Madera County, Annual

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	3-7-2022	6-6-2022	0.9578	0.9578
		Highest	0.9578	0.9578

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	2.6241	7.0000e-005	6.1200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.3500e-003	9.3500e-003	4.0000e-005	0.0000	0.0104
Energy	5.2000e-004	4.6900e-003	3.9400e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	3,908.5157	3,908.5157	0.2009	0.0244	3,920.8220
Mobile	1.5597	2.6198	20.5438	0.0138	1.0737	0.0258	1.0995	0.2853	0.0238	0.3091	0.0000	1,256.3300	1,256.3300	0.1842	0.1391	1,302.3929
Waste						0.0000	0.0000		0.0000	0.0000	96.1731	0.0000	96.1731	5.6837	0.0000	238.2647
Water						0.0000	0.0000		0.0000	0.0000	36.9774	183.4712	220.4486	3.8074	0.0908	342.6978
Total	4.1844	2.6246	20.5538	0.0138	1.0737	0.0261	1.0998	0.2853	0.0242	0.3095	133.1505	5,348.3262	5,481.4767	9.8762	0.2544	5,804.1879

Origo Cold Madera - Passenger Vehicles + Building (BAU Operations) - Madera County, Annual

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.6241	7.0000e-005	6.1200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.3500e-003	9.3500e-003	4.0000e-005	0.0000	0.0104
Energy	5.2000e-004	4.6900e-003	3.9400e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	3,908.5157	3,908.5157	0.2009	0.0244	3,920.8220
Mobile	1.5597	2.6198	20.5438	0.0138	1.0737	0.0258	1.0995	0.2853	0.0238	0.3091	0.0000	1,256.3300	1,256.3300	0.1842	0.1391	1,302.3929
Waste						0.0000	0.0000		0.0000	0.0000	96.1731	0.0000	96.1731	5.6837	0.0000	238.2647
Water						0.0000	0.0000		0.0000	0.0000	36.9774	183.4712	220.4486	3.8074	0.0908	342.6978
Total	4.1844	2.6246	20.5538	0.0138	1.0737	0.0261	1.0998	0.2853	0.0242	0.3095	133.1505	5,348.3262	5,481.4767	9.8762	0.2544	5,804.1879

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	3/7/2022	3/7/2022	5	1	

Acres of Grading (Site Preparation Phase): 0

Origo Cold Madera - Passenger Vehicles + Building (BAU Operations) - Madera County, Annual

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

Acres of Grading (Grading Phase): 0

Acres of Paving: 19.03

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 756,024; Non-Residential Outdoor: 252,008; Striped Parking Area: 49,737 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	0.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.3410					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.3410	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Origo Cold Madera - Passenger Vehicles + Building (BAU Operations) - Madera County, Annual

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

3.2 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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	1.3410					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.3410	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Origo Cold Madera - Passenger Vehicles + Building (BAU Operations) - Madera County, Annual

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

3.2 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Origo Cold Madera - Passenger Vehicles + Building (BAU Operations) - Madera County, 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
Category	tons/yr										MT/yr					
Mitigated	1.5597	2.6198	20.5438	0.0138	1.0737	0.0258	1.0995	0.2853	0.0238	0.3091	0.0000	1,256.3300	1,256.3300	0.1842	0.1391	1,302.3929
Unmitigated	1.5597	2.6198	20.5438	0.0138	1.0737	0.0258	1.0995	0.2853	0.0238	0.3091	0.0000	1,256.3300	1,256.3300	0.1842	0.1391	1,302.3929

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	998.52	998.52	998.52	2,915,196	2,915,196
Total	998.52	998.52	998.52	2,915,196	2,915,196

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
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Origo Cold Madera - Passenger Vehicles + Building (BAU Operations) - Madera County, Annual

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

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.431281	0.083396	0.179111	0.172895	0.051593	0.007402	0.013117	0.020620	0.001360	0.000157	0.024042	0.001546	0.013481
Other Non-Asphalt Surfaces	0.431281	0.083396	0.179111	0.172895	0.051593	0.007402	0.013117	0.020620	0.001360	0.000157	0.024042	0.001546	0.013481
Parking Lot	0.431281	0.083396	0.179111	0.172895	0.051593	0.007402	0.013117	0.020620	0.001360	0.000157	0.024042	0.001546	0.013481
Refrigerated Warehouse-No Rail	0.556730	0.059980	0.196750	0.186540	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: Y

5.1 Mitigation Measures Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3,903.4055	3,903.4055	0.2009	0.0243	3,915.6814
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3,903.4055	3,903.4055	0.2009	0.0243	3,915.6814
NaturalGas Mitigated	5.2000e-004	4.6900e-003	3.9400e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	5.1103	5.1103	1.0000e-004	9.0000e-005	5.1407
NaturalGas Unmitigated	5.2000e-004	4.6900e-003	3.9400e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	5.1103	5.1103	1.0000e-004	9.0000e-005	5.1407

Origo Cold Madera - Passenger Vehicles + Building (BAU Operations) - Madera County, Annual

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					
Other Asphalt Surfaces	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
Other Non-Asphalt Surfaces	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
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
Refrigerated Warehouse-No Rail	95763	5.2000e-004	4.6900e-003	3.9400e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	5.1103	5.1103	1.0000e-004	9.0000e-005	5.1407
Total		5.2000e-004	4.6900e-003	3.9400e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	5.1103	5.1103	1.0000e-004	9.0000e-005	5.1407

Origo Cold Madera - Passenger Vehicles + Building (BAU Operations) - Madera County, Annual

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					
Other Asphalt Surfaces	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
Other Non-Asphalt Surfaces	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
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
Refrigerated Warehouse-No Rail	95763	5.2000e-004	4.6900e-003	3.9400e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	5.1103	5.1103	1.0000e-004	9.0000e-005	5.1407
Total		5.2000e-004	4.6900e-003	3.9400e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	5.1103	5.1103	1.0000e-004	9.0000e-005	5.1407

Origo Cold Madera - Passenger Vehicles + Building (BAU Operations) - Madera County, Annual

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			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	494876	143.9652	7.4100e-003	9.0000e-004	144.4180
Refrigerated Warehouse-No Rail	1.2923e+007	3,759.4402	0.1934	0.0235	3,771.2634
Total		3,903.4055	0.2009	0.0244	3,915.6814

Origo Cold Madera - Passenger Vehicles + Building (BAU Operations) - Madera County, Annual

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			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	494876	143.9652	7.4100e-003	9.0000e-004	144.4180
Refrigerated Warehouse-No Rail	1.2923e+007	3,759.4402	0.1934	0.0235	3,771.2634
Total		3,903.4055	0.2009	0.0244	3,915.6814

6.0 Area Detail

6.1 Mitigation Measures Area

Origo Cold Madera - Passenger Vehicles + Building (BAU Operations) - Madera County, 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
Category	tons/yr										MT/yr					
Mitigated	2.6241	7.0000e-005	6.1200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.3500e-003	9.3500e-003	4.0000e-005	0.0000	0.0104
Unmitigated	2.6241	7.0000e-005	6.1200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.3500e-003	9.3500e-003	4.0000e-005	0.0000	0.0104

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.6013					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.0220					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.9000e-004	7.0000e-005	6.1200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.3500e-003	9.3500e-003	4.0000e-005	0.0000	0.0104
Total	2.6241	7.0000e-005	6.1200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.3500e-003	9.3500e-003	4.0000e-005	0.0000	0.0104

Origo Cold Madera - Passenger Vehicles + Building (BAU Operations) - Madera County, Annual

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	0.6013					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.0220					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.9000e-004	7.0000e-005	6.1200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.3500e-003	9.3500e-003	4.0000e-005	0.0000	0.0104
Total	2.6241	7.0000e-005	6.1200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.3500e-003	9.3500e-003	4.0000e-005	0.0000	0.0104

7.0 Water Detail

7.1 Mitigation Measures Water

Origo Cold Madera - Passenger Vehicles + Building (BAU Operations) - Madera County, Annual

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	220.4486	3.8074	0.0908	342.6978
Unmitigated	220.4486	3.8074	0.0908	342.6978

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	116.555 / 0	220.4486	3.8074	0.0908	342.6978
Total		220.4486	3.8074	0.0908	342.6978

Origo Cold Madera - Passenger Vehicles + Building (BAU Operations) - Madera County, Annual

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			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	116.555 / 0	220.4486	3.8074	0.0908	342.6978
Total		220.4486	3.8074	0.0908	342.6978

8.0 Waste Detail

8.1 Mitigation Measures Waste

Origo Cold Madera - Passenger Vehicles + Building (BAU Operations) - Madera County, Annual

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	96.1731	5.6837	0.0000	238.2647
Unmitigated	96.1731	5.6837	0.0000	238.2647

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	473.78	96.1731	5.6837	0.0000	238.2647
Total		96.1731	5.6837	0.0000	238.2647

Origo Cold Madera - Passenger Vehicles + Building (BAU Operations) - Madera County, Annual

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			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	473.78	96.1731	5.6837	0.0000	238.2647
Total		96.1731	5.6837	0.0000	238.2647

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

Origo Cold Madera - Passenger Vehicles + Building (BAU Operations) - Madera County, Annual

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

Equipment Type	Number
----------------	--------

11.0 Vegetation

Origo Cold Madera - Passenger Vehicles + Building (BAU Operations) - Madera County, Annual

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

Origo Cold Madera - Passenger Vehicles + Building (BAU Operations)

Madera County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	504.02	1000sqft	11.57	504,016.00	0
Other Asphalt Surfaces	3.06	Acre	3.06	133,293.60	0
Other Non-Asphalt Surfaces	3.06	Acre	3.06	133,293.60	0
Parking Lot	12.91	Acre	12.91	562,359.60	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.9	Precipitation Freq (Days)	51
Climate Zone	3			Operational Year	2005
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Area, Building Operations, and Passenger Vehicle Operations - 2005
 2030 BAU Scenario
 PG&E CO2 Intensity Factors for 2005
 Land Use - Project Land Use Development
 Building Area: 254,016 sq ft in P1; 250,000 sq ft in P2
 30.6 Total Acres (15.00 + 15.60)
 Construction Phase - Operational run only
 Off-road Equipment - Operational run only
 Trips and VMT - Operational run only
 Grading -
 Architectural Coating - SJVAPCD Rule 4601 Architectural Coatings

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

Vehicle Trips - Passenger car trip generation rate
 daily passenger trips based on ITE rate with trucks analyzed in a separate run

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Area Coating -

Energy Use -

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation -

Area Mitigation -

Energy Mitigation -

Fleet Mix - Passenger vehicles consisting of LDA, LDT1, LDT2, and MDV
 Adjusted based on the Madera County fleet mix for the 2030 operational year

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	50.00
tblConstructionPhase	NumDays	35.00	1.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.43	0.60
tblFleetMix	LDT1	0.08	0.06
tblFleetMix	LDT2	0.18	0.19
tblFleetMix	LHD1	0.05	0.00
tblFleetMix	LHD2	7.4020e-003	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.17	0.15
tblFleetMix	MH	0.01	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	1.3600e-003	0.00

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

tblFleetMix	SBUS	1.5460e-003	0.00
tblFleetMix	UBUS	1.5700e-004	0.00
tblLandUse	LandUseSquareFeet	504,020.00	504,016.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	6.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	203.98	641.35
tblTripsAndVMT	WorkerTripNumber	112.00	0.00
tblVehicleTrips	ST_TR	2.12	1.98
tblVehicleTrips	SU_TR	2.12	1.98
tblVehicleTrips	WD_TR	2.12	1.98

2.0 Emissions Summary

Origo Cold Madera - Passenger Vehicles + Building (BAU Operations) - Madera County, Annual

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

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	1.3410	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	1.3410	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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					
2022	1.3410	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	1.3410	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	3-7-2022	6-6-2022	0.9578	0.9578
		Highest	0.9578	0.9578

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	2.6241	7.0000e-005	6.1200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.3500e-003	9.3500e-003	4.0000e-005	0.0000	0.0104
Energy	5.2000e-004	4.6900e-003	3.9400e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	3,908.5157	3,908.5157	0.2009	0.0244	3,920.8220
Mobile	1.5594	2.5711	20.3806	0.0135	1.0737	0.0260	1.0997	0.2853	0.0241	0.3094	0.0000	1,233.3168	1,233.3168	0.1833	0.1373	1,278.7990
Waste						0.0000	0.0000		0.0000	0.0000	96.1731	0.0000	96.1731	5.6837	0.0000	238.2647
Water						0.0000	0.0000		0.0000	0.0000	36.9774	183.4712	220.4486	3.8074	0.0908	342.6978
Total	4.1841	2.5759	20.3906	0.0136	1.0737	0.0264	1.1001	0.2853	0.0245	0.3098	133.1505	5,325.3131	5,458.4636	9.8753	0.2525	5,780.5940

Origo Cold Madera - Passenger Vehicles + Building (BAU Operations) - Madera County, Annual

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.6241	7.0000e-005	6.1200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.3500e-003	9.3500e-003	4.0000e-005	0.0000	0.0104
Energy	5.2000e-004	4.6900e-003	3.9400e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	3,908.5157	3,908.5157	0.2009	0.0244	3,920.8220
Mobile	1.5594	2.5711	20.3806	0.0135	1.0737	0.0260	1.0997	0.2853	0.0241	0.3094	0.0000	1,233.3168	1,233.3168	0.1833	0.1373	1,278.7990
Waste						0.0000	0.0000		0.0000	0.0000	96.1731	0.0000	96.1731	5.6837	0.0000	238.2647
Water						0.0000	0.0000		0.0000	0.0000	36.9774	183.4712	220.4486	3.8074	0.0908	342.6978
Total	4.1841	2.5759	20.3906	0.0136	1.0737	0.0264	1.1001	0.2853	0.0245	0.3098	133.1505	5,325.3131	5,458.4636	9.8753	0.2525	5,780.5940

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	3/7/2022	3/7/2022	5	1	

Acres of Grading (Site Preparation Phase): 0

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

Acres of Grading (Grading Phase): 0

Acres of Paving: 19.03

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 756,024; Non-Residential Outdoor: 252,008; Striped Parking Area: 49,737 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	0.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.3410					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.3410	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Origo Cold Madera - Passenger Vehicles + Building (BAU Operations) - Madera County, Annual

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

3.2 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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	1.3410					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.3410	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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

3.2 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.0 Operational Detail - Mobile

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	1.5594	2.5711	20.3806	0.0135	1.0737	0.0260	1.0997	0.2853	0.0241	0.3094	0.0000	1,233.3168	1,233.3168	0.1833	0.1373	1,278.7990
Unmitigated	1.5594	2.5711	20.3806	0.0135	1.0737	0.0260	1.0997	0.2853	0.0241	0.3094	0.0000	1,233.3168	1,233.3168	0.1833	0.1373	1,278.7990

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	998.52	998.52	998.52	2,915,196	2,915,196
Total	998.52	998.52	998.52	2,915,196	2,915,196

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
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Origo Cold Madera - Passenger Vehicles + Building (BAU Operations) - Madera County, Annual

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

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.431281	0.083396	0.179111	0.172895	0.051593	0.007402	0.013117	0.020620	0.001360	0.000157	0.024042	0.001546	0.013481
Other Non-Asphalt Surfaces	0.431281	0.083396	0.179111	0.172895	0.051593	0.007402	0.013117	0.020620	0.001360	0.000157	0.024042	0.001546	0.013481
Parking Lot	0.431281	0.083396	0.179111	0.172895	0.051593	0.007402	0.013117	0.020620	0.001360	0.000157	0.024042	0.001546	0.013481
Refrigerated Warehouse-No Rail	0.603170	0.059270	0.189310	0.148260	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: Y

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	3,903.4055	3,903.4055	0.2009	0.0243	3,915.6814
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3,903.4055	3,903.4055	0.2009	0.0243	3,915.6814
NaturalGas Mitigated	5.2000e-004	4.6900e-003	3.9400e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	5.1103	5.1103	1.0000e-004	9.0000e-005	5.1407
NaturalGas Unmitigated	5.2000e-004	4.6900e-003	3.9400e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	5.1103	5.1103	1.0000e-004	9.0000e-005	5.1407

Origo Cold Madera - Passenger Vehicles + Building (BAU Operations) - Madera County, Annual

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					
Other Asphalt Surfaces	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
Other Non-Asphalt Surfaces	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
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
Refrigerated Warehouse-No Rail	95763	5.2000e-004	4.6900e-003	3.9400e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	5.1103	5.1103	1.0000e-004	9.0000e-005	5.1407
Total		5.2000e-004	4.6900e-003	3.9400e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	5.1103	5.1103	1.0000e-004	9.0000e-005	5.1407

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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					
Other Asphalt Surfaces	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
Other Non-Asphalt Surfaces	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
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
Refrigerated Warehouse-No Rail	95763	5.2000e-004	4.6900e-003	3.9400e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	5.1103	5.1103	1.0000e-004	9.0000e-005	5.1407
Total		5.2000e-004	4.6900e-003	3.9400e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	5.1103	5.1103	1.0000e-004	9.0000e-005	5.1407

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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			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	494876	143.9652	7.4100e-003	9.0000e-004	144.4180
Refrigerated Warehouse-No Rail	1.2923e+007	3,759.4402	0.1934	0.0235	3,771.2634
Total		3,903.4055	0.2009	0.0244	3,915.6814

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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			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	494876	143.9652	7.4100e-003	9.0000e-004	144.4180
Refrigerated Warehouse-No Rail	1.2923e+007	3,759.4402	0.1934	0.0235	3,771.2634
Total		3,903.4055	0.2009	0.0244	3,915.6814

6.0 Area Detail

6.1 Mitigation Measures Area

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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	2.6241	7.0000e-005	6.1200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.3500e-003	9.3500e-003	4.0000e-005	0.0000	0.0104
Unmitigated	2.6241	7.0000e-005	6.1200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.3500e-003	9.3500e-003	4.0000e-005	0.0000	0.0104

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.6013					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.0220					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.9000e-004	7.0000e-005	6.1200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.3500e-003	9.3500e-003	4.0000e-005	0.0000	0.0104
Total	2.6241	7.0000e-005	6.1200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.3500e-003	9.3500e-003	4.0000e-005	0.0000	0.0104

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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	0.6013					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.0220					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.9000e-004	7.0000e-005	6.1200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.3500e-003	9.3500e-003	4.0000e-005	0.0000	0.0104
Total	2.6241	7.0000e-005	6.1200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.3500e-003	9.3500e-003	4.0000e-005	0.0000	0.0104

7.0 Water Detail

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	220.4486	3.8074	0.0908	342.6978
Unmitigated	220.4486	3.8074	0.0908	342.6978

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	116.555 / 0	220.4486	3.8074	0.0908	342.6978
Total		220.4486	3.8074	0.0908	342.6978

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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			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	116.555 / 0	220.4486	3.8074	0.0908	342.6978
Total		220.4486	3.8074	0.0908	342.6978

8.0 Waste Detail

8.1 Mitigation Measures Waste

Origo Cold Madera - Passenger Vehicles + Building (BAU Operations) - Madera County, Annual

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	96.1731	5.6837	0.0000	238.2647
Unmitigated	96.1731	5.6837	0.0000	238.2647

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	473.78	96.1731	5.6837	0.0000	238.2647
Total		96.1731	5.6837	0.0000	238.2647

Origo Cold Madera - Passenger Vehicles + Building (BAU Operations) - Madera County, Annual

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			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	473.78	96.1731	5.6837	0.0000	238.2647
Total		96.1731	5.6837	0.0000	238.2647

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

Origo Cold Madera - Passenger Vehicles + Building (BAU Operations) - Madera County, Annual

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

Equipment Type	Number
----------------	--------

11.0 Vegetation

Origo Cold Madera - Project Truck Operations (BAU) - Madera County, Annual

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

Origo Cold Madera - Project Truck Operations (BAU)

Madera County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	1.00	1000sqft	0.02	1,000.00	0
User Defined Industrial	1.00	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.9	Precipitation Freq (Days)	51
Climate Zone	3			Operational Year	2005
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Truck Operations - BAU (2005)

Land Use - Truck only run
 1 k used to separate out truck emissions only (land use development evaluated in a separate run)

Construction Phase - Truck only run (zeroed out construction inputs)

Off-road Equipment - Truck only run (zeroed out construction equipment)

Architectural Coating - Truck only run (zeroed out construction inputs)

Vehicle Trips - Phase 1 Trucks: 15 trucks, resulting in 30 daily truck trips
 Phase 2: Assumed addition storage could result in a similar increase in trips
 Additional truck trips added to account for shipments/deliveries and other miscellaneous trucks

Vehicle Emission Factors -
 Vehicle Emission Factors -
 Vehicle Emission Factors -

Origo Cold Madera - Project Truck Operations (BAU) - Madera County, Annual

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

Area Coating -

Landscape Equipment - Truck only run

Energy Use - Truck only run (zeroed out energy use - analyzed in a separate run)

Water And Wastewater - Truck only run (water and wastewater analyzed in a separate run)

Solid Waste - Truck only run

Area Mitigation -

Fleet Mix - Truck only fleet mixes

100% HHD for project trips

MHD and HHD trucks for other trucks (UPS/FedEX deliveries and shipments)

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	0.00
tblArchitecturalCoating	EF_Parking	150.00	0.00
tblConstructionPhase	NumDays	5.00	1.00
tblEnergyUse	LightingElect	2.45	0.00
tblEnergyUse	NT24E	21.99	0.00
tblEnergyUse	T24E	0.42	0.00
tblEnergyUse	T24NG	0.15	0.00
tblFleetMix	HHD	0.02	1.00
tblFleetMix	HHD	0.02	0.72
tblFleetMix	LDA	0.43	0.00
tblFleetMix	LDA	0.43	0.00
tblFleetMix	LDT1	0.08	0.00
tblFleetMix	LDT1	0.08	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.05	0.00
tblFleetMix	LHD1	0.05	0.00
tblFleetMix	LHD2	7.4020e-003	0.00

Origo Cold Madera - Project Truck Operations (BAU) - Madera County, Annual

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

tblFleetMix	LHD2	7.4020e-003	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.17	0.00
tblFleetMix	MDV	0.17	0.00
tblFleetMix	MH	0.01	0.00
tblFleetMix	MH	0.01	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	MHD	0.01	0.28
tblFleetMix	OBUS	1.3600e-003	0.00
tblFleetMix	OBUS	1.3600e-003	0.00
tblFleetMix	SBUS	1.5460e-003	0.00
tblFleetMix	SBUS	1.5460e-003	0.00
tblFleetMix	UBUS	1.5700e-004	0.00
tblFleetMix	UBUS	1.5700e-004	0.00
tblLandscapeEquipment	NumberSummerDays	180	1
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	6.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	203.98	641.35
tblSolidWaste	SolidWasteGenerationRate	0.94	0.00
tblVehicleTrips	CC_TL	7.30	50.00
tblVehicleTrips	CNW_TL	7.30	50.00
tblVehicleTrips	CNW_TTP	0.00	41.00
tblVehicleTrips	CW_TL	9.50	50.00
tblVehicleTrips	CW_TTP	0.00	59.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00

Origo Cold Madera - Project Truck Operations (BAU) - Madera County, Annual

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

tblVehicleTrips	ST_TR	2.12	60.00
tblVehicleTrips	ST_TR	0.00	10.00
tblVehicleTrips	SU_TR	2.12	60.00
tblVehicleTrips	SU_TR	0.00	10.00
tblVehicleTrips	WD_TR	2.12	60.00
tblVehicleTrips	WD_TR	0.00	10.00
tblWater	IndoorWaterUseRate	231,250.00	0.00

2.0 Emissions Summary

Origo Cold Madera - Project Truck Operations (BAU) - Madera County, Annual

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

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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					
2022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)

Origo Cold Madera - Project Truck Operations (BAU) - Madera County, Annual

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

		Highest	
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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	5.0600e-003	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	1.9403	24.3160	6.9686	0.1927	0.4792	0.8835	1.3627	0.1319	0.8453	0.9772	0.0000	2,006.0323	2,006.0323	0.0876	0.3139	2,101.7663
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.9454	24.3160	6.9686	0.1927	0.4792	0.8835	1.3627	0.1319	0.8453	0.9772	0.0000	2,006.0323	2,006.0323	0.0876	0.3139	2,101.7663

Origo Cold Madera - Project Truck Operations (BAU) - Madera County, Annual

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.0600e-003	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	1.9403	24.3160	6.9686	0.1927	0.4792	0.8835	1.3627	0.1319	0.8453	0.9772	0.0000	2,006.0323	2,006.0323	0.0876	0.3139	2,101.7663
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.9454	24.3160	6.9686	0.1927	0.4792	0.8835	1.3627	0.1319	0.8453	0.9772	0.0000	2,006.0323	2,006.0323	0.0876	0.3139	2,101.7663

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	3/7/2022	3/7/2022	5	1	

Acres of Grading (Site Preparation Phase): 0

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

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,500; Non-Residential Outdoor: 500; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	0.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 2022

Unmitigated Construction On-Site

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

Origo Cold Madera - Project Truck Operations (BAU) - Madera County, Annual

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

3.2 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction On-Site

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

Origo Cold Madera - Project Truck Operations (BAU) - Madera County, Annual

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

3.2 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr										MT/yr						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Origo Cold Madera - Project Truck Operations (BAU) - Madera County, 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
Category	tons/yr										MT/yr					
Mitigated	1.9403	24.3160	6.9686	0.1927	0.4792	0.8835	1.3627	0.1319	0.8453	0.9772	0.0000	2,006.0323	2,006.0323	0.0876	0.3139	2,101.7663
Unmitigated	1.9403	24.3160	6.9686	0.1927	0.4792	0.8835	1.3627	0.1319	0.8453	0.9772	0.0000	2,006.0323	2,006.0323	0.0876	0.3139	2,101.7663

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Refrigerated Warehouse-No Rail	60.00	60.00	60.00	1,092,000	1,092,000
User Defined Industrial	10.00	10.00	10.00	31,297	31,297
Total	70.00	70.00	70.00	1,123,297	1,123,297

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
Refrigerated Warehouse-No	50.00	50.00	50.00	59.00	0.00	41.00	100	0	0
User Defined Industrial	9.50	7.30	7.30	59.00	0.00	41.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Refrigerated Warehouse-No Rail	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000
User Defined Industrial	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.279592	0.720408	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Origo Cold Madera - Project Truck Operations (BAU) - Madera County, Annual

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

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Natural Gas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Natural Gas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Origo Cold Madera - Project Truck Operations (BAU) - Madera County, Annual

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					
Refrigerated Warehouse-No Rail	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
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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					
Refrigerated Warehouse-No Rail	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
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Origo Cold Madera - Project Truck Operations (BAU) - Madera County, Annual

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			
Refrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Refrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

Origo Cold Madera - Project Truck Operations (BAU) - Madera County, Annual

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

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	5.0600e-003	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	5.0600e-003	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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	1.1600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.9100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	5.0700e-003	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Origo Cold Madera - Project Truck Operations (BAU) - Madera County, Annual

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	1.1600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.9100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	5.0700e-003	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

7.0 Water Detail

7.1 Mitigation Measures Water

Origo Cold Madera - Project Truck Operations (BAU) - Madera County, Annual

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	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Refrigerated Warehouse-No Rail	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Origo Cold Madera - Project Truck Operations (BAU) - Madera County, Annual

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			
Refrigerated Warehouse-No Rail	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

Origo Cold Madera - Project Truck Operations (BAU) - Madera County, Annual

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

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Refrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Refrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

Origo Cold Madera - Project Truck Operations (BAU) - Madera County, Annual

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

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

Origo Cold Madera - Passenger Vehicles + Building (2030 Operations) - Madera County, Annual

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

Origo Cold Madera - Passenger Vehicles + Building (2030 Operations)

Madera County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	504.02	1000sqft	11.57	504,016.00	0
Other Asphalt Surfaces	3.06	Acre	3.06	133,293.60	0
Other Non-Asphalt Surfaces	3.06	Acre	3.06	133,293.60	0
Parking Lot	12.91	Acre	12.91	562,359.60	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.9	Precipitation Freq (Days)	51
Climate Zone	3			Operational Year	2030
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	184	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Area, Building Operations, and Passenger Vehicle Operations - 2030 Operations

2030 PG&E CO2 Intensity Factors

Land Use - Project Land Use Development

Building Area: 254,016 sq ft in P1; 250,000 sq ft in P2

30.6 Total Acres (15.00 + 15.60)

Construction Phase - Operational run only

Off-road Equipment - Operational run only

Trips and VMT - Operational run only

Grading -

Architectural Coating - SJVAPCD Rule 4601 Architectural Coatings

Origo Cold Madera - Passenger Vehicles + Building (2030 Operations) - Madera County, Annual

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

Vehicle Trips - Passenger car trip generation rate

daily passenger trips based on ITE rate with trucks analyzed in a separate run

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Area Coating - SJVAPCD Rule 4601 Architectural Coatings

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation -

Area Mitigation -

Energy Mitigation - Anticipated on-site renewable energy production (kWh/year): ~7,500,000 kWh

Fleet Mix - Passenger vehicles consisting of LDA, LDT1, LDT2, and MDV

Adjusted based on the Madera County fleet mix for the 2030 operational year

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	50
tblAreaCoating	Area_EF_Nonresidential_Interior	150	50
tblConstructionPhase	NumDays	35.00	1.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	LDA	0.54	0.60
tblFleetMix	LDT1	0.05	0.06
tblFleetMix	LDT2	0.17	0.19
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD2	7.0010e-003	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.13	0.15
tblFleetMix	MH	3.3860e-003	0.00
tblFleetMix	MHD	0.01	0.00

Origo Cold Madera - Passenger Vehicles + Building (2030 Operations) - Madera County, Annual

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

tblFleetMix	OBUS	8.5100e-004	0.00
tblFleetMix	SBUS	1.8290e-003	0.00
tblFleetMix	UBUS	2.1000e-004	0.00
tblLandUse	LandUseSquareFeet	504,020.00	504,016.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	6.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	203.98	184
tblTripsAndVMT	WorkerTripNumber	112.00	0.00
tblVehicleTrips	ST_TR	2.12	1.98
tblVehicleTrips	SU_TR	2.12	1.98
tblVehicleTrips	WD_TR	2.12	1.98

2.0 Emissions Summary

Origo Cold Madera - Passenger Vehicles + Building (2030 Operations) - Madera County, Annual

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

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	1.3410	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	1.3410	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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					
2022	1.3410	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	1.3410	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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

Origo Cold Madera - Passenger Vehicles + Building (2030 Operations) - Madera County, Annual

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	3-7-2022	6-6-2022	0.9578	0.9578
		Highest	0.9578	0.9578

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	2.1566	4.0000e-005	4.7800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.3500e-003	9.3500e-003	2.0000e-005	0.0000	9.9500e-003
Energy	4.1000e-004	3.7100e-003	3.1100e-003	2.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	1,066.2145	1,066.2145	0.1906	0.0232	1,077.8820
Mobile	0.1873	0.1614	2.6136	8.2800e-003	1.0737	4.6000e-003	1.0783	0.2853	4.2400e-003	0.2895	0.0000	759.1598	759.1598	0.0190	0.0202	765.6605
Waste						0.0000	0.0000		0.0000	0.0000	96.1731	0.0000	96.1731	5.6837	0.0000	238.2647
Water						0.0000	0.0000		0.0000	0.0000	36.9774	52.6369	89.6143	3.8074	0.0908	211.8636
Total	2.3442	0.1652	2.6215	8.3000e-003	1.0737	4.9000e-003	1.0786	0.2853	4.5400e-003	0.2898	133.1505	1,878.0205	2,011.1710	9.7006	0.1342	2,293.6807

Origo Cold Madera - Passenger Vehicles + Building (2030 Operations) - Madera County, Annual

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.1565	4.0000e-005	4.7200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.2200e-003	9.2200e-003	2.0000e-005	0.0000	9.8100e-003
Energy	4.1000e-004	3.7100e-003	3.1100e-003	2.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	440.2570	440.2570	0.0783	9.5600e-003	445.0628
Mobile	0.1873	0.1614	2.6136	8.2800e-003	1.0737	4.6000e-003	1.0783	0.2853	4.2400e-003	0.2895	0.0000	759.1598	759.1598	0.0190	0.0202	765.6605
Waste						0.0000	0.0000		0.0000	0.0000	96.1731	0.0000	96.1731	5.6837	0.0000	238.2647
Water						0.0000	0.0000		0.0000	0.0000	36.9774	52.6369	89.6143	3.8074	0.0908	211.8636
Total	2.3442	0.1652	2.6215	8.3000e-003	1.0737	4.9000e-003	1.0786	0.2853	4.5400e-003	0.2898	133.1505	1,252.0629	1,385.2134	9.5884	0.1206	1,660.8614

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	33.33	31.12	1.16	10.13	27.59

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	3/7/2022	3/7/2022	5	1	

Acres of Grading (Site Preparation Phase): 0

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

Acres of Grading (Grading Phase): 0

Acres of Paving: 19.03

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 756,024; Non-Residential Outdoor: 252,008; Striped Parking Area: 49,737 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	0.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.3410					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.3410	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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

3.2 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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	1.3410					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.3410	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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

3.2 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.0 Operational Detail - Mobile

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	0.1873	0.1614	2.6136	8.2800e-003	1.0737	4.6000e-003	1.0783	0.2853	4.2400e-003	0.2895	0.0000	759.1598	759.1598	0.0190	0.0202	765.6605
Unmitigated	0.1873	0.1614	2.6136	8.2800e-003	1.0737	4.6000e-003	1.0783	0.2853	4.2400e-003	0.2895	0.0000	759.1598	759.1598	0.0190	0.0202	765.6605

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	998.52	998.52	998.52	2,915,196	2,915,196
Total	998.52	998.52	998.52	2,915,196	2,915,196

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
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Origo Cold Madera - Passenger Vehicles + Building (2030 Operations) - Madera County, Annual

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

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.541093	0.053166	0.169825	0.132997	0.025586	0.007001	0.011142	0.029253	0.000851	0.000210	0.023661	0.001829	0.003386
Other Non-Asphalt Surfaces	0.541093	0.053166	0.169825	0.132997	0.025586	0.007001	0.011142	0.029253	0.000851	0.000210	0.023661	0.001829	0.003386
Parking Lot	0.541093	0.053166	0.169825	0.132997	0.025586	0.007001	0.011142	0.029253	0.000851	0.000210	0.023661	0.001829	0.003386
Refrigerated Warehouse-No Rail	0.603170	0.059270	0.189300	0.148260	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Kilowatt Hours of Renewable Electricity Generated

	ROG	NOx	CO	SO2	Fugitive 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	436.2226	436.2226	0.0782	9.4800e-003	441.0044
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,062.1800	1,062.1800	0.1905	0.0231	1,073.8236
NaturalGas Mitigated	4.1000e-004	3.7100e-003	3.1100e-003	2.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	4.0344	4.0344	8.0000e-005	7.0000e-005	4.0584
NaturalGas Unmitigated	4.1000e-004	3.7100e-003	3.1100e-003	2.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	4.0344	4.0344	8.0000e-005	7.0000e-005	4.0584

Origo Cold Madera - Passenger Vehicles + Building (2030 Operations) - Madera County, Annual

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					
Other Asphalt Surfaces	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
Other Non-Asphalt Surfaces	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
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
Refrigerated Warehouse-No Rail	75602.4	4.1000e-004	3.7100e-003	3.1100e-003	2.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	4.0344	4.0344	8.0000e-005	7.0000e-005	4.0584
Total		4.1000e-004	3.7100e-003	3.1100e-003	2.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	4.0344	4.0344	8.0000e-005	7.0000e-005	4.0584

Origo Cold Madera - Passenger Vehicles + Building (2030 Operations) - Madera County, Annual

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					
Other Asphalt Surfaces	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
Other Non-Asphalt Surfaces	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
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
Refrigerated Warehouse-No Rail	75602.4	4.1000e-004	3.7100e-003	3.1100e-003	2.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	4.0344	4.0344	8.0000e-005	7.0000e-005	4.0584
Total		4.1000e-004	3.7100e-003	3.1100e-003	2.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	4.0344	4.0344	8.0000e-005	7.0000e-005	4.0584

Origo Cold Madera - Passenger Vehicles + Building (2030 Operations) - Madera County, Annual

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			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	196826	16.4273	2.9500e-003	3.6000e-004	16.6074
Refrigerated Warehouse-No Rail	1.25298e+007	1,045.7527	0.1876	0.0227	1,057.2162
Total		1,062.1800	0.1905	0.0231	1,073.8236

Origo Cold Madera - Passenger Vehicles + Building (2030 Operations) - Madera County, Annual

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			
Other Asphalt Surfaces	-1.875e+006	-156.4894	-0.0281	-0.0034	-158.2048
Other Non-Asphalt Surfaces	-1.875e+006	-156.4894	-0.0281	-0.0034	-158.2048
Parking Lot	-1.67817e+006	-140.0621	-0.0251	-0.0030	-141.5974
Refrigerated Warehouse-No Rail	1.06548e+007	889.2634	0.1595	0.0193	899.0114
Total		436.2225	0.0782	9.4900e-003	441.0044

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Electric Lawnmower
- Use Electric Leafblower
- Use Electric Chainsaw
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior

Origo Cold Madera - Passenger Vehicles + Building (2030 Operations) - Madera County, 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
Category	tons/yr										MT/yr					
Mitigated	2.1565	4.0000e-005	4.7200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.2200e-003	9.2200e-003	2.0000e-005	0.0000	9.8100e-003
Unmitigated	2.1566	4.0000e-005	4.7800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.3500e-003	9.3500e-003	2.0000e-005	0.0000	9.9500e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1341					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.0220					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.4000e-004	4.0000e-005	4.7800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.3500e-003	9.3500e-003	2.0000e-005	0.0000	9.9500e-003
Total	2.1566	4.0000e-005	4.7800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.3500e-003	9.3500e-003	2.0000e-005	0.0000	9.9500e-003

Origo Cold Madera - Passenger Vehicles + Building (2030 Operations) - Madera County, Annual

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	0.1341					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.0220					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.3000e-004	4.0000e-005	4.7200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.2200e-003	9.2200e-003	2.0000e-005	0.0000	9.8100e-003
Total	2.1566	4.0000e-005	4.7200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.2200e-003	9.2200e-003	2.0000e-005	0.0000	9.8100e-003

7.0 Water Detail

7.1 Mitigation Measures Water

Origo Cold Madera - Passenger Vehicles + Building (2030 Operations) - Madera County, Annual

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	89.6143	3.8074	0.0908	211.8636
Unmitigated	89.6143	3.8074	0.0908	211.8636

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	116.555 / 0	89.6143	3.8074	0.0908	211.8636
Total		89.6143	3.8074	0.0908	211.8636

Origo Cold Madera - Passenger Vehicles + Building (2030 Operations) - Madera County, Annual

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			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	116.555 / 0	89.6143	3.8074	0.0908	211.8636
Total		89.6143	3.8074	0.0908	211.8636

8.0 Waste Detail

8.1 Mitigation Measures Waste

Origo Cold Madera - Passenger Vehicles + Building (2030 Operations) - Madera County, Annual

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	96.1731	5.6837	0.0000	238.2647
Unmitigated	96.1731	5.6837	0.0000	238.2647

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	473.78	96.1731	5.6837	0.0000	238.2647
Total		96.1731	5.6837	0.0000	238.2647

Origo Cold Madera - Passenger Vehicles + Building (2030 Operations) - Madera County, Annual

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			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	473.78	96.1731	5.6837	0.0000	238.2647
Total		96.1731	5.6837	0.0000	238.2647

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

Origo Cold Madera - Passenger Vehicles + Building (2030 Operations) - Madera County, Annual

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

Equipment Type	Number
----------------	--------

11.0 Vegetation

Origo Cold Madera - Project Truck Trips (2030) - Madera County, Annual

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

Origo Cold Madera - Project Truck Trips (2030)

Madera County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	1.00	1000sqft	0.02	1,000.00	0
User Defined Industrial	1.00	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.9	Precipitation Freq (Days)	51
Climate Zone	3			Operational Year	2030
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	184	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

- Project Characteristics - Origo Cold Madera - Project Truck Trips (2030 operational year scenario)
- Land Use - Truck only run
- 1 k used to separate out truck emissions only (land use development evaluated in a separate run)
- Construction Phase - Truck only run (zeroed out construction inputs)
- Off-road Equipment - Truck only run (zeroed out construction equipment)
- Architectural Coating - Truck only run (zeroed out construction inputs)
- Vehicle Trips - Phase 1 Trucks: 15 trucks, resulting in 30 daily truck trips
- Phase 2: Assumed addition storage could result in a similar increase in trips
- Additional truck trips added to account for shipments/deliveries and other miscellaneous trucks
- Area Coating -
- Landscape Equipment - Truck only run
- Energy Use - Truck only run (zeroed out energy use - analyzed in a separate run)

Origo Cold Madera - Project Truck Trips (2030) - Madera County, Annual

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

Water And Wastewater - Truck only run (water and wastewater analyzed in a separate run)

Solid Waste - Truck only run

Fleet Mix - Truck only fleet mixes

100% HHD for project trips

MHD and HHD trucks for other trucks (UPS/FedEX deliveries and shipments)

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	0.00
tblArchitecturalCoating	EF_Parking	150.00	0.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstructionPhase	NumDays	5.00	1.00
tblEnergyUse	LightingElect	2.45	0.00
tblEnergyUse	NT24E	21.99	0.00
tblEnergyUse	T24E	0.42	0.00
tblEnergyUse	T24NG	0.15	0.00
tblFleetMix	HHD	0.03	1.00
tblFleetMix	HHD	0.03	0.72
tblFleetMix	LDA	0.54	0.00
tblFleetMix	LDA	0.54	0.00
tblFleetMix	LDT1	0.05	0.00
tblFleetMix	LDT1	0.05	0.00
tblFleetMix	LDT2	0.17	0.00
tblFleetMix	LDT2	0.17	0.00
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD2	7.0010e-003	0.00

Origo Cold Madera - Project Truck Trips (2030) - Madera County, Annual

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

tblFleetMix	LHD2	7.0010e-003	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.13	0.00
tblFleetMix	MDV	0.13	0.00
tblFleetMix	MH	3.3860e-003	0.00
tblFleetMix	MH	3.3860e-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	MHD	0.01	0.28
tblFleetMix	OBUS	8.5100e-004	0.00
tblFleetMix	OBUS	8.5100e-004	0.00
tblFleetMix	SBUS	1.8290e-003	0.00
tblFleetMix	SBUS	1.8290e-003	0.00
tblFleetMix	UBUS	2.1000e-004	0.00
tblFleetMix	UBUS	2.1000e-004	0.00
tblLandscapeEquipment	NumberSummerDays	180	1
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	6.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	203.98	184
tblSolidWaste	SolidWasteGenerationRate	0.94	0.00
tblVehicleTrips	CC_TL	7.30	50.00
tblVehicleTrips	CNW_TL	7.30	50.00
tblVehicleTrips	CNW_TTP	0.00	41.00
tblVehicleTrips	CW_TL	9.50	50.00
tblVehicleTrips	CW_TTP	0.00	59.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00

Origo Cold Madera - Project Truck Trips (2030) - Madera County, Annual

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

tblVehicleTrips	ST_TR	2.12	60.00
tblVehicleTrips	ST_TR	0.00	10.00
tblVehicleTrips	SU_TR	2.12	60.00
tblVehicleTrips	SU_TR	0.00	10.00
tblVehicleTrips	WD_TR	2.12	60.00
tblVehicleTrips	WD_TR	0.00	10.00
tblWater	IndoorWaterUseRate	231,250.00	0.00

2.0 Emissions Summary

Origo Cold Madera - Project Truck Trips (2030) - Madera County, Annual

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

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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					
2022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)

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

		Highest	
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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	3.9100e-003	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0397	2.9897	0.4684	0.0135	0.4793	0.0319	0.5112	0.1319	0.0305	0.1624	0.0000	1,300.5410	1,300.5410	2.9100e-003	0.2042	1,361.4606
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0436	2.9897	0.4684	0.0135	0.4793	0.0319	0.5112	0.1319	0.0305	0.1624	0.0000	1,300.5410	1,300.5410	2.9100e-003	0.2042	1,361.4606

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.9100e-003	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0397	2.9897	0.4684	0.0135	0.4793	0.0319	0.5112	0.1319	0.0305	0.1624	0.0000	1,300.5410	1,300.5410	2.9100e-003	0.2042	1,361.4606
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0436	2.9897	0.4684	0.0135	0.4793	0.0319	0.5112	0.1319	0.0305	0.1624	0.0000	1,300.5410	1,300.5410	2.9100e-003	0.2042	1,361.4606

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	3/7/2022	3/7/2022	5	1	

Acres of Grading (Site Preparation Phase): 0

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

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,500; Non-Residential Outdoor: 500; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	0.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 2022

Unmitigated Construction On-Site

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

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3.2 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction On-Site

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

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

3.2 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.0 Operational Detail - Mobile

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	0.0397	2.9897	0.4684	0.0135	0.4793	0.0319	0.5112	0.1319	0.0305	0.1624	0.0000	1,300.5410	1,300.5410	2.9100e-003	0.2042	1,361.4606
Unmitigated	0.0397	2.9897	0.4684	0.0135	0.4793	0.0319	0.5112	0.1319	0.0305	0.1624	0.0000	1,300.5410	1,300.5410	2.9100e-003	0.2042	1,361.4606

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Refrigerated Warehouse-No Rail	60.00	60.00	60.00	1,092,000	1,092,000
User Defined Industrial	10.00	10.00	10.00	31,297	31,297
Total	70.00	70.00	70.00	1,123,297	1,123,297

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
Refrigerated Warehouse-No	50.00	50.00	50.00	59.00	0.00	41.00	100	0	0
User Defined Industrial	9.50	7.30	7.30	59.00	0.00	41.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Refrigerated Warehouse-No Rail	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000
User Defined Industrial	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.279592	0.720408	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

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

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Natural Gas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Natural Gas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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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 - 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	tons/yr										MT/yr					
Refrigerated Warehouse-No Rail	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
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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	tons/yr										MT/yr					
Refrigerated Warehouse-No Rail	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
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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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			
Refrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Refrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

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

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.9100e-003	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	3.9100e-003	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.9100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	3.9100e-003	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.9100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	3.9100e-003	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

7.0 Water Detail

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	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Refrigerated Warehouse-No Rail	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

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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			
Refrigerated Warehouse-No Rail	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

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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

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Refrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Refrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

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

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

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

Origo Cold Madera Project Construction Assumptions

Construction Phase

Phase Name	Start Date	End Date			Notes
Phase 1					
Site Preparation	3/7/2022	3/18/2022	5	10	
Grading	3/19/2022	4/29/2022	5	30	
Paving	4/30/2022	5/27/2022	5	20	
Building Construction	5/28/2022	2/19/2023	5	190	Adjusted to match schedule
Architectural Coating	2/20/2023	3/17/2023	5	20	
Phase 2					
Site Preparation	3/18/2023	3/31/2023	5	10	
Grading	4/1/2023	5/12/2023	5	30	
Paving	5/13/2023	6/9/2023	5	20	
Building Construction	6/10/2023	2/19/2024	5	181	Adjusted to match schedule
Architectural Coating	2/20/2024	3/18/2024	5	20	

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Phase 1					
Site Preparation	Rubber Tired Dozers	3	8	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8	97	0.37
Grading	Excavators	2	8	158	0.38
Grading	Graders	1	8	187	0.41
Grading	Rubber Tired Dozers	1	8	247	0.40
Grading	Scrapers	2	8	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8	97	0.37
Paving	Pavers	2	8	130	0.42
Paving	Paving Equipment	2	8	132	0.36
Paving	Rollers	2	8	80	0.38
Building Construction	Cranes	2	5.5	231	0.29
Building Construction	Forklifts	5	7.6	89	0.20
Building Construction	Generator Sets	2	6.3	84	0.74
Building Construction	Tractors/Loaders/Backhoes	5	6.6	97	0.37
Building Construction	Welders	2	6.3	46	0.45
Architectural Coating	Air Compressors	1	6	78	0.48
Phase 2					
Site Preparation	Rubber Tired Dozers	3	8	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8	97	0.37
Grading	Excavators	2	8	158	0.38
Grading	Graders	1	8	187	0.41
Grading	Rubber Tired Dozers	1	8	247	0.40
Grading	Scrapers	2	8	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8	97	0.37
Paving	Pavers	2	8	130	0.42
Paving	Paving Equipment	2	8	132	0.36
Paving	Rollers	2	8	80	0.38
Building Construction	Cranes	2	5.8	231	0.29
Building Construction	Forklifts	6	6.6	89	0.20
Building Construction	Generator Sets	2	6.6	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	5.8	97	0.37
Building Construction	Welders	2	6.6	46	0.45
Architectural Coating	Air Compressors	1	6	78	0.48

Construction Trips and VMT

Phase Name	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length
Phase 1						
Site Preparation	18	0	54	10.8	7.3	20
Grading	20	0	56	10.8	7.3	20
Paving	15	4	12	10.8	7.3	20
Building Construction	274	107	32	10.8	7.3	20
Architectural Coating	55	4	2	10.8	7.3	20
Phase 2						
Site Preparation	18	0	7	10.8	7.3	20
Grading	20	0	16	10.8	7.3	20
Paving	15	4	12	10.8	7.3	20
Building Construction	283	111	36	10.8	7.3	20
Architectural Coating	57	0	2	10.8	7.3	20

Cold Storage—Fugitive Refrigerants

Potential System Capacity: ¹	10,000 kg
Installation Emission Factor: ¹	1% of total capacity
Operating Emission Factor: ¹	8% of total capacity per year

Refrigerant GWP Limit: ²	150
Specific Refrigerant:	N/A
GWP of Typical Refrigerant:	150

Installation Emissions (Phase 1)	Operating Emissions (Phase 1)
15 MT CO ₂ e	120 MT CO ₂ e/year
Installation Emissions (Phase 2)	Operating Emissions (Phase 2)
15 MT CO ₂ e	120 MT CO ₂ e/year
Total Installation Emissions	Total Operating Emissions
30	240

Installation Emissions Amortized over 30 years	1.00
Annual Operating Emissions	240.00
Total Annual Operations	241.00

Note: the 150 GWP limit required under CARB's Refrigerant Management Program only applies to systems with a capacity of 50 lbs (or 22.7 kg) or greater. Typical commercial or industrial cold storage uses would be subject to the requirement.

Sources:

- 1 United Nations Environment Programme. 2018. Cold Chain Technology Brief, Cold Storage and Refrigerated Warehouse. Website: <http://www.foodcoldchain.org/wp-content/uploads/2019/03/Cold-Storage-and-Refrigerated-Warehouse.pdf>. Accessed February 2, 2022.
- 2 Air Resources Board (CARB). 2021. High-GWP Refrigerants. Website: <https://ww2.arb.ca.gov/resources/documents/high-gwp-refrigerants>. Accessed February 2, 2022.

Cold Storage—Fugitive Refrigerants (BAU)

Potential System Capacity: 10,000 kg
 Installation Emission Factor: 1% of total capacity
 Operating Emission Factor: 8% of total capacity per year

Specific Refrigerant: N/A
 GWP of Refrigerant Assumed in Analysis : 1,400

Installation Emissions (Phase 1)	140 MT CO2e	Operating Emissions (Phase 1)	1,120 MT CO2e/year
Installation Emissions (Phase 2)	140 MT CO2e	Operating Emissions (Phase 2)	1,120 MT CO2e/year
Total Installation Emissions	280	Total Operating Emissions	2,240

Installation Emissions Amortized over 30 years 9.33
 Annual Operating Emissions 2,240.00
Total Annual Operations 2,249.33

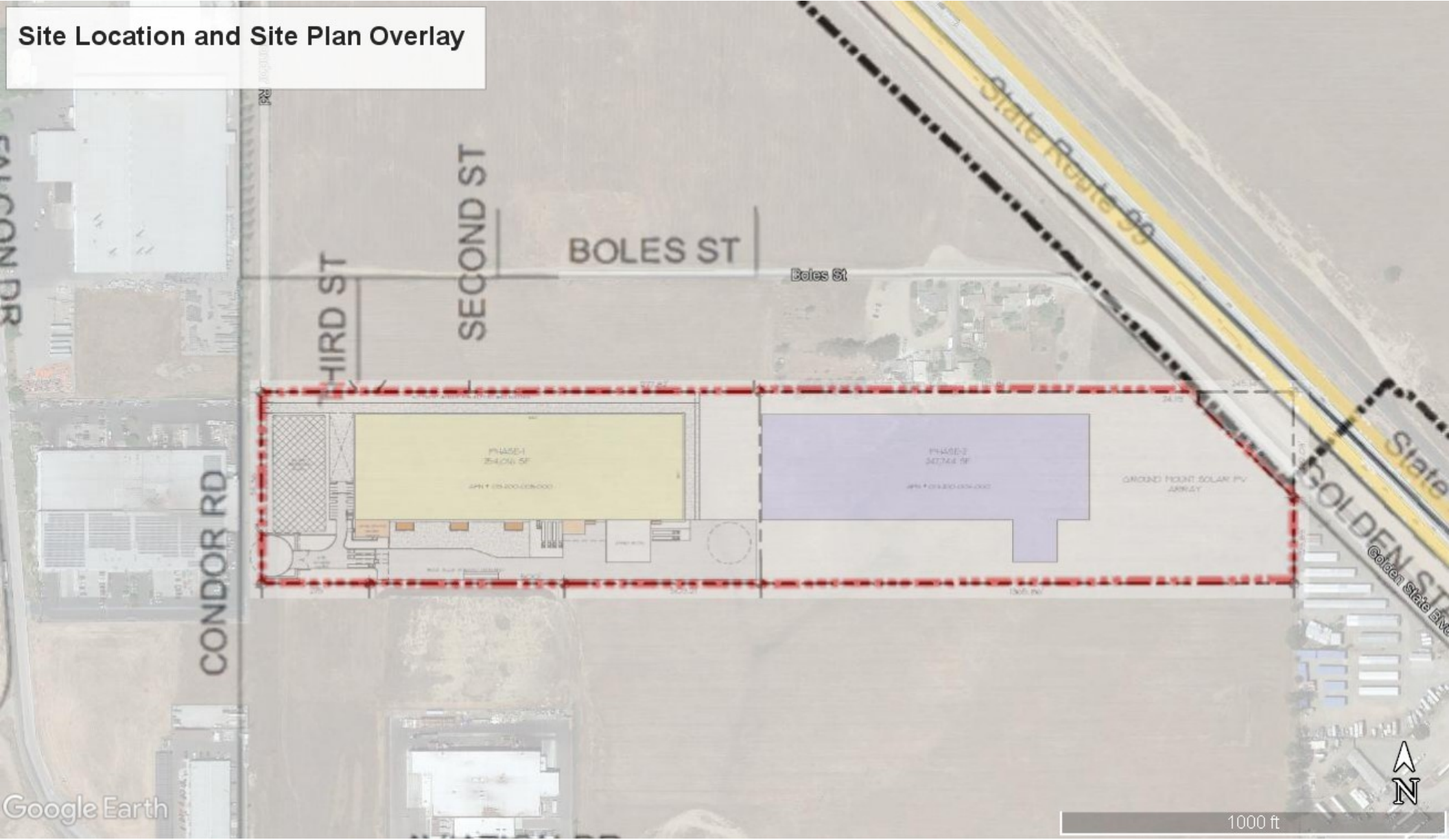
Origo Cold Madera Storage Facility Fleet Mix Adjustments (2023)

Madera County 2023	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH	Total
	0.491491	0.052949	0.173689	0.1647	0.03499	0.008766	0.010778	0.027771	0.00081	0.00021	0.026873	0.00202	0.004972	1.00000
Trucks Only*	0	0	0	0	0	0	0.0107780	0.0277710	0	0	0	0	0	0.038549
Difference to be allocated	0.961451													
Revised Truck Fleet	0	0	0	0	0	0	0.2795922	0.7204078	0	0	0	0	0	1
Passenger Cars														
Default Light Duty Fleet Mix	0.491491	0.052949	0.173689	0.1647	0	0	0	0	0	0	0	0	0	0.882812
Difference to be allocated	0.117188													
Revised Passenger Cars Fleet Mix 2023	0.55673	0.05998	0.19675	0.18654	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	1.00000

Origo Cold Madera Storage Facility Fleet Mix Adjustments (2030)

														Total
Madera County 2030	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH	
	0.541093	0.053166	0.169825	0.1330	0.025586	0.007001	0.011142	0.029253	0.000851	0.00021	0.023661	0.001829	0.003386	1 0
Passenger Cars	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH	
Default Light Duty Fleet Mix	0.541093	0.053166	0.169825	0.1330	0	0	0	0	0	0	0	0	0	0.897081
Difference to be allocated	0.102919													
Revised Passenger Cars Fleet Mix 2030	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH	
	0.60317	0.05927	0.18931	0.14826	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	1.00000

Site Location and Site Plan Overlay



ATTACHMENT B

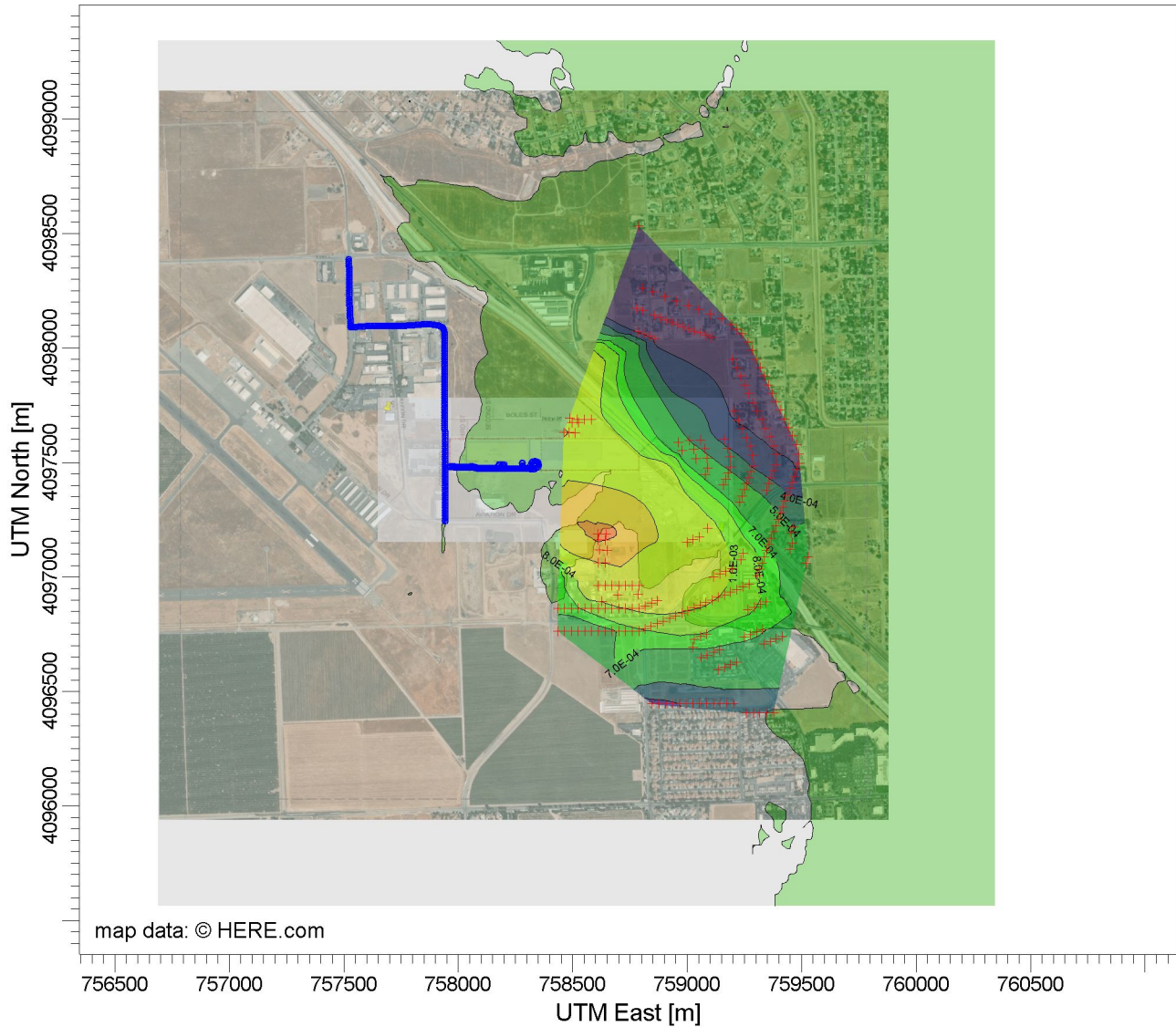
Health Risk Assessment

Health Risk Assessment

Parameters and Supporting Information

PROJECT TITLE:

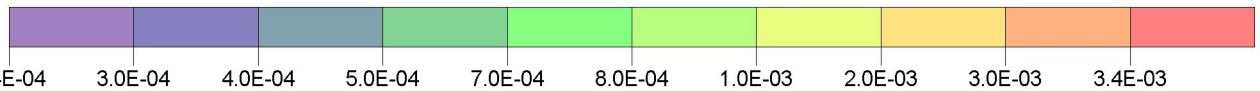
Dispersion Trend and AERMOD Inputs
Graphical Representation of Results and AERMOD Inputs



PLOT FILE OF ANNUAL VALUES AVERAGED ACROSS 3 YEARS FOR SOURCE GROUP: ALL

ug/m³

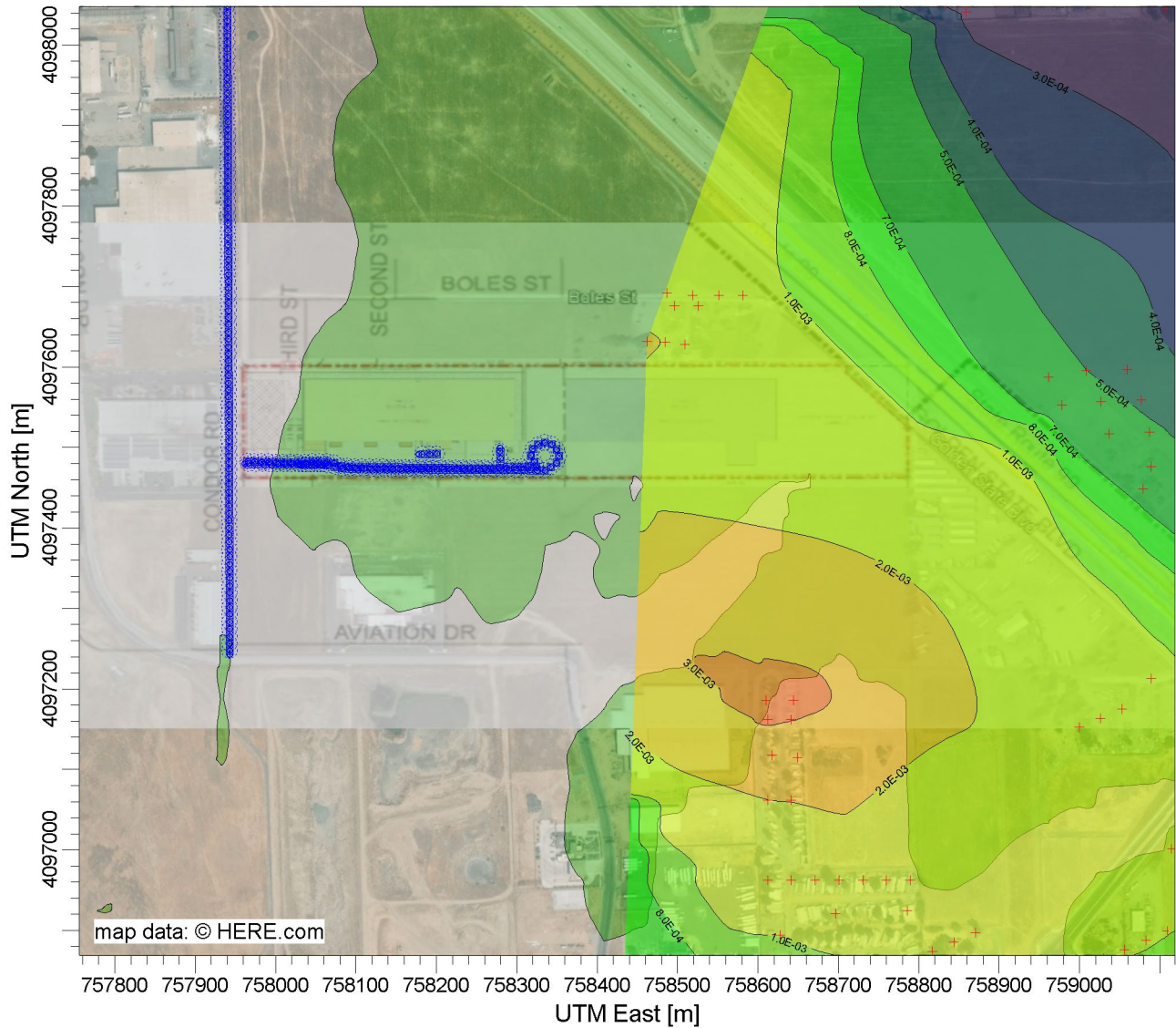
Max: 3.4E-03 [ug/m³] at (758610.13, 4097186.34)



COMMENTS:	SOURCES:		
	7		
	RECEPTORS:		
	241		
OUTPUT TYPE:	SCALE:	1:30,157	
Concentration			
MAX:	DATE:	PROJECT NO.:	
3.4E-03 ug/m³	2/8/2022		

PROJECT TITLE:

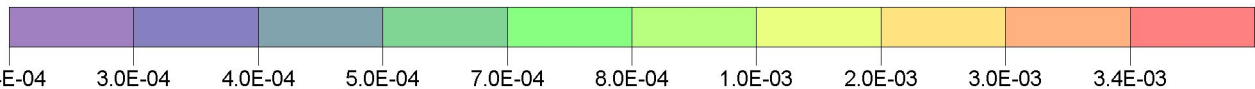
Dispersion Trend and AERMOD Inputs (Zoomed In)
Graphical Representation of Results and AERMOD Inputs



PLOT FILE OF ANNUAL VALUES AVERAGED ACROSS 3 YEARS FOR SOURCE GROUP: ALL

ug/m³

Max: 3.4E-03 [ug/m³] at (758610.13, 4097186.34)



COMMENTS:

SOURCES:

7

RECEPTORS:

241

OUTPUT TYPE:

Concentration

SCALE:

1:8,574

0 0.3 km

MAX:

3.4E-03 ug/m³

DATE:

2/8/2022

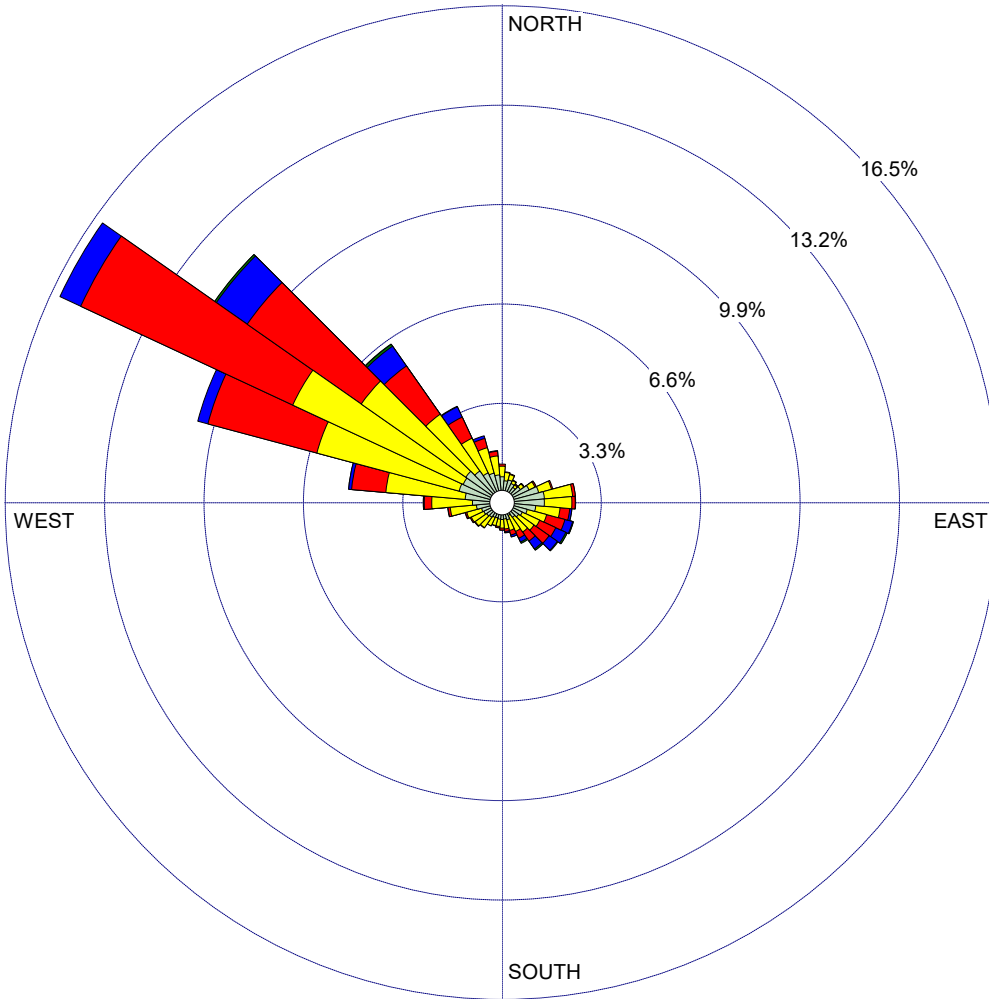
PROJECT NO.:

WIND ROSE PLOT:

Wind Rose - Station #93242 (Flow Vector - Blowing From)

DISPLAY:

**Wind Speed
Direction (blowing from)**



WIND SPEED
(m/s)

- >= 11.10
- 8.80 - 11.10
- 5.70 - 8.80
- 3.60 - 5.70
- 2.10 - 3.60
- 0.50 - 2.10

Calms: 0.49%

COMMENTS:

DATA PERIOD:

**Start Date: 1/1/2015 - 00:00
End Date: 12/31/2017 - 23:59**

CALM WINDS:

0.49%

AVG. WIND SPEED:

3.01 m/s

TOTAL COUNT:

26038 hrs.

DATE:

2/8/2022

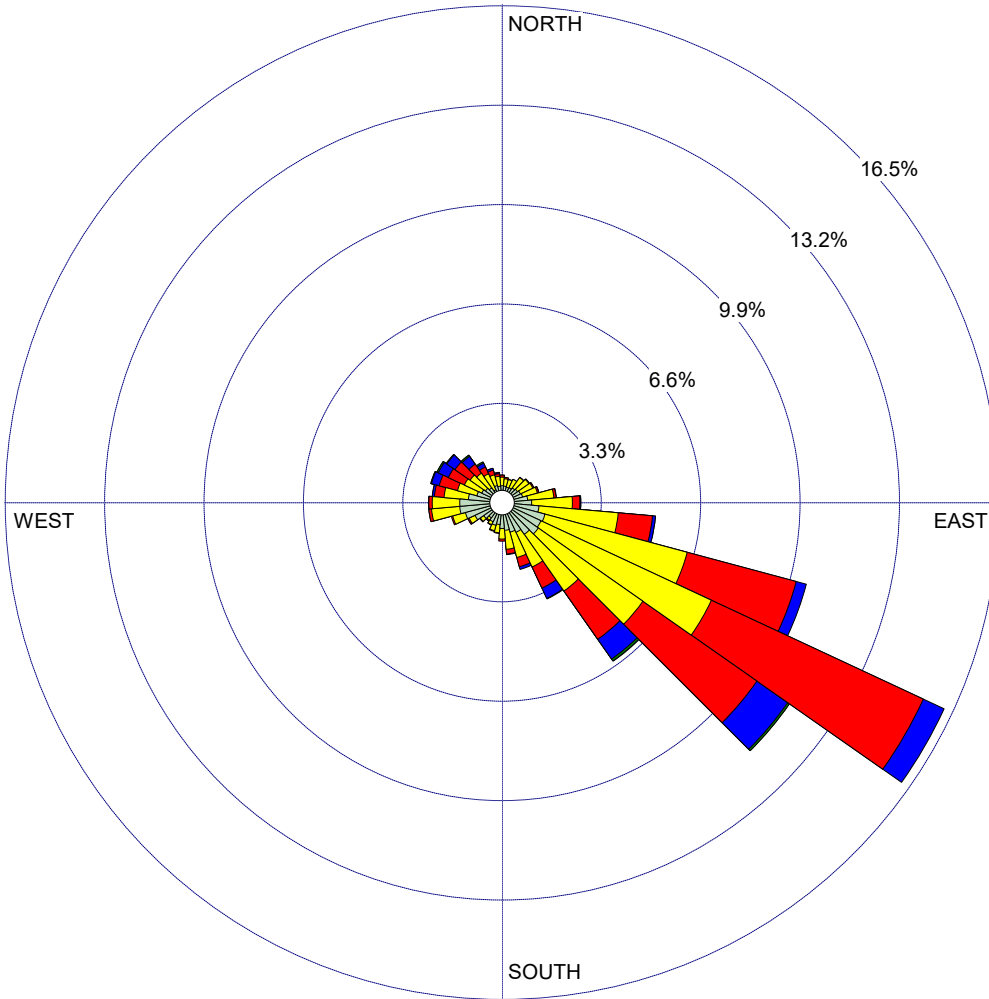
PROJECT NO.:

WIND ROSE PLOT:

Wind Rose - Station #93242 (Flow Vector - Blowing To)

DISPLAY:

**Wind Speed
Flow Vector (blowing to)**



WIND SPEED
(m/s)

- >= 11.10
- 8.80 - 11.10
- 5.70 - 8.80
- 3.60 - 5.70
- 2.10 - 3.60
- 0.50 - 2.10

Calms: 0.49%

COMMENTS:

DATA PERIOD:

**Start Date: 1/1/2015 - 00:00
End Date: 12/31/2017 - 23:59**

CALM WINDS:

0.49%

AVG. WIND SPEED:

3.01 m/s

TOTAL COUNT:

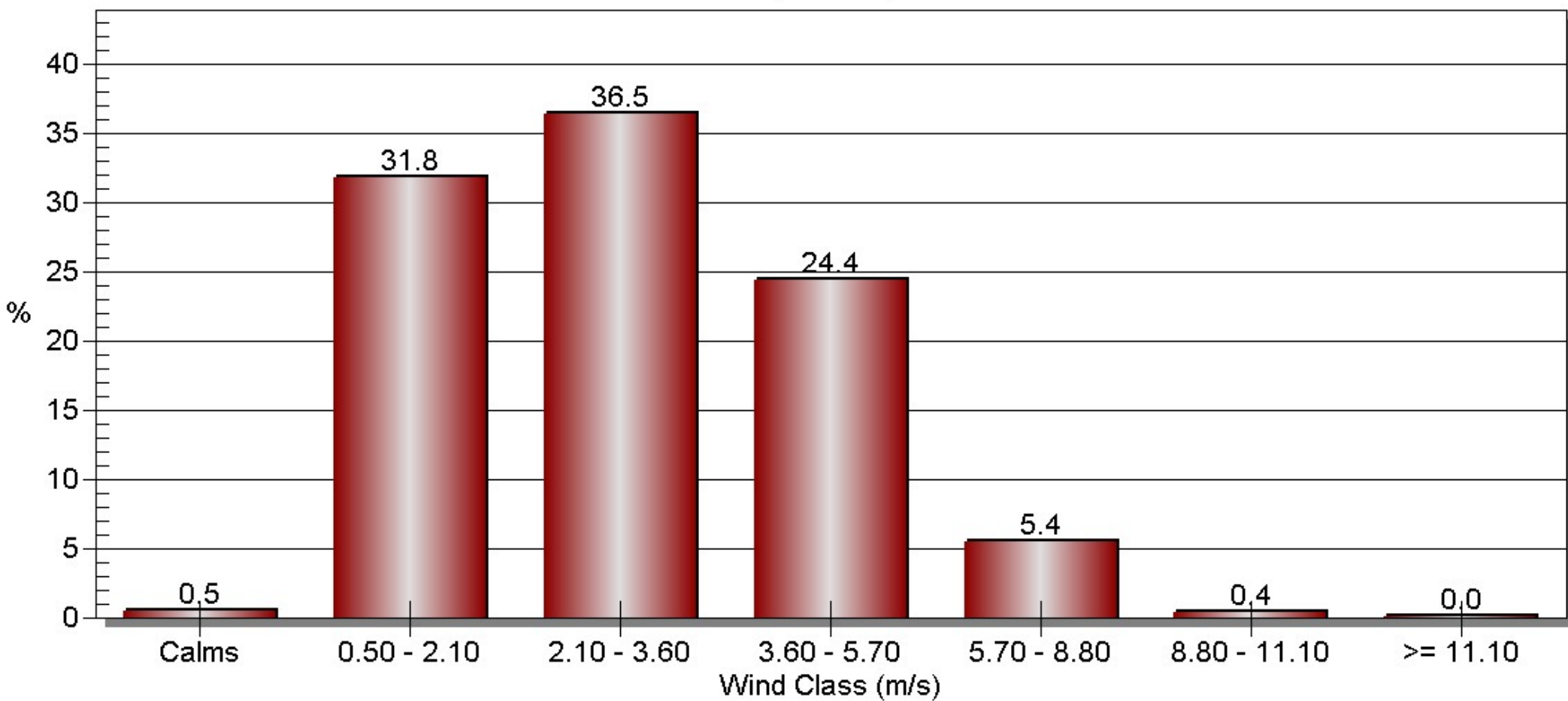
26038 hrs.

DATE:

2/8/2022

PROJECT NO.:

Wind Class Frequency Distribution



Health Risk Assessment

Origo Cold Madera Storage Facility Operational DPM

Origo Cold Madera, LLC Secured Temperature Controlled Nuts Storage Facility Project

Emission Assumptions—DPM

Emission Factors

1) Truck Emissions

- (1) EMFAC2017 for running emissions, consistent with database used to inform the current version of CalEEMod
- (a) Calculations for Madera County
- (b) Truck Mix Fleet mix consistent with the buildout year CalEEMod run EMFAC to derive the number of diesel truck vehicles
- (c) Truck Idle: 2 instances per daily trip
- (d) Onsite Vehicle Travel Speed 5 mph for trucks
- (e) Offsite Vehicle Travel Speed 25 mph for trucks

Traffic Allocation

- 1) Traffic distribution based on site layout identified in the site plan
- 2) Project-specific trip generation
- 3) Onsite travel emissions generated from diesel vehicles
- 4) Onsite idling emissions generated only by trucks

Emission Source Configuration

- 1) Project onsite truck traffic represented by a line source
- 2) Project onsite truck idling represented as line sources
- 3) Offsite vehicles represented by a line source

Onsite Vehicle Travel Segments

Segment	Source ID	Segment Travel Distance (m)
On-site Truck Route	SLINE1	838.5
Onsite Truck Idling		
On-site Idling – Location 1 (Entrance/Exit)	SLINE2	36.9
On-site Idling – Location 2 (Dock/Park/Loading Area 1)	SLINE3	23.7
On-site Idling – Location 3 (Dock/Park/Loading Area 2)	SLINE4	18.7

Offsite Vehicle Travel Segments

Segment	Source ID	Segment Travel Distance (m)
Off-site Truck Route	SLINE5	1560.8

Other Input Parameters

Facility Operations (hr/day): 24

Origo Cold Madera, LLC Secured Temperature Controlled Nuts Storage Facility Project

Vehicle Fleet Mix

Total Daily Truck Trips (Trips/day)		Trucks	Total Daily Truck Trips
Daily Trips	70	70.000	70.00
Fleet Mix	—	100.0%	100.0%
	70		

Vehicle Fleet

	Trucks Project Vehicle Mix	EMFAC % Diesel	Total Number of Daily Trips	Number of Daily Diesel Trips	Number of Daily Non- Trips	Total Number of Daily Trips	% Diesel Trips	% Non- Diesel Trips	Total Trips
LHDT1 (2 axle truck)	0.00%	46.2%	0	0	0	0	0.00%	0.00%	
LHDT2	0.00%	63.2%	0	0	0	0	0.00%	0.00%	
MHDT (3 axle truck)	3.99%	100.0%	3	3	0	3	3.99%	0.00%	
HHDT (4+ axle truck)	96.01%	100.0%	67	67	0	67	96.01%	0.00%	
Truck Subtotal	100.00%		70	70	0	70	100.00%	0.00%	100.00%

Truck fleet mix consistent with the project CalEEMod runs used in the Air Quality Analysis.
Assumed 100% diesel for MHDT and HHDT; % Diesel taken from EMFAC2017 for LHDT1, and LHDT2.

Origo Cold Madera, LLC Secured Temperature Controlled Nuts Storage Facility Project

Trip Distribution

Vehicle Allocation - Number of Daily Diesel Trips

Allocation of Building Trips

Percent Allocation - On-site Travel

100% On-site Travel – Route 1 (DSL trucks)
100% Total Diesel Truck Trips

Segment - On-site Travel	Source ID	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	OBUS	UBUS	SBUS	MH	Total
On-site Truck Route	SLINE1	0.0	0.0	0.0	0.0	0.0	0.0	2.8	67.2	0.0	0.0	0.0	0.0	70.0
Total Diesel Trucks	—	0	0	0	0	0	0	3	67	0	0	0	0	70

Percent Allocation of Trips - On-site Diesel Truck Idling

100% On-site Idling – Location 1 (Entrance/Exit)
50% On-site Idling – Location 2 (Dock/Park/Loading Area 1)
50% On-site Idling – Location 3 (Dock/Park/Loading Area 2)

2x Total Diesel Truck Trips (One occurrence per trip at check-in gate/exit and one occurrence in 1 of 2 docking/parking areas)

Segment - On-site Truck Idle	Source ID	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	OBUS	UBUS	SBUS	MH	Total
On-site Idling – Location 1 (Entrance/Exit)	SLINE2	0.0	0.0	0.0	0.0	0.0	0.0	2.8	67.2	0.0	0.0	0.0	0.0	70.0
On-site Idling – Location 2 (Dock/Park/Loading Area 1)	SLINE3	0.0	0.0	0.0	0.0	0.0	0.0	1.4	33.6	0.0	0.0	0.0	0.0	35.0
On-site Idling – Location 3 (Dock/Park/Loading Area 2)	SLINE4	0.0	0.0	0.0	0.0	0.0	0.0	1.4	33.6	0.0	0.0	0.0	0.0	35.0
Total Idling (Diesel Trucks Idling in Both Locations per Trip)	—	0	0	0	0	0	0	6	134	0	0	0	0	140

Origo Cold Madera, LLC Secured Temperature Controlled Nuts Storage Facility Project

Diesel Vehicle Emissions

Facility Operations

24 hrs/day, 52 weeks/year

Roadway Links Modeled

Link	Truck Type	Average Speed (mph)	Emission Factor (g/mi)	Trips per Daily (in and out)	Link Length (m)	Link Length (mi)	Ave Emissions Over Link (g/day)	Ave Emissions (lbs/day)	Average Emissions (g/sec)	Emissions for all Vehicles (g/sec)
SLINE1	LHDT1	5	0.093	0.0	838.5	0.52	0.000E+00	0.00E+00	0.000E+00	6.41E-06
	LHDT2	5	0.078	0.0	838.5	0.52	0.000E+00	0.00E+00	0.000E+00	
	MHDT	5	0.008	2.8	838.5	0.52	1.194E-02	2.63E-05	1.382E-07	
	HHDT	5	0.015	67.2	838.5	0.52	5.419E-01	1.19E-03	6.272E-06	

Origo Cold Madera, LLC Secured Temperature Controlled Nuts Storage Facility Project

Diesel Truck Idling Emissions

Onsite Vehicle Travel Segments	Truck Type	DPM Emission Factor (grams/trip)	Number Idling Vehicle Trips/day	Emissions (g/day)	Emissions (lb/day)	Average Emissions (g/sec)	Total Emissions for all Vehicles (g/sec)
SLINE2	LHDT1	0.001	0.0	0.00E+00	0.00E+00	0.00E+00	
	LHDT2	0.002	0.0	0.00E+00	0.00E+00	0.00E+00	
	MHDT	0.000	2.8	1.25E-03	2.75E-06	1.44E-08	
	HHDT	0.002	67.2	1.62E-01	3.56E-04	1.87E-06	1.89E-06
SLINE3	LHDT1	0.001	0.0	0.00E+00	0.00E+00	0.00E+00	
	LHDT2	0.002	0.0	0.00E+00	0.00E+00	0.00E+00	
	MHDT	0.000	1.4	6.23E-04	1.37E-06	7.22E-09	
	HHDT	0.002	33.6	8.09E-02	1.78E-04	9.37E-07	9.44E-07
SLINE4	LHDT1	0.001	0.0	0.00E+00	0.00E+00	0.00E+00	
	LHDT2	0.002	0.0	0.00E+00	0.00E+00	0.00E+00	
	MHDT	0.000	1.4	6.23E-04	1.37E-06	7.22E-09	
	HHDT	0.002	33.6	8.09E-02	1.78E-04	9.37E-07	9.44E-07

Origo Cold Madera, LLC Secured Temperature Controlled Nuts Storage Facility Project

Project Operations

24 hours/day

Offsite DSL Truck Roadway Emissions

Segment ID	Description	% total Trips
SLINE5	Off-site Truck Route	100.0%
Total		100.0%

Segment ID:

SLINE5

Travel Distance:

1560.8 meters

Operations

24 hours/day

Vehicle Class	Daily Trips (trips/day)	Emission Factor (g/mi)	Travel Distance (mi)	Emissions (g/day)	Emissions (g/sec)
LHDT1-DSL	0	0.033	0.97	0.00	0.00E+00
LHDT2-DSL	0	0.029	0.97	0.00	0.00E+00
MHDT-DSL	3	0.003	0.97	0.01	1.06E-07
HHDT-DSL	67	0.007	0.97	0.46	5.29E-06
Total	70				5.40E-06

DPM

2023

**EMFAC Running Diesel Exhaust Emissions
in units of grams/mile**

EMFAC2017

		Emission Factor (g/mi)			
		5 mph	10 mph	25 mph	35 mph
LHDT1	DSL	0.093	—	0.033	—
LHDT2	DSL	0.078	—	0.029	—
MHDT	DSL	0.008	—	0.003	—
HHDT	DSL	0.015	—	0.007	—

**Idling Emissions for Trucks (Emission Factors from CalEEMod)
in units of grams/trip**

CalEEMod.2020.4.0

Vehicle		Vehicle	DPM	PM10
Class	Fuel	Speed	(grams/trip)	STREX
		(mph)		
LHDT1	DSL	Idle	0.001167	0.000235
LHDT2	DSL	Idle	0.001582	0.000101
MHDT	DSL	Idle	0.000446	0.000122
HHDT	DSL	Idle	0.002408	0.000001

Health Risk Assessment

Health Risk Calculations

Origo Cold Madera Temperature Controlled Storage Facility—Total DPM

Origo Cold Madera Project Total DPM MER UTM: 758610.13, 4097186.34

		Operations 2023 Total DPM (ug/m3)	Operations 2025 Total DPM (ug/m3)	Operations 2030 Total DPM (ug/m3)	Operations 2040 Total DPM (ug/m3)	Operations 2050 Total DPM (ug/m3)
X	Y					
758610.13	4097186.34	3.4400E-03	3.4400E-03	3.4400E-03	3.4400E-03	3.4400E-03

Origo Cold Madera Temperature Controlled Storage Facility—Total DPM

70-year Lifetime Cancer Risk—DPM Operations

Origo Cold Madera Project Total DPM MER UTM: 758610.13, 4097186.34

	Operations 2023	Operations 2023	Operations 2024	Operations 2025	Operations 2026	Operations 2027	Operations 2028	Operations 2029	Operations 2030	Operations 2031	Operations 2032-2038	Operations 2039	Operations 2040	Operations 2041-2052	Operations 2053-2092	Total Years
Age	3rd Trimester	0<1	1-<2	2-<3	3-<4	4-<5	5-<6	6-<7	7-<8	8-<9	9-<16	16-<17	17-<18	18-<30	30-<31	
DBR (liters/kg-day)	361	1090	1090	861	861	861	861	861	861	861	745	335	335	335	290	
ASF	10	10	10	3	3	3	3	3	3	3	3	1	1	1	1	
TAH	1	1	1	1	1	1	1	1	1	1	1	0.73	0.73	0.73	0.73	
Duration (years)	0.25	1	1	1	1	1	1	1	1	1	7	1	1	12	39.75	70
Frequency (days)	350	350	350	350	350	350	350	350	350	350	350	350	350	350	350	
Averaging time (days)	25550	25550	25550	25550	25550	25550	25550	25550	25550	25550	25550	25550	25550	25550	25550	
CPF (milligrams/kg-day)	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	
Unit Risk Factor (ug/m ³) ¹	13.60	164.25	164.25	38.92	38.92	38.92	38.92	38.92	38.92	38.92	235.75	3.69	3.69	44.22	126.80	

Maximum DPM Concentration (ug/m3)

	2023																
	X	Y	3rd Trimester	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032-2038	2039	2040	2041-2052	2053-2092
758610.13	4097186.34	3.4400E-03	3.4400E-03	3.4400E-03	3.4400E-03	3.4400E-03	3.4400E-03	3.4400E-03	3.4400E-03	3.4400E-03	3.4400E-03	3.4400E-03	3.4400E-03	3.4400E-03	3.4400E-03	3.4400E-03	3.4400E-03

Origo Cold Madera Project Total DPM MER UTM: 758610.13, 4097186.34

Annual Risk (risk/million)

	2023																Total	
	X	Y	3rd Trimester	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032-2038	2039	2040	2041-2052	2053-2092	Total
758610.13	4097186.34	0.0468	0.5650	0.5650	0.1339	0.1339	0.1339	0.1339	0.1339	0.1339	0.1339	0.1339	0.8110	0.0127	0.0127	0.1521	0.4362	3.5387

Origo Cold Madera Temperature Controlled Storage Facility—Total DPM

70-year Lifetime Cancer Risk—DPM Operations

Origo Cold Madera Project Total DPM MER UTM: 758610.13, 4097186.34

Cancer Risk at MER from

DPM

3.54

Threshold of Significance

20

Exceeds threshold?

No

Estimates of Chronic Non-Cancer Hazard Index (CNCHI)

Unmitigated

Chronic Non-Cancer Hazard Index at the MIR

Origo Cold Madera Project Total DPM MER UTM: 758610.13, 4097186.34

Reference Exposure Level (REL) for DPM: 5 ug/m³

CNCHI = DPM/REL

X	Y	Maximum Annual	
(m)	(m)	Average DPM	CNCHI
		(ug/m³)	
758610.13	4097186.34	0.003440	0.000688

Chronic
Non-Cancer Hazard Index

0.000688

Threshold of Significance

1

Exceeds threshold?

No

Origo Cold Madera Temperature Controlled Storage Facility

Concentrations from Total Project-generated DPM Emissions

Maximum
DPM 0.00344

UTM
X Y Latitude/Longitude
758610.13 4097186.34 36° 59.117'N, 120° 5.663'W

- * AERMOD (21112): G:\Mad HRA\Op DPM\Op DPM.isc 2/7/2022
- * AERMET (18081): 8:39:55 AM
- * MODELING OPTIONS USED: Reg DFAULT CONC ELEV FLGPOL URBAN ADJ_U*
- * PLOT FILE OF ANNUAL VALUES AVERAGED ACROSS 3 YEARS FOR SOURCE GROUP: ALL
- * FOR A TOTAL OF 241 RECEPTORS.
- * FORMAT: (3(1X,F13.5),3(1X,F8.2),2X,A6,2X,A8,2X,I8.8,2X,A8)

X	Y	AVERAGE CONC	ZELEV	ZHILL	ZFLAG	AVE	GRP	NUM YRS	NET ID
758978.10	4097552.93	0.0006	81.52	81.52	1.5	ANNUAL	ALL	3	
758961.76	4097587.59	0.00056	81.54	81.54	1.5	ANNUAL	ALL	3	
759027.14	4097557.23	0.00053	81.62	81.62	1.5	ANNUAL	ALL	3	
759008.98	4097595.73	0.0005	81.53	81.53	1.5	ANNUAL	ALL	3	
759037.23	4097516.65	0.00058	81.98	81.98	1.5	ANNUAL	ALL	3	
759077.25	4097559.25	0.00048	82.24	82.24	1.5	ANNUAL	ALL	3	
759059.42	4097597.06	0.00045	81.88	81.88	1.5	ANNUAL	ALL	3	
759087.18	4097519.02	0.00052	82.32	82.32	1.5	ANNUAL	ALL	3	
759089.20	4097476.37	0.00059	82.09	82.09	1.5	ANNUAL	ALL	3	
759177.33	4097563.58	0.0004	83.01	83.01	1.5	ANNUAL	ALL	3	
759159.90	4097600.54	0.00038	82.87	82.87	1.5	ANNUAL	ALL	3	
759187.06	4097523.77	0.00043	82.76	82.76	1.5	ANNUAL	ALL	3	
759189.09	4097481.11	0.00047	82.29	82.29	1.5	ANNUAL	ALL	3	
759276.86	4097569.09	0.00034	82.6	82.6	1.5	ANNUAL	ALL	3	
759258.70	4097607.60	0.00032	82.65	82.65	1.5	ANNUAL	ALL	3	
759240.53	4097646.11	0.00031	82.64	82.64	1.5	ANNUAL	ALL	3	
759222.37	4097684.61	0.00029	82.62	82.62	1.5	ANNUAL	ALL	3	
759204.21	4097723.12	0.00028	81.98	81.98	1.5	ANNUAL	ALL	3	
759286.95	4097528.51	0.00036	82.54	82.54	1.5	ANNUAL	ALL	3	
759288.98	4097485.86	0.00039	82.38	82.38	1.5	ANNUAL	ALL	3	
759376.91	4097573.49	0.00029	82.52	82.52	1.5	ANNUAL	ALL	3	
759359.08	4097611.30	0.00028	82.54	82.54	1.5	ANNUAL	ALL	3	
759341.25	4097649.10	0.00027	82.58	82.58	1.5	ANNUAL	ALL	3	
759323.42	4097686.91	0.00026	82.69	82.69	1.5	ANNUAL	ALL	3	
759305.59	4097724.71	0.00025	82.89	82.89	1.5	ANNUAL	ALL	3	
759287.76	4097762.52	0.00024	82.57	82.57	1.5	ANNUAL	ALL	3	
759269.92	4097800.33	0.00023	82.1	82.1	1.5	ANNUAL	ALL	3	
759252.09	4097838.13	0.00023	81.61	81.61	1.5	ANNUAL	ALL	3	
759234.26	4097875.94	0.00022	81.58	81.58	1.5	ANNUAL	ALL	3	
759216.43	4097913.74	0.00021	82.08	82.08	1.5	ANNUAL	ALL	3	
759198.60	4097951.55	0.00021	82.67	82.67	1.5	ANNUAL	ALL	3	
759386.84	4097533.26	0.00031	82.49	82.49	1.5	ANNUAL	ALL	3	
759388.86	4097490.61	0.00033	82.43	82.43	1.5	ANNUAL	ALL	3	
759476.91	4097577.99	0.00025	82.81	82.81	1.5	ANNUAL	ALL	3	
759459.31	4097615.31	0.00024	82.83	82.83	1.5	ANNUAL	ALL	3	
759441.71	4097652.64	0.00023	82.81	82.81	1.5	ANNUAL	ALL	3	
759424.10	4097689.96	0.00022	82.71	82.71	1.5	ANNUAL	ALL	3	
759406.50	4097727.28	0.00022	82.58	82.58	1.5	ANNUAL	ALL	3	
759388.90	4097764.60	0.00021	82.41	82.41	1.5	ANNUAL	ALL	3	
759371.30	4097801.92	0.00021	82.2	82.2	1.5	ANNUAL	ALL	3	
759353.70	4097839.24	0.0002	81.92	81.92	1.5	ANNUAL	ALL	3	
759336.09	4097876.56	0.0002	81.65	81.65	1.5	ANNUAL	ALL	3	
759318.49	4097913.89	0.00019	82.02	82.02	1.5	ANNUAL	ALL	3	

759300.89	4097951.21	0.00019	82.49	82.49	1.5	ANNUAL	ALL	3
759283.29	4097988.53	0.00018	82.98	82.98	1.5	ANNUAL	ALL	3
759265.69	4098025.85	0.00018	83.55	83.55	1.5	ANNUAL	ALL	3
759486.72	4097538.01	0.00026	82.73	82.73	1.5	ANNUAL	ALL	3
759488.75	4097495.35	0.00029	82.78	82.78	1.5	ANNUAL	ALL	3
759078.88	4097448.71	0.00065	81.84	81.84	1.5	ANNUAL	ALL	3
758641.55	4097162.13	0.00302	79.94	79.94	1.5	ANNUAL	ALL	3
758611.95	4097162.13	0.00311	79.94	79.94	1.5	ANNUAL	ALL	3
759000.07	4097152.28	0.00145	80.5	80.5	1.5	ANNUAL	ALL	3
759026.38	4097163.54	0.00136	80.56	80.56	1.5	ANNUAL	ALL	3
759052.70	4097174.81	0.00127	80.6	80.6	1.5	ANNUAL	ALL	3
759089.02	4097212.90	0.00111	80.97	80.97	1.5	ANNUAL	ALL	3
759159.07	4097400.65	0.00062	81.69	81.69	1.5	ANNUAL	ALL	3
759169.08	4097427.47	0.00057	81.83	81.83	1.5	ANNUAL	ALL	3
759179.08	4097454.29	0.00052	82.02	82.02	1.5	ANNUAL	ALL	3
758641.55	4097062.13	0.00202	79.92	79.92	1.5	ANNUAL	ALL	3
758611.95	4097062.13	0.002	79.93	79.93	1.5	ANNUAL	ALL	3
759230.01	4097327.81	0.00064	81.66	81.66	1.5	ANNUAL	ALL	3
759239.84	4097354.15	0.00059	81.74	81.74	1.5	ANNUAL	ALL	3
759249.67	4097380.49	0.00054	81.84	81.84	1.5	ANNUAL	ALL	3
759259.49	4097406.83	0.0005	81.96	81.96	1.5	ANNUAL	ALL	3
759269.32	4097433.18	0.00046	82.1	82.1	1.5	ANNUAL	ALL	3
759279.15	4097459.52	0.00042	82.26	82.26	1.5	ANNUAL	ALL	3
758789.54	4096962.13	0.00142	79.97	79.97	1.5	ANNUAL	ALL	3
758759.94	4096962.13	0.00142	79.94	79.94	1.5	ANNUAL	ALL	3
758730.34	4096962.13	0.00141	79.92	79.92	1.5	ANNUAL	ALL	3
758700.75	4096962.13	0.0014	79.92	79.92	1.5	ANNUAL	ALL	3
758671.15	4096962.13	0.00137	79.93	79.93	1.5	ANNUAL	ALL	3
758641.55	4096962.13	0.00134	79.92	79.92	1.5	ANNUAL	ALL	3
758611.95	4096962.13	0.0013	79.93	79.93	1.5	ANNUAL	ALL	3
758816.68	4096873.75	0.00109	79.86	79.86	1.5	ANNUAL	ALL	3
758843.82	4096885.37	0.00113	79.82	79.82	1.5	ANNUAL	ALL	3
758870.96	4096896.99	0.00116	79.81	79.81	1.5	ANNUAL	ALL	3
759115.20	4097001.57	0.00112	80.03	80.03	1.5	ANNUAL	ALL	3
759142.34	4097013.20	0.00108	80.06	80.06	1.5	ANNUAL	ALL	3
759169.48	4097024.82	0.00104	80.13	80.13	1.5	ANNUAL	ALL	3
759196.62	4097036.44	0.00099	80.24	80.24	1.5	ANNUAL	ALL	3
759234.07	4097075.72	0.00092	80.67	80.67	1.5	ANNUAL	ALL	3
759244.39	4097103.38	0.00089	80.89	80.89	1.5	ANNUAL	ALL	3
759347.59	4097379.97	0.00045	82.01	82.01	1.5	ANNUAL	ALL	3
759357.91	4097407.63	0.00042	82.11	82.11	1.5	ANNUAL	ALL	3
759368.23	4097435.29	0.00039	82.23	82.23	1.5	ANNUAL	ALL	3
759378.54	4097462.95	0.00036	82.33	82.33	1.5	ANNUAL	ALL	3
758789.54	4096862.13	0.00104	79.89	79.89	1.5	ANNUAL	ALL	3
758759.94	4096862.13	0.00102	79.93	79.93	1.5	ANNUAL	ALL	3
758730.34	4096862.13	0.001	79.93	79.93	1.5	ANNUAL	ALL	3
758700.75	4096862.13	0.00098	79.93	79.93	1.5	ANNUAL	ALL	3
758671.15	4096862.13	0.00095	79.94	79.94	1.5	ANNUAL	ALL	3
758641.55	4096862.13	0.00092	79.95	79.95	1.5	ANNUAL	ALL	3
758611.95	4096862.13	0.00088	79.95	79.95	1.5	ANNUAL	ALL	3
758582.35	4096862.13	0.00085	79.95	79.95	1.5	ANNUAL	ALL	3
758552.76	4096862.13	0.00082	79.95	79.95	1.5	ANNUAL	ALL	3
758523.16	4096862.13	0.00079	79.96	79.96	1.5	ANNUAL	ALL	3
758493.56	4096862.13	0.00076	79.96	79.96	1.5	ANNUAL	ALL	3
758463.96	4096862.13	0.00074	79.96	79.96	1.5	ANNUAL	ALL	3
758434.37	4096862.13	0.00072	79.96	79.96	1.5	ANNUAL	ALL	3
758816.20	4096773.55	0.00081	79.37	79.37	1.5	ANNUAL	ALL	3
758842.86	4096784.96	0.00085	79.78	79.78	1.5	ANNUAL	ALL	3
758869.53	4096796.38	0.00088	79.96	79.96	1.5	ANNUAL	ALL	3
758896.19	4096807.80	0.00092	79.95	79.95	1.5	ANNUAL	ALL	3
758922.85	4096819.21	0.00095	79.94	79.94	1.5	ANNUAL	ALL	3

758949.51	4096830.63	0.00097	79.93	79.93	1.5	ANNUAL	ALL	3
758976.18	4096842.05	0.00099	79.96	79.96	1.5	ANNUAL	ALL	3
759002.84	4096853.46	0.001	80.06	80.06	1.5	ANNUAL	ALL	3
759029.50	4096864.88	0.00101	80.16	80.16	1.5	ANNUAL	ALL	3
759056.16	4096876.30	0.00102	80.25	80.25	1.5	ANNUAL	ALL	3
759082.83	4096887.71	0.00102	80.34	80.34	1.5	ANNUAL	ALL	3
759109.49	4096899.13	0.00101	80.4	80.4	1.5	ANNUAL	ALL	3
759136.15	4096910.54	0.001	80.43	80.43	1.5	ANNUAL	ALL	3
759162.81	4096921.96	0.00098	80.48	80.48	1.5	ANNUAL	ALL	3
759189.48	4096933.38	0.00096	80.55	80.55	1.5	ANNUAL	ALL	3
759216.14	4096944.79	0.00093	80.62	80.62	1.5	ANNUAL	ALL	3
759242.80	4096956.21	0.00091	80.71	80.71	1.5	ANNUAL	ALL	3
759269.46	4096967.63	0.00088	80.81	80.81	1.5	ANNUAL	ALL	3
759306.26	4097006.22	0.00083	81.07	81.07	1.5	ANNUAL	ALL	3
759316.40	4097033.39	0.00081	81.17	81.17	1.5	ANNUAL	ALL	3
759326.54	4097060.57	0.00079	81.28	81.28	1.5	ANNUAL	ALL	3
759336.68	4097087.74	0.00076	81.4	81.4	1.5	ANNUAL	ALL	3
759346.82	4097114.91	0.00072	81.48	81.48	1.5	ANNUAL	ALL	3
759356.95	4097142.09	0.00069	81.48	81.48	1.5	ANNUAL	ALL	3
759367.09	4097169.26	0.00065	81.5	81.5	1.5	ANNUAL	ALL	3
759377.23	4097196.44	0.00061	81.5	81.5	1.5	ANNUAL	ALL	3
759387.37	4097223.61	0.00058	81.51	81.51	1.5	ANNUAL	ALL	3
759397.51	4097250.79	0.00054	81.54	81.54	1.5	ANNUAL	ALL	3
759407.65	4097277.96	0.0005	81.65	81.65	1.5	ANNUAL	ALL	3
759417.78	4097305.13	0.00047	81.77	81.77	1.5	ANNUAL	ALL	3
759427.92	4097332.31	0.00043	81.89	81.89	1.5	ANNUAL	ALL	3
759438.06	4097359.48	0.0004	82.05	82.05	1.5	ANNUAL	ALL	3
759448.20	4097386.66	0.00038	82.25	82.25	1.5	ANNUAL	ALL	3
759458.34	4097413.83	0.00035	82.47	82.47	1.5	ANNUAL	ALL	3
759468.47	4097441.00	0.00033	82.65	82.65	1.5	ANNUAL	ALL	3
759478.61	4097468.18	0.0003	82.77	82.77	1.5	ANNUAL	ALL	3
758789.54	4096762.13	0.00077	79.41	79.41	1.5	ANNUAL	ALL	3
758759.94	4096762.13	0.00075	79.37	79.37	1.5	ANNUAL	ALL	3
758730.34	4096762.13	0.00073	79.6	79.6	1.5	ANNUAL	ALL	3
758700.75	4096762.13	0.00071	79.77	79.77	1.5	ANNUAL	ALL	3
758671.15	4096762.13	0.00068	79.85	79.85	1.5	ANNUAL	ALL	3
758641.55	4096762.13	0.00066	79.93	79.93	1.5	ANNUAL	ALL	3
758611.95	4096762.13	0.00064	79.96	79.96	1.5	ANNUAL	ALL	3
758582.35	4096762.13	0.00062	79.96	79.96	1.5	ANNUAL	ALL	3
758552.76	4096762.13	0.0006	79.96	79.96	1.5	ANNUAL	ALL	3
758523.16	4096762.13	0.00058	79.96	79.96	1.5	ANNUAL	ALL	3
758493.56	4096762.13	0.00057	79.95	79.95	1.5	ANNUAL	ALL	3
758463.96	4096762.13	0.00056	79.94	79.94	1.5	ANNUAL	ALL	3
758434.37	4096762.13	0.00054	79.94	79.94	1.5	ANNUAL	ALL	3
758461.85	4097631.87	0.00219	81.48	81.48	1.5	ANNUAL	ALL	3
758484.26	4097631.06	0.00199	81.58	81.58	1.5	ANNUAL	ALL	3
758509.51	4097628.20	0.00181	81.61	81.61	1.5	ANNUAL	ALL	3
758518.88	4097688.90	0.00134	81.87	81.87	1.5	ANNUAL	ALL	3
758486.70	4097691.65	0.00148	81.95	81.95	1.5	ANNUAL	ALL	3
758496.07	4097675.76	0.00154	81.84	81.84	1.5	ANNUAL	ALL	3
758525.81	4097675.76	0.00138	81.81	81.81	1.5	ANNUAL	ALL	3
758551.06	4097688.79	0.00121	81.86	81.86	1.5	ANNUAL	ALL	3
758580.80	4097688.79	0.0011	81.69	81.69	1.5	ANNUAL	ALL	3
758859.30	4098040.89	0.00028	83.41	83.41	1.5	ANNUAL	ALL	3
758833.46	4098050.87	0.00029	83.45	83.45	1.5	ANNUAL	ALL	3
758807.61	4098060.85	0.00029	83.43	83.43	1.5	ANNUAL	ALL	3
758781.77	4098070.83	0.00029	83.37	83.37	1.5	ANNUAL	ALL	3
759082.22	4098054.83	0.00021	82.69	82.69	1.5	ANNUAL	ALL	3
759057.02	4098064.56	0.00021	82.76	82.76	1.5	ANNUAL	ALL	3
759031.82	4098074.29	0.00022	82.92	82.92	1.5	ANNUAL	ALL	3
759006.62	4098084.02	0.00022	83.05	83.05	1.5	ANNUAL	ALL	3

758981.42	4098093.75	0.00022	83.13	83.13	1.5	ANNUAL	ALL	3
758956.22	4098103.47	0.00023	83.2	83.2	1.5	ANNUAL	ALL	3
758931.02	4098113.20	0.00023	83.3	83.3	1.5	ANNUAL	ALL	3
758905.82	4098122.93	0.00023	83.43	83.43	1.5	ANNUAL	ALL	3
758880.62	4098132.66	0.00024	83.52	83.52	1.5	ANNUAL	ALL	3
758855.43	4098142.39	0.00024	83.59	83.59	1.5	ANNUAL	ALL	3
758805.03	4098161.85	0.00025	83.66	83.66	1.5	ANNUAL	ALL	3
758779.83	4098171.57	0.00025	83.68	83.68	1.5	ANNUAL	ALL	3
759107.42	4098045.10	0.00021	82.81	82.81	1.5	ANNUAL	ALL	3
759149.86	4098128.72	0.00018	83.52	83.52	1.5	ANNUAL	ALL	3
759100.34	4098147.83	0.00018	83.19	83.19	1.5	ANNUAL	ALL	3
759050.83	4098166.95	0.00019	83.03	83.03	1.5	ANNUAL	ALL	3
759001.32	4098186.07	0.00019	83.17	83.17	1.5	ANNUAL	ALL	3
758951.80	4098205.18	0.0002	83.44	83.44	1.5	ANNUAL	ALL	3
758902.29	4098224.30	0.0002	83.66	83.66	1.5	ANNUAL	ALL	3
758852.77	4098243.41	0.00021	83.79	83.79	1.5	ANNUAL	ALL	3
758803.26	4098262.53	0.00021	83.92	83.92	1.5	ANNUAL	ALL	3
759195.18	4098100.50	0.00018	83.96	83.96	1.5	ANNUAL	ALL	3
759215.75	4098081.83	0.00018	84.11	84.11	1.5	ANNUAL	ALL	3
759236.32	4098063.17	0.00018	84.06	84.06	1.5	ANNUAL	ALL	3
759376.59	4096404.89	0.00042	80.05	80.05	1.5	ANNUAL	ALL	3
759346.99	4096404.89	0.00042	80.01	80.01	1.5	ANNUAL	ALL	3
759317.39	4096404.89	0.00042	79.93	79.93	1.5	ANNUAL	ALL	3
759287.80	4096404.89	0.00042	79.86	79.86	1.5	ANNUAL	ALL	3
759258.20	4096404.89	0.00041	79.77	79.77	1.5	ANNUAL	ALL	3
759202.57	4096445.56	0.00044	79.58	79.58	1.5	ANNUAL	ALL	3
759172.98	4096445.56	0.00044	79.51	79.51	1.5	ANNUAL	ALL	3
759143.38	4096445.56	0.00043	79.45	79.45	1.5	ANNUAL	ALL	3
759113.78	4096445.56	0.00043	79.4	79.4	1.5	ANNUAL	ALL	3
759084.18	4096445.56	0.00042	79.35	79.35	1.5	ANNUAL	ALL	3
759054.58	4096445.56	0.00042	79.29	79.29	1.5	ANNUAL	ALL	3
759024.99	4096445.56	0.00041	79.22	79.22	1.5	ANNUAL	ALL	3
758995.39	4096445.56	0.0004	79.16	79.16	1.5	ANNUAL	ALL	3
758965.79	4096445.56	0.0004	79.08	79.08	1.5	ANNUAL	ALL	3
758936.19	4096445.56	0.00039	78.99	78.99	1.5	ANNUAL	ALL	3
758906.59	4096445.56	0.00038	78.9	78.9	1.5	ANNUAL	ALL	3
758877.00	4096445.56	0.00037	78.82	78.82	1.5	ANNUAL	ALL	3
758847.40	4096445.56	0.00036	78.73	78.73	1.5	ANNUAL	ALL	3
759249.26	4096737.57	0.00072	79.88	79.88	1.5	ANNUAL	ALL	3
759275.92	4096748.98	0.00072	79.93	79.93	1.5	ANNUAL	ALL	3
759302.59	4096760.40	0.00072	79.99	79.99	1.5	ANNUAL	ALL	3
759329.25	4096771.82	0.00071	79.99	79.99	1.5	ANNUAL	ALL	3
759265.85	4096857.86	0.00082	80.58	80.58	1.5	ANNUAL	ALL	3
759292.51	4096869.27	0.00081	80.79	80.79	1.5	ANNUAL	ALL	3
759319.18	4096880.69	0.00079	81.02	81.02	1.5	ANNUAL	ALL	3
759345.84	4096892.11	0.00077	81.24	81.24	1.5	ANNUAL	ALL	3
759334.98	4096707.15	0.00066	79.81	79.81	1.5	ANNUAL	ALL	3
759361.65	4096718.57	0.00065	79.83	79.83	1.5	ANNUAL	ALL	3
759388.31	4096729.98	0.00065	79.86	79.86	1.5	ANNUAL	ALL	3
759414.97	4096741.40	0.00064	79.89	79.89	1.5	ANNUAL	ALL	3
759025.28	4096694.71	0.00071	79.74	79.74	1.5	ANNUAL	ALL	3
759031.20	4096728.25	0.00076	79.82	79.82	1.5	ANNUAL	ALL	3
759057.86	4096739.66	0.00078	79.86	79.86	1.5	ANNUAL	ALL	3
759084.52	4096751.08	0.00079	79.86	79.86	1.5	ANNUAL	ALL	3
759061.22	4096647.70	0.00064	79.61	79.61	1.5	ANNUAL	ALL	3
759087.89	4096659.11	0.00066	79.64	79.64	1.5	ANNUAL	ALL	3
759114.55	4096670.53	0.00067	79.66	79.66	1.5	ANNUAL	ALL	3
759141.21	4096681.95	0.00068	79.7	79.7	1.5	ANNUAL	ALL	3
759135.89	4096593.77	0.00058	79.53	79.53	1.5	ANNUAL	ALL	3
759162.55	4096605.19	0.00059	79.56	79.56	1.5	ANNUAL	ALL	3
759189.21	4096616.61	0.0006	79.6	79.6	1.5	ANNUAL	ALL	3

Appendix B

CHRIS Record Search Results

Prepared by SSJVIC dated October 22, 2021.



To: Shin Tu
Precision Civil Engineering
1234 O Street
Fresno, CA 93721

Record Search 21-404

Date: October 22, 2021

Re: Amond World Conditioned Storage Facility

County: Madera

Map(s): Madera 7.5'

CULTURAL RESOURCES RECORDS SEARCH

The California Office of Historic Preservation (OHP) contracts with the California Historical Resources Information System's (CHRIS) regional Information Centers (ICs) to maintain information in the CHRIS inventory and make it available to local, state, and federal agencies, cultural resource professionals, Native American tribes, researchers, and the public. Recommendations made by IC coordinators or their staff regarding the interpretation and application of this information are advisory only. Such recommendations do not necessarily represent the evaluation or opinion of the State Historic Preservation Officer in carrying out the OHP's regulatory authority under federal and state law.

The following are the results of a search of the cultural resource files at the Southern San Joaquin Valley Information Center. These files include known and recorded cultural resources sites, inventory and excavation reports filed with this office, and resources listed on the National Register of Historic Places, the OHP Built Environment Resources Directory, California State Historical Landmarks, California Register of Historical Resources, California Inventory of Historic Resources, and California Points of Historical Interest. Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the OHP are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area.

PRIOR CULTURAL RESOURCE STUDIES CONDUCTED WITHIN THE PROJECT AREA AND THE ONE-HALF MILE RADIUS

According to the information in our files, there has been no cultural resource studies in the Project Area. There are seven cultural resource studies that fall in the one-half mile radius, MA-00083, 00309, 00932, 01002, 01026, 01101, 01217.

KNOWN/RECORDED CULTURAL RESOURCES WITHIN THE PROJECT AREA AND THE ONE-HALF MILE RADIUS

There are no recorded resources within the project area. There is one cultural resource in the one-half mile radius, P-20-002308, the Madera Canal.

There are no recorded cultural resources within the project area or radius that are listed in the National Register of Historic Places, the California Register of Historical Resources, the California Points of Historical Interest, California Inventory of Historic Resources, or the California State Historic Landmarks.

COMMENTS AND RECOMMENDATIONS

We understand the existing project area is vacant with no improvements, structures, or vegetation. Because no previous cultural studies have been completed in the project area, prior to ground disturbance activities we recommend a qualified, professional consultant conduct a field survey to determine if cultural resources are present. A list of qualified consultants can be found at www.chrisinfo.org.

We also recommend that you contact the Native American Heritage Commission in Sacramento. They will provide you with a current list of Native American individuals/organizations that can assist you with information regarding cultural resources that may not be included in the CHRIS Inventory and that may be of concern to the Native groups in the area. The Commission can consult their "Sacred Lands Inventory" file to determine what sacred resources, if any, exist within this project area and the way in which these resources might be managed. Finally, please consult with the lead agency on this project to determine if any other cultural resource investigation is required. If you need any additional information or have any questions or concerns, please contact our office at (661) 654-2289.

By:



Jeremy E David, Assistant Coordinator

Date: October 22, 2021

Please note that invoices for Information Center services will be sent under separate cover from the California State University, Bakersfield Accounting Office.

Appendix C

Environmental Noise Assessment

Prepared by WJV Acoustics on January 24, 2022.

ENVIRONMENTAL NOISE ASSESSMENT

**ORIGO COLD MADERA
MADERA CALIFORNIA**

WJVA Report No. 22-06

PREPARED FOR

**VR DESIGN, INC.
231 MARKET PLACE #225
SAN RAMON, CALIFORNIA 94582**

PREPARED BY

**WJV ACOUSTICS, INC.
VISALIA, CALIFORNIA**



wjb acoustics

JANUARY 24, 2022

1. INTRODUCTION

Project Description

The proposed Project includes a Site Plan Review Application to facilitate the development of a refrigerated warehouse and storage facility for agricultural nut products. The Project would consist of two (2) phases to occupy two (2) parcels that total 30.16 acres located on the westside of Golden State Boulevard between Avenue 16 and Avenue 17 in Madera, CA. Phase I involves the construction of an approximately 254,016-sf. refrigerated warehouse and storage facility on the parcel identified as APN 013-200-005 and would include a 235,200-sf. warehouse with refrigerated storage area and tempering room, a 12,824-sf. enclosed drive-in truck unloading area, 2,128-sf. shipping office, and 4,000-sf. administrative office. Phase II would include a 250,000-sf. warehouse and storage facility on the adjoining parcel to the east identified as APN 013-200-004 and would include a ground mount solar PV array. An on-site stormwater retention basin is proposed to be constructed under Phase I and would be sized to accommodate total buildout of the Project. The project site plan is provided as Figure 1.

Environmental Noise Assessment

This environmental noise assessment has been prepared to determine if significant noise impacts would be produced by the project and to describe mitigation measures for noise if significant impacts are determined. The environmental noise assessment, prepared by WJV Acoustics, Inc. (WJVA), is based upon the project site plan prepared by VR Design (dated 7/30/21), project-related equipment and noise level data provided by the project applicant and the findings of on-site noise level measurements conducted by WJVA. Revisions to the site plan, project-related equipment and noise level data or other project-related information available to WJVA at the time the analysis was prepared may require a reevaluation of the findings and/or recommendations of the report.

Appendix A provides definitions of the acoustical terminology used in this report. Unless otherwise stated, all sound levels reported in this analysis are A-weighted sound pressure levels in decibels (dB). A-weighting de-emphasizes the very low and very high frequencies of sound in a manner similar to the human ear. Most community noise standards utilize A-weighted sound levels, as they correlate well with public reaction to noise. Appendix B provides typical A-weighted sound levels for common noise sources.

In terms of human perception, a 5 dB increase or decrease is considered to be a noticeable change in noise levels. Additionally, a 10 dB increase or decrease is perceived by the human ear as half as loud or twice as loud. In terms of perception, generally speaking the human ear cannot perceive an increase (or decrease) in noise levels less than 3 dB.

2. THRESHOLDS OF SIGNIFICANCE

The CEQA Guidelines apply the following questions for the assessment of significant noise impacts for a project:

- a. Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
- b. Would the project result in generation of excessive groundborne vibration or groundborne noise levels?
- c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

a. **Noise Level Standards**

City of Madera

General Plan

The Noise Element of the City of Madera General Plan¹ (Noise Element) establishes noise level compatibility standards in terms of the Day-Night Average Level (L_{dn}) or Community Noise Equivalent Level (CNEL). Both the L_{dn} and CNEL represent the time-weighted energy average noise level for a 24-hour day, with a 10 dB penalty added to noise levels occurring during the nighttime hours (10:00 p.m.-7:00 a.m.). The CNEL includes an additional penalty of 5 dB (technically 4.77 dB) that is added to noise levels occurring during the evening hours between 7:00 p.m. and 10:00 p.m. Both the L_{dn} and CNEL represent cumulative exposure to noise over an extended period of time and are therefore calculated based upon *annual average* conditions. The L_{dn} and CNEL are considered to be equivalent descriptors of the community noise environment for the purposes of this study. Table I provides the City of Madera noise level standards for transportation noise sources.

For transportation noise sources, the Noise Element establishes an exterior noise exposure of less than 60 dBA L_{dn} as “completely compatible”, an exterior noise exposure of 60-70 dBA L_{dn} as “tentatively compatible”, an exterior noise exposure of 70-75 dBA L_{dn} as “normally incompatible” and an exterior noise exposure exceeding 75 dB L_{dn} as “completely incompatible”. Exterior noise level standards are typically applied to individual outdoor activity areas. Outdoor activity areas generally include backyards of single-family residences, individual patios or decks of multi-family developments and common outdoor recreation areas of multi-family developments. The intent of the exterior noise level requirement is to provide an acceptable noise environment for outdoor activities and recreation.

- “Completely Compatible” means that the specified land use is satisfactory and both the indoor and outdoor environments are pleasant.

- “Tentatively Compatible” means that noise exposure may be of concern, but common building construction practices will make the indoor living environment acceptable, even for sleeping quarters, and outdoor activities will not be unduly disturbed by noise.
- “Normally Incompatible” means that noise exposure warrants special attention, and new construction or development should generally be undertaken only after a detailed analysis of noise reduction requirements is made and needed noise insulation features are included in the design. Careful site planning or exterior barriers may be needed to make the outdoor environment tolerable.
- “Completely Incompatible” means that the noise exposure is so severe that new construction or development should generally not be undertaken.

TABLE I: EXTERIOR NOISE COMPATIBILITY GUIDELINES FOR NOISE FROM ALL SOURCES, INCLUDING TRANSPORTATION NOISE (24-HOUR DAY-NIGHT AVERAGE [CNEL/Ldn])

Land Use Designations	Completely Compatible	Tentatively Compatible	Normally Incompatible	Completely Incompatible
All Residential (Single- and Multi-Family)	Less than 60 dBA	60-70 dBA	70-75 dBA	Greater than 75 dBA
All Commercial	Less than 70 dBA	70-75 dBA	Greater than 75 dBA	(1)
Public Parks (Lands designated as Open Space on which public parks are located or planned)	Less than 65 dBA	65-70 dBA	70-75 dBA	Greater than 75 dBA

(1) No “Completely Incompatible” category is shown for commercial uses because not all commercial uses are incompatible with noisy environments. The City may determine as part of the review of individual development proposals that some types of commercial uses are incompatible with noise environments in excess of 75 dBA CNEL.

Additionally, the Noise Element requires that interior noise levels attributable to exterior transportation noise sources not exceed 45 dB L_{dn}. The intent of the interior noise level standard is to provide an acceptable noise environment for indoor communication and sleep.

The following are the City’s standards for maximum exterior non-transportation noise levels to which land designated for residential land uses may be exposed for any 30-minute period on any day.

- Where existing ambient noise levels exceed these standards, the ambient noise level shall be highest allowable noise level as measured in dBA L_{eq} (30 minutes).

- The noise levels specified (below in Table II) shall be lowered by 5 dB for simple tonal noises (such as humming sounds), noises consisting primarily of speech or music, or for recurring impulsive noises (such as pile drivers, punch presses, and similar machinery). Example: The Single Family/Duplex standard from 10 p.m. to 7 a.m. for these types of noises is 45 dBA.

**TABLE II: EXTERIOR NOISE LEVEL STANDARDS
FOR NON-TRANSPORTATION NOISE, MEASURED AS dBA Leq (30
MINUTES)**

Land Use Type	Time Period	Maximum Noise Level (dBA)
Single-Family Homes and Duplexes	10 p.m. to 7 a.m.	50
	7 a.m. to 10 p.m.	60
Multiple Residential 3 or More Units Per Building (Triplex +)	10 p.m. to 7 a.m.	55
	7 a.m. to 10 p.m.	60

State of California

There are no state noise standards that are applicable to the project.

Federal Noise Standards

There are no federal noise standards that are applicable to the project.

b. Construction Noise and Vibration

Section 3-11.02(B) of the City of Madera Municipal Code² (Specific Noise Prohibitions) limits hours of noise-producing construction activities to between the hours of 6:00 a.m. and 8:00 p.m., daily.

There are no City of Madera Vibration level standards. Some guidance is provided by the Caltrans Transportation and Construction Vibration Guidance Manual³. The Manual provides guidance for determining annoyance potential criteria and damage potential threshold criteria. These criteria are provided below in Table III and Table IV, and are presented in terms of peak particle velocity (PPV) in inches per second (in/sec).

TABLE III
GUIDELINE VIBRATION ANNOYANCE POTENTIAL CRITERIA

Human Response	Maximum PPV (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Barely Perceptible	0.04	0.01
Distinctly Perceptible	0.25	0.04
Strongly Perceptible	0.9	0.1
Severe	2.0	0.4

Source: Caltrans

TABLE IV
GUIDELINE VIBRATION DAMAGE POTENTIAL THRESHOLD CRITERIA

Structure and Condition	Maximum PPV (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile, historic buildings, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

Source: Caltrans

3. SETTING

The proposed Project is located in the northwestern area of the city of Madera, California on the westside of Golden State Boulevard between Avenue 16 and Avenue 17. The site consists of two (2) parcels identified as Madera County Assessor Parcel Numbers (APNs) 013-200-004 and 013-200-005 totaling approximately 30.16 acres.

The project site is predominantly surrounded by industrial and commercial land uses, as well as the Madera Municipal Airport (located approximately ½ mile west of the project site). There are existing residential land uses located approximately ½ mile southeast of the project site (Country Living Mobile Home & RV Park) and approximately ¼ mile northeast of the project site (single family residential).

a. Background Noise Level Measurements

Existing noise levels in the project vicinity are dominated by noise associated with vehicle traffic on California State Route 99 (SR 99) as well as nearby local roadways (Falcon Drive, Condor Drive, Aviation Drive, etc.). Additional sources of noise observed during site inspection included noise associated with aircraft overflights (Madera Municipal Airport) and nearby construction activities.

Measurements of existing ambient noise levels in the project vicinity were conducted on December 12, 2021. Long-term (24-hour) ambient noise level measurements were conducted at two (2) locations (site LT-1 and site LT-2). Long-term ambient noise measurement site LT-1 was located in the vicinity of the project site. The location of LT-1 was selected as a long-term noise monitoring site as it represents noise levels that would be representative of the existing sensitive receptors located southeast of the project site (RV Park) and provided a location to secure the noise meter. Long-term ambient noise measurements site LT-2 was located in the vicinity of the project site, near existing single-family residential land uses located north of the project site. Short term (15-minute) ambient noise measurements were conducted at two (2) additional sites (ST-1 and ST-2), in the vicinity of existing residential land uses. The locations of the noise measurement sites are provided on Figure 2.

Noise monitoring equipment consisted of a Larson-Davis Laboratories Model LDL-820 sound level analyzer equipped with a B&K Type 4176 1/2" microphone. The equipment complies with the specifications of the American National Standards Institute (ANSI) for Type I (Precision) sound level meters. The meter was calibrated with a B&K Type 4230 acoustic calibrator to ensure the accuracy of the measurements.

Measured hourly energy average noise levels (L_{eq}) at site LT-1 ranged from a low of 45.3 dB between 2:00 a.m. and 3:00 a.m. to a high of 57.9 dB between 6:00 a.m. and 7:00 a.m. Hourly maximum (L_{max}) noise levels at site LT-1 ranged from 57.4 to 70.1 dB. Residual noise levels at the monitoring site, as defined by the L_{90} statistical descriptor ranged from 32.0 to 53.9 dB. The L_{90} is a statistical descriptor that defines the noise level exceeded 90% of the time during each hour of

the sample period. The L_{90} is generally considered to represent the residual (or background) noise level in the absence of identifiable single noise events from traffic, aircraft and other local noise sources. The measured L_{dn} value at site LT-1 during the 24-hour noise measurement period was 59.1 dB L_{dn} . Figure 3 graphically depicts hourly variations in ambient noise levels at the LT-1 long-term monitoring site.

Measured hourly energy average noise levels (L_{eq}) at site LT-2 ranged from a low of 53.9 dB between 1:00 a.m. and 2:00 a.m. to a high of 63.4 dB between 4:00 p.m. and 5:00 p.m. Hourly maximum (L_{max}) noise levels at site LT-1 ranged from 65.9 to 81.2 dB. Residual noise levels at the monitoring site, as defined by the L_{90} statistical descriptor ranged from 45.2 to 59.3 dB. The L_{90} is a statistical descriptor that defines the noise level exceeded 90% of the time during each hour of the sample period. The measured L_{dn} value at site LT-1 during the 24-hour noise measurement period was 65.9 dB L_{dn} . Figure 4 graphically depicts hourly variations in ambient noise levels at the LT-2 long-term monitoring site.

The short-term site noise measurement data included energy average (L_{eq}) maximum (L_{max}) as well as five (5) individual statistical parameters. Observations were made of the dominant noise sources affecting the measurements. The statistical parameters describe the percent of time a noise level was exceeded during the measurement period. For instance, the L_{90} describes the noise level exceeded 90 percent of the time during the measurement period, and is generally considered to represent the residual (or background) noise level in the absence of identifiable single noise events from traffic, aircraft and other local noise sources. Table V summarizes short-term noise measurement results. The overall noise measurement data indicate that noise in the project vicinity is highly influenced by vehicular traffic on SR 99, and to a lesser extent, on other arterial roadways in the project vicinity.

TABLE V
SUMMARY OF SHORT-TERM NOISE MEASUREMENT DATA
ORIGO COLD MADERA
JANUARY 12 & 13, 2021

Site	Time	A-Weighted Decibels, dBA							Sources
		L_{eq}	L_{max}	L_2	L_5	L_{25}	L_{50}	L_{90}	
ST-1	8:15 a.m.	61.4	74.0	68.6	66.2	62.5	58.2	46.0	TR
ST-1	3:45 p.m.	61.7	73.4	67.1	64.5	60.8	57.0	45.6	TR, AC
ST-2	8:40 a.m.	58.9	70.9	66.9	64.2	59.4	53.4	43.2	TR, C, AC
ST-2	4:15 p.m.	57.7	71.4	65.3	63.1	57.0	53.3	44.6	TR, AC

TR: Traffic AC: Aircraft V: Voices D: Dogs Barking B: Birds C: Construction AG: Agriculture Activities
 Source: WJV Acoustics, Inc.

4. PROJECT IMPACTS AND MITIGATION MEASURES

a. Noise Impacts from On-Site Noise Sources (Less Than Significant With Mitigation)

The facility would operate 24 hours per day, seven (7) days per week, with business hours between 9 am and 5 pm, Monday through Sunday. A maximum of two (2) customers are expected to visit the facility per day during normal business operations.

Truck trips associated with the facility would consist of refrigerated truck vans, single trailer trucks, and double trailer trucks. In total, the Project anticipated between 10 and 15 trucks per day. In addition to these anticipated trips, the facility is expected to send and receive UPS and FedEx shipments and deliveries. Solid waste collection is expected to occur once per week.

The majority of noise-producing components associated with the project would occur inside the two buildings. The project would include a total of six (6) refrigeration “pods” (3 per building) that produce exterior noise. According to the project applicant, the refrigeration pods and truck movements represent the only exterior noise-producing components of the project.

Refrigeration Pods

The project will include six (6) equipment refrigeration room “pods” to be connected to the exterior of the proposed buildings (three per building). According to the project applicant, the refrigeration pods represent the only noise-producing equipment associated with project operations, that are not contained within the proposed building. According to the project applicant, the proposed refrigeration pods are the same as those currently in operation at Irigoyan Farms, located at 14677 S. Clovis Avenue, in Selma, California.

In order to assess noise levels associated with the refrigeration pods, WJVA staff conducted reference noise level measurements at the Irigoyan Farms on January 12, 2022. Noise measurement equipment was the same as that described above. WJVA staff coordinated with Barnett Refrigeration, to ensure that the refrigeration pod at Irigoyan Farms would be operating at full capacity at the time the noise measurements were conducted. Noise levels were measured at three individual angles from the refrigeration pod. The locations of these three measurement sites (M-1, M-2 and M-3) are provided as Figure 5. Each noise measurement site was located approximately 40 feet from the refrigeration pod. The measured noise levels were as follows:

- M-1: 61.6 dB
- M-2: 61.0 dB
- M-3: 59.2 dB

WJVA staff used the loudest measured noise levels to calculate project-related noise levels at the closest sensitive receptor locations to the proposed Madera project site. According to the project applicant, the refrigeration pods cycle on and off, as needed to maintain appropriate internal temperatures. The frequency and length of the cycles is dependent on several factors,

including exterior temperatures as well as internal factors. For the purpose of this analysis, it was assumed that the refrigeration pods would be in constant operation, and should therefore be considered a worst-case assessment of project-related noise levels at sensitive receptor locations.

The refrigeration pods will be located along the southern portion of both buildings (Phase 1 and Phase 2 buildings). The buildings would provide acoustic shielding of the refrigeration pod noise at the residential land uses located north of the project site (in the vicinity of ambient noise measurement site LT-2).

WJVA utilized an insertion loss (noise reduction) model to calculate the noise level reduction that would be provided by the buildings. The model calculates the insertion loss of a barrier of a given height based on the effective height of the noise source, height of the receiver, distance from the receiver to the barrier, and distance from the noise source to the barrier. The model indicated that the buildings would be expected to provide approximately 15 dB of noise level reduction at the sensitive receptor locations north of the project site.

Applying the standard rate of noise attenuation with increased distance from a point source (-6dB/doubling of distance) as well as the above-described acoustical shielding provided by the proposed buildings (receptors north of the project site only), WJVA calculated project-related noise levels at nearby sensitive receptor locations. Noise levels associated with project operations were calculated to be approximately 32 dB at the residential land uses located northeast of the project and approximately 39 dB at the residential land uses located southeast of the project site. The above-described noise levels assume all six refrigeration pods (3 per building) are in constant simultaneous operation. Figure 6 graphically depicts these noise levels at the respective sensitive receptor locations. Such levels do not exceed any City of Madera noise level standards. Additionally, such levels do not exceed existing (without project) ambient noise levels measured near sensitive receptor locations.

Slowly Moving Trucks

Truck movements would occur on site throughout the day, exact times were not known at the time of this analysis. According to the project applicant, approximately 10-15 trucks are anticipated per day. According to the project applicant, all truck movements would occur along the south side of both buildings.

WJVA has conducted measurements of the noise levels produced by slowly moving trucks for a number of studies. Such truck movements would be expected to produce noise levels in the range of 71-77 dBA at a distance of 50 feet. The range in measured truck noise levels is due to differences in the size of trucks, their speed of movement and whether they have refrigeration units in operation during the pass-by. On-site truck movements could occur as close as 400 feet from the closest noise sensitive receptors. However, as described above, the proposed buildings would provide acoustic shielding to the single-family residential land uses north of the project site.

Taking into account the standard rate of attenuation with increased distance from a point source and the above-described acoustical shielding, at this distance, noise levels associated with on-

site truck movements would be approximately 38-51 dB at the closest sensitive receptor locations. As noise associated with truck movements are relatively short in duration, noise levels would not exceed the non-transportation daytime or nighttime noise level standards provided above in Table II.

Potential Impact:

A noise impact could occur if truck movements were to occur along the north side of the proposed buildings, during nighttime hours.

Mitigation Measures:

According to the project applicant, all truck movements will occur along the south side of the proposed buildings. Truck movements should not occur along the north side of the building, between the nighttime hours of 10:00 p.m. to 7:00 a.m.

Parking Lot Activities

Noise due to traffic in parking lots is typically limited by low speeds and is not usually considered to be significant. Human activity in parking lots that can produce noise includes voices, stereo systems and the opening and closing of car doors and trunk lids. Such activities can occur at any time. The noise levels associated with these activities cannot be precisely defined due to variables such as the number of parking movements, time of day and other factors. It is typical for a passing car in a parking lot to produce a maximum noise level of 60 to 65 dBA at a distance of 50 feet, which is comparable to the level of a raised voice.

For this project, parking would be dispersed throughout the overall project area. The closest proposed parking areas would be located at least 1,000 feet from the closest existing residential property lines to the north. At this distance, maximum (L_{max}) parking lot vehicle movements would be expected to be approximately 34 to 39 dB. Such levels would not exceed any of the City's applicable noise levels standards or exceed existing ambient noise levels at the closest residential land uses.

b. Noise From Construction (Less Than Significant With Mitigation)

Construction noise would occur at various locations within and near the project site through the build-out period. The distance from the closest residences to the project site is approximately 100 feet. Table VIII provides typical construction-related noise levels at distances of 100 feet, 200 feet, and 300 feet.

Construction noise is typically not considered to be a significant impact if construction is limited to the daytime hours and construction equipment is adequately maintained and muffled. Extraordinary noise-producing activities (e.g., pile driving) are not anticipated. The City of Madera Municipal Code restricts hours of construction activity to occur between the hours of 6:00 a.m. and 8:00 p.m., daily. Construction noise impacts could result in annoyance or sleep disruption for nearby residents if nighttime operations were to occur or if equipment is not properly muffled or maintained.

TABLE VIII
TYPICAL CONSTRUCTION EQUIPMENT
MAXIMUM NOISE LEVELS, dBA

Type of Equipment	100 Ft.	200 Ft.	300 Ft.
Concrete Saw	84	78	74
Crane	75	69	65
Excavator	75	69	65
Front End Loader	73	67	63
Jackhammer	83	77	73
Paver	71	65	61
Pneumatic Tools	79	73	69
Dozer	76	70	66
Rollers	74	68	64
Trucks	80	72	70
Pumps	74	68	64
Scrapers	81	75	71
Portable Generators	74	68	64
Backhoe	80	74	70
Grader	80	74	70

Source: FHWA

Noise Control for Buildings and Manufacturing Plants, Bolt, Beranek & Newman, 1987

Potential Impact:

A noise impact could occur if construction activities do not incorporate appropriate mitigation measures and best management practices.

Mitigation Measures:

Noise levels associated with construction activities may be effectively mitigated by incorporating noise mitigation measures and appropriate best management practices. The following mitigation measures and best management practices should be applied during periods of project construction.

- Per the City of Madera Municipal Code, construction activities should not occur outside the hours of 6:00 a.m. to 8:00 p.m.
- All construction equipment shall be properly maintained and muffled as to minimize noise generation at the source.
- Noise-producing equipment shall not be operating, running, or idling while not in immediate use by a construction contractor.
- All noise-producing construction equipment shall be located and operated, to the extent possible, at the greatest possible distance from any noise-sensitive land uses.

- Locate construction staging areas, to the extent possible, at the greatest possible distances from any noise-sensitive land uses.
- Signs shall be posted at the construction site and near adjacent sensitive receptors displaying hours of construction activities and providing the contact phone number of a designated noise disturbance coordinator.

c. Vibration Impacts (No Impact)

The dominant sources of man-made vibration are sonic booms, blasting, pile driving, pavement breaking, demolition, diesel locomotives, and rail-car coupling. None of these activities are anticipated to occur with construction or operation of the proposed project. Due to the distances between the project site and the closest sensitive receptor locations, vibration from construction activities would not be expected to be detected at the closest sensitive land uses during any period of project construction. As a point of reference, typical vibration levels at distances of 100 feet and 300 feet are summarized by Table IX.

TABLE IX TYPICAL VIBRATION LEVELS DURING CONSTRUCTION		
Equipment	PPV (in/sec)	
	@ 100'	@ 300'
Bulldozer (Large)	0.011	0.006
Bulldozer (Small)	0.0004	0.00019
Loaded Truck	0.01	0.005
Jackhammer	0.005	0.002
Vibratory Roller	.03	0.013
Caisson Drilling	.01	0.006

Source: Caltrans

After full project build out, it is not expected that ongoing operational activities will result in any vibration impacts at nearby sensitive uses. Additional mitigation is not required.

e. Noise Impacts from Nearby Airports or Airstrips (No Impact)

The Project site is located approximately 0.5 miles from the Madera Municipal Airport. The Madera Countywide Airport Land Use Compatibility Plan⁴ (ALUCP / adopted September 29, 2015) provides land use compatibility guidelines for the area surrounding the Madera Municipal Airport. The ALUCP sets noise compatibility standards for specific land use types.

According to the ALUCP Compatibility Policy Map for the Madera Municipal Airport, the project site is located within Compatibility Zone D, considered to be “Other Airport Environs”. According

the to “Basic Compatibility Criteria” table provided in the ALUCP, land uses categorized as “Indoor Storage: wholesale sales, distribution centers, warehouses, mini/other indoor storage, barns, greenhouses” located within Zone D have “no limit” in respect to land use compatibility. The proposed project is not considered a “noise-sensitive land use” by the ALUCP.

5. IMPACT SUMMARY

This impact summary addresses only the noise impacts determined to be “potentially significant” and summarizes the mitigation measures that would be required to reduce noise levels to a “less than significant” level or states that the impact may be significant and unavoidable. Potential impacts and correlating mitigation measures are described in detail above, and summarized below.

Potential Impact:

A noise impact could occur if truck movements were to occur along the north side of the proposed buildings, during nighttime hours.

Mitigation Measures:

According to the project applicant, all truck movements will occur along the south side of the proposed buildings. Truck movements should not occur along the north side of the building, between the nighttime hours of 10:00 p.m. to 7:00 a.m.

Potential Impact:

A noise impact could occur if construction activities do not incorporate appropriate mitigation measures and best management practices.

Mitigation Measures:

Noise levels associated with construction activities may be effectively mitigated by incorporating noise mitigation measures and appropriate best management practices. The following mitigation measures and best management practices should be applied during periods of project construction.

- Per the City of Madera Municipal Code, construction activities should not occur outside the hours of 7:00 a.m. to 8:00 p.m.
- All construction equipment shall be properly maintained and muffled as to minimize noise generation at the source.
- Noise-producing equipment shall not be operating, running, or idling while not in immediate use by a construction contractor.
- All noise-producing construction equipment shall be located and operated, to the extent possible, at the greatest possible distance from any noise-sensitive land uses.
- Locate construction staging areas, to the extent possible, at the greatest possible distances from any noise-sensitive land uses.
- Signs shall be posted at the construction site and near adjacent sensitive receptors displaying hours of construction activities and providing the contact phone number of a designated noise disturbance coordinator.

6. SOURCES CONSULTED

1. City of Madera General Plan, October 7, 2009.
2. City of Madera Municipal Code, updated 8-19-20.
3. California Department of Transportation, *Transportation and Construction Vibration Guidance Manual*, September 2013.
4. Mead & Hunt, *Madera Countywide Airport Land Use Compatibility Plan*, September 29, 2015

FIGURE 1: PROJECT SITE PLAN

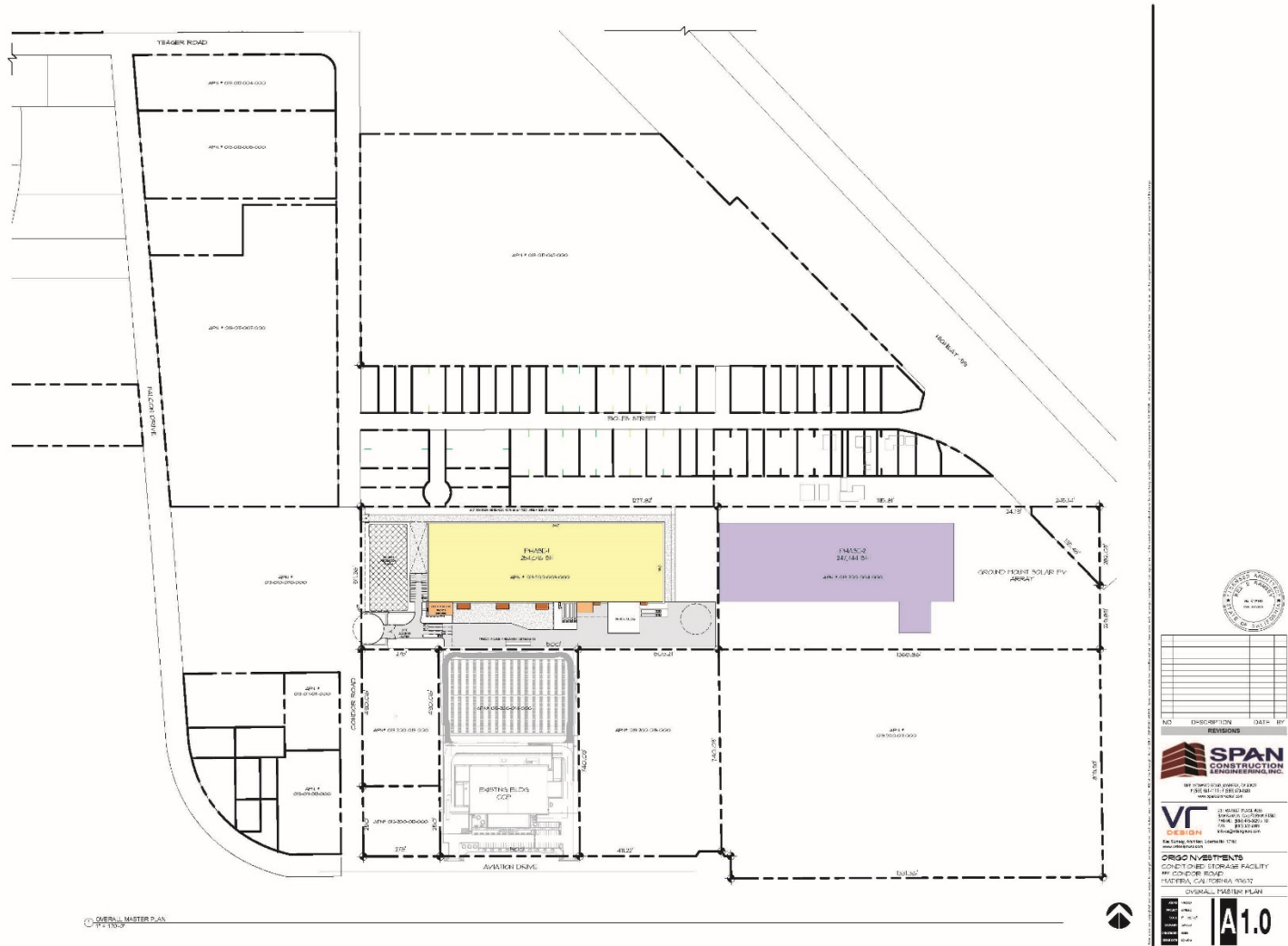


FIGURE 2: PROJECT VICINITY AND AMBIENT NOISE MONITORING SITES

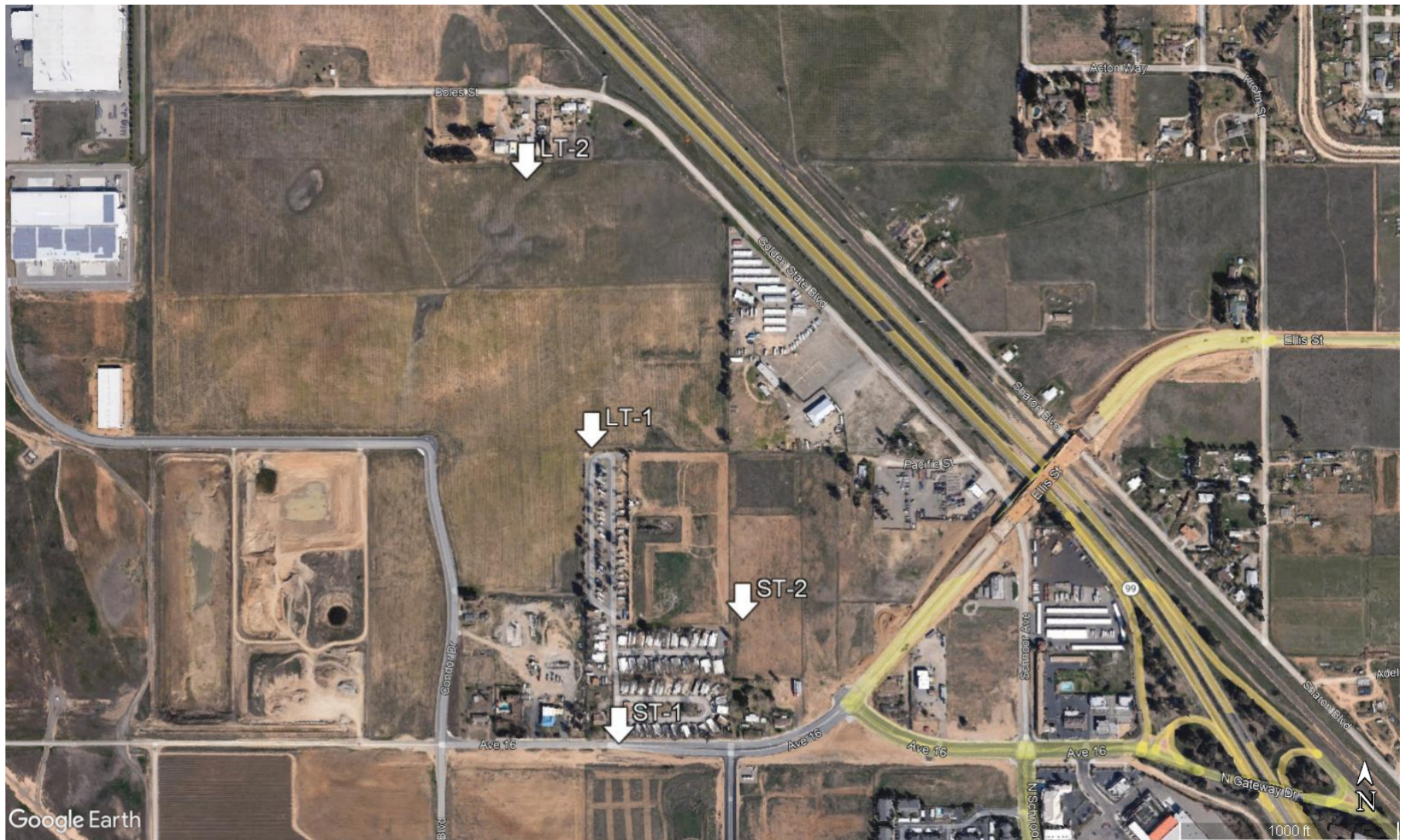


FIGURE 3: HOURLY NOISE LEVELS AT LONG-TERM MONITORING SITE LT-1

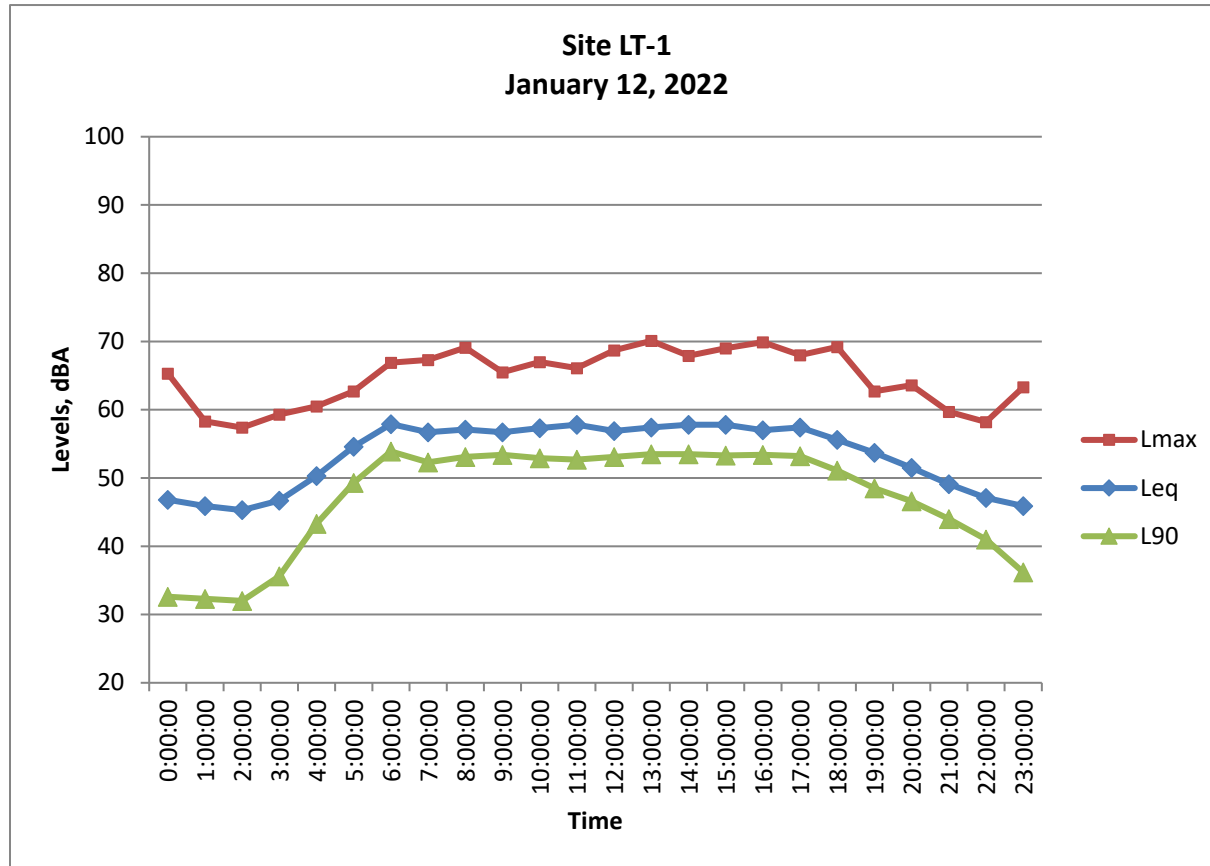


FIGURE 4: HOURLY NOISE LEVELS AT LONG-TERM MONITORING SITE LT-2

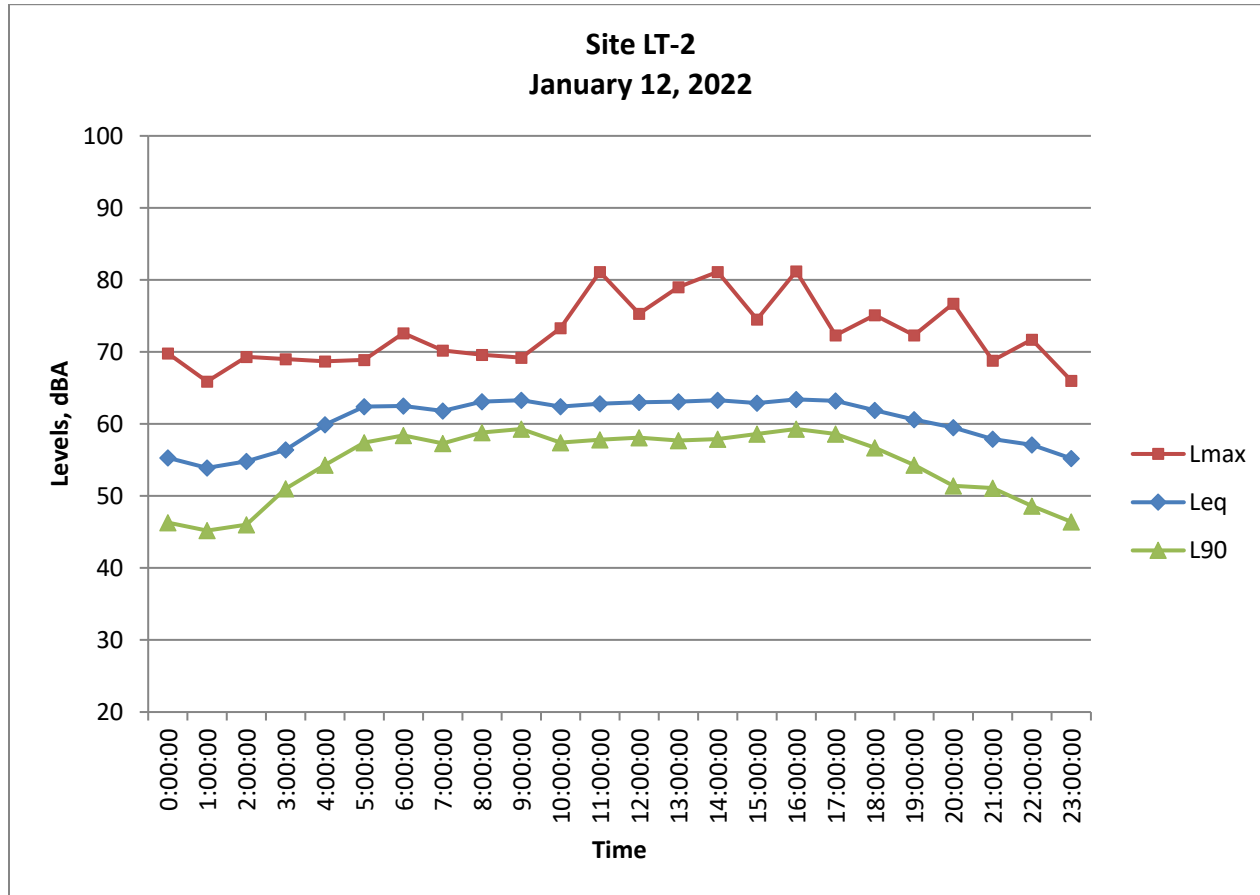


FIGURE 5: REFERENCE NOISE MEASUREMENT LOCATIONS, IRIGOYEN FARMS, SELMA

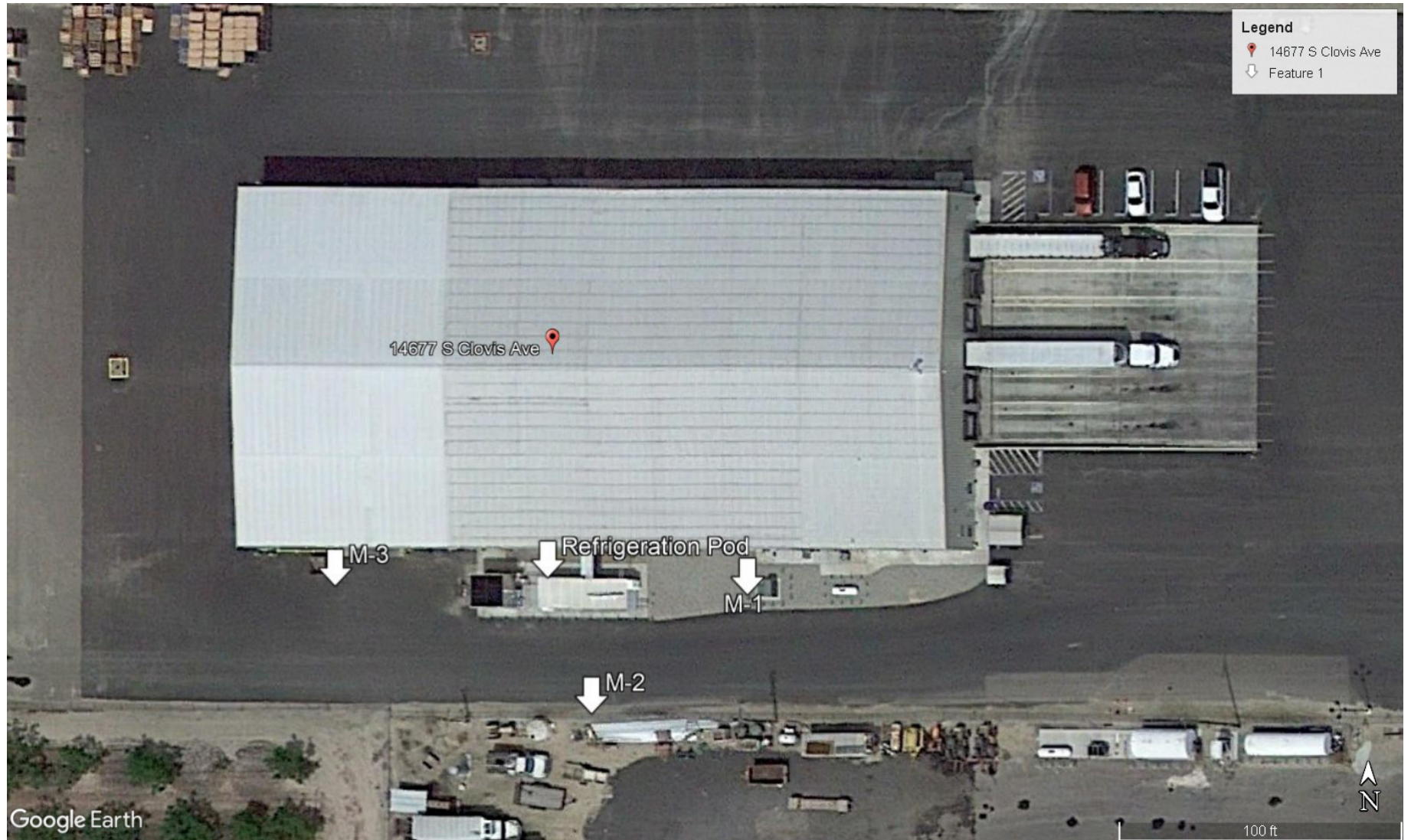
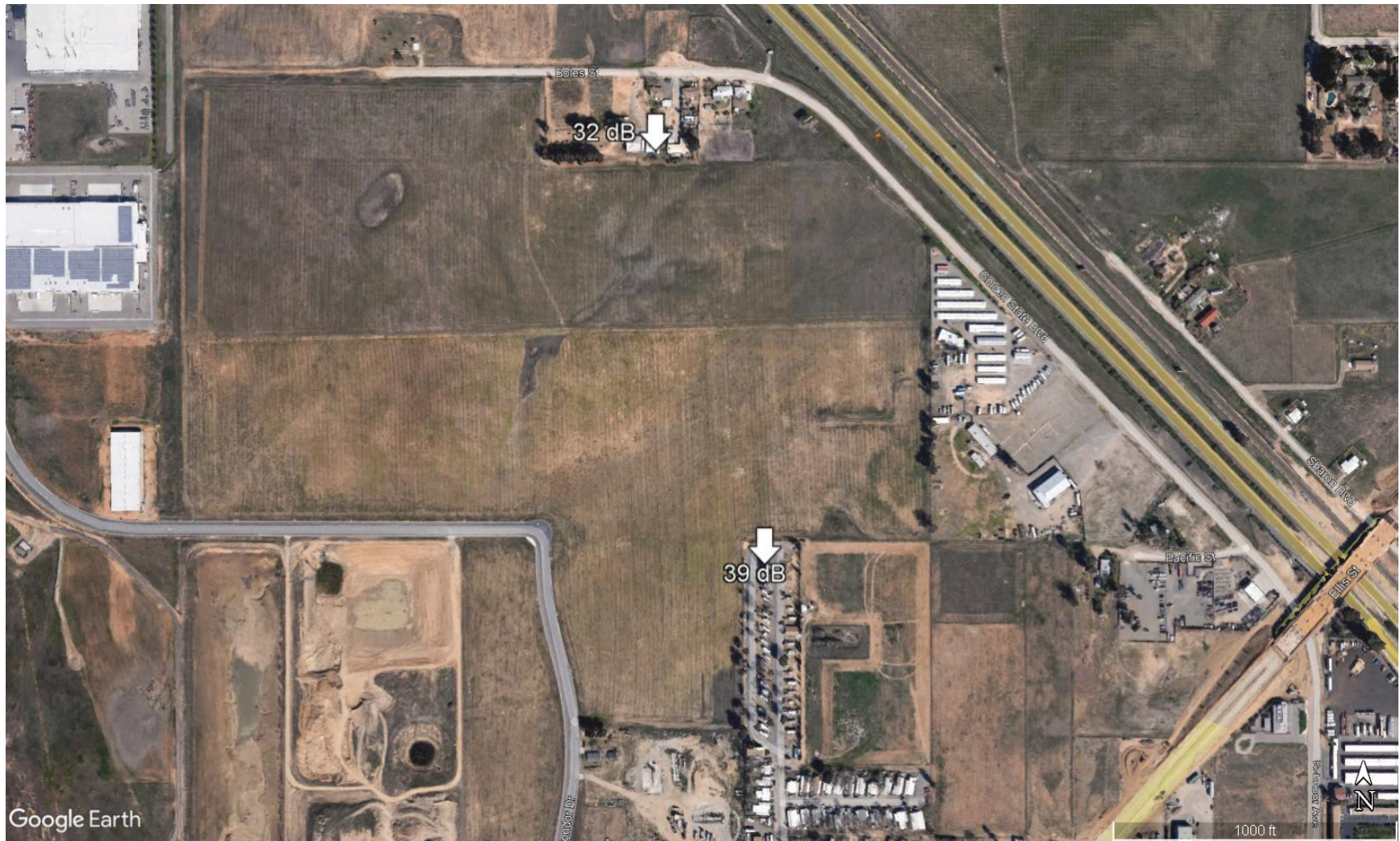


FIGURE 6: REFRIGERATION PODS NOISE LEVELS



APPENDIX A-1

ACOUSTICAL TERMINOLOGY

AMBIENT NOISE LEVEL:	The composite of noise from all sources near and far. In this context, the ambient noise level constitutes the normal or existing level of environmental noise at a given location.
CNEL:	Community Noise Equivalent Level. The average equivalent sound level during a 24-hour day, obtained after addition of approximately five decibels to sound levels in the evening from 7:00 p.m. to 10:00 p.m. and ten decibels to sound levels in the night before 7:00 a.m. and after 10:00 p.m.
DECIBEL, dB:	A unit for describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micropascals (20 micronewtons per square meter).
DNL/L_{dn}:	Day/Night Average Sound Level. The average equivalent sound level during a 24-hour day, obtained after addition of ten decibels to sound levels in the night after 10:00 p.m. and before 7:00 a.m.
L_{eq}:	Equivalent Sound Level. The sound level containing the same total energy as a time varying signal over a given sample period. L _{eq} is typically computed over 1, 8 and 24-hour sample periods.
NOTE:	The CNEL and DNL represent daily levels of noise exposure averaged on an annual basis, while L _{eq} represents the average noise exposure for a shorter time period, typically one hour.
L_{max}:	The maximum noise level recorded during a noise event.
L_n:	The sound level exceeded "n" percent of the time during a sample interval (L ₉₀ , L ₅₀ , L ₁₀ , etc.). For example, L ₁₀ equals the level exceeded 10 percent of the time.

A-2

ACOUSTICAL TERMINOLOGY

**NOISE EXPOSURE
CONTOURS:**

Lines drawn about a noise source indicating constant levels of noise exposure. CNEL and DNL contours are frequently utilized to describe community exposure to noise.

**NOISE LEVEL
REDUCTION (NLR):**

The noise reduction between indoor and outdoor environments or between two rooms that is the numerical difference, in decibels, of the average sound pressure levels in those areas or rooms. A measurement of "noise level reduction" combines the effect of the transmission loss performance of the structure plus the effect of acoustic absorption present in the receiving room.

SEL or SENEL:

Sound Exposure Level or Single Event Noise Exposure Level. The level of noise accumulated during a single noise event, such as an aircraft overflight, with reference to a duration of one second. More specifically, it is the time-integrated A-weighted squared sound pressure for a stated time interval or event, based on a reference pressure of 20 micropascals and a reference duration of one second.

SOUND LEVEL:

The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the response of the human ear and gives good correlation with subjective reactions to noise.

**SOUND TRANSMISSION
CLASS (STC):**

The single-number rating of sound transmission loss for a construction element (window, door, etc.) over a frequency range where speech intelligibility largely occurs.

APPENDIX B
EXAMPLES OF SOUND LEVELS

NOISE SOURCE	SOUND LEVEL	SUBJECTIVE DESCRIPTION
AMPLIFIED ROCK 'N ROLL ▶	120 dB	DEAFENING
JET TAKEOFF @ 200 FT ▶		
	100 dB	VERY LOUD
BUSY URBAN STREET ▶		
	80 dB	LOUD
FREEWAY TRAFFIC @ 50 FT ▶		
	60 dB	MODERATE
CONVERSATION @ 6 FT ▶		
TYPICAL OFFICE INTERIOR ▶		FAINT
SOFT RADIO MUSIC ▶	40 dB	
RESIDENTIAL INTERIOR ▶		VERY FAINT
WHISPER @ 6 FT ▶	20 dB	
HUMAN BREATHING ▶	0 dB	

Appendix D

Trip Generation Memo

Prepared by Precision Civil Engineering January 28, 2022



TO: Keith Helmuth, P.E., City Engineer, City of Madera Engineering Department
 FROM: Bonique Emerson, AICP, Precision Civil Engineering
 RE: Trip Generation Analysis for SPR 2021-041
 DATE: January 28, 2022

Keith:

The following memo summarizes the trip generation for the proposed project and demonstrates that the proposed project will be well under the 100 peak hour trip threshold.

Trip Generation

Average Daily Vehicle Trips and Peak Hour Trips for the project were calculated using data published by the Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition. **Table 1** provides the Project trip generation pursuant to the proposed site plan and operational statement.

The ITE land use that was used for this analysis is the High-Cube Cold Storage Warehouse land use (ITE Code 157). A High-Cube Cold Storage Warehouse is a building that typically has at least 200,000 gross square feet of floor area, has a height of 24+ feet, and is used primarily for the storage and/or consolidation of manufactured goods. Given that the proposed project consists of a total of 504,016 square feet of refrigerated warehouse and storage facility for agricultural nut products that would reach a maximum height of ± 34 ft, the High-Cube Cold Storage Warehouse designation is the most appropriate. While a small portion of the building would be used as shipping office, administrative office, and enclosed drive-in truck unloading area, it is safe to assume that the sites referenced in the ITE handbook also include these uses to support the cold storage warehouse operations. It should be noted the proposed trips based on the proposed operations are well under these numbers.

Table 1 Trip Generation

Land Use (ITE Code)	Unit of Measurement	Project size (per 1,000 sf.)	A.M Peak Hour		P.M. Peak Hour	
			Trip Rate	Total	Trip Rate	Total
High-Cube Cold Storage Warehouse (157)	1,000 sf.	504	0.11	55.4	0.12	60.5

The proposed Project is anticipated to generate a maximum of, 55.4 a.m. peak hour, and 60.5 p.m. peak hour trips. Given that the peak hour trips generated by the project will be under 100, the project will not meet with City’s threshold requiring a traffic study.

Appendix E

VMT Analysis Memo

Prepared by Precision Civil Engineering on February 9, 2022.



1234 O Street
Fresno, CA 93721
(559) 449-4500

MEMORANDUM

To: City of Madera

From: Bonique Emerson, AICP, Precision Civil Engineering
Jenna Chilingirian, Precision Civil Engineering

Date: February 9, 2022

Subject: Amond World Cold Storage Warehouse– CEQA VMT Analysis

This memorandum documents the Vehicle Miles Traveled (VMT) Analysis for the proposed Amond World Cold Storage Warehouse (Project) for Origo Cold Madera, LLC (Applicant) in the City of Madera (Lead Agency).

Executive Summary

Precision Civil Engineering, Inc. conducted a Vehicle Miles Traveled (VMT) analysis for a proposed cold storage warehouse for agricultural products (Project) located on a 30.16-acre parcel on the westside of Golden State Boulevard between Avenue 16 and Avenue 17 in Madera, CA (APNs 013-200-004 and 013-200-005). The Project would consist of two (2) phases. Phase I involves the construction of an approximately 254,016-sf. refrigerated warehouse and storage facility on the parcel identified as APN 013-200-005 and would include a 235,200-sf. warehouse with refrigerated storage area, in addition to an administrative office (4,000 sf.), shipping office (2,204 sf.), and flatbed annex building (12,544 sf.). Phase II would include a 250,000-sf. warehouse and storage facility on the adjoining parcel to the east identified as APN 013-200-004 and would include a ground mount solar PV array. An on-site stormwater retention basin is proposed to be constructed under Phase I and would be sized to accommodate total buildout of the Project.

The *Technical Advisory on Evaluating Transportation Impacts in CEQA* produced by the Governor’s Office of Planning and Research (Revised December 2018) and the Madera County Transportation Commission VMT Screening Map were used to conduct the VMT analysis for the proposed project. Based on the analysis described below, it has been determined that the project screens out based on two separate evaluation criteria and thus impacts can be determined to be less than significant.

Project Information

Origo Cold Madera, LLC (Applicant) proposes the construction of a 504,016-sf. cold storage warehouse for agricultural products on two (2) parcels consisting of ± 30.16 acres located on the westside of Golden State Boulevard between Avenue 16 and Avenue 17 in Madera, CA (APNs 013-200-004 and 013-200-005) (see **Figure 1**). The Project would consist of two (2) phases. Phase I involves the construction of an approximately 254,016-sf. refrigerated warehouse and storage facility on the parcel identified as APN 013-200-005 and would include a 235,200-sf. warehouse with refrigerated storage area, in addition to an administrative office (4,000 sf.), shipping office (2,204 sf.), and flatbed annex building (12,544 sf.). Phase II would include a 250,000-sf. warehouse and storage facility on the adjoining parcel to the east identified as APN 013-200-004 and would include a ground mount solar PV array. An on-site stormwater retention basin is proposed to be constructed under Phase I and would be sized to accommodate total buildout of the Project (see **Figure 2**).

Hours of Operation

The facility would operate 24 hours per day, seven (7) days per week, with business hours between 9 am and 5 pm, Monday through Sunday. Access to the site for employees and customers (including trucks) would occur during business hours between 9 am and 5 pm.

Employment

Approximately nine (9) employees are projected to work at the facility on a rotating 24-hour schedule or during regulation business hours between 9 am and 5 pm, Monday through Sunday. A maximum of two (2) customers are expected to visit the facility per day during normal business operations.

Products

The facility would store agricultural nut products within the refrigerated warehouse. No products would be produced or sold at the facility.

Truck Traffic

Truck trips associated with the facility would consist of refrigerated truck vans, single trailer trucks, and double trailer trucks. In total, the Project anticipates between 10 and 15 trucks per day, year-round, that would be scheduled ahead of time (i.e., appointment only) and based on the availability of dock space. In addition to these anticipated trips, the facility is expected to send and receive UPS and FedEx shipments and deliveries. One (1) delivery/shipment per day is anticipated. Solid waste collection is expected to occur once per week.

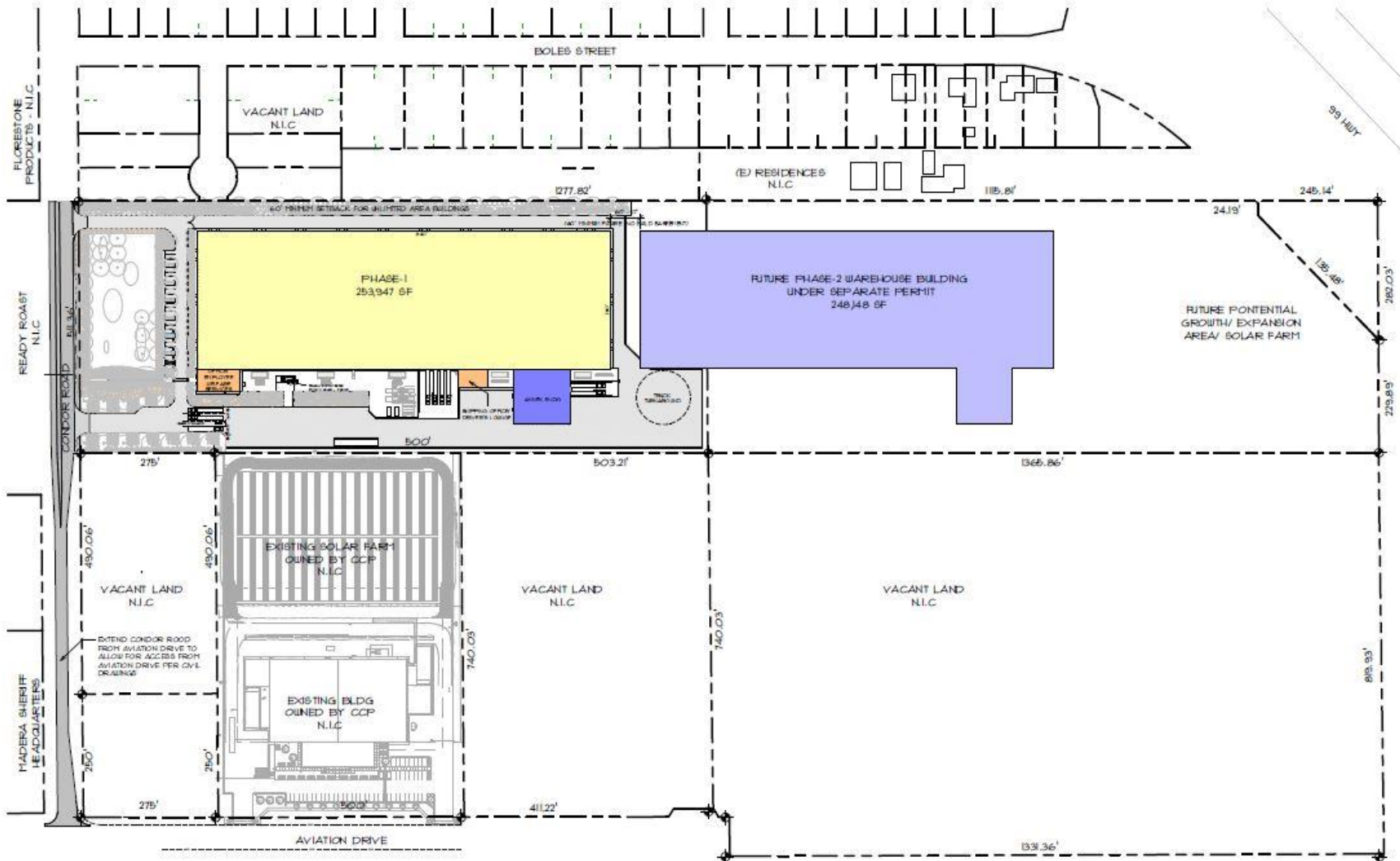
Figure 1. Project Vicinity Map



CITY OF MADERA - ORIGO MADERA COLD STORAGE FACILITY
INITIAL STUDY

Created: 11/15/2021

Figure 2. Project Site Plan



Thresholds of Significance

Senate Bill 743

Senate Bill (SB) 743 requires CEQA analysis of transportation impacts be conducted using the Vehicle Miles Traveled (VMT) metric instead of a Level of Service (LOS) metric. The VMT metric became mandatory on July 1, 2020. VMT measures the automobile travel generated from a proposed project (i.e., the additional miles driven). Here, 'automobile' refers to on-road passenger vehicles such as cars and light trucks. If a proposed project adds excessive automobile travel on California roads thereby exceeding an applicable threshold of significance, then the project may cause a significant transportation impact.

To implement SB 743, the CEQA Guidelines were amended by adding Section 15064. Among its provisions, Section 15064 establishes criteria for analyzing transportation impacts. Section 15064.3(b)(1) confirms that a land use project's effect on automobile delay shall not constitute a significant environmental impact. Therefore, the LOS metric is no longer a relevant CEQA criteria for measuring transportation impacts.

Section 15064.3(b)(4) of the CEQA Guidelines states that "[a] lead agency has discretion to evaluate a project's vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project's vehicle miles traveled and may revise those estimates to reflect professional judgment based on substantial evidence. Any assumptions used to estimate vehicle miles traveled and any revision to model outputs should be documented and explained in the environmental document prepared for the project. The standard of adequacy in Section 15151 shall apply to the analysis described in this section."

To-date, the lead agency (i.e., City of Madera) has not established VMT thresholds or guidelines. Wherein existing models or methods are not available to the lead agency to estimate the VMT for the project being considered, provisions of CEQA Guidelines Section 15064.3(b)(3) permits the lead agency to conduct a qualitative analysis. The qualitative analysis may evaluate factors including but not limited to the availability of transit, proximity to other destinations, and construction traffic.

Technical Advisory on Evaluating Transportation Impacts in CEQA

In April 2018, the Governor's Office of Planning and Research (OPR) issued the *Technical Advisory on Evaluating Transportation Impacts in CEQA* (Technical Advisory) (Revised December 2018) to provide technical recommendations regarding VMT, thresholds of significance, and mitigation measures for a variety of land use project types. Recommendations for thresholds of significance are categorized as 1) screening thresholds and 2) recommended numeric thresholds, both of which are described below.

Screening Thresholds for Land Use Projects

According to the Technical Advisory, lead agencies use "screening thresholds" to identify when a project should be expected to create a less-than-significant impact without conducting a detailed study. The Technical Advisory suggests the following screening

criteria to screen out VMT impacts including project size, maps, transit availability, and provision of affordable housing. To-date, the lead agency has not set VMT thresholds or policies for which projects are eligible for screening. The regional transportation planning agency, the Madera County Transportation Commission (MCTC), has developed a screening tool for VMT. This screening tool has been utilized in this analysis (as described below).

Recommended Numeric Threshold

According to the Technical Advisory, a project can be determined to be less than significant if it will result in a low number of average daily trips. This threshold is listed as “Screening Threshold for Small Projects” in the Technical Advisory. A small project is defined as a project that will result in 110 (or less) average daily trips.

VMT Methodology and Analysis

Screening Threshold for Small Projects (110 Daily Trips or Less)

Pursuant to CEQA Guidelines Section 15064.3, “vehicle miles traveled’ refers to the amount and distance of automobile travel attributable to a project.” The term “automobile” refers to on-road passenger vehicles, specifically cars and light trucks. Thus, trips associated with large trucks are excluded from the VMT analysis and only employee and customer trips must be considered for VMT analysis.

Approximately nine (9) employees and two (2) customers are expected to work at and/or visit the facility per day. Assuming one (1) in and one (1) out trip per day, the total average daily trips (ADT) made by automobiles would be 22 total per day. Thus, based on the expected customers or drivers resulting from the Project, passenger vehicles can be expected to generate a total of 22 ADTs per day. As such, total ADTs for the Project would be significantly less than the 110 ADT threshold. Even if truck trips are included in the analysis (which should be excluded based on the OPR Technical Advisory), the project would still generate well under 110 ADTs.

Map-Based Screening

The Madera County Transportation Commission has established a screening map to determine if projects impacts related to VMT can be determined less than significant based on proposed use and project location. The map utilized the Madera County Travel Demand Model. According to the VMT Baseline Table¹, “The SB743 VMT Tool can be used to calculate VMT per capita by TAZ for a residential development project, or VMT per job by (Transportation Analysis Zone) TAZ for an office development project for SB743 analysis using the MCTC Model outputs. The Madera County subregional baseline VMT per capita/job for the selected TAZ will also be reported for screening purposes.”

According to the above-mentioned document, “VMT per job were generated by home-based work (HW) trips at the attraction ends. Thus, for work VMT we summed up all inbound HW trips to each internal TAZ. The origin-destination (O-D) distances were skimmed off the highway network between each O-D pair in the model including gateway TAZs. For the IX/XI trips, external average trip lengths, per gateway, were added to the skimmed O-D distances. The product of total HW trips and the total O-D distance was the work VMT for that TAZ. The baseline VMT per job for an air basin was calculated by dividing the total work VMT by the total jobs in that air basin.”

As previously mentioned, VRPA the traffic consultant who assisted with the effort has indicated that this type of project can use the VMT/employee map for industrial, office, or any other use that is employment related.

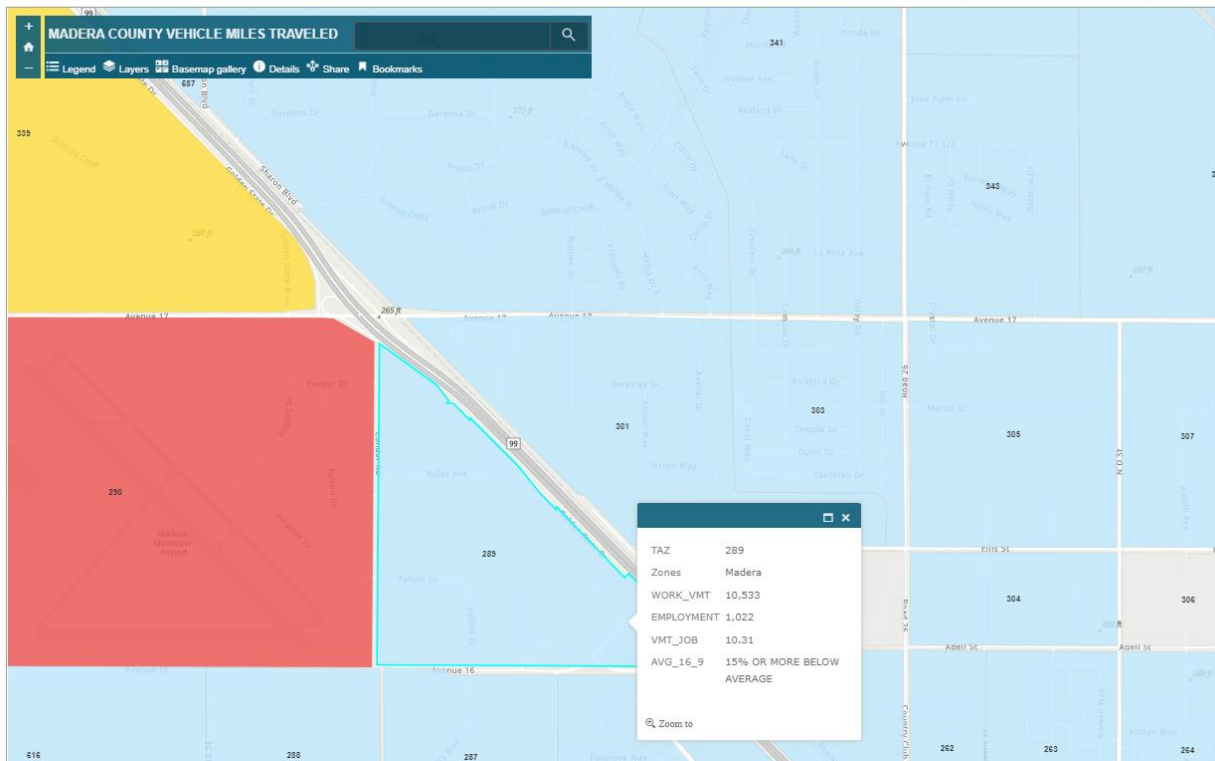
¹ <https://www.maderactc.org/transportation/page/vehicle-miles-traveled-resources> Accessed February 1, 2022

According to the screening map (see **Figure 3**), the proposed project is located in Transportation Analysis Zone (TAZ) 289. TAZ 289 has a total of 10,533 work/employment related vehicle miles traveled with a current employment population of 1,022. This is equivalent to 10.31 VMTs per job, which is more than 15% below the County Average of 16.9 VMTs per job. Given that this is below the identified threshold of significance, it can be determined that a less than significant impact would occur and the Project would not conflict or be inconsistent with CEQA Guidelines Section 15064 (b).

Figure 3. Vehicle Miles Traveled Screening Map

Vehicle Miles Traveled Resources

Madera County - VMT Screening Maps



Statement of Finding

The Project would have a less-than-significant impact for any net increase in total VMT and is consistent with CEQA Guidelines Section 15064.3, subdivision (b). No mitigation measures are required.

Appendix F

Habitat Assessment

Prepared by Precision Civil Engineering on February 9, 2022.

HABITAT ASSESSMENT

Amond World Conditioned Storage Facility

Located in Madera, CA (APNs 013-200-004 & 013-200-005)

Biological Resources Assessment prepared in accordance with Section 15164 of the California Environmental Quality Act (CEQA) Guidelines

Prepared by

Precision Civil Engineering, Inc.
1234 O Street
Fresno, CA 93721

February 2022

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A Report Prepared for:

VR Design, Inc.
231 Market Place., #255
San Ramon, CA 94583

HABITAT ASSESSMENT
APNs: 013-200-004 and 013-200-005
Madera, California

Project No: 21-296
SPR 2021-41
January 12, 2021

Ryan Brosius
Staff Environmental Scientist

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1 EXECUTIVE SUMMARY

Precision Civil Engineering, Inc. conducted a Biological Resources Assessment for a proposed project consisting of two (2) single-story industrial buildings for conditioned storage and office spaces (Project) located on the westside of Golden State Boulevard between Avenue 16 and Avenue 17 in Madera, California. The Project site consists of two (2) parcels totaling approximately 30.16-acres identified as APNs 013-200-004 and 013-200-005.

The purpose of this Habitat Assessment is to provide the project proponent with an assessment of the biological resources located on and adjacent to the site in relation to existing laws, regulations, and policies. This Report is used to evaluate whether the project would have a substantial adverse effect, either directly or indirectly, on any special status species, or on the habitat on which they depend.

According to the CNDDDB, no occurrences of special-status species have been documented on the Project site. In the five (5)-mile radius of the Project site, there are seven (7) recorded occurrences, including three (3) endangered or threatened animal species.

The preliminary site investigation conducted by Precision Civil Engineering on October 15, 2021, confirmed that the site is vacant and undeveloped with no improvements, structures, vegetative cover, trees, or water features suitable for habitat by special-status species. The site has been graded and disced in the past and is highly disturbed.

According to the National Wetlands Inventory, there are no federally protected wetlands (including but not limited to marsh, vernal pool, coastal, etc.) or riparian areas on the Project site.

Based on the data gathered during the site investigation, the proposed Project has very low potential to significantly impact the special-status species and habitat resources onsite.

2 INTRODUCTION

2.1 Project Description

The Project consists of two (2) single-story, industrial buildings for conditioned storage facility. The site is located on the westside of Golden State Boulevard between Avenue 16 and Avenue 17 in Madera, California and is identified as APNs 013-200-004 and 013-200-005.

2.2 Project Location

The proposed Project is located in the northwestern area of the city of Madera, California on the westside of Golden State Boulevard between Avenue 16 and Avenue 17 (**Figure 2-1**). The site consists of two (2) parcels totaling approximately 30.16 acres. The site is identified as APNs 013-200-004 and 013-200-005 of Madera County and is a portion of Section 10, Township 11 South, Range 17 East, Mount Diablo Base and Meridian.

2.3 Purpose and Need

The purpose of this Biological Resources Assessment is to provide VR Design with an assessment of the biological resources located on and adjacent to the site in relation to existing laws, regulations, and policies. This report is intended to assist the project proponent in making informed decisions regarding its proposed project, including suggested Best Management Practices to avoid/reduce special status species and habitat impacts and potentially costly mitigation and to provide the basis for an Initial Study for CEQA submittal.



CITY OF MADERA - AMOND WORLD CONDITIONED STORAGE FACILITY
BIOLOGICAL RESOURCES ASSESSMENT

Created: 10/20/2021

Figure 2-1 Project Location

3 REGULATORY INFORMATION

The following laws, regulations, and policies are relevant to this project in terms of getting the appropriate regulatory/permit approval.

3.1 California Environmental Quality Act

The California Environmental Quality Act (CEQA) (Public Resources Code 21000-21177) was enacted so that the environmental consequences of projects could be considered prior to the start of a project. CEQA has a number of objectives, two of which are to identify ways to avoid or reduce environmental impacts and to prevent environmental impacts by requiring the implementation of mitigation measures. Environmental impacts to biological resources are considered "significant" if they:

- *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game (CDFG), or U.S. Fish and Wildlife Service (FWS);*
- *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFG or FWS;*
- *Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;*
- *Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;*
- *Conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance;*
- *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.*

3.2 Federal and State Endangered Species Acts

Both the Federal Endangered Species Act (FESA) and the California Endangered Species Act (CESA) prohibit the "take" of species that are listed as either threatened or endangered. The term "take" is defined under Section 9 of the FESA as to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct." "Take" is further defined to include habitat modification or degradation where it results in death or injury to wildlife by significantly

impairing essential behavioral patterns including but not limited to breeding, foraging, or sheltering. Any project which would jeopardize the continued existence of special status species is consequently unlawful.

Pursuant to FESA, the FWS regulates projects that may affect the continued existence of federally listed threatened or endangered species. Species are defined as threatened or endangered by the FWS if they are listed in Title 50 of the Code of Federal Regulations (CFR). An incidental take permit under Section 10 (a), or federal consultation under Section 7 of the FESA is required if project development may affect a federally listed species.

Pursuant to CESA, the California Department of Fish and Game regulates projects that may affect the continued existence of state listed threatened and endangered species. California listed species are provided in Title 14, California Code of Regulations (CCR), Sections 670.2 and 670.5. An incidental take permit under Section 2081 of the Fish and Game Code is required if project development may affect a state listed species. "Special status species" is the collective term given to species identified in local or regional plans, policies, or regulations, or by the CDFG or FWS. A Habitat Assessment is conducted to determine whether the project would have a substantial adverse effect, either directly or indirectly, on any special status species, or on the habitat on which they depend.

3.3 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA), first enacted in 1918, implements domestically a series of treaties (on behalf of Canada) between the United States and Great Britain, Mexico, Japan, and the former USSR. The MBTA provides for international migratory bird protection, and authorizes the Secretary of the Interior to regulate the "taking" of migratory birds. The current list of species protected by the MBTA can be located in Title 50, CFR Section 10.13.

3.4 California State Fish and Game Code Birds of Prey

Any impacts to nesting birds of prey in the order of Falconiformes or Strigiformes (raptors), which are protected by the local, state, or federal government would be considered unlawful. In addition, CDFG Code Section 3503.5 states that it is "unlawful to take, possess, or destroy the nest or eggs of any such bird or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Any disturbance that could result in the incidental loss of eggs or nestlings, or otherwise lead to nest abandonment is therefore considered unlawful.

3.5 Clean Water Act

Section 401: Water Quality

Under Section 401 of the CWA, EPA is granted authority to regulate activities that impact the quality of water. This authority in the State of California is delegated to State Water Resources Control Board, with Regional Water Quality Control Boards administering regulatory process. Under this regulatory process a project proponent must apply for the appropriate 401 permit if they plan to dredge, fill, or discharge to a Waters of the United States or a Water of the State.

Section 404: Waters of the U.S. and Wetlands

Under a Federal regulation, Section 404 of the CWA, the U.S. Army Corps of Engineers (USACE), has regulatory authority over the discharge of dredged and fill materials into Waters of the United States (WUS). WUS include all waters that are, have, or may be used for interstate and/or international commerce, including all water that is subject to the tide; all waters that are rivers, streams, sloughs, lakes, mudflats, sand flats, wetlands, wet meadows, prairie potholes, playa lakes, or natural ponds and the use, degradation, or destruction, of afore mentioned, which could affect interstate and international commerce; all impoundment of above mentioned; all tributaries of above mentioned; territorial seas; and all wetlands adjacent to above mentioned WUS. In areas where wetlands are absent, the jurisdictional boundary for the USACE is the ordinary high-water mark (OHWM). OHWM is defined as “... *the line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.*”

Wetlands can extend the jurisdiction of the USACE beyond the WUS boundary and are subject to the same level of regulation under CWA Section 404. Wetlands are defined as “... *those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions,*” (30 CFR 328.3). The USACE has established 3 criteria, all of which must be met, for the determination of wetlands. The standards for the criteria and their use in the determination of jurisdiction are detailed in the “Corps of Engineers Wetlands Delineation Manual” - commonly called the “1987 Manual.”

3.6 Madera General Plan

According to the California Natural Diversity Database, seven (7) plant and animal special-status species have been found in the city of Madera in the past. The database also shows one (1) “natural community” that has also been found in the city of Madera. This Natural Community, Northern Hardpan Vernal Pool, contains vernal pools (which fill seasonally during the rainy season) that could harbor sensitive plant and animal species (including fairy shrimps). These vernal pools are generally found in annual grasslands, grasslands where the soils include an impermeable clay-pan layer below the surface, conditions which are widely distributed in the eastern portion of the city.

Sensitive plants and animals that have been found in the city of Madera are listed below.

- Burrowing Owl.
- California Tiger Salamander.
- Blunt nosed leopard lizard.
- California linderiella (“fairy shrimp”).
- Vernal pool fairy shrimp.
- Madera leptosiphon.
- Hairy orcutt grass.

Although most of the city of Madera has been changed from its natural condition by farming and urban uses, a few areas of natural habitat remain. These include:

- Annual grasslands.
- Riparian areas.
- Wetlands. In addition, according to state records, one type of “Natural Community” is found in the Planning Area.

The Madera General Plan Conservation Element outlines the following policies related to conservation of biological resources:

Conservation Policy CON-23: *The City shall seek to conserve and improve native wildlife and plant habitat in cooperation with governmental agencies, private associations and individuals in Madera.*

Conservation Policy CON-24: *Residential, commercial, industrial and recreational projects shall avoid impacts to native wildlife and plant habitat to the extent feasible.*

Conservation Policy CON-25: *The City encourages the preservation of habitat areas needed for the ongoing viability of native species, and habitat connectivity through the use of conservation easements or other methods.*

Conservation Policy CON-26: *To offset possible additional losses of native wildlife and plant habitat due to development projects, developers shall be responsible for mitigation. Such mitigation measures may include providing and permanently maintaining similar quality and quantity of replacement habitat, enhancing existing habitat areas or paying in-lieu funds to an approved wildlife habitat improvement and acquisition fund. Replacement habitat may occur either on site or at approved offsite locations, but preference shall be given to on-site replacement.*

Conservation Policy CON-27: *The City supports the revitalization of the Fresno River as an amenity which can be enjoyed by both visitors and residents of Madera and serve as a source of civic pride, while continuing to provide for plant and wildlife habitat opportunities.*

4 METHODOLOGY

4.1 Background Review

Biological resource books, articles, and databases were reviewed to identify special-status species and sensitive habitats that might be present at or adjacent to the site. The databases accessed included: U.S. Fish and Wildlife (FWS) special-status species database, the California Department of Fish and Wildlife Natural Diversity Data Base (CNDDDB), and the FWS National Wetlands Inventory (NWI) GIS database. Specifically, the following is the methodology utilized for background research

- US Fish and Wildlife – Special-Status Species Database
- California Department of Fish and Wildlife – Natural Diversity Database and Biogeographic Information and Observation System
- National Wetlands Inventory
- US Department of Agriculture, NRCS – Web Soil Survey
- *Environmental Protection Agency (EPA) Water Program “My Waters”*
- *Critical Habitat analysis*
- Google Earth Pro historic aerial imagery (1998-2019)

4.2 Site Survey

Preliminary Site Investigation

On October 15, 2021, Precision Civil Engineering (PCE) conducted a preliminary site investigation. Field conditions were typical for early fall at the site. The temperature was in the mid-60s during the day. The sky was clear and there was a light breeze. Site photos taken during the preliminary investigation are provided in **Figure 4-1**.



Figure 4-1 Site Photos

(left: view of the Project site, facing northwest; right: view of Project Site, facing northeast)

Source: Precision Civil Engineering, October 15, 2021

The site visit confirmed that the site vegetation is primarily classified as agricultural habitat. The site was disced and graded fallow agricultural land that contained very little vegetation. Ruderal weedy species typically found in disturbed or agricultural modified plant communities were observed on the site in limited quantities. The height of the vegetation was typically less than six (6) inches tall. This indicates that the vegetation on site and in the region is highly disturbed and is unlikely to follow natural vegetation patterns. The site is not expected to support native vegetation, due to discing activities.

The agricultural habitat type is generally surrounded by partially developed lands and existing roadways and ranks moderate to low in terms of wildlife value due to heavy alteration by grazing and agricultural practices. Though the undeveloped margins of these lands can offer reasonable access to food and water for some species and serve as movement corridors through which a variety of wildlife could be expected to pass, they lack a cover component that would enable the vast majority of wildlife species to safely nest, forage, and escape from predators.

The site is vacant and undeveloped with no improvements, structures, vegetative cover, trees, or water features suitable for habitat by special-status species. There are no shrubs, trees, or herbaceous vegetation present on the site. Disced fields are located to the north and south, in

addition to four (4) single-family residential dwellings to the north and manufacturer, California Custom Processing, to the south. Madera Self Storage bounds the site to the west and food-processing company, Ready Roast Co., bounds the site to the east.

Site Investigation

On February 8, 2022, Precision Civil Engineering (PCE) biologist, Mr. Ryan Brosius conducted a reconnaissance level survey of the project area to search for special status species, and to determine the potential presence of suitable habitat for these species. The site was surveyed using meandering pedestrian transects. Field binoculars were used to observe and identify animals encountered during the survey. Botanical species were identified, based on current available hand samples, to the species level whenever possible and recorded; otherwise they were recorded at the level of genus and or family. These surveys do not constitute CDFG and/or FWS Protocol level surveys for any specific species. Site photos taken during the preliminary investigation are provided in [Figure 4-2](#), [Figure 4-3](#), and [Figure 4-4](#).



Figure 4-2 Site Photo (view of the Project site, facing northeast)

Source: Precision Civil Engineering, February 9, 2022



Figure 4-3 Site Photo (view of the Project site, facing northwest)

Source: Precision Civil Engineering, February 9, 2022



Figure 4-4 Site Photo (view of the Project site, facing east)

Source: Precision Civil Engineering, February 9, 2022

5 RESULTS

5.1 Background Review

U.S. Fish and Wildlife – Special-Status Species Database

The Project site is located in Madera County. The U.S. Fish and Wildlife’s Information for Planning and Consultation (IPaC) database indicates 29 endangered species and ten (10) critical habitats that are potentially affected in the County.¹ The resource list generated from the IPaC resource list is attached in **Appendix A**.

California Department of Fish and Wildlife – Natural Diversity Database

The Project site is located in the Madera Quad. According to the CNDDDB, there are five (5) special-status species in five (5)-mile radius of the site. **Table 5-1** lists the species and their status within five (5) miles of the Project site.

Table 5-1 Wildlife Species within 5-mile radius of Project site

Scientific Name	Common Name	Status	
		Federal	State
Ambystoma californiense pop. 1	California tiger salamander	Threatened	Threatened
Branchinecta lynchi	Vernal pool fairy shrimp	Threatened	-
Buteo swainsoni	Swainson’s hawk	-	Threatened
Gambelia sila	Blunt-nosed leopard lizard	Endangered	Endangered
Orcuttia pilosa	Hairy Orcutt grass	Endangered	Endangered
Lytta molesta	molestan blister beetle	-	-
Layia munzii	Munz's tidy-tips	-	-
Spea hammondii	western spadefoot	-	-
Orcuttia inaequalis	San Joaquin Valley Orcutt grass	Threatened	Endangered
Navarretia nigelliformis ssp. radians	shining navarretia	-	-
Branchinecta mesovallensis	midvalley fairy shrimp	-	-
Leptosiphon serrulatus	Madera leptosiphon	-	-
Lasiurus cinereus	hoary bat	-	-
Athene cunicularia	burrowing owl	-	-

¹ U.S. fish and Wildlife Service. Information and Planning Consultation Online System. Accessed on October 19, 2021, <https://ecos.fws.gov/ipac/>

Table 5-2 lists the special-status species occurrences in the five (5)-mile radius of the site. The occurrence map developed from the CNDDDB is provided in **Appendix B**.

Table 5-2 Special-status Species Occurrences within 5-mile radius of Project site

Special-status species	Date	Rank	Distance to site
Swainson’s hawk	2016/4/16	Fair**	2.5 miles southwest
California tiger salamander	2021/3/19	Fair	2.2 miles northeast
California tiger salamander	2018/5/4	Fair	2.9 miles northeast
Vernal pool fairy shrimp	2016/2/11	Poor***	3.5 miles east
California tiger salamander	2018/7/10	Poor	3.5 miles east
Vernal pool fairy shrimp	1993/3/10	Unknown	3.7 miles northeast
California tiger salamander	2002/3/10	Fair	5 miles northeast

* Occurrences that are Extirpated, defined as “Only used when the element has been searched for but not seen for many years or when the habitat is destroyed at this site”, are not listed in the table.

** Fair (C) - Population small and/or potentially not very viable OR habitat in disturbed, fragmented or otherwise suboptimal condition. Disturbances are more severe and can include nearby development, heavy recreational use, ORV use and damage, heavy weed infestation, and more. Population not expected to persist in the long term but may persist for 10 years.

*** Poor (D) - Population very small and/or non-viable. Habitat may be in good condition, but usually it is not and shows multiple disturbances and features of degradation. Population not expected to persist over 5 years.

Based on the CNDDDB search, there are seven (7) special-status species occurrences within a five (5)-mile radius of the Project site (**Table 5-2**). These occurrences are ranked by the CNDDDB to be either fair or poor, whereby “fair” indicates the population is small and/or potentially not very viable or habitat in disturbed, fragmented, or otherwise suboptimal condition and “poor” indicates a very small and/or non-viable population. None of these occurrences have been observed on the Project site or in the immediate vicinity of the site (i.e., within 0.5- to one (1)-mile radius). Given the existing conditions of the Project site and surrounding properties including heavy alteration, lack of cover, vegetation, or water features, it can be determined that the potential for these species to occur on the site is very low to non-existent.

National Wetlands Inventory

A search of the National Wetlands Inventory (NWI) shows no federally protected wetlands (including but not limited to marsh, vernal pool, coastal, etc.) on the Project site or within the immediate vicinity of the Project area.² Wetlands in the 0.5-mile radius of the Project site include

² U.S. Fish & Wildlife Service. National Wetlands Inventory. Accessed October 19, 2021, <https://www.fws.gov/wetlands/data/Mapper.html>

two (2) 2 freshwater emergent wetland habitats classified as PEM1A and PEM1Cx. The PEM1A indicates Palustrine System (P) usually dominated by perennial plants (EM) that remain standing at least until the beginning of the next growing season (1), that is temporary flooded (A). The PEM1Cx indicates Palustrine System (P) usually dominated by perennial plants (EM) that remain standing at least until the beginning of the next growing season (1), that is seasonally flooded (C), and has been excavated by humans (x). These wetlands do not exist or occur on the Project site.

Environmental Protection Agency (EPA) Water Program “My Waters”

According to the My Waters GeoViewer, there are no surface water features (i.e., waterbodies, pipelines, canals, streams, coastlines, catchments, hydrologic units) on or in immediate vicinity of the Project site (see **Figure 5-1**). The nearest surface water feature is a catchment 0.52 miles north of the Project site.

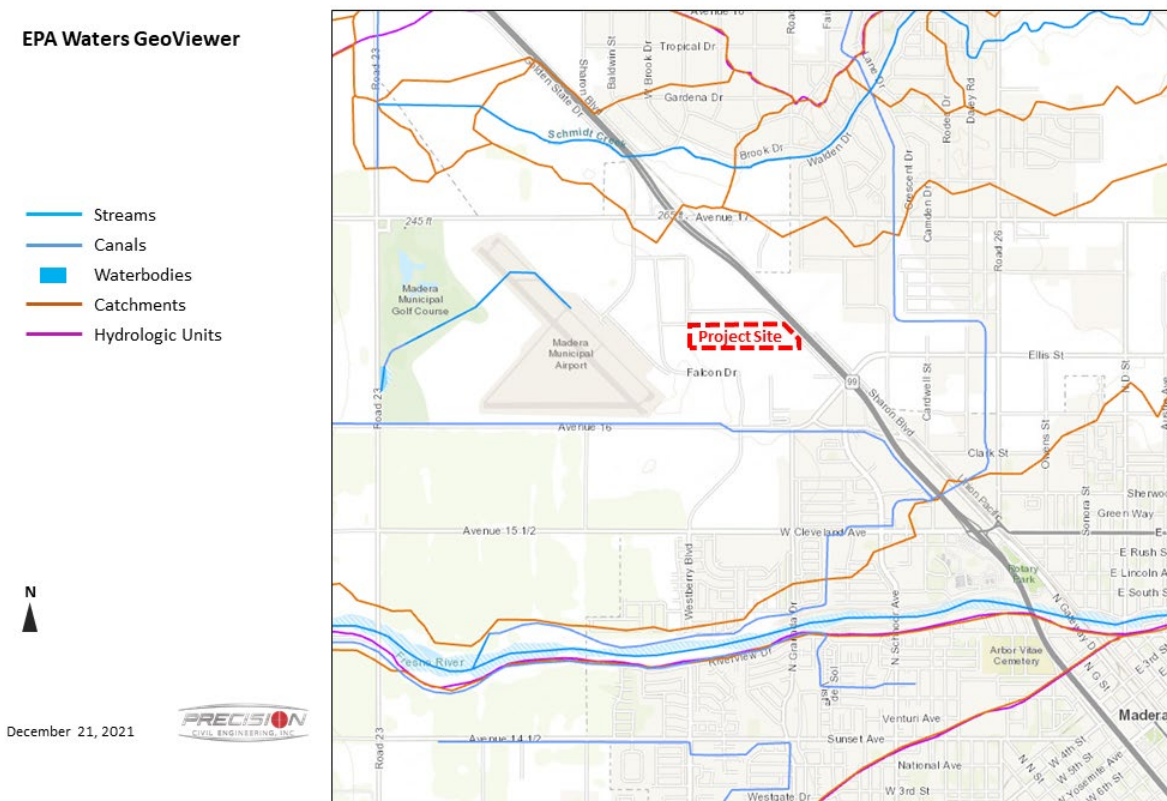
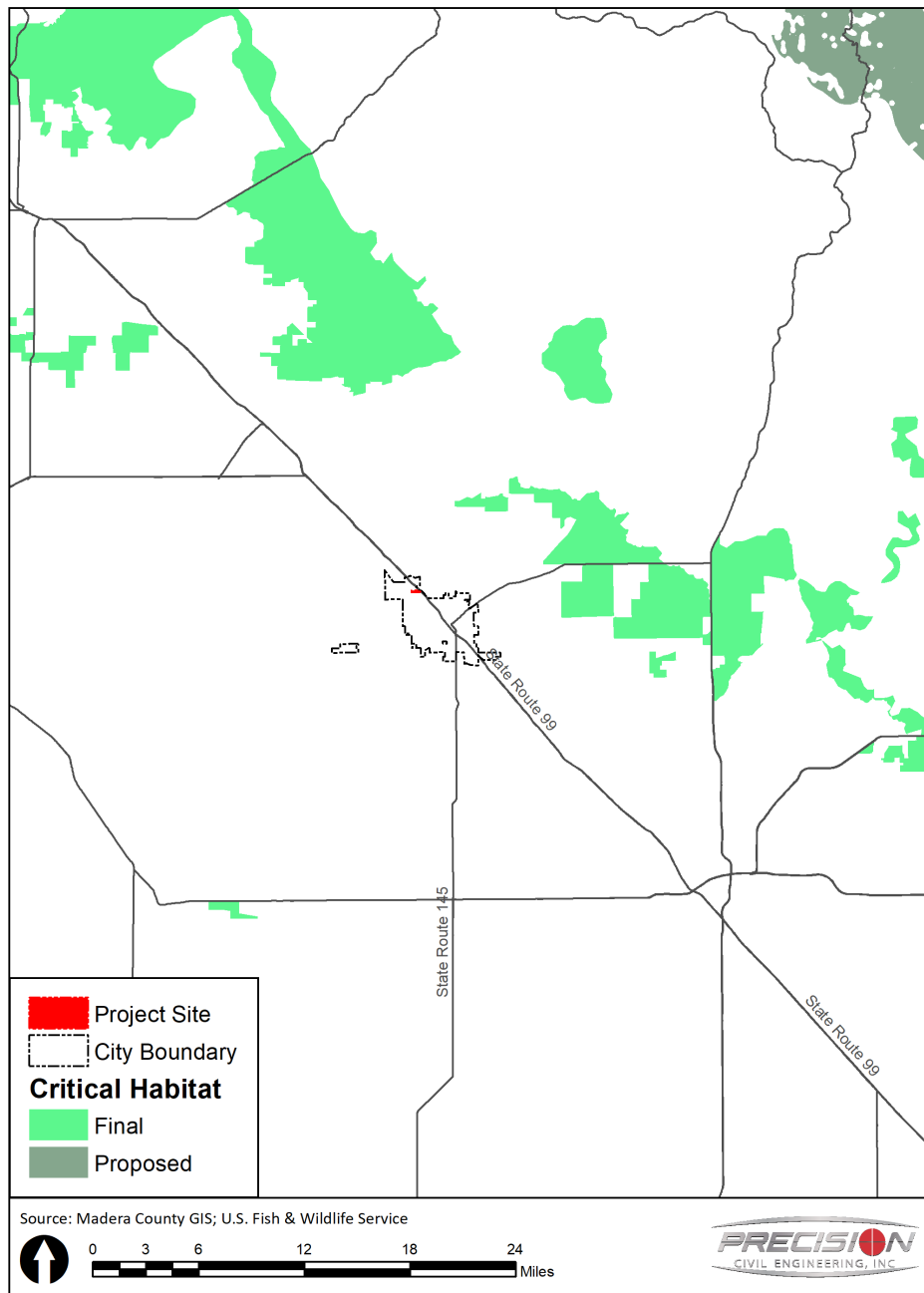


Figure 5-1 Surface Water Map

Critical Habitat

Once a species is listed under the federal Endangered Species Act, NOAA Fisheries is required to determine whether there are areas that meet the definition of Critical Habitat. Per NOAA Fisheries, Critical Habitat is defined as: Specific areas within the geographical area occupied by the species at the time of listing that contain physical or biological features essential to conservation of the species and that may require special management considerations or protection; and Specific areas

outside the geographical area occupied by the species if the agency determines that the area itself is essential for conservation. The Project site is not located with federally designated Critical Habitat, record updated December 10, 2021 (see **Figure 5-2**). The closest federally designated Critical Habitat is located approximately 7.5 miles east of the Project site for hairy Orcutt grass (*Orcuttia Pilosa*) and 5.5 miles northeast of the project site for Greene’s tuctoria (*Tuctoria Greenei*). These critical habitats are also identified in the General Plan Draft EIR.



CITY OF MADERA - ORIGO MADERA COLD STORAGE FACILITY

Created: 12/21/2021

Figure 5-2 Critical Habitat Map

5.2 Preliminary Site Investigation

On October 15, 2021, Precision Civil Engineering (PCE) conducted a preliminary site investigation. Field conditions were typical for early fall at the site. The temperature was in the mid-60s during the day. The sky was clear and there was a light breeze.

Site Habitat

The site vegetation is primarily classified as agricultural habitat. The site was disced and graded fallow agricultural land that contained very little vegetation. Ruderal weedy species typically found in disturbed or agricultural modified plant communities were observed on the site in limited quantities. The height of the vegetation was typically less than six (6) inches tall. This indicates that the vegetation on site and in the region is highly disturbed and is unlikely to follow natural vegetation patterns. The site is not expected to support native vegetation, due to discing activities.

The agricultural habitat type is generally surrounded by partially developed lands and existing roadways and ranks moderate to low in terms of wildlife value due to heavy alteration by grazing and agricultural practices. Though the undeveloped margins of these lands can offer reasonable access to food and water for some species and serve as movement corridors through which a variety of wildlife could be expected to pass, they lack a cover component that would enable the vast majority of wildlife species to safely nest, forage and escape from predators.

The site is vacant and undeveloped with no improvements, structures, vegetative cover, trees, or water features suitable for habitat by special-status species. There are no shrubs, trees, or herbaceous vegetation present on the site. Disced fields are located to the north and south, in addition to four (4) single-family residential dwellings to the north and manufacturer, California Custom Processing, to the south. Madera Self Storage bounds the site to the west and food-processing company, Ready Roast Co., bounds the site to the east. As referenced in [Table 5-3](#), the Project site is surrounded by land planned and zoned for industrial uses.

Table 5-3 Surrounding Land Uses

	Existing Use	Zone District	General Plan Designation
North	Vacant, Single-Family Residential	I – Industrial	I – Industrial
South	Vacant, Industrial	I – Industrial	I – Industrial
East	Madera Self-Storage, DPF Filters	IP – Industrial Park	I – Industrial
West	Ready Roast Co.	I – Industrial	I – Industrial

Potential for Species to Occur on Site

Based on the CNDDDB search, there are seven (7) special-status species occurrences within a five (5)-mile radius of the Project site (see **Table 5-2**). These occurrences are ranked by the CNDDDB to be either fair or poor, whereby “fair” indicates the population is small and/or potentially not very viable or habitat in disturbed, fragmented, or otherwise suboptimal condition and “poor” indicates a very small and/or non-viable population. None of these occurrences have been observed on the Project site or in the immediate vicinity of the site (i.e., within 0.5- to one (1)-mile radius). **Table 5-4** shows the habitats for these seven (7) special-status species occurrences, including the Swainson’s hawk, California tiger salamander, and Vernal pool fairy shrimp. Given the existing conditions of the Project site and surrounding properties including heavy alteration, lack of cover, vegetation, or water features, it can be determined that the potential for these species to occur on the site is very low to non-existent.

Table 5-4 Habitats of Swainson’s hawk, California tiger salamander, and Vernal pool fairy shrimp

Special-status species	General Habitat	Micro Habitat	Habitats
Swainson’s hawk	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees.	Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	<ul style="list-style-type: none"> ● Great Basin grassland ● Riparian forest ● Riparian woodland ● Valley & foothill grassland
California tiger salamander	Lives in vacant or mammal-occupied burrows throughout most of the year; in grassland, savanna, or open woodland habitats.	Need underground refuges, especially ground squirrel burrows, and vernal pools or other seasonal water sources for breeding.	<ul style="list-style-type: none"> ● Cismontane woodland ● Meadow & seep ● Riparian woodland ● Valley & foothill grassland ● Vernal pool ● Wetland
Vernal pool fairy shrimp	Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in astatic rain-filled pools.	Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	<ul style="list-style-type: none"> ● Valley & foothill grassland ● Vernal pool ● Wetland

Source: California Department of Fish and Wildlife

5.3 Site Investigation

The investigation was conducted on February 9, 2022. Field conditions were typical for winter at the site. The temperature was in the low 40’s in the a.m. to the 50’s during the site visit. The sky

was clear, and there was a light breeze. Vegetation on the site was green and growing. Vegetation on site consisted of grasses and forbs. Most of the site was covered in wild mustard.

Ground fauna on site were predominantly observed along the perimeter of the site. The site has been graded. Ground squirrel burrows were noted throughout the site. Particular attention and observation was given to burrows on site that might be used listee species. **Table 5-5** lists the observed flora species on site and

Table 5-6 lists the observed fauna species on site.

Trees were noted on the perimeter of the site that could be potentially used for nesting raptors. No nests were observed during the site visit.

Table 5-5 Observed Flora Species List

FAMILY	SCIENTIFIC NAME	COMMON NAME	HABITAT TYPE	LIFE CYCLE TYPE	NATIVE VS. NON-NATIVE	WETLAND INDICATOR DESIGNATION
Asteraceae	<i>Matricaria discoidea</i>	pineapple weed	disturbed areas	annual		NL
Asteraceae	<i>Centaurea solstitialis</i>	yellow star thistle	disturbed grassland		non-native	
Brassicaceae	<i>Brassica sp.*</i>	mustard	disturbed fields		non-native	
Brassicaceae	<i>Capsella bursa-pastoris</i>	shepherd's-purse	cultivated/disturbed places	annual	non-native	
Convolvulaceae	<i>Convolvulus arvensis</i>	field bindweed	grassland	annual	non-native	UPL
Malvaceae	<i>Malvella leprosa</i>	Alkali Mallow	cultivated, valleys	perennial	native	FAC
Poaceae	<i>Avena sativa</i>	oat	agricultural crop	annual	non-native	
Poaceae	<i>Triticum spp.</i>	Wheat	Agricultural crop	annual	non-native	FACW

* Field specimen for this species identified to the genus level only due to desiccation or other condition of available samples.

Note 1 - Range of common names for species within genus.

Note 2 - Range of habitats for species within genus.

Table 5-6 Observed Fauna Species List

SCIENTIFIC NAME	COMMON NAME
<i>Buteo jamaicensis</i>	Red tail hawk
<i>Cathartes aura</i>	Turkey vulture
<i>Corvus brachyrhynchos</i>	American crow
<i>Charadrius vociferus</i>	Killdeer
<i>Zenaida macroura</i>	Mourning dove

6 RECOMMENDATIONS

Impacts to biological resources are separated into three categories based on the duration of impact:

- Long-term impacts are defined as those impacts that would cause permanent loss or adverse effects to the resource by construction, alteration, diversion or use other than has historically been implemented or accepted.
- Short-term or temporary impacts would be defined as those associated with construction-activities, or uses other than those normally practiced on site, such as elevated levels of noise and equipment traffic not normally associated with the site.
- No-significant impact would be defined as those associated with historical and current uses that do not alter, change, or otherwise significantly diminish the sites current condition.

Based on data gathered during the site investigation, the proposed Project has very low potential to significantly impact the biological resources on site. With a very low prey base and low potential to provide substantially foraging opportunities, the loss of a small area such as this does not warrant the acquisition or preservation of compensatory habitat. However, ground squirrel burrows were noted throughout the site and trees were observed on the perimeter of the site (on the adjacent property) that could be potentially used for nesting raptor. Although no nests were observed during the site investigation, the following mitigation measures are recommended to ensure that impacts would be reduced to less than significant:

MM BIO-1.1: 14 days prior to Project activities, a pre-construction survey shall be conducted by a qualified biologist knowledgeable in the identification of burrowing owls. The pre-construction survey shall include walking transects to identify presence of burrowing owls and their burrows. For burrowing owls, the transects shall be spaced at no greater than 30-foot intervals to obtain a 100 percent coverage of the Project site and a 250-foot buffer.

1. If no evidence of this species is detected, no further action is required.
2. If dens or burrows that could support these species are discovered during the pre-construction survey, avoidance buffers outlined below shall be established. Unless a qualified biologist approves and monitors development activity, no work shall occur within these buffers. Burrowing Owl (active burrows):
 - a. Non-breeding season (September 1 to January 31): 160 feet
 - b. Breeding season (February 1 to August 31): 250 feet

MM BIO-1.2: If Project activities must occur during the nesting season (February 1 to September 15), pre-activity nesting bird surveys shall be conducted within seven (7) days prior to the start of construction on the construction site and a 500-foot buffer for raptors (other than Swainson's hawk).

1. *If no active nests are found, no further action is required. However, existing nests may become active, and new nests may be built at any time prior to and throughout the nesting season, including when construction activities are in progress.*
2. *If active nests are found during the survey or at any time during construction of the Project, an avoidance buffer ranging from 50 feet to 500 feet may be required, with the avoidance buffer from any specific nest being determined by a qualified biologist. The avoidance buffer will remain in place until the biologist has determined that the young are no longer reliant on the adults or the nest. Work may occur within the avoidance buffer under the approval and guidance of the biologist, but full-time monitoring may be required. The biologist shall have the ability to stop construction if nesting adults show any sign of distress.*

MM BIO-1.3: *If Project activities must occur during the Swainson’s hawk nesting season (February 15 to August 31), pre-construction surveys shall be conducted for Swainson’s hawk nests in accordance with the Recommended Timing and Methodology for Swainson’s Hawk Nesting Surveys in California’s Central Valley, Swainson’s Hawk Technical Advisory Committee (CDFG, 2000). The surveys would be conducted on the Project site plus a 0.5-mile buffer. To meet the minimum level of protection for the species, surveys shall be conducted during at least two survey periods.*

1. *If no Swainson’s hawk nests are found, no further action is required.*

If an active Swainson’s hawk nest is discovered at any time within 0.5 miles of active construction, a qualified biologist shall complete an assessment of the potential for current construction activities to impact the nest. The assessment would consider the type of construction activities, the location of construction relative to the nest, the visibility of construction activities from the nest location, and other existing disturbances in the area that are not related to the construction activities of this Project. Based on this assessment, the biologist will determine if construction activities can proceed and the level of nest monitoring required. Construction activities shall not occur within 500 feet of an active nest, but this distance may be reduced depending upon conditions at the site. Full-time monitoring to evaluate the effects of construction activities on nesting Swainson’s hawks may be required. The qualified biologist shall have the authority to stop work if it is determined that Project construction is disturbing the nest. These buffers may need to increase depending on the sensitivity of the nesting Swainson’s hawk to disturbances and at the discretion of the qualified biologist.

7 APPENDICIES

Appendix A: IPaC Resource List

Appendix B: CNDDDB Occurrence Map

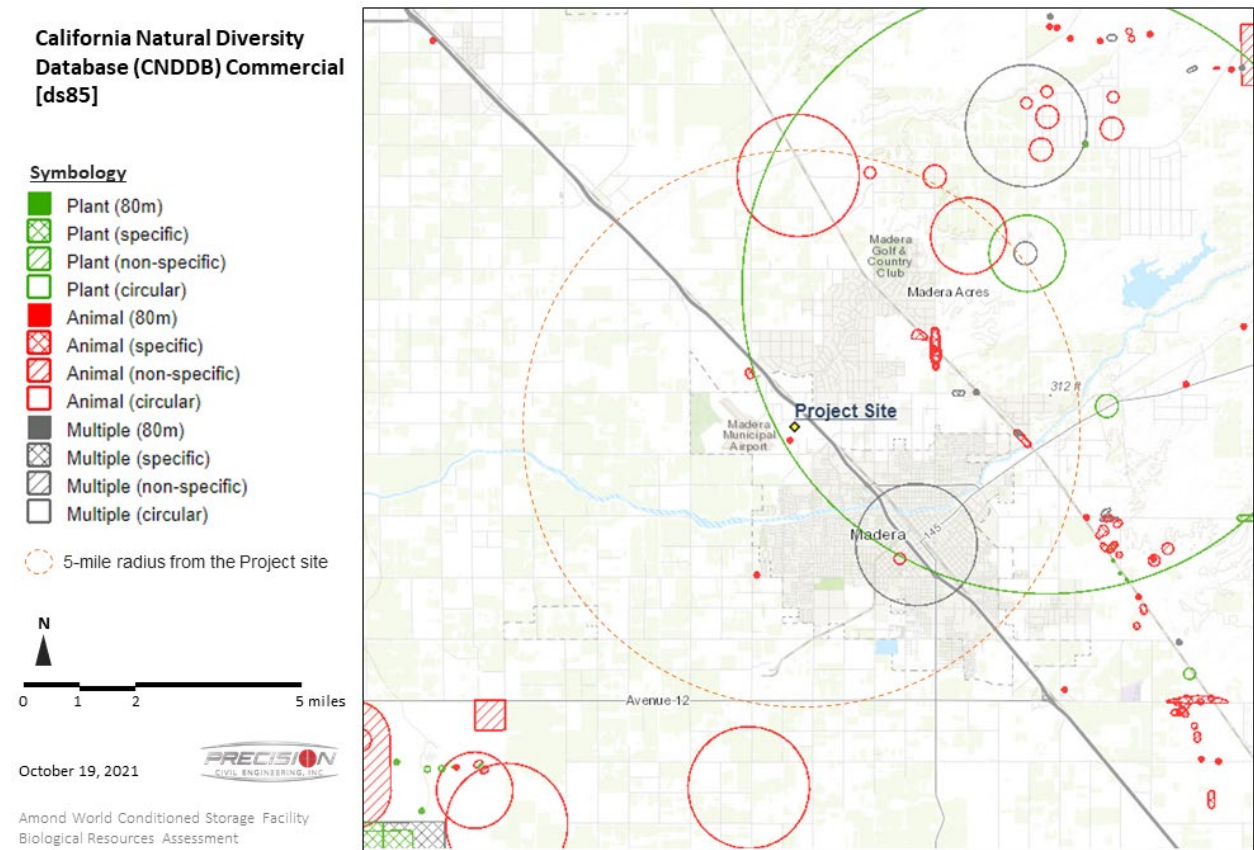


Figure 7-1 CNDDDB Special-status Species Occurrences

Appendix C: Site Photos



Figure 7-2 View of Project Site, facing northeast

Source: Precision Civil Engineering, October 15, 2021



Figure 7-3 View of the Project site, facing northwest

Source: Precision Civil Engineering, October 15, 2021