DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT
1010 10TH Street, Suite 3400, Modesto, CA 95354
Planning Phone: (209) 525-6330 Fax: (209) 525-5911
Building Phone: (209) 525-6557 Fax: (209) 525-7759

CEQA Referral Initial Study And Notice of Intent to Adopt a Negative Declaration

Date: **July 29, 2022**

To: **Distribution List (See Attachment A)**

From: **Emily Basnight, Assistant Planner, Planning and Community Development**

Subject: **VARIANCE APPLICATION NO. PLN2022-0009 – FRITO-LAY, INC.**

Comment Period: **July 29, 2022 – August 31, 2022**

Respond By: **August 31, 2022**

Public Hearing Date: **September 15, 2022**

You may have previously received an Early Consultation Notice regarding this project, and your comments, if provided, were incorporated into the Initial Study. Based on all comments received, Stanislaus County anticipates adopting a Negative Declaration for this project. This referral provides notice of a 30-day comment period during which Responsible and Trustee Agencies and other interested parties may provide comments to this Department regarding our proposal to adopt the Negative Declaration.

All applicable project documents are available for review at: Stanislaus County Department of Planning and Community Development, 1010 10th Street, Suite 3400, Modesto, CA 95354. Please provide any additional comments to the above address or call us at (209) 525-6330 if you have any questions. Thank you.

Applicant: **Daniel O'Brien, Modesto Site Director, Frito-Lay, Inc.**

Project Location: **600 Garner Road, between Yosemite Boulevard (SR 132) and Finch Road, in the Modesto area.**

APN: **009-018-055**

Williamson Act Contract: **N/A**

General Plan: **Industrial**

Current Zoning: **Industrial (M)**

Project Description: **This is a request for a variance to the Industrial (M) zoning district height limit. The project proposes to expand the current Frito-Lay facility by constructing a 62,000± square-foot manufacturing building, 27,000± square-foot warehouse building, silos (one to be utilized for corn storage and one for cornmeal storage), and site improvements consisting of the following: a second rail branch; new solar photovoltaic carport; 14 vehicle charging stations for employees; a publicly available compressed natural gas fueling station; and a near zero emission and zero emission on and off-road fleet upgrades to increase the production capacity and reduce the need to import packaged snack food products from other plants. The proposed expansion will also include the addition of a new snack food production line for Onion Fried Snack (OFS) production, and the addition of a cornmeal receiving, storage, and handling system. The number**

of employees is anticipated to increase by 206 as part of this project; increasing the number of employees to 486 during a maximum shift. The corn and cornmeal silos will be 85± feet tall; as unmanned fireproof structures the silos are considered to be permitted uses in the Industrial (M) zoning district and are not subject to a height limit pursuant to §21.60.040(B) of the County Zoning Ordinance. The proposed 62,000± square-foot manufacturing building will be 46 feet tall. The 27,000± square-foot warehouse is proposed to be 92 feet tall with an HVAC unit at the top bringing the total height to 97 feet tall; the warehouse will be composed of one floor, and a mezzanine. County Zoning Ordinance §21.60.040(A) requires building and appurtenant structures not to exceed 75 feet in height in the Industrial (M) zoning district. The additional height of the building is needed to accommodate construction of a three-crane automated storage and pallet retrieval system for bulk materials transported by truck and rail. The automated crane system will operate from the ground level and the first floor and mezzanine of the proposed warehouse will be manned daily, with up to four employees to oversee the crane system and operate forklifts from ground levels. The proposed warehouse and expansion will be located at an existing snack manufacturing facility on a 71.35± acre parcel in the Industrial (M) zoning district within the LAFCO adopted Sphere of Influence for the City of Modesto. The site is currently served with public sewer and water facilities by the City of Modesto. The site has access to County-maintained Garner Road and Leckron Road. The expansion of the facility is a permitted use in the Industrial (M) zoning district; however, the environmental review will cover the entire expansion request for the purpose of allowing Frito-Lay, Inc. to obtain Air District permits which require CEQA review for the expansion of the manufacturing and packaging operations for the new OFS production line. The Planning Commission will consider the variance for the additional height of the proposed 97-foot-tall warehouse building, and the CEQA review for the entire project.

Full document with attachments available for viewing at:
http://www.stancounty.com/planning/pl/act-projects.shtm

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VARIANCE APPLICATION NO. PLN2022-0009 – FRITO-LAY, INC.
Attachment A

Distribution List

	CA DEPT OF CONSERVATION Land Resources	X	STAN CO ALUC
X	CA DEPT OF FISH & WILDLIFE		STAN CO ANIMAL SERVICES
	CA DEPT OF FORESTRY (CAL FIRE)	X	STAN CO BUILDING PERMITS DIVISION
X	CA DEPT OF TRANSPORTATION DIST 10	X	STAN CO CEO
X	CA OPR STATE CLEARINGHOUSE		STAN CO CSA
	CA RWQCB CENTRAL VALLEY REGION	X	STAN CO DER
	CA STATE LANDS COMMISSION	X	STAN CO ERC
	CEMETERY DISTRICT		STAN CO FARM BUREAU
	CENTRAL VALLEY FLOOD PROTECTION	X	STAN CO HAZARDOUS MATERIALS
X	CITY OF MODESTO	X	STAN CO PARKS & RECREATION
	COMMUNITY SERVICES/SANITARY DIST	X	STAN CO PUBLIC WORKS
X	COOPERATIVE EXTENSION		STAN CO RISK MANAGEMENT
	COUNTY OF:	X	STAN CO SHERIFF
	DER - GROUNDWATER RESOURCES DIVISION	X	STAN CO SUPERVISOR DIST 5: C. CONDIT
X	FIRE PROTECTION DIST: STANISLAUS CONSOLIDATED	X	STAN COUNTY COUNSEL
	GSA:	X	StanCOG
	HOSPITAL DIST:	X	STANISLAUS FIRE PREVENTION BUREAU
X	IRRIGATION DIST: MODESTO	X	STANISLAUS LAFCO
X	MOSQUITO DIST: EASTSIDE		STATE OF CA SWRCB – DIV OF DRINKING WATER DIST. 10
X	MOUNTAIN VALLEY EMERGENCY MEDICAL SERVICES	X	SURROUNDING LAND OWNERS
	MUNICIPAL ADVISORY COUNCIL:	X	TELEPHONE COMPANY: AT&T
X	PACIFIC GAS & ELECTRIC		TRIBAL CONTACTS (CA Government Code §65352.3)
	POSTMASTER:		US ARMY CORPS OF ENGINEERS
X	RAILROAD: MODESTO AND EMPIRE TRACTION		US FISH & WILDLIFE
X	SAN JOAQUIN VALLEY APCD		US MILITARY (SB 1462)
X	SCHOOL DIST 1: EMPIRE UNION		USDA NRCS
X	SCHOOL DIST 2: MODESTO UNION		WATER DIST:
	WORKFORCE DEVELOPMENT	X	MODESTO CITY-COUNTY AIRPORT
X	STAN CO AG COMMISSIONER	X	TOULUMNE RIVER TRUST

STANISLAUS COUNTY
CEQA REFERRAL RESPONSE FORM

TO: **Stanislaus County Planning & Community Development**
1010 10th Street, Suite 3400
Modesto, CA 95354

FROM: _____

SUBJECT: **VARIANCE APPLICATION NO. PLN2022-0009 – FRITO-LAY, INC.**

Based on this agency's particular field(s) of expertise, it is our position the above described project:

_____ Will not have a significant effect on the environment.
_____ May have a significant effect on the environment.
_____ No Comments.

Listed below are specific impacts which support our determination (e.g., traffic general, carrying capacity, soil types, air quality, etc.) – (attach additional sheet if necessary)

1.
2.
3.
4.

Listed below are possible mitigation measures for the above-listed impacts: *PLEASE BE SURE TO INCLUDE WHEN THE MITIGATION OR CONDITION NEEDS TO BE IMPLEMENTED (PRIOR TO RECORDING A MAP, PRIOR TO ISSUANCE OF A BUILDING PERMIT, ETC.):*

1.
2.
3.
4.

In addition, our agency has the following comments (attach additional sheets if necessary).

_____

_____

Response prepared by:

_____

Name Title Date

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CEQA INITIAL STUDY

Adapted from CEQA Guidelines APPENDIX G Environmental Checklist Form, Final Text, January 1, 2020

1.	**Project title:**	Variance Application No. PLN2022-0009 – Frito-Lay, Inc.
2.	**Lead agency name and address:**	Stanislaus County 1010 10th Street, Suite 3400 Modesto, CA 95354
3.	**Contact person and phone number:**	Emily Basnight, Assistant Planner 209-525-6330
4.	**Project location:**	600 Garner Road, between Yosemite Boulevard (SR 132) and Finch Road, in the Modesto area (APN:009-018-055)
5.	**Project sponsor's name and address:**	Daniel O'Brien, Modesto Site Director, Frito-Lay, Inc. 600 Garner Road, Modesto, CA 95357
6.	**General Plan designation:**	Industrial
7.	**Zoning:**	Industrial (M)

8. Description of project:

This is a request for a variance to the Industrial (M) zoning district height limit. The project proposes to expand the current Frito-Lay facility by constructing a 62,000± square-foot manufacturing building, 27,000± square-foot warehouse building, silos (one to be utilized for corn storage and one for cornmeal storage), and site improvements consisting of the following: a second rail branch; new solar photovoltaic carport; 14 vehicle charging stations for employees; a publicly available compressed natural gas fueling station; and a near zero emission and zero emission on and off-road fleet upgrades to increase the production capacity and reduce the need to import packaged snack food products from other plants. The proposed expansion will also include the addition of a new snack food production line for Onion Fried Snack (OFS) production, and the addition of a cornmeal receiving, storage, and handling system. The number of employees is anticipated to increase by 206 as part of this project; increasing the number of employees to 486 during a maximum shift. The corn and cornmeal silos will be 85± feet tall; as unmanned fireproof structures the silos are considered to be permitted uses in the Indusrial (M) zoning district and are not subject to a height limit pursuant to §21.60.040(B) of the County Zoning Ordinance. The proposed 62,000± square-foot manufacturing building will be 46 feet tall. The 27,000± square-foot warehouse is proposed to be 92 feet tall with an HVAC unit at the top bringing the total height to 97 feet tall; the warehouse will be composed of one floor, and a mezzanine. County Zoning Ordinance §21.60.040(A) requires building and appurtenant structures not to exceed 75 feet in height in the Industrial (M) zoning district. The additional height of the building is needed to accommodate construction of a three-crane automated storage and pallet retrieval system for bulk materials transported by truck and rail. The automated crane system will operate from the ground level and the first floor and mezzanine of the proposed warehouse will be manned daily, with up to four employees to oversee the crane system and operate forklifts from ground levels. The proposed warehouse and expansion will be located at an existing snack manufacturing facility on a 71.35± acre parcel in the Industrial (M) zoning district within the LAFCO adopted Sphere of Influence for the City of Modesto. The site is currently served with public sewer and water facilities by the City of Modesto. The site has access to County-maintained Garner Road and Leckron Road. The expansion of the facility is a permitted use in the Industrial (M) zoning district; however, the environmental review will cover the entire expansion request for the purpose of allowing Frito-Lay, Inc. to obtain Air District permits which require CEQA review for the expansion of the manufacturing and packaging operations for the new OFS production line. The

Planning Commission will consider the variance for the additional height of the proposed 97-foot-tall warehouse building, and the CEQA review for the entire project.

9.	**Surrounding land uses and setting:**	Industrial uses in all directions; Tuolumne River to the south; SR 132 and the City of Modesto to the north; Community of Empire to the northeast; and the Modesto City-County Airport to the west.
10.	**Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.):**	CalTrans San Joaquin Valley Air Pollution Control District (SJVAPCD) City of Modesto Stanislaus County Department of Public Works Department of Environmental Resources
11.	**Attachments:**	I. Air Quality and Greenhouse Gas Analysis Report, prepared by Ramboll, dated February 9, 2022 II. Federal Aviation Administration Aeronautical Study Nos. 2022-AWP-3479-OE – 2022-AWP-3489-OE, dated March 22, 2022

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:
The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐ **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**

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

☒ **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 on File **July 20, 2022**
Prepared by Emily Basnight Date

EVALUATION OF ENVIRONMENTAL IMPACTS:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (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).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, than the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration.

Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

> **a) Earlier Analysis Used. Identify and state where they are available for review.**
>
> **b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.**
>
> **c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.**

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). References to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify:

> **a) the significant criteria or threshold, if any, used to evaluate each question; and**
>
> **b) the mitigation measure identified, if any, to reduce the impact to less than significant.**

ISSUES

I. AESTHETICS – Except as provided in Public Resources Code Section 21099, could the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?			X	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?			X	
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?			X	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			X	

Discussion: The project site itself is not considered to be a scenic resource or unique scenic vista. The project site is currently improved with a 436,000± square-foot manufacturing/warehouse building, a 63,000± square-foot warehouse, traffic center, solar field, and parking lots. On May 20, 2021, The Stanislaus County Planning Commission approved a project involving addition of a 39,000± square-foot warehouse building, a 127,000 square-foot manufacturing building, a second rail spur, receiving and storage equipment and an expansion of a retention pond; the project is currently under construction and multiple building permits have been applied for through the Stanislaus County Building Permits Division. The proposed 62,000± square-foot manufacturing building, 27,000± square-foot warehouse building, corn and cornmeal silos, and site improvements consisting of the following: a second rail branch; new solar photovoltaic carport; 14 vehicle charging stations for employees; a publicly available compressed natural gas fueling station; and a near zero emission and zero emission on and off-road fleet upgrades are industrial in nature as manufacturing/warehouse uses, which are consistent with other developments in the area. The corn and cornmeal silos will be 85 feet tall; the silos are considered unmanned fireproof structures and not subject to a height limit pursuant to §21.60.040(B) of the County Zoning Ordinance. The proposed 62,000± square-foot manufacturing building will be 46 feet tall. The 27,000± square-foot warehouse is proposed to be 92 feet tall with an HVAC unit at the top bringing the total height to 97 feet tall. The site is surrounded by industrial uses in all directions and City of Modesto to the north and the City of Ceres to the south. The project site is located within the LAFCO adopted Sphere of Influence of the City of Modesto. The project was referred to the City of Modesto; the project site is designated as Industrial within the Modesto General Plan. The City of Modesto responded that the City's industrial zones do not have height limits except when located in the Airport Zone or adjacent to a residential zone. The City of Modesto indicated that the proposed total height for the warehouse is consistent with City height standards. The project site is located approximately 1.5 miles northeast of the Modesto City County Airport's primary runway. An early consultation referral response received from the Modesto Airport manager on March 14, 2022, required the project contractor to file a Notice of Proposed Construction or Alteration (FAA Form 7460-1) with the Federal Aviation Administration (FAA) to determine whether any effects on navigable airspace would be imposed by the proposed 97-foot-tall warehouse building with appurtenance. An application was submitted to the FAA and the FAA conducted an aeronautical study on the proposed warehouse building, manufacturing building and the corn and cornmeal silos. On March 22, 2022, the FAA issued their determination; the study revealed the structures do not exceed obstruction standards and would not be a hazard to air navigation provided the FAA's conditions are met requiring notification if the project is to be abandoned, dismantled, destroyed, altered or within five days after construction reaches its greatest height. Based on their evaluation, the FAA determined that marking and lighting are not necessary for aviation safety and requested conditions to be placed on the project if marking and lighting are installed in the future. More information regarding the FAA aeronautical study and Airport Land Use Commission referral can be found below under the Hazards and Hazardous Materials section of this Initial Study.

Mitigation: None.

References: Application information; Variance No. PLN2020-0079 – Frito-Lay, Inc., approved by the Planning Commission on May 20, 2021; City of Modesto referral response, dated March 1, 2022; Modesto City-County Airport referral response, received March 14, 2022; Federal Aviation Administration Aeronautical Study Nos. 2022-AWP-3479-OE – 2022-

AWP-3489-OE, dated March 22, 2022; City of Modesto Zoning Ordinance (Title 10); Stanislaus County Zoning Ordinance (Title 21); the Stanislaus County General Plan; and Support Documentation.[1]

II. AGRICULTURE AND FOREST RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. -- Would the project:	**Potentially Significant Impact**	**Less Than Significant With Mitigation Included**	**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?			X	
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?			X	
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))?			X	
d) Result in the loss of forest land or conversion of forest land to non-forest use?			X	
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?			X	

Discussion: The 71.35± acre project site and its surrounding area is classified as "Urban and Built-Up Land" by the Farmland Mapping and Monitoring Program. Soils include Hanford Fine Sandy Loam (HbpA), moderately deep over silt, along with Hanford Sandy Loam (HdA), and Tujunga Loamy Sand (TuA). The site has been developed with the current manufacturing operation since 1990. No agricultural land surrounds the site. There are several vacant parcels to the northwest, west and south; however, all of them are zoned Industrial and are not currently in agricultural production. Any development of the surrounding vacant parcels would be subject to the permitted uses included in the Industrial Zoning Ordinance or would require additional land use entitlements and environmental review. The nearest agriculturally zoned parcel currently in agricultural production is located across Yosemite Boulevard .38 miles north of the project site. The nearest parcel in agricultural production and enrolled under a Williamson Act Contract is planted in almond trees and located .9 miles to the east of the project site. If approved, the proposed project will not convert farmland to non-agriculture uses as the project site and surrounding area is built-out with industrial and commercial uses; nor will it conflict with existing zoning or a Williamson Act Contract.

Mitigation: None.

References: Application Information; California State Department of Conservation Farmland Mapping and Monitoring Program – Stanislaus County Farmland 2012; USDA – NRCS Web Soil Survey; Stanislaus County Zoning Ordinance (Title 21); Stanislaus County General Plan and Support Documentation.[1]

III. 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 Included	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?			X	
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?			X	
c) Expose sensitive receptors to substantial pollutant concentrations?			X	
d) Result in other emissions (such as those odors adversely affecting a substantial number of people?			X	

Discussion: The project site is within the San Joaquin Valley Air Basin, which has been classified as "severe non-attainment" for ozone and respirable particulate matter (PM-10) as defined by the Federal Clean Air Act. The San Joaquin Valley Air Pollution Control District (SJVAPCD) has been established by the State in an effort to control and minimize air pollution. As such, the District maintains permit authority over stationary sources of pollutants.

The expansion includes construction of a 62,000± square-foot manufacturing building, 27,000± square-foot warehouse building, silos (one to be utilized for corn storage and one for cornmeal storage), and site improvements consisting of the following: a second rail branch; new solar photovoltaic carport; 14 vehicle charging stations for employees; a publicly available compressed natural gas fueling station; and a near zero emission and zero emission on and off-road fleet upgrades to increase the production capacity and reduce the need to import packaged snack food products from other plants. The proposed expansion will also include the addition of a new snack food production line for Onion Fried Snack (OFS) production, and the addition of a cornmeal receiving, storage, and handling system. A Permit to Operate (PTO) and an Authority to Construct (ATC) permit will be required to be obtained from the SJVAPCD for the proposed facility expansion.

The primary source of air pollutants generated by this project would be classified as being generated from "mobile" sources created from increased passenger vehicle, truck, and train trips generated from the expansion. Mobile sources would generally include dust from roads, farming, and vehicle exhaust. The applicant estimates an increase of 7 outbound truck trips per day and 5 railcars per week as a result of this project. At full build-out there will be an increase of 206 employees as part of this project; increasing the number of employees to 486 during a maximum shift. The facility will have an average of 93 outbound loads, five inbound loads per day, and 33 railcars per week as a result of the project. Customers and visitors on-site per day is anticipated to increase by six for a total of 26 per day as part of the expansion. A comment was received from SJVAPCD in response to the Early Consultation prepared for the proposed project indicating that construction and operation-related emissions for the Project would have a less than significant impact on air quality and are not expected to exceed any of the District's annual emissions significance thresholds, including: 100 tons per year of carbon monoxide (CO), 10 tons per year of oxides of nitrogen (NOx), 10 tons per year of reactive organic gases (ROG), 27 tons per year of oxides of sulfur (SOx), 15 tons per year of particulate matter of 10 microns or less in size (PM10), or 15 tons per year of particulate matter of 2.5 microns or less in size (PM2.5). However, the response letter indicated that further review of the project's potential impacts to air quality should be conducted, and Project related pollutant emissions should be identified and quantified, for both existing and post-project construction and operational emissions. The letter also indicated that a Health Risk Assessment, and Ambient Air Quality Analysis, and assessment for any Hazards and Odors may also be needed to evaluate the project's health related impacts.

The comments provided by the Air District were based on the proposed expansion of the Frito-Lay facility. However, the Planning Commission will only consider the Variance request to the Industrial height standard. The proposed expansion is a permitted use under the Industrial Zoning Ordinance and requires ministerial permits to be reviewed and approved by Staff for full build-out; however, a Permit to Operate (PTO) and an Authority to Construct (ATC) permit are required by the Air District as part of the expansion and necessitate an analysis of the impacts to air quality in order to process the ATC and PTO. Accordingly, additional CEQA analysis is necessary to be conducted, specifically in terms of potential impacts to air quality and greenhouse gas emissions as a result of the proposed expansion and use of the snack food facility.

An Air Quality and Greenhouse Gas Analysis Report was prepared by Ramboll in February 2022 and received on February 9, 2022. The report included all proposed uses in calculating emissions and making significance determinations in the

analysis. The analysis utilized the California Emissions Estimator Model (CalEEMod) to calculate emission factors for grading, construction, and paving activities and for operational emissions, made up of motor vehicles (fleet and employee vehicles and trains) based on the number of trips and Vehicle Miles Traveled (VMT); area sources (architectural coatings, consumer products, landscape equipment); and natural gas for uses both requiring Air District permits (permitted uses), and uses not subject to District permits (non-permitted uses). The analysis found that emissions of ROG, CO, SO2, NOx, PM10, and PM2.5 associated with the construction and operation of the project would not exceed the District's significance thresholds. The applicant proposes to change the fleet composition replacing 12 diesel fueled trucks with 14 electric powered trucks and addition two additional natural gas fueled trucks for a total of 40 natural gas fueled trucks and 14 electric trucks in order to lower criteria pollutant emissions. The project was determined to be below the SJVAPCD GAMAQI thresholds of significance. As the SJVAPCD Air Quality Attainment Plans predict that nonattainment pollutant emissions will continue to decline each year as regulations adopted to reduce these emissions are implemented, accounting for growth projected for the region, cumulative health impacts were anticipated to decline even with the project's emission contribution. The analysis found that expected emission increases for the Project will be less than 100 pounds per day for ROG, CO, SO2, NOx, PM10, and PM2.5; therefore, an ambient air quality analysis will not be required. The closest sensitive receptor to the project site is a house located at the northwest corner of Codoni Avenue and Finch Road, approximately 2,000 feet southeast of the project site, and therefore not expected to be impacted by the Project activities. Additionally, odors are not expected to impact off-site receptors, as construction equipment and haul trucks are not expected to generate diesel exhaust odor greater than typically present at the facility and will abide by best practices for equipment used during construction, and truck idling on-site.

The Air District initially recommended a Health Risk Assessment (HRA) be performed for the project to evaluate potential health impacts associated with the addition of the new Onion Fried Snack (OFS) production line and the addition of a cornmeal receiving, storage, and handling system. However, the District provided a comment letter on July 8, 2022, determining the proposed OFS production line equipment will generate de minims levels of Toxic Air Contaminants. Therefore, the proposed project is not expected to cause any significant public health risk.

The project will be required to obtain all applicable Air District permits, including an Authority to Construct (ATC) Permit and Permit to Operate (PTO), and may be subject to the following District Rules: Regulation VIII (Fugitive PM10 Prohibitions), Rule 2201 New and Modified Stationary Review, Rule 4002 National Emission Standards for Hazardous Air Pollutants, Rule 4102 Nuisance, Rules 4601 Architectural Coatings, 4641 Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations, and 9510 Indirect Source Review. The applicant has already submitted their ATC application to the Air District. Staff will include a condition of approval on the project requiring that the applicant be in compliance with the District's rules and regulations. As the project must comply with District regulations, the project's emissions would be less than significant for all criteria pollutants, would not be inconsistent with any applicable air quality attainment plans, and would result in less than significant impacts to air quality.

Mitigation: None.

References: San Joaquin Valley Air Pollution Control District referral response, dated March 9, 2022; Air Quality and Greenhouse Gas Analysis Report, prepared by Ramboll, dated February 9, 2022; Letter from San Joaquin Valley Air Pollution Control District, received July 8, 2022; San Joaquin Valley Air Pollution Control District - Regulation VIII Fugitive Dust/PM-10 Synopsis; www.valleyair.org; Application Information; Stanislaus County Zoning Ordinance (Title 21); Stanislaus County General Plan and Support Documentation.[1]

IV. BIOLOGICAL RESOURCES -- Would the project:	**Potentially Significant Impact**	**Less Than Significant With Mitigation Included**	**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?			**X**	
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			**X**	

Department of Fish and Game or U.S. Fish and Wildlife Service?				
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?			X	
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?			X	
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			X	
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?			X	

Discussion: The project is located within the Riverbank Quad based on the California Natural Diversity Database (CNDDB). There are five animals and two insect species which are state or federally listed, threatened, or identified as species of special concern or a candidate of special concern within the Riverbank California Natural Diversity Database Quad. These species include the Swainson's hawk, vernal pool fairy shrimp, vernal pool tadpole shrimp, steelhead – Central Valley DPS, chinook salmon - Central Valley spring-run ESU, Crotch bumble bee, and valley elderberry longhorn beetle. However, the project site has been developed with industrial uses for over 20 years, making the likelihood for existence of these species on the project site very low.

The Tuolumne River is located .72 miles south of the project site. The project was referred to the Tuolumne River Trust and no response has been received to date. An Early Consultation was referred to the California Department of Fish and Wildlife, and no response has been received to date. The project will not conflict with a Habitat Conservation Plan, a Natural Community Conservation Plan, or other locally approved conservation plans. Impacts to endangered species or habitats, locally designated species, or wildlife dispersal or mitigation corridors are considered to be less than significant.

Mitigation: None.

References: Application Information; California Department of Fish and Wildlife's Natural Diversity Database Quad Species List; Stanislaus County General Plan and Support Documentation.[1]

V. CULTURAL RESOURCES -- Would the project:	**Potentially Significant Impact**	**Less Than Significant With Mitigation Included**	**Less Than Significant Impact**	**No Impact**
a) Cause a substantial adverse change in the significance of a historical resource pursuant to in § 15064.5?			X	
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?			X	
c) Disturb any human remains, including those interred outside of formal cemeteries?			X	

Discussion: It does not appear that this project will result in significant impacts to any archaeological or cultural resources. The project site is already developed with manufacturing and warehouse operations, and the proposed construction is within the area which has already been disturbed. However, development standards will be placed on the project, requiring that construction activities shall be halted if any cultural resources are found, until appropriate agencies are contacted, and an archaeological survey is completed.

Mitigation: None.

References: Application Information; Stanislaus County General Plan and Support Documentation.[1]

VI. ENERGY. -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	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?			X	
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			X	

Discussion: The CEQA Guidelines Appendix F states that energy consuming equipment and processes, which will be used during construction or operation such as: energy requirements of the project by fuel type and end use, energy conservation equipment and design features, energy supplies that would serve the project, total estimated daily vehicle trips to be generated by the project, and the additional energy consumed per trip by mode, shall be taken into consideration when evaluating energy impacts. Additionally, the project's compliance with applicable state or local energy legislation, policies, and standards must be considered.

As stated above in the Air Quality section, the expansion includes construction of a 62,000± square-foot manufacturing building, a 27,000± square-foot warehouse building, silos (one to be utilized for corn storage and one for cornmeal storage), and site improvements consisting of the following: a second rail branch; new solar photovoltaic carport; 14 vehicle charging stations for employees; a publicly available compressed natural gas fueling station; and a near zero emission and zero emission on and off-road fleet upgrades to increase the production capacity and reduce the need to import packaged snack food products from other plants. The proposed expansion also includes a new snack food production line for Onion Fried Snack (OFS) production, and the addition of a cornmeal receiving, storage, and handling system. A Permit to Operate (PTO) and an Authority to Construct (ATC) permit will be required to be obtained from the SJVAPCD for the proposed expansion.

A comment was received in response to the Early Consultation referral for the Project indicating that further review of the project's potential impacts to air quality should be conducted. An Air Quality and Greenhouse Gas Analysis Report was conducted by Ramboll on February 9, 2022. The report included all proposed uses in calculating emissions and making significance determinations in the analysis. The analysis utilized the California Emissions Estimator Model (CalEEMod) to calculate emission factors for grading, construction, and paving activities and for operational emissions, made up of motor vehicles (fleet and employee vehicles and trains) based on the number of trips and Vehicle Miles Traveled (VMT); area sources (architectural coatings, consumer products, landscape equipment); and natural gas for uses both requiring Air District permits (permitted uses), and uses not subject to District permits (non-permitted uses). The analysis found that emissions of ROG, CO, SO2, NOx, PM10, and PM2.5 associated with the construction and operation of the project would not exceed the District's significance thresholds. As mentioned in the Air Quality section, the applicant proposes to change the fleet mix replacing 12 diesel fueled trucks with 14 electric powered trucks and two additional natural gas trucks for a total of 40 natural gas fueled trucks and 14 electric trucks in order to lower criteria pollutant emissions. The project was determined to be below the SJVAPCD GAMAQI thresholds of significance.

The proposed structures are subject to the mandatory planning and design, energy efficiency, water efficiency and conservation, material conservation and resources efficiency, and environmental quality measures of the California Green Building Standards (CALGreen) Code (California Code of Regulations, Title 24, Part 11).

In addition to the Authority to Construct (ATC) Permit and Permit to Operate (PTO), the project will be required to obtain other applicable Air District permits including but not limited to the following District Rules: Regulation VIII (Fugitive PM10 Prohibitions), Rule 2201 New and Modified Stationary Review, Rule 4002 National Emission Standards for Hazardous Air Pollutants, Rule 4102 Nuisance, Rules 4601 Architectural Coatings, 4641 Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations, and 9510 Indirect Source Review. The applicant has already submitted their ATC application to the Air District. Staff will include a condition of approval on the project requiring that the applicant be in compliance with the District's rules and regulations. As the project must comply with District regulations, the project would result in less than significant impacts to energy.

Mitigation: None.

References: Air Quality and Greenhouse Gas Analysis Report, prepared by Ramboll, dated February 9, 2022; San Joaquin Valley Air Pollution Control District referral response, dated March 9, 2022; San Joaquin Valley Air Pollution Control District - Regulation VIII Fugitive Dust/PM-10 Synopsis; www.valleyair.org; Application Information; Stanislaus County General Plan and Support Documentation.[1]

VII. GEOLOGY AND SOILS -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:			X	
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.			X	
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?			X	
iv) Landslides?			X	
b) Result in substantial soil erosion or the loss of topsoil?			X	
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?			X	
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?			X	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?			X	
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			X	

Discussion: As mentioned earlier in the Agriculture and Forest Resources section, the USDA Natural Resources Conservation Service's Eastern Stanislaus County Soil Survey indicates that the property is made up of Hanford Fine Sandy Loam (HbpA), moderately deep over silt, along with Hanford Sandy Loam (HdA), and Tujunga Loamy Sand (TuA). As contained in Chapter 5 of the General Plan Support Documentation, the areas of the County subject to significant geologic hazard are located in the Diablo Range, west of Interstate 5; however, as per the California Building Code, all of Stanislaus County is located within a geologic hazard zone (Seismic Design Category D, E, or F) and a soils test may be required at building permit application. Results from the soils test will determine if unstable or expansive soils are present. If such soils are present, special engineering of the structure will be required to compensate for the soil deficiency.

The proposed project includes construction of a 62,000± square-foot manufacturing building and 27,000± square-foot warehouse building, silos (one to be utilized for corn storage and one for cornmeal storage), and site improvements consisting of the following: a second rail branch; new solar photovoltaic carport; 14 vehicle charging stations for employees; a publicly available compressed natural gas fueling station; and a near zero emission and zero emission on and off-road fleet upgrades to increase the production capacity and reduce the need to import packaged snack food products from other plants. The corn and cornmeal silos will be 85 feet tall; the silos are considered unmanned fireproof structures and not subject to a height limit pursuant to §21.60.040(B) of the County Zoning Ordinance. The proposed 62,000± square-foot manufacturing building will be 46 feet tall. The 27,000± square-foot warehouse is proposed to be 92 feet tall with an HVAC unit at the top bringing the total height to 97 feet tall; the warehouse will be composed of one floor, and a mezzanine. County Zoning Ordinance §21.60.040(A) requires building and appurtenant structures not to exceed 75 feet in height in the Industrial

(M) zoning district. The expansion of the facility is a permitted use in the Industrial (M) zoning district; however, the environmental review will cover the entire expansion request for the purpose of allowing Frito-Lay, Inc. to obtain Air District permits which require CEQA review for the expansion of the manufacturing and packaging operations for the new OFS production line. The Planning Commission will consider the Variance for the additional height of the proposed 97-foot-tall warehouse building, and the CEQA review for the entire project.

All proposed structures will be required to be designed and built according to building standards appropriate to withstand shaking for the area in which they are constructed. Any earth moving is subject to Public Works Standards and Specifications, which consider the potential for erosion and run-off prior to permit approval. The project site is served by the City of Modesto for public sewer services; no septic tanks are proposed as part of the project request. The project was referred to Stanislaus County Department of Public Works and no response was received; however, Public Works, and the Building Permits Division review and approve any building or grading permit to ensure their standards are met. Building permits will be required for the proposed expansion of the facility. Public Works' and the Building Permits Division's standards will be applied to the proposed facility expansion under the building permit process.

The project site is not located near an active fault or within a high earthquake zone. Landslides are not likely due to the flat terrain of the area.

Mitigation: None.

References: Application Information; USDA – NRCS Web Soil Survey; Stanislaus County Zoning Ordinance (Title 21); Stanislaus County General Plan and Support Documentation.[1]

VIII. GREENHOUSE GAS EMISSIONS -- Would the project:	**Potentially Significant Impact**	**Less Than Significant With Mitigation Included**	**Less Than Significant Impact**	**No Impact**
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			**X**	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			**X**	

Discussion: The principal Greenhouse Gasses (GHGs) are carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), sulfur hexafluoride (SF6), perfluorocarbons (PFCs), hydrofluorocarbons (HFCs), and water vapor (H2O). CO2 is the reference gas for climate change because it is the predominant greenhouse gas emitted. To account for the varying warming potential of different GHGs, GHG emissions are often quantified and reported as CO2 equivalents (CO2e). In 2006, California passed the California Global Warming Solutions Act of 2006 (Assembly Bill [AB] No. 32), which requires the California Air Resources Board (ARB) design and implement emission limits, regulations, and other measures, such that feasible and cost-effective statewide GHG emissions are reduced to 1990 levels by 2020. Two additional bills, SB 350 and SB32, were passed in 2015 further amending the states Renewables Portfolio Standard (RPS) for electrical generation and amending the reduction targets to 40% of 1990 levels by 2030.

The expansion includes construction of a 62,000± square-foot manufacturing building, a 27,000± square-foot warehouse building, silos (one to be utilized for corn storage and one for cornmeal storage), and site improvements consisting of the following: a second rail branch; new solar photovoltaic carport; 14 vehicle charging stations for employees; a publicly available compressed natural gas fueling station; and a near zero emission and zero emission on and off-road fleet upgrades to increase the production capacity and reduce the need to import packaged snack food products from other plants. The proposed expansion also includes a new Onion Fried Snack (OFS) process line and a cornmeal receiving, storage, and handling system. A Permit to Operate (PTO) and an Authority to Construct (ATC) Permit will be required to be obtained from the SJVAPCD for the proposed expansion. The applicant estimates an increase of 7 outbound truck trips per day and 5 railcars per week as a result of this project. At full build-out there will be approximately 206 additional employees; for a total of 486 employees during a maximum shift. The facility will have an average of 93 outbound loads, five inbound loads per day and 33 railcars per week as a result of the project. Customers and visitors on-site per day is anticipated to increase by six for a total of 26 per day as part of the expansion. As mentioned above in the Air Quality section, the applicant proposes to change the fleet composition replacing 12 diesel fueled trucks with 14 electric powered trucks and adding two

additional natural gas fueled trucks for a total of 40 natural gas fueled trucks and 14 electric trucks in order to lower criteria pollutant emissions.

A comment was received in response to the Early Consultation referral for the Project indicating that further review of the project's potential impacts to air quality should be conducted. An Air Quality and Greenhouse Gas Analysis Report was conducted by Ramboll on February 9, 2022. The report included all proposed uses in calculating emissions and making significance determinations in the analysis. The analysis utilized the California Emissions Estimator Model (CalEEMod), Emission Factor Model (EMFAC), and EPA Guidance methodology wherever possible to calculate emission factors made up of area sources (architectural coatings, consumer products, landscape equipment), electricity, motor vehicles (fleet and employee vehicles and trains) based on the number of trips and Vehicle Miles Traveled (VMT), natural gas, water, and solid waste disposal for uses both requiring Air District permits (permitted uses), and uses not subject to District permits (non-permitted uses). The analysis found that emissions of CO2, CH4, N2O, CO2e associated with the construction and operation of the project would increase as a result of the project, with the change in the vehicle fleet contributing to the increase in GHG emissions; however, existing regulatory requirements applicable to the project would limit GHG emissions to less than significant levels by federal, state and local standards. The Frito-Lay facility is enrolled in the California Air Resources Board's (CARB's) Cap-and-Trade program; GHG emissions from expansion would be limited under CARB's Cap-and-Trade program, which limits the amount of GHGs for the facility in accordance with AB 32. Additionally, Best Performance Standards (BPS) for the Onion Fried Snack chip processing line are proposed and all SJVAPCD regulations surrounding technology and heavy-duty vehicle fleets will apply to the project. As the project must comply with federal, state and local Air District regulations, the project's emissions would be less than significant for all GHGs. The analysis determined the expansion to be below the SJVAPCD GAMAQI thresholds of significance based on regulatory compliance.

The project will be required to obtain all applicable Air District permits, including an Authority to Construct (ATC) Permit and Permit to Operate (PTO), and may be subject to the following District Rules: Rule 9510, Regulation VIII, Rule 4102, Rule 4601, Rule 4641, Rule 2201, and Rule 4002. The proposed building will also be subject to the mandatory planning and design, energy efficiency, water efficiency and conservation, material conservation and resources efficiency, and environmental quality measures of the California Green Building Standards (CALGreen) Code (California Code of Regulations, Title 24, Part 11). Staff will include development standards on the project requiring that the applicant comply with Title 24, obtain building permits, and be in compliance with the Air District's rules and regulations. Impacts to Greenhouse Gas Emissions are considered to be less than significant.

Mitigation: None.

References: Air Quality and Greenhouse Gas Analysis Report, prepared by Ramboll, dated February 9, 2022; California Green Building Code Title 24, Part 11, 2019; San Joaquin Valley Air Pollution Control District referral response, March 9, 2022; Application Information; Stanislaus County General Plan and Support Documentation.[1]

IX. HAZARDS AND HAZARDOUS MATERIALS -- Would the project:	**Potentially Significant Impact**	**Less Than Significant With Mitigation Included**	**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?			**X**	
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?			**X**	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			**X**	
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?			**X**	

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?			X	
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?			X	

Discussion: The project does not interfere with the Stanislaus County Local Hazard Mitigation Plan, which identifies risks posed by disasters and identifies ways to minimize damage from those disasters. The site is located in a Local Responsibility Area (LRA) for fire protection and is served by Stanislaus Consolidated Fire Protection District. The project was referred to the DER Hazardous Materials (Haz Mat) Division. The DER Haz Mat Division responded that the project will not have a significant effect on the environment and that the applicant should contact DER regarding appropriate permitting requirements for hazardous materials and/or wastes; and that the Applicant and/or occupants handling hazardous materials or generating hazardous wastes must submit hazardous materials Business information into the California Electronic Reporting System (CERS) by handlers of materials for the storage of 55 gallons, 500 pounds of a hazardous material, or of 200 cubic feet of compressed gas or more. The Haz Mat Division shall be notified regarding the handling of acutely hazardous materials which may require the preparation of a Risk Management Prevention Program which must be implemented prior to operation of the facility. Additionally, Generators of hazardous waste must notify the Department relative to the quantity of waste generated, plans for reducing wastes generated, and proposed waste disposal practices. Generators of hazardous waste must also use the CERS data base to submit chemical and facility information to the DER. Generators of hazardous waste must apply for and maintain an active state or federal EPA ID number from the Department of Toxic Substances Control (DTSC). The project proposes to develop a natural gas fueling station; DER Haz Mat clarified that if the site has a new address, then the facility will be required to register that address and the hazardous materials that are held in that location. The project was also referred to the Stanislaus Consolidated Fire Protection District; however, no response was received. The project will include conditions of approval requiring that all DER Haz Mat and fire district standards are met and that any required permits be obtained. The project site is not listed on the California Department of Toxic Substance Control's EnviroStor database as a hazardous waste facility.

The project site is located approximately 1.5 miles northeast of the Modesto City-County Airport's primary runway. An Early Consultation referral response received from the Modesto Airport manager on March 14, 2022, required the project contractor to file a Notice of Proposed Construction or Alteration (FAA Form 7460-1) with the Federal Aviation Administration (FAA) to determine whether any effects on navigable airspace would be imposed by the proposed 97-foot-tall warehouse building with appurtenance. An application was submitted to the FAA and the FAA conducted an aeronautical study on the proposed warehouse building, manufacturing building and the corn and cornmeal silos. On March 22, 2022, the FAA issued their determination; the study revealed the structures do not exceed obstruction standards and would not be a hazard to air navigation provided the following conditions are met: it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or within five days after the construction reaches its greatest height. Furthermore, based on this evaluation, the FAA determined that marking and lighting are not necessary for aviation safety; however, if marking/lighting are accomplished on a voluntary basis, the FAA recommend it be installed in accordance to their standards and specifications as noted in their referral letter. Should any future construction or alteration, including increase to heights, power, or the addition of other transmitters, occur, the FAA will require a separate notice to be submitted. If construction or alteration is dismantled or destroyed, the FAA requires the applicant submit notice to the FAA within five days after the construction or alteration is dismantled or destroyed. The FAA's determination did not include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the proposed structures. However, the FAA specified that equipment used shall not exceed the overall heights as indicated within the study. Use of equipment which has a height greater than the studied structures will require separate notices to the FAA. This will be reflected within the conditions of approval applied to the project.

A referral response was received from the Airport Land Use Commission (ALUC) who confirmed the project site is not located within any Noise Zone of the Modesto City-County Airport and as such no noise level restrictions apply. A portion of the southwest corner of the project site is located within Safety Zone 6 of the Modesto City-County Airport; however, with the exception of hazardous material production, Safety Zone 6 finds industrial uses, such as the proposed use of the warehouse, manufacturing building, and silos to be compatible with Airport operations. The remainder of the property is

not located within any Safety Zone and is therefore not subject to Safety compatibility criteria. The ALUC confirmed the project site is within the Federal Aviation Administration (FAA) Height Notification Surface Area for the Modesto City-County Airport. Accordingly, as mentioned in the paragraph above, the FAA was notified of the proposed project, and an aeronautical study performed which determined the proposed height of the buildings would not have an effect on navigable airspace.

No significant impacts associated with hazards or hazardous materials are anticipated to occur as a result of the proposed project. No significant impacts associated with safety hazards or excessive noise for people residing or working in the project area are anticipated as a result of the project.

The project site is not within the vicinity of any wildlands.

Mitigation: None.

References: Application Information; Department of Environmental Resources (DER) Hazardous Materials (Haz Mat) Division referral response, received February 22, 2022; Email from Department of Environmental Resources (DER) Hazardous Materials (Haz Mat) Division, received February 22, 2022; Modesto City-County Airport referral response, received March 14, 2022; Airport Land Use Commission referral response, dated April 18, 2022; Federal Aviation Administration Aeronautical Study Nos. 2022-AWP-3479-OE – 2022-AWP-3489-OE, dated March 22, 2022; Stanislaus County Zoning Ordinance (Title 21); Stanislaus County General Plan and Support Documentation.[1]

X. HYDROLOGY AND WATER QUALITY -- Would the project:	**Potentially Significant Impact**	**Less Than Significant With Mitigation Included**	**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?			**X**	
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			**X**	
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:			**X**	
(i) result in substantial erosion or siltation on – or off-site;			**X**	
(ii) substantially increase the rate of amount of surface runoff in a manner which would result in flooding on- or off-site;			**X**	
(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			**X**	
(iv) impede or redirect flood flows?			**X**	
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?			**X**	
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			**X**	

Discussion: The project site is served by the City of Modesto for public water and sewer services. The project site is located within the San Joaquin Valley – Modesto groundwater sub-basin which is managed by the Stanislaus and Tuolumne Rivers Groundwater Basin Association Groundwater Sustainability Agency (STRGBA GSA). The Modesto basin isn't considered to be critically over drafted, but since most of the cities within the basin rely solely on groundwater, it is considered a high-priority basin. Due to that designation, the Sustainable Groundwater Management Act (SGMA) requires

that the STRGBA GSA adopt and begin implementation of a Groundwater Sustainability Plan (GSP) by January 31, 2022. The City of Modesto is required to maintain consistency with any applicable GSP. Additionally, the City of Modesto and Modesto Irrigation District jointly adopted the Joint 2010 Urban Water Management Plan, which addresses groundwater sustainability.

Areas subject to flooding have been identified in accordance with the Federal Emergency Management Act (FEMA). The project site is located in FEMA Flood Zone X, which includes areas determined to be outside the 0.2% annual chance floodplains. All flood zone requirements will be addressed by the Building Permits Division during the building permit process. Storm water is proposed to be contained on-site with a storm drain retention basin. The project was referred to Stanislaus County Department of Public Works, and no response was received for the project; however, Public Works, and the Building Permits Division review and approve any building or grading permit to ensure their standards are met. Building permits will be required for the proposed expansion of the facility. Public Works' and the Building Permits Division's standards will be applied to the proposed facility expansion under the building permit process.

Mitigation: None.

References: Application Information; Stanislaus County Zoning Ordinance (Title 21); Stanislaus County General Plan and Support Documentation.[1]

XI. LAND USE AND PLANNING -- Would the project:	**Potentially Significant Impact**	**Less Than Significant With Mitigation Included**	**Less Than Significant Impact**	**No Impact**
a) Physically divide an established community?			**X**	
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?			**X**	

Discussion: The project site is designated Industrial by the Stanislaus County General Plan land use diagrams and zoned Industrial (M). The applicant is requesting a Variance to the Industrial (M) zoning district height limit, Section 21.60.040(B) requiring building and appurtenant structures to be 75 feet or less, for a proposed 27,000± square-foot warehouse building. The project site is currently improved with a 436,000± square-foot manufacturing/warehouse building, a 63,000± square-foot warehouse, traffic center, solar field, and parking lots. On May 20, 2021, The Stanislaus County Planning Commission approved a project involving addition of a 39,000± square-foot warehouse building, a 127,000 square-foot manufacturing building, a second rail spur, receiving and storage equipment and an expansion of a retention pond; the project is currently under construction and multiple building permits have been applied for through the Stanislaus County Building Permits Division. The previous project also included the addition of two new snack food production lines for the Dorito Tortilla Chip (DTC) and Fried Cheese Puff (FCP) production. The current proposed expansion will also include the addition of a new snack food production line for Onion Fried Snack (OFS) production. The number of employees is anticipated to increase by 206 as part of this project; increasing the number of employees to 486 during a maximum shift. The corn and cornmeal silos will be 85 feet tall; as unmanned fireproof structures the silos are considered to be permitted uses in the Industrial (M) zoning district and are not subject to a height limit pursuant to §21.60.040(B) of the County Zoning Ordinance. The proposed 62,000± square-foot manufacturing building will be 46 feet tall. The 27,000± square-foot warehouse is proposed to be 92 feet tall with an HVAC unit at the top bringing the total height to 97 feet tall; the warehouse will be composed of one floor, and a mezzanine. County Zoning Ordinance §21.60.040(A) requires building and appurtenant structures not to exceed 75 feet in height in the Industrial (M) zoning district.

The site is currently served with public sewer and water facilities by the City of Modesto. The site has access to County-maintained Garner Road and Leckron Road. The site is surrounded by industrial uses in all directions; Tuolumne River to the south; State Route 132 and the City of Modesto to the north; Community of Empire to the northeast; and the Modesto City-County Airport to the west. The project site is located within the LAFCO adopted Sphere of Influence of the City of Modesto. For projects located within a Local Agency Formation Commission (LAFCO) adopted Sphere of Influence (SOI), the County's General Plan SOI policy states that development, other than agricultural uses and churches, which requires discretionary approval from incorporated cities, shall be referred to the that city for preliminary approval. The project site is designated as Industrial within the Modesto General Plan. The project was referred to the City of Modesto who responded that the City's industrial zones do not have height limits except when located in the Airport Zone or adjacent to a residential zone. City of Modesto indicated that the proposed total height for the warehouse is consistent with City height standards.

The project site is located within 1.5 miles northeast of the Modesto City-County Airport's primary runway. As discussed above in the Hazards and Hazardous Materials Section, an Early Consultation referral response received from the Modesto Airport manager on March 14, 2022 required the project contractor to file a Notice of Proposed Construction or Alteration (FAA Form 7460-1) with the Federal Aviation Administration (FAA) to determine whether any effects on navigable airspace would be imposed by the proposed 97-foot-tall warehouse building with appurtenance. An application was submitted to the FAA and the FAA conducted an aeronautical study on the proposed warehouse building, manufacturing building and the corn and cornmeal silos. On March 22, 2022, the FAA issued their determination; the study revealed the structures do not exceed obstruction standards and would not be a hazard to air navigation provided the conditions provided in the referral letter are met. The Hazards and Hazardous Materials Section can be reviewed for a full list of the conditions requested by the FAA for the project. The FAA's comments will be reflected in the conditions of approval applied to the project.

A referral response was received from the Airport Land Use Commission (ALUC) who confirmed the project site is not located within any Noise Zone of the Modesto City-County Airport and as such no noise level restrictions apply. A portion of the southwest corner of the project site is located within Safety Zone 6 of the Modesto City-County Airport; however, with the exception of hazardous material production, Safety Zone 6 finds industrial uses, such as the proposed use of the warehouse, manufacturing building, and silos to be compatible with Airport operations. The remainder of the property is not located within any Safety Zone and is therefore not subject to Safety compatibility criteria. The ALUC confirmed the project site is within the Federal Aviation Administration (FAA) Height Notification Surface Area for the Modesto City-County Airport. Accordingly, as mentioned in the paragraph above, the FAA was notified of the proposed project, and an aeronautical study performed which determined the proposed height of the buildings would not have an effect on navigable airspace.

The project will not physically divide an established community nor conflict with any habitat conservation plans. No impacts to Land Use and Planning are anticipated to occur as a result of this project.

Mitigation: None.

References: Application Information; City of Modesto referral response, received March 1, 2022; San Joaquin Valley Air Pollution Control District referral response, dated March 9, 2022; Modesto City-County Airport referral response, dated March 14, 2022; Airport Land Use Commission referral response, dated April 18, 2022; Federal Aviation Administration Aeronautical Study Nos. 2022-AWP-3479-OE – 2022-AWP-3489-OE, dated March 22, 2022; Stanislaus County Zoning Ordinance (Title 21); Stanislaus County General Plan and Support Documentation.[1]

XII. MINERAL RESOURCES -- Would the project:	**Potentially Significant Impact**	**Less Than Significant With Mitigation Included**	**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?			**X**	
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?			**X**	

Discussion: The location of all commercially viable mineral resources in Stanislaus County has been mapped by the State Division of Mines and Geology in Special Report 173. There are no known significant resources on the site, nor is the project site located in a geological area known to produce resources.

Mitigation: None.

References: Stanislaus County General Plan and Support Documentation.[1]

XIII. NOISE -- Would the project result in:	**Potentially Significant Impact**	**Less Than Significant With Mitigation Included**	**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?			X	
b) Generation of excessive groundborne vibration or groundborne noise levels?			X	
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?			X	

Discussion: The area's ambient noise level will temporarily increase during any grading/construction. As such, the project will be conditioned to abide by County regulations related to hours and days of construction. The project is located in an industrial area which has an exterior noise exposure limit of 70 Ldn or CNEL, dBA. Additionally, a part of the Modesto and Empire Traction rail spur is located on the northeastern portion of the project site, and Yosemite Boulevard is located .33 miles to the north of the project site which adds to the ambient noise levels at the project site.

As mentioned in the Land Use and Planning Section above, the project site is located within 1.5 miles northeast of the Modesto City-County Airport's primary runway. A portion of the southwest corner of the project site is located within Safety Zone 6 of the Modesto City-County Airport; however, with the exception of hazardous material production, Safety Zone 6 finds industrial uses, such as the proposed use of the warehouse and manufacturing building, to be compatible with Airport operations. A referral response was received from the Airport Land Use Commission (ALUC) who confirmed the project site is not located within any Noise Zone of the Modesto City-County Airport and as such no noise level restrictions apply.

Mitigation: None.

References: Application Information; Modesto City-County Airport referral response, dated March 14, 2022; Airport Land Use Commission referral response, dated April 18, 2022; Stanislaus County General Plan and Support Documentation.[1]

XIV. POPULATION AND HOUSING -- Would the project:	**Potentially Significant Impact**	**Less Than Significant With Mitigation Included**	**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)?			X	
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?			X	

Discussion: The site is not included in the vacant sites inventory for the 2016 Stanislaus County Housing Element, which covers the 5th cycle Regional Housing Needs Allocation (RHNA) for the county and will therefore not impact the County's ability to meet their RHNA. No population growth will be induced nor will any existing housing be displaced as a result of this project.

Mitigation: None.

References: Stanislaus County General Plan and Support Documentation.[1]

XV. PUBLIC SERVICES --	**Potentially Significant Impact**	**Less Than Significant With Mitigation Included**	**Less Than Significant Impact**	**No Impact**

a) Would the project result in the 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:			X	
Fire protection?			X	
Police protection?			X	
Schools?			X	
Parks?			X	
Other public facilities?			X	

Discussion: The County has adopted Public Facilities Fees, as well as a Fire Facility Fee on behalf of the appropriate fire district, to address impacts to public services. All adopted public facility fees will be required to be paid at the time of building permit issuance. This project was circulated to all applicable school, fire, police, irrigation, and public works departments and districts during the early consultation referral period and no concerns were identified with regard to public services.

The project site is served public water and sewer by the City of Modesto. An Early Consultation referral was sent to the City of Modesto and a response with no objections to the proposed project was received; no comments were received from the City of Modesto related to public services.

The project was referred to the Modesto Irrigation District. MID provided a referral response replying that MID Water Operations takes no objections to the proposed zoning variance; however, any impacts to existing MID Water Operations infrastructure (Lateral No. 1) shall be coordinated with staff in conjunction with the existing drive aisle and rail spur crossing for the project. Electricity will be provided to the project by the Modesto Irrigation District (MID). MID indicated that the existing electrical service may not be adequate for the proposed development and requested that prior to construction a full set of construction plans be submitted to the District. MID also listed the following requirements in their response letter: that the contractor verify actual depth and location of all underground utilities prior to start of construction and notify the appropriate agencies prior to any earth moving activities for any applicable rules or regulations; that the applicant/property owner comply with all standards and notifications regarding the protection, relocation or removal of any MID facilities; that workers and equipment should always maintain a distance no less than 10 feet from overhead facilities; and that a minimum clearance of 12 feet is to be maintained from the overhead primary conductor to any walkable surface of the building and a minimum of 8 feet from any non-walkable surface. Moreover, a minimum horizontal clearance of 6 feet between the conductor and any part of the building upon which men may work is to be maintained.

The comments provided by MID address the proposed expansion of the snack food manufacturing facility, and not specifically the variance request. Conditions of approval for this project only address the variance request to allow for additional height for the construction of the warehouse building. The balance of the requested development is considered a permitted use in the Industrial (M) zoning district and will be subject to the M zoning district standards for development.

Mitigation: None.

References: Application Information; Modesto Irrigation District response, dated February 28, 2022; City of Modesto response, dated March 1, 2022; Stanislaus County Zoning Ordinance (Title 21); Stanislaus County General Plan and Support Documentation.[1]

XVI. RECREATION --	**Potentially Significant Impact**	**Less Than Significant With Mitigation Included**	**Less Than Significant Impact**	**No Impact**
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?			X	

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?			X	

Discussion: This project will not increase demands for recreational facilities, as such impacts typically are associated with residential development.

Mitigation: None.

References: Stanislaus County General Plan and Support Documentation.[1]

XVII. TRANSPORTATION-- Would the project:	**Potentially Significant Impact**	**Less Than Significant With Mitigation Included**	**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?			X	
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?			X	
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	
d) Result in inadequate emergency access?			X	

Discussion: This is a request for a Variance to the Industrial (M) zoning district height limit. The project proposes to expand the current Frito-Lay facility by constructing a 62,000± square-foot manufacturing building, a 27,000± square-foot warehouse building, silos (one to be utilized for corn storage and one for cornmeal storage), and site improvements consisting of the following: a second rail branch; new solar photovoltaic carport; 14 vehicle charging stations for employees; a publicly available compressed natural gas fueling station; and a near zero emission and zero emission on and off-road fleet upgrades to increase the production capacity and reduce the need to import packaged snack food products from other plants. The proposed expansion will also include the addition of a new snack food production line for Onion Fried Snack (OFS) production, and the addition of a cornmeal receiving, storage, and handling system. The site has access to County-maintained Garner Road and Leckron Road. The project will be required to meet the California Fire Code's requirements for emergency access; which will be reviewed for compliance though the Building Permit process.

Leckron Road is classified as an 80-foot Major Collector (MJC) road. The project was referred to the Public Works Department; however, no response has been received to date.

This project was referred California Department of Transportation (Caltrans) and no response has been received to date. An early consultation referral was sent to the City of Modesto and a response with no objections to the proposed project was received; no comments were received from the City of Modesto related to traffic and transportation impacts.

Section 15064.3 of the CEQA Guidelines establishes specific considerations for evaluating a project's transportation impacts. The CEQA Guidelines identify vehicle miles traveled (VMT), which is the amount and distance of automobile travel attributable to a project, as the most appropriate measure of transportation impacts. A technical advisory on evaluating transportation impacts in CEQA published by the Governor's Office of Planning and Research (OPR) in December of 2018 clarified the definition of automobiles as referring to on-road passenger vehicles, specifically cars and light trucks. While heavy trucks are not considered in the definition of automobiles for which VMT is calculated for, heavy-duty truck VMT could be included for modeling convenience. According to the same technical advisory from OPR, projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than significant transportation impact and can be used as a screening threshold of VMT to indicate when detailed analysis is needed. The applicant anticipates an increase of 7 outbound truck trips per day and 5 railcars per week as a result of this project. At full build-out there will be approximately 206 additional employees, or an additional 412 one-way passenger vehicle trips. The facility will have an average of 93 outbound truck trips, 5 inbound truck trips per day and 33 railcars per week as a result of the project; and an increase of 6

customers and visitors on-site per day for a total of 26 customers and visitors on-site per day is anticipated as part of the expansion.

An Air Quality and Greenhouse Gas Analysis Report was conducted by Ramboll on February 9, 2022. The report included all proposed uses in calculating emissions and making significance determinations in the analysis. The analysis utilized the California Emissions Estimator Model (CalEEMod) to calculate emission factors for grading, construction, and paving activities and for operational emissions, which included an analysis of the air and greenhouse gas impacts associated with Vehicle Miles Traveled (VMT) from fleet and employee vehicles and trains based on the number of trips. The analysis found the proposed project to be below the District's thresholds of significance. Additionally, the proposed project is located within an already developed industrial area, will be reducing truck trips with the addition of rail, and will be providing additional local jobs which have the potential to reduce employee generated vehicle trips going out of the area. Accordingly, the project's impacts to VMT are considered to be less than significant.

As discussed above in the Hazards and Hazardous Materials Section, the project site is located within 1.5 miles NE of the Modesto City-County Airport's primary runway. A referral response was received from the Airport Land Use Commission (ALUC) who confirmed the project site is not located within any Noise Zone of the Modesto City-County Airport and as such no noise level restrictions apply. A portion of the southwest corner of the project site is located within Safety Zone 6 of the Modesto City-County Airport; however, Safety Zone 6 finds industrial uses, such as the proposed use of the warehouse, manufacturing building, and silos to be compatible with Airport operations. The remainder of the property is not located within any Safety Zone and is therefore not subject to Safety compatibility criteria. The ALUC confirmed the project site is within the Federal Aviation Administration (FAA) Height Notification Surface Area for the Modesto City-County Airport. An Early Consultation referral response received from the Modesto Airport manager on March 14, 2022, required the project contractor to file a Notice of Proposed Construction or Alteration (FAA Form 7460-1) with the Federal Aviation Administration (FAA) to determine whether any effects on navigable airspace would be imposed by the proposed 97-foot-tall warehouse building with appurtenance. Accordingly, the FAA was notified of the proposed project, and an aeronautical study performed which determined the proposed height of the building would not have an effect on navigable airspace. The FAA requested conditions be placed on the project requiring notification if the project is to be abandoned, dismantled, destroyed, altered or within five days after construction reaches its greatest height; and that any marking/lighting accomplished on a voluntary basis be required to be installed in accordance to FAA standards and specifications. The FAA's determination did not include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the proposed structures. However, the FAA specified that equipment used shall not exceed the overall heights as indicated within the study. Use of equipment which has a height greater than the studied structures will require separate notices to the FAA. This will be reflected within the conditions of approval applied to the project.

No significant effects are anticipated for air traffic patterns, increases in hazards or conflicting adopted policies.

Mitigation: None.

References: City of Modesto referral response, received March 1, 2022; San Joaquin Valley Air Pollution Control District referral response, dated March 9, 2022; Modesto City-County Airport referral response, received March 14, 2022; Federal Aviation Administration Aeronautical Study Nos. 2022-AWP-3479-OE – 2022-AWP-3489-OE, dated March 22, 2022; Airport Land Use Commission referral response, dated April 18, 2022; Stanislaus County General Plan and Support Documentation[1].

XVIII. TRIBAL CULTURAL RESOURCES -- Would the project:	**Potentially Significant Impact**	**Less Than Significant With Mitigation Included**	**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:			X	
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical			X	

resources as defined in Public Resources Code section 5020.1(k), or				
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set for the in subdivision (c) of Public Resource Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.			X	

Discussion: It does not appear that this project will result in significant impacts to any archaeological or cultural resources. The project site is currently improved with a 436,000± square-foot manufacturing/warehouse building, a 63,000± square-foot warehouse, traffic center, solar field, and parking lots. Additionally, on May 20, 2021, The Stanislaus County Planning Commission approved a project involving addition of a 39,000± square-foot warehouse building, a 127,000 square-foot manufacturing building, a second rail spur, receiving and storage equipment and an expansion of a retention pond; the project is currently under construction and multiple building permits have been applied for through the Stanislaus County Building Permits Division. In accordance with SB 18 and AB 52, this project was not referred to the tribes listed with the Native American Heritage Commission (NAHC) as the project is not a General Plan Amendment and no tribes have requested consultation or project referral noticing. A development standard regarding the discovery of cultural resources during the construction process will be added to the project.

Mitigation: None.

References: Application Information; Stanislaus County General Plan and Support Documentation.[1]

XIX. UTILITIES AND SERVICE SYSTEMS -- Would the project:	**Potentially Significant Impact**	**Less Than Significant With Mitigation Included**	**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?			X	
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?			X	
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?			X	
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?			X	
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			X	

Discussion: The project was referred to the Modesto Irrigation District. MID provided a referral response replying that MID Water Operations takes no objections to the proposed zoning variance; however, any impacts to existing MID Water Operations infrastructure (Lateral No. 1) shall be coordinated with staff in conjunction with the existing drive aisle and rail spur crossing for the project. Electricity will be provided to the project by the Modesto Irrigation District (MID). MID indicated that the existing electrical service may not be adequate for the proposed development and requested that prior to construction a full set of construction plans be submitted to the District. MID also listed the following requirements in their response letter: that the contractor verify actual depth and location of all underground utilities prior to start of construction

and notify the appropriate agencies prior to any earth moving activities for any applicable rules or regulations; that the applicant/property owner comply with all standards and notifications regarding the protection, relocation or removal of any MID facilities; that workers and equipment should always maintain a distance no less than 10 feet from overhead facilities; and that a minimum clearance of 12 feet is to be maintained from the overhead primary conductor to any walkable surface of the building and a minimum of 8 feet from any non-walkable surface. Moreover, a minimum horizontal clearance of 6 feet between the conductor and any part of the building upon which men may work is to be maintained. The comments provided by MID address the proposed expansion of the snack food manufacturing facility, and not specifically the variance request. Conditions of approval for this project only address the variance request to allow for additional height for the construction of the warehouse building. The balance of the requested development is considered a permitted use in the Industrial (M) zoning district and will be subject to the M zoning district standards for development.

The project site is served public water and sewer by the City of Modesto. An Early Consultation referral was sent to the City of Modesto and a response with no objections to the proposed project was received; no comments were received from the City of Modesto related to utilities.

Storm water is proposed to be contained on-site with a storm drain retention basin. The project was referred to Stanislaus County Department of Public Works, and no response was received for the project; however, Public Works reviews and approves any building and grading permit to ensure their standards are met. Building permits will be required for the proposed expansion of the facility. Public Works' standards will be applied to the proposed facility expansion under the building permit process.

With these requirements incorporated into the project as conditions of approval, no impacts to utilities and service systems are anticipated.

Mitigation: None.

References: Application Information; Modesto Irrigation District referral response, received on February 28, 2022; City of Modesto referral response, received on March 1, 2022; Stanislaus County Zoning Ordinance (Title 21); Stanislaus County General Plan and Support Documentation.[1]

XX. 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 Included	Less Than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?			X	
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?			X	
c) Require the installation of 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?			X	
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?			X	

Discussion: The Stanislaus County Local Hazard Mitigation Plan identifies risks posed by disasters and identifies ways to minimize damage from those disasters. The terrain of the site is relatively flat, and the site has access t to County-maintained road. The site is located in a Local Responsibility Area (LRA) for fire protection and is served by Stanislaus Consolidated Fire Protection District. The project was referred to the District, and no comments have been received to date. California Building and Fire Code establishes minimum standards for the protection of life and property by increasing the ability of a building to resist intrusion of flame and burning embers. Building permits required as a result of the proposed project will be reviewed the County's Building Permits Division and Fire Prevention Bureau to ensure all State of California Building and Fire Code requirements are met prior to construction. Wildfire risk and risks associated with postfire land changes are considered to be less than significant.

Mitigation: None.

References: Application Information; Stanislaus County Zoning Ordinance (Title 21); Stanislaus County General Plan and Support Documentation.[1]

XXI. MANDATORY FINDINGS OF SIGNIFICANCE --	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
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?			X	
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.)			X	
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			X	

Discussion: Review of this project has not indicated any features which might significantly impact the environmental quality of the site and/or the surrounding area. The surrounding area is built-out with industrial and commercial uses. There are several vacant parcels to the northwest, west and south; however, all of them are zoned Industrial and are not currently in agricultural production. Any development of the vacant parcels would be subject to the permitted uses included in the Industrial Zoning Ordinance or would require additional land use entitlements and environmental review.

Review of this project has not indicated any features which might significantly impact the environmental quality of the site and/or the surrounding area.

Mitigation: None.

References: Initial Study; Stanislaus County Zoning Ordnance (Title 21); Stanislaus County General Plan and Support Documentation.[1]

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[1]Stanislaus County General Plan and Support Documentation adopted in August 23, 2016, as amended. ***Housing Element*** adopted on April 5, 2016.

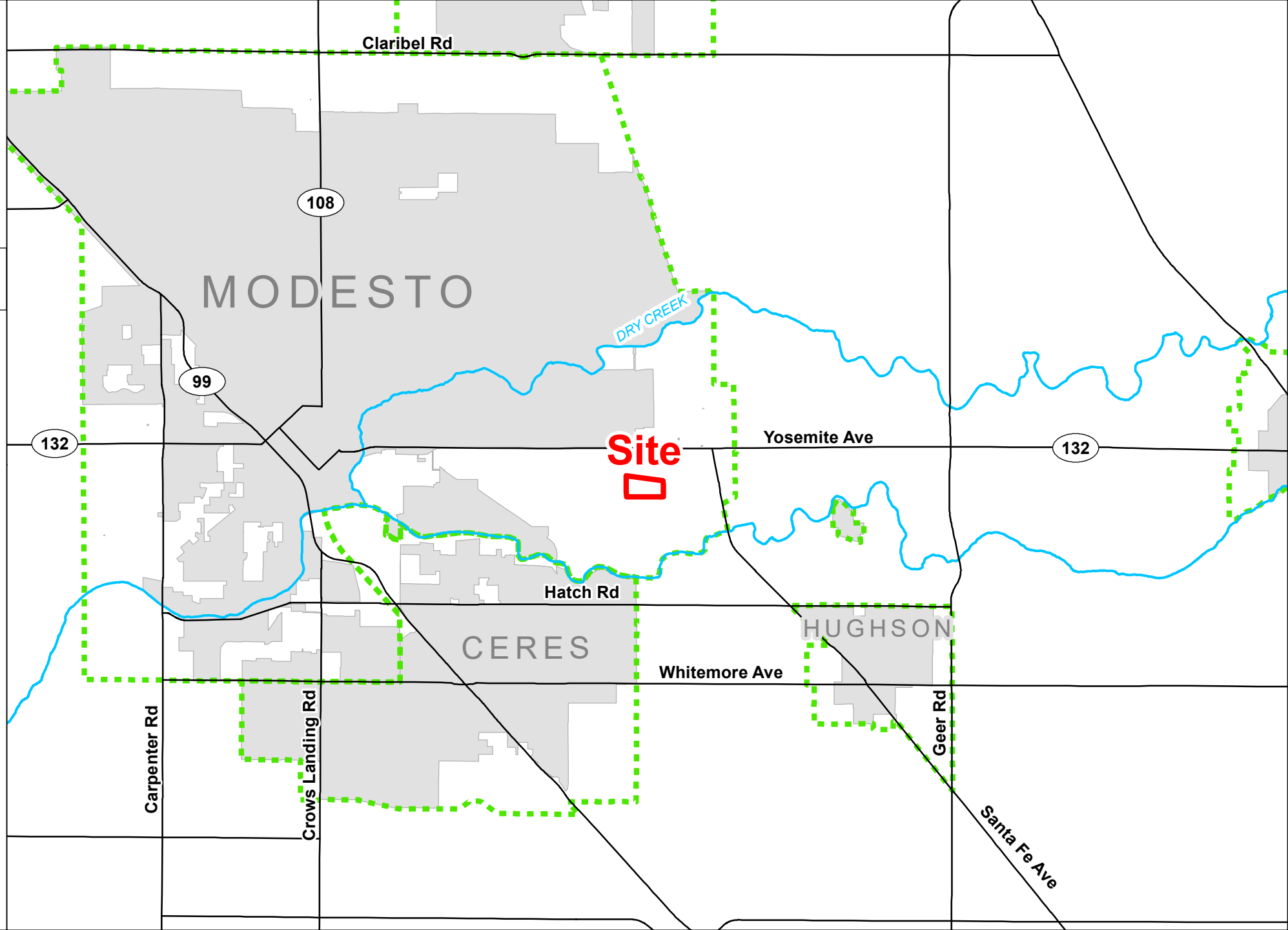
FRITO LAY INC

VAR
PLN2022-0009

AREA MAP

LEGEND

- Project Site
- Sphere of Influence
- City
- Road
- River



N

0 2 mi

0 2 km

Source: Planning Department GIS

Date: 2/7/2022

FRITO LAY INC

VAR PLN2022-0009

GENERAL PLAN MAP

LEGEND

- Project Site
- Sphere of Influence
- City of
- Parcel
- River
- Road
- Canal

General Plan

- Agriculture
- Commercial
- Urban Transition
- Industrial
- Low Density Residential
- Planned Development

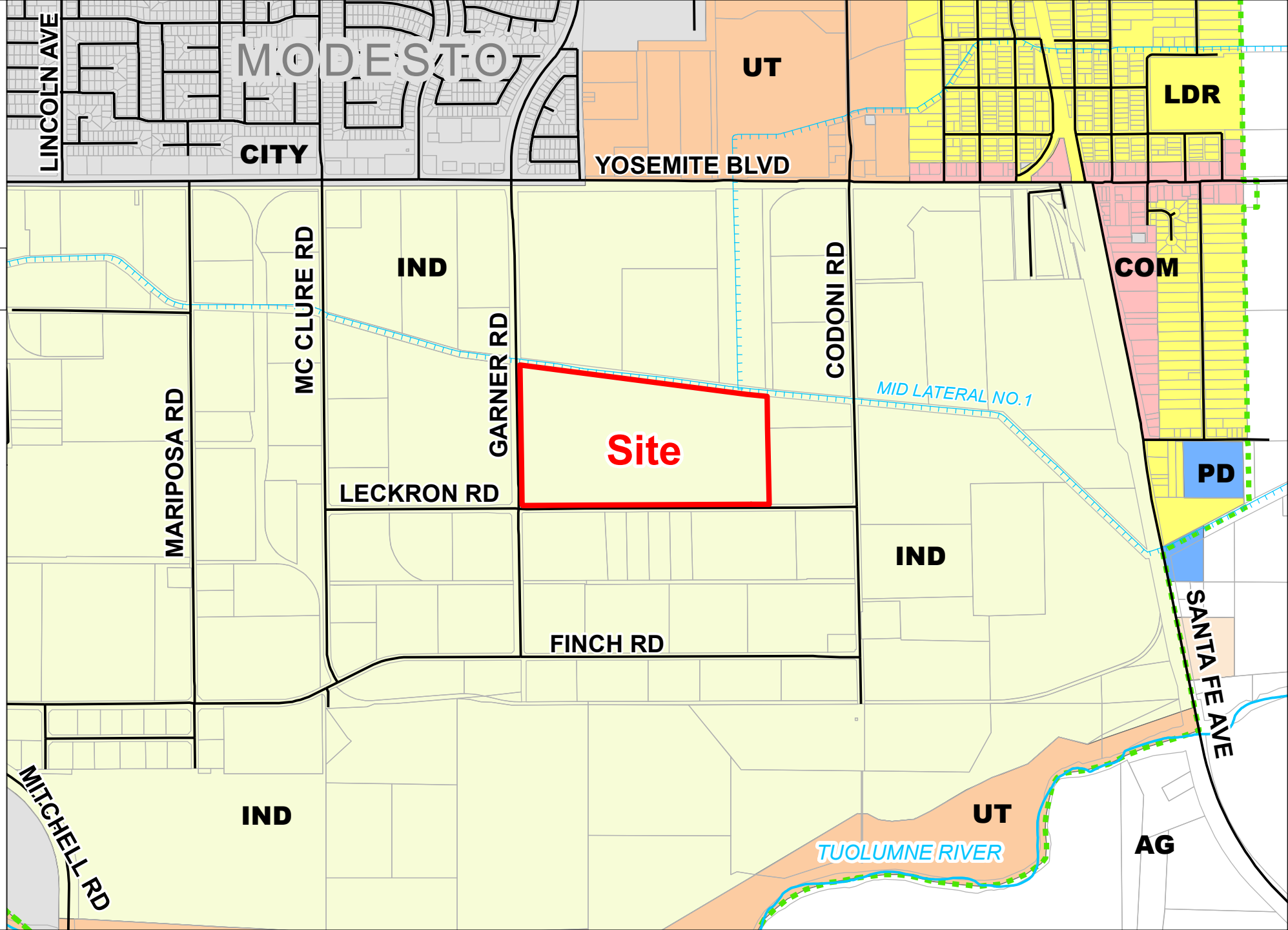
N

0 1,500 ft

0 300 m

Source: Planning Department GIS

Date: 2/7/2022



FRITO LAY INC

VAR PLN2022-0009

ZONING MAP

LEGEND

- Project Site
- Sphere of Influence
- City of
- Parcel
- River
- Road
- Canal

Zoning Designation

- General Agriculture 10 Acre
- General Agriculture 40 Acre
- Planned Development
- Planned Industrial
- Single Family Residential
- General Commercial
- Industrial

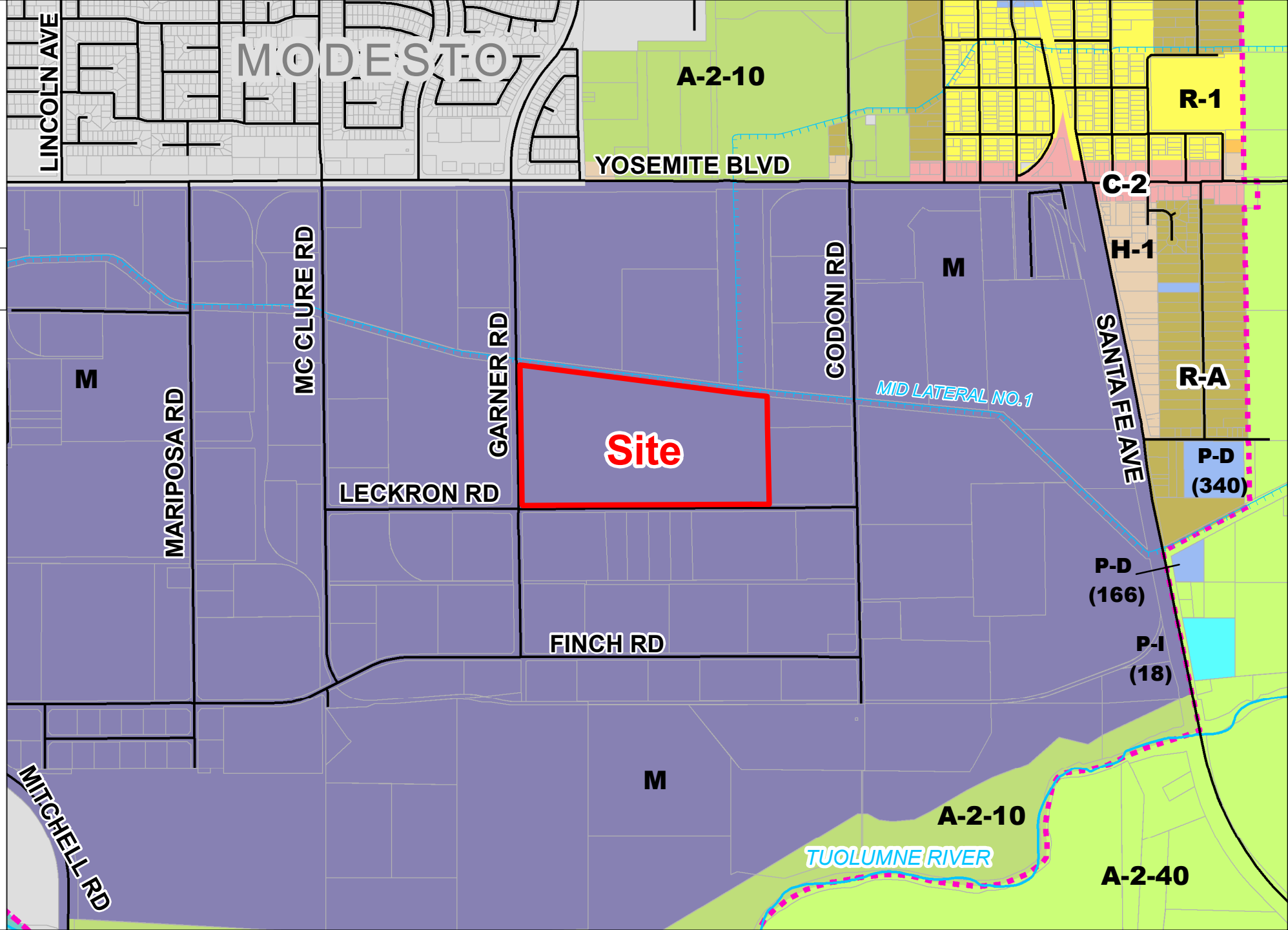
N

0 1,500 ft

0 300 m

Source: Planning Department GIS

Date: 2/9/2022



FRITO LAY INC

VAR
PLN2022-0009

2021 AERIAL AREA MAP

LEGEND

- Project Site
- Sphere of Influence
- Road
- River
- Canal

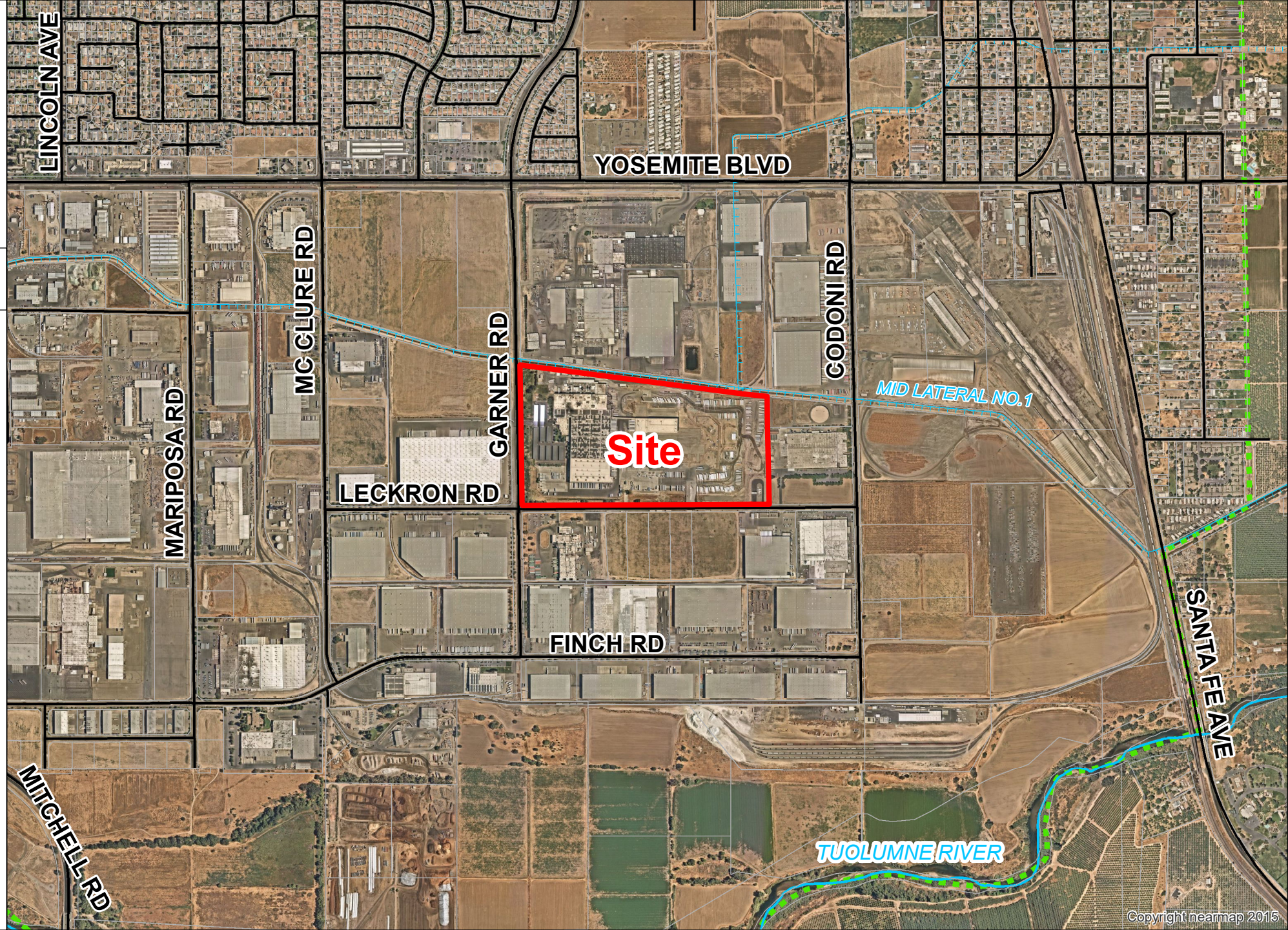
N

0 1,500 ft

0 300 m

Source: Planning Department GIS

Date: 2/7/2022



FRITO LAY INC

VAR PLN2022-0009

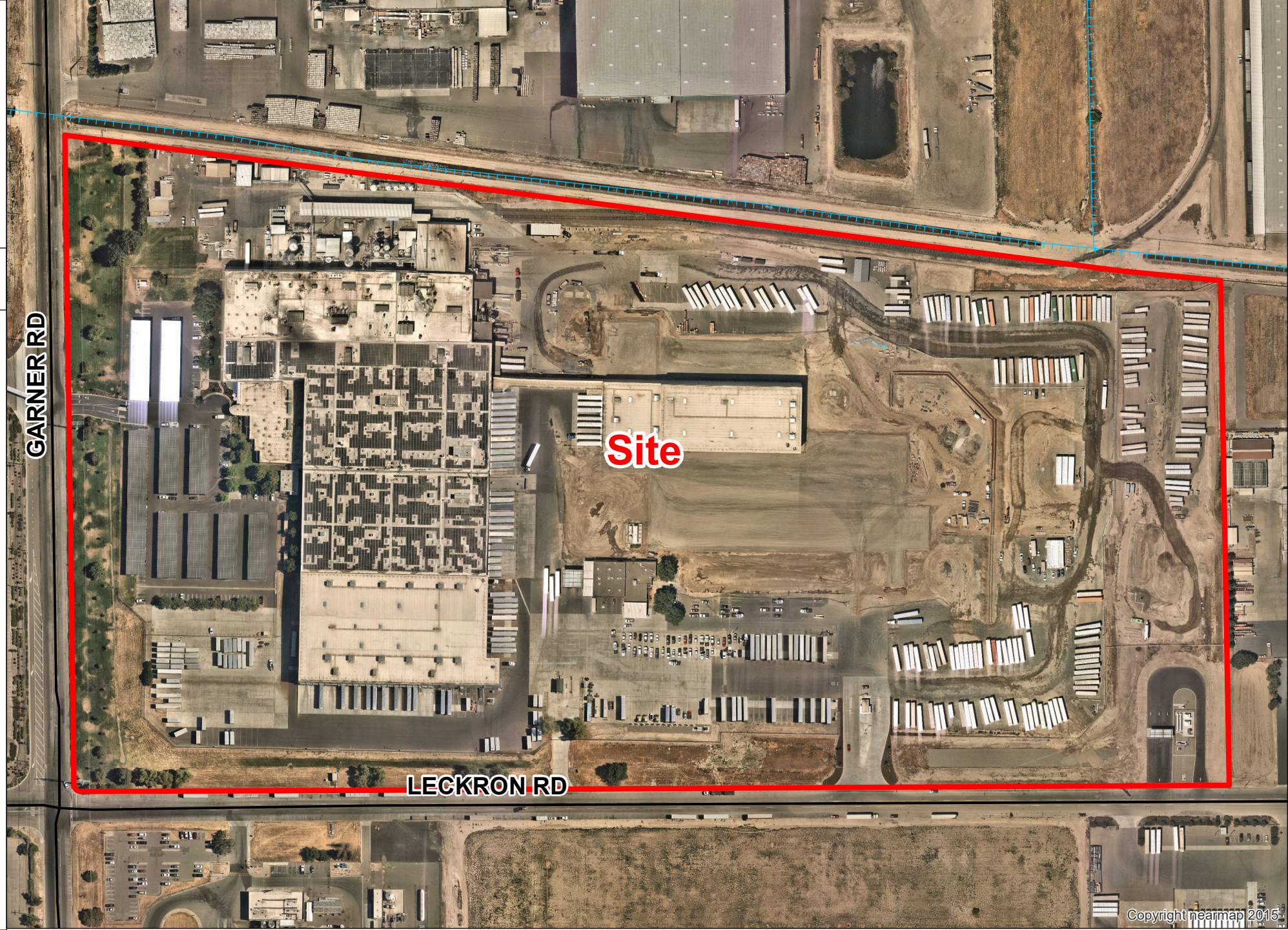
2021 AERIAL SITE MAP

LEGEND

Project Site

Road

Canal



N

0 400ft

0 100m

Source: Planning Department GIS

Date: 2/7/2022

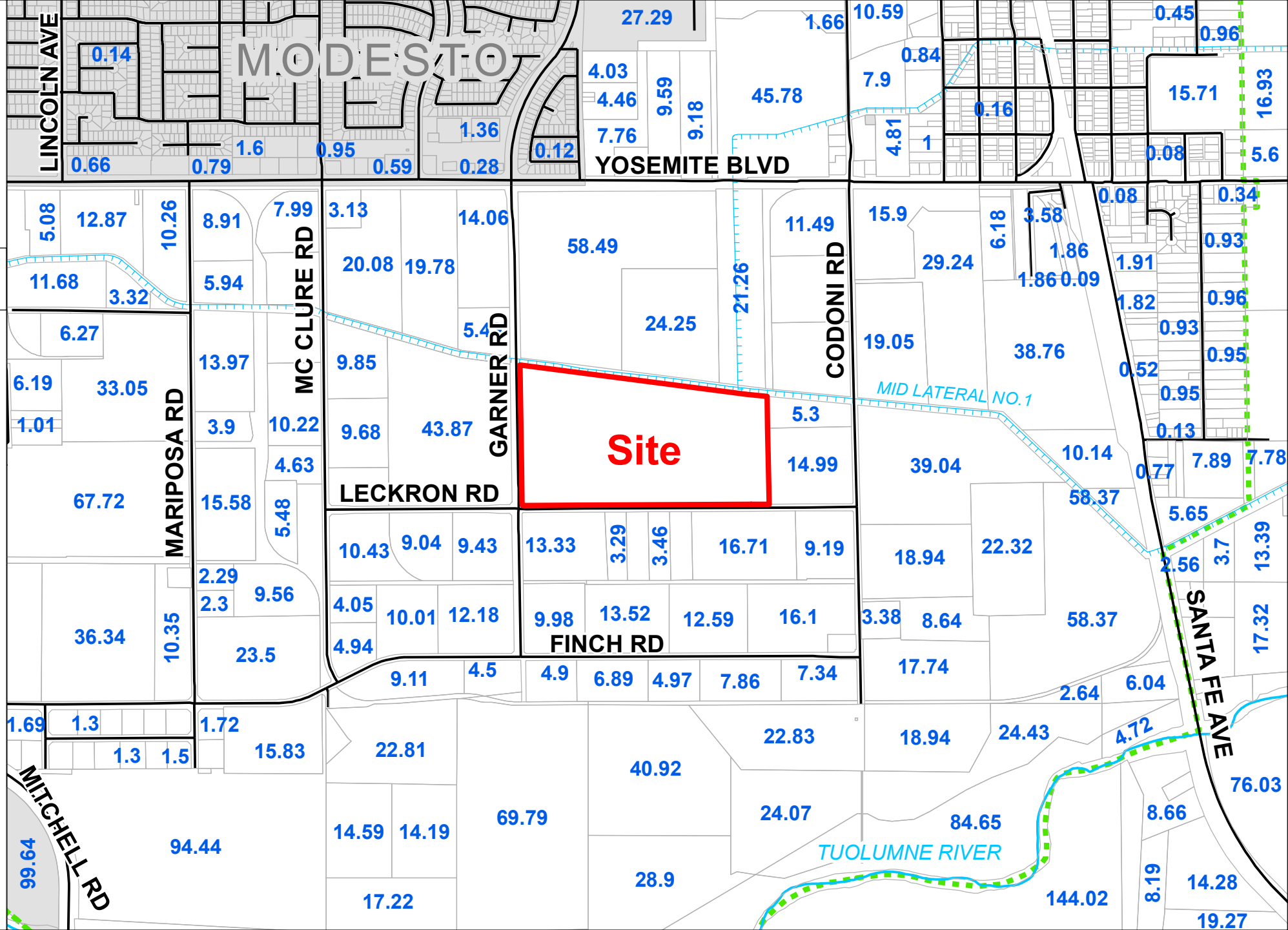
FRITO LAY INC

VAR PLN2022-0009

ACREAGE MAP

LEGEND

- Project Site
- Sphere of Influence
- City of
- # Parcel/Acres
- Road
- River
- Canal



N

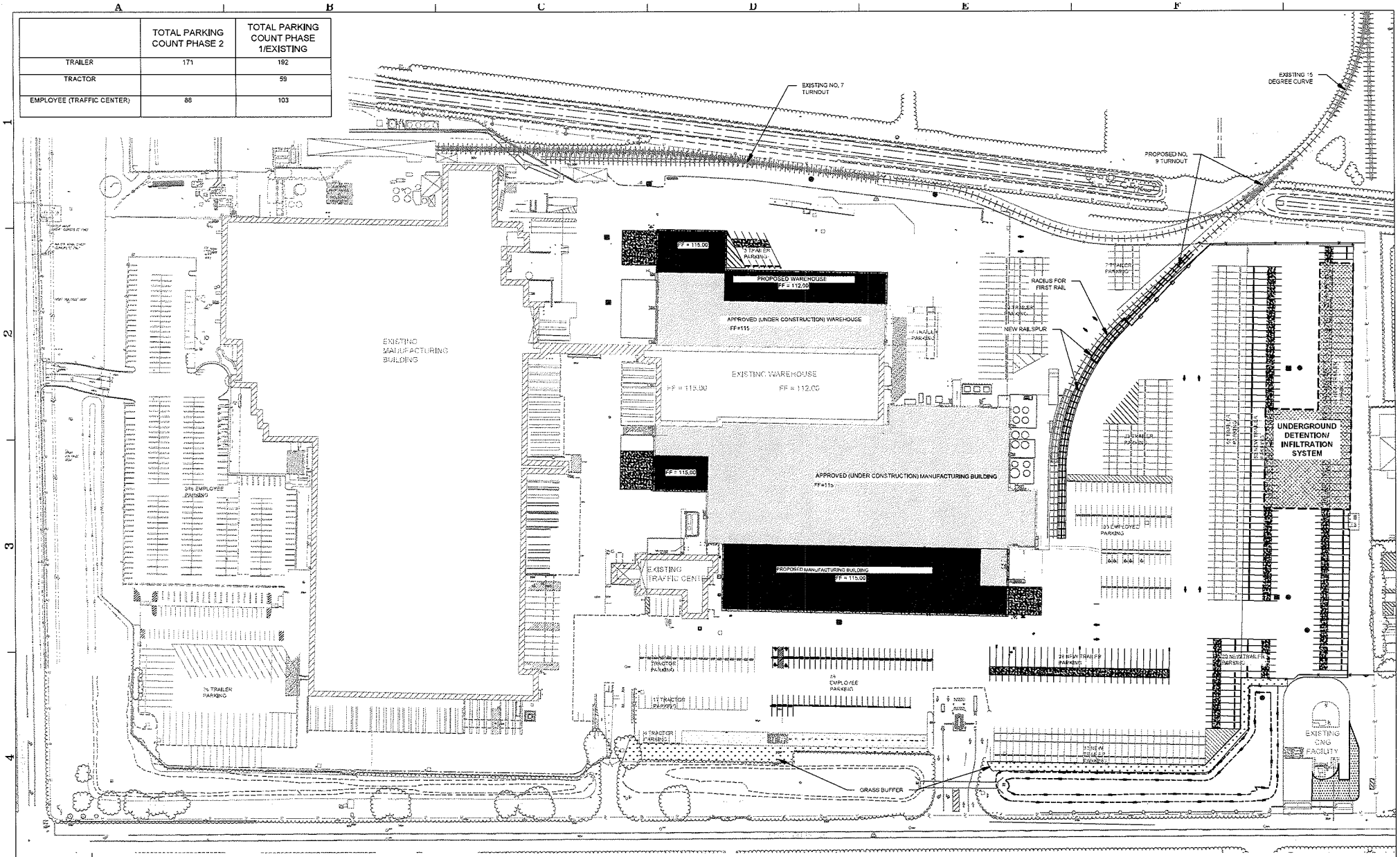
0 1,500 ft

0 300 m

Source: Planning Department GIS

Date: 2/7/2022

	TOTAL PARKING COUNT PHASE 2	TOTAL PARKING COUNT PHASE 1/EXISTING
TRAILER	171	192
TRACTOR		59
EMPLOYEE (TRAFFIC CENTER)	86	103



LEGEND

- EXISTING BUILDING
- NEW BUILDING (PHASE I)
- NEW BUILDING (PHASE II)
- VEGETATED BUFFER
- UNDERGROUND RETENTION

REV	DESCRIPTION	DRAWN DATE	CHECK DATE	APPRO DATE
1	ISSUED FOR GRADING PERMIT	10/15/21	10/15/21	10/15/21

DRAWING REVISION

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BURNS McDONNELL

NAME OF PROFESSIONAL
JOHN BRAHALL
PROFESSIONAL SEAL NUMBER C75423

CONFIDENTIAL

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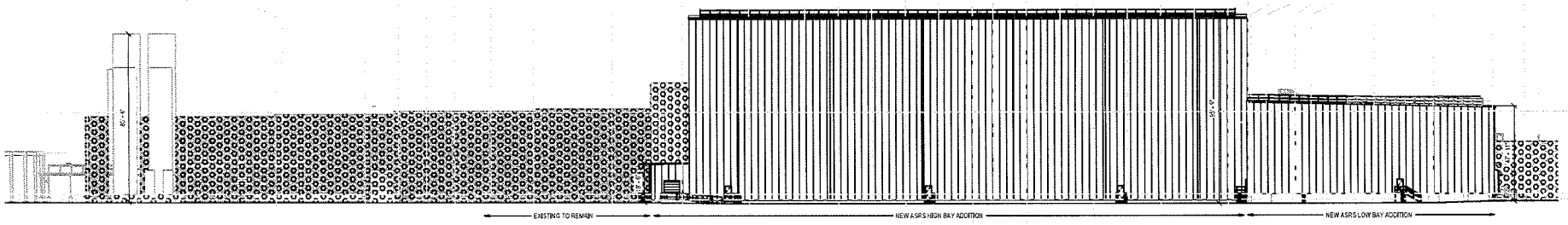
Drawn Under		
DATE	BY	
10/15/21	SA	DRAWN
10/15/21	MT	CHECKED
10/15/21	JB	APPROVED

Frito Lay Good fuel

MODESTO, CA
FUNYUNS EXPANSION
CIVIL
OVERALL SITE PLAN

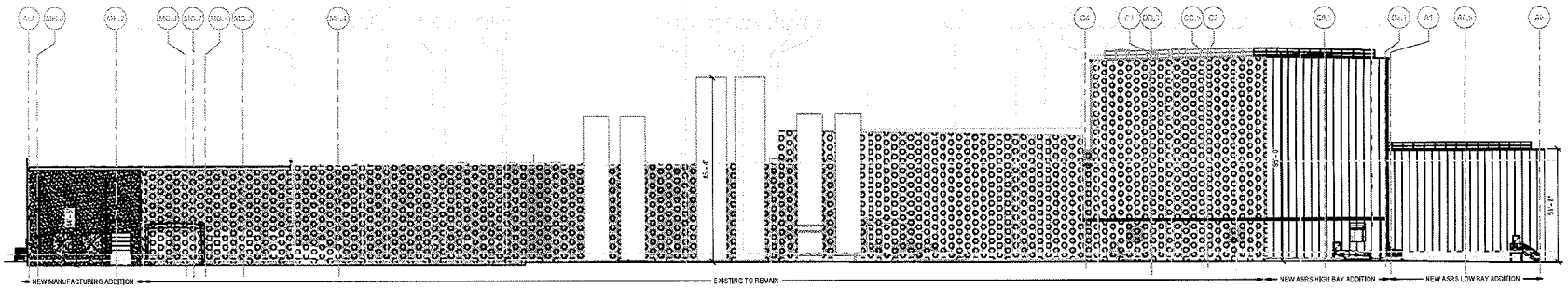
VENDOR PROJECT NUMBER	VENDOR DRAWING NUMBER	SCALE	SHEET NUMBER	FL DRAWING NUMBER	REV
127399	---	1"=60'	- OF -	- - - - -	1

N:\WCDDP SKLIENTS\GP SP\FRITOLAY\127399_MODESTRANSHEPCDESIGNCADDWG\SHEETS\FUNYUNS EXPANSION\127399- TRAFFIC PATTERN\DWG 10/20/2021 9:53 AM AMARTINEZ



NORTH - OFS ELEVATION (1)

20' 10' 0 20'

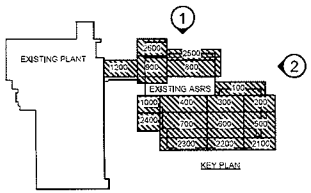


EAST - OFS ELEVATION (2)

20' 10' 0 20'

LEGEND:

EXISTING BUILDING



PRELIMINARY - NOT FOR CONSTRUCTION

REV	DESCRIPTION	DRAWN DATE	CHK'D DATE	APP'D DATE	REV	DESCRIPTION	DRAWN DATE	CHK'D DATE	APP'D DATE

DRAWING NUMBER

BURNS McDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
BURNS & McDONNELL ENGINEERING CO, INC.
BURNS & McDONNELL
75238

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BURNS McDONNELL

NAME OF PROFESSIONAL

PROFESSIONAL SEAL NUMBER

CONFIDENTIAL

DATE	BY
12/15/99	

VENDOR PROJECT NUMBER: 12/15/99

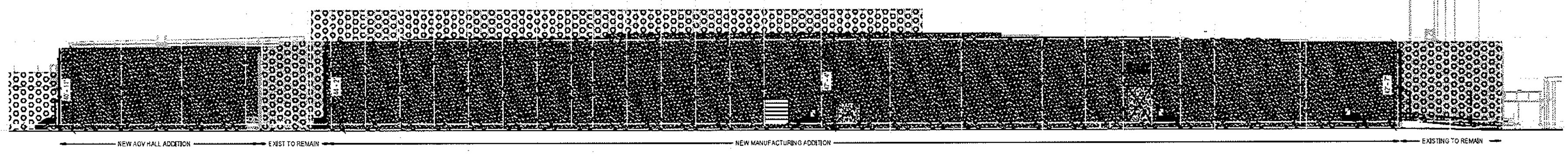
VENDOR DRAWING NUMBER: AE00706

Frito Lay Good food

MODESTO, CA
MODESTO TRANSFORMATION PROJECT

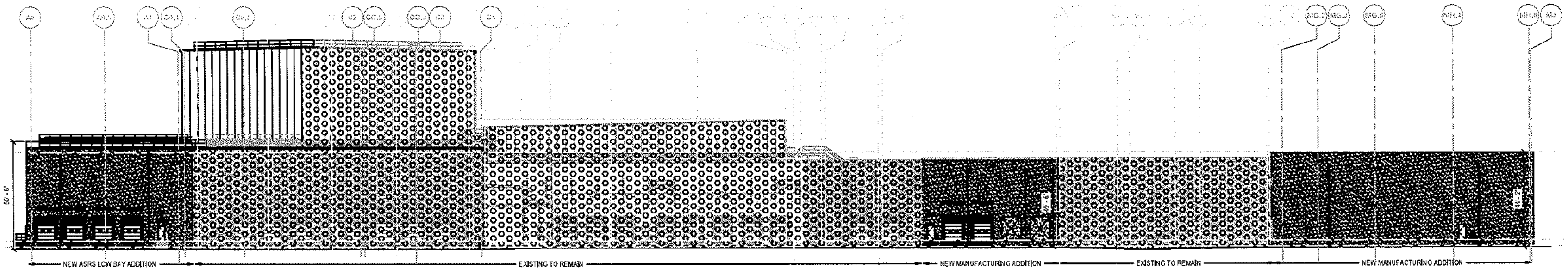
BUILDING ELEVATIONS

SCALE | SHEET NUMBER 1 of 1 | R. DRAWING NUMBER – – – | REV



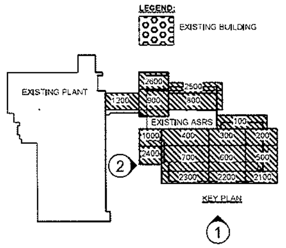
SOUTH - OFS ELEVATION ③

20' 10' 0 20'



WEST - OFS ELEVATION ④

20' 10' 0 20'



KEY PLAN

①

PRELIMINARY - NOT FOR CONSTRUCTION

BURNS McDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
BURNS & MCDONNELL ENGINEERING CO. INC.
BURNS & MCDONNELL
755238

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BURNS McDONNELL
NAME OF PROFESSIONAL
PROFESSIONAL SEAL NUMBER

CONFIDENTIAL

Frito Lay Good fun!

MODESTO, CA
MODESTO TRANSFORMATION PROJECT

BUILDING ELEVATIONS

VENDOR PROJECT NUMBER	VENDOR DRAWING NUMBER	SCALE	SHEET NUMBER	FL DRAWING NUMBER	REV
127399	AE00707		1 OF 1	– – –	

Prepared for
Frito-Lay, Inc.
Modesto, California

Project Number
1690022886

Date
February 2022

AIR QUALITY AND GREENHOUSE GAS ANALYSIS
FRITO-LAY MODESTO TRANSFORMATION PROJECT
FRITO-LAY
MODESTO, CALIFORNIA

RAMBOLL

Attachment I

CONTENTS

TABLES

APPENDICES

ACRONYMS AND ABBREVIATIONS

AB – Assembly Bill
BEV - battery electric vehicle
BPS – best performance standards
CAA – Clean Air Act
CALEEMOD – California Emissions Estimator Model
CalEPA – California Environmental Protection Agency
CAP - criteria air pollutant
CARB – California Air Resources Board
CAT – Climate Action Team
CEQA – California Environmental Quality Act
cfh – cubic feet per hour
CH_4 – methane
CNG – compressed natural gas
CO – carbon monoxide
CO_2 - carbon dioxide
CO_2e - carbon dioxide equivalents
cy - cubic yards
DTC – Dorito Tortilla Chip
EMFAC – Emission Factor Model
EO – Executive Order
EPA – Environmental Protection Agency
EVSE – electric vehicle supply equipment
FCC – Fried Corn Chip
GHG - greenhouse gas
gpm – gallons per minute
HDV – heavy-duty vehicles
HHDT – heavy heavy-duty truck
kWh – kilowatt hour
LCFS – Low Carbon Fuel Standard
LDA – passenger car
LDT – light-duty truck
MDV – medium-duty vehicle
MHDT – medium heavy-duty truck
MPO – metropolitan planning organization
MT - metric ton
MW – megawatts
N_2O - nitrous oxide
NO_x - oxides of nitrogen
NZE – near-zero emission
OFS – Onion Fried Snack
$PM_{2.5}$ - particulate matter less than 2.5 microns in diameter

PM_{10} - particulate matter less than 10 microns in diameter
RNG – renewable natural gas
ROG - reactive organic gases
SJVAB - San Joaquin Valley Air Basin
SJVAPCD - San Joaquin Valley Air Pollution Control District
SO_2 – sulfur dioxide
SOI – sphere of influence
sqft - square feet
StanCOG – Stanislaus Council of Governments
VOC – volatile organic compounds
ZE – zero emission

1. INTRODUCTION

1.1 Purpose of the Air Quality and Greenhouse Gas Analysis

Frito-Lay, Inc. (Frito-Lay) is proposing to expand its existing Modesto snack food manufacturing facility to support the addition of new snack food production lines, packaging systems and warehouse operations to increase snack food production capacity at the Modesto facility. This air quality and greenhouse gas (GHG) analysis has been prepared to evaluate whether the estimated criteria air pollutant (CAP) and GHG emissions from the Frito-Lay Project (Project) would cause significant impacts to the project area. This assessment follows the *Guidance for Assessing and Mitigating Air Quality Impacts* prepared by the San Joaquin Valley Air Pollution Control District (SJVAPCD or District) for quantification of emissions and evaluation of potential impacts to air resources.[1]

On May 20, 2021, the Stanislaus County Planning Commission approved a project involving addition of a 39,000 sq ft warehouse building, a 127,000 sq ft manufacturing building, a 2nd rail spur, receiving and storage equipment, and an expansion of the retention pond.[2] Two new snack food production lines will be installed as part of the approved project. That project is currently under construction with completion scheduled for October 2022. The analyses presented in this report encompass both the project approved on May 20, 2021 as well as the proposed Project.

1.2 Organization of the Air Quality and Greenhouse Gas Analysis

The air quality and GHG analysis is organized as follows:

Chapter 1 Introduction provides a brief description of the proposed Project, as well as the purpose and intended use of the analysis.

Chapter 2 Project Description provides a detailed description of the proposed Project, including its location and setting. Project objectives are identified, and information is provided on the proposed Project characteristics and construction scenario.

Chapter 3 Air Quality Analysis provides a description of the calculation methodology for CAP emissions for construction, permitted operational activities, and non-permitted operational activities. This section also includes an analysis of air quality impact.

Chapter 4 Greenhouse Gas Analysis provides a description of the calculation methodology for GHG emissions for construction, permitted operational activities, and non-permitted operational activities. This section also includes an analysis of GHG impact.

Chapter 5 Summary summarizes the findings of the air quality and GHG analysis.

Chapter 6 Preparers identifies those persons responsible for the preparation of this analysis.

[1] SJVAPCD Guidance for Assessing and Mitigating Air Quality Impacts. Available at: https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF. Accessed: December 2020.

[2] Stanislaus County Department of Planning and Community Development Variance Permit No. 2020-0079. Date of Approval: May 20, 2021.

2. PROJECT DESCRIPTION

2.1 Project Background

Frito-Lay, Inc. (Frito-Lay) is proposing to expand the existing Modesto facility to support the addition of new snack food production lines, packaging systems and warehouse operations. This Project would involve the addition of new structures, installation of new snack food production equipment, and addition of a second rail line branch. The Modesto facility investments also include new onsite solar electricity generation equipment, compressed natural gas (CNG) fueling infrastructure to support new near-zero emission (NZE) vehicles, and battery electric vehicle (BEV) charging infrastructure to support new light-duty and heavy-duty zero emission (ZE) on-road and off-road vehicles. The proposed changes will increase snack food production capacity at the Modesto facility, increase the warehouse capacity to meet the demands of the expanded production lines, and reduce the need to import of packaged snack food products from other plants.

2.2 Project Location

The Project site is located on a 71.38-acre parcel at 600 Garner Road, Modesto, Stanislaus County, California, on unincorporated lands. The site is an existing snack food production facility that processes corn and potato starch to make tortilla chips, potato chips, and fried cheese puffs. The Project site is in an area zoned as Industrial (M) under the Stanislaus County General Plan and is generally surrounded by industrial and agricultural land uses. The site is within the City of Modesto sphere of influence (SOI).

2.3 Existing Environment

The site is adjacent to unrelated industrial facilities on its north, south, east, and west sides. In addition, agricultural fields are located both south and west of the facility. The closest residential use is located approximately 2000 feet north of the facility. The closest school is located approximately 4000 feet northwest of the facility.

2.4 Project Description

The Frito-Lay Modesto facility (Facility) was established in 1990 and currently consists of one main manufacturing/warehousing building (436,000 square feet (sq ft)), one dedicated warehouse building (63,000 sq ft), and a traffic center for management of material receiving activities and finished product shipping. On May 20, 2021, the Stanislaus County Planning Commission approved a project involving addition of a 39,000 sq ft warehouse building, a 127,000 sq ft manufacturing building, a 2nd rail spur, receiving and storage equipment, and an expansion of the retention pond.[3] Two new production lines will be installed as part of the approved project. That project is currently under construction with startup of the second production line scheduled for October 2022.

With this Project, Frito Lay is proposing to add additional structures to house new manufacturing and warehouse operations, new material receiving and storage operations. Site investments also include new renewable (solar) energy generation equipment, and infrastructure to support ZE and NZE vehicles. These are described in the following sections.

<u>Manufacturing and Packaging Operations</u>

Frito-Lay is proposing to add a new Onion Fried Snack (OFS) production line to the 127,000 sq ft manufacturing building currently under construction. Frito-Lay proposes to commence

[3] Stanislaus County Department of Planning and Community Development Variance Permit No. 2020-0079. Date of Approval: May 20, 2021

installation of the OFS production line in August 2022 and commission the equipment by March 2023. The new OFS production line will consist of dump stations, bins, a hopper, a blender, 10 extruders, a vegetable oil fryer, an ambient air cooler, an electric oven, and an OFS seasoning system equipped with a scrubber.

Additionally, Frito-Lay is proposing to add a new manufacturing building measuring approximately 62,000 sq ft with a height of approximately 46 ft. Construction of this new building would begin in early 2022 and be completed in early 2023. The building is expected to house a new Fried Corn Chip (FCC) production line consisting of a corn cook, soak, and wash system, a vegetable oil fryer, an ambient air cooler, and a seasoning system equipped with a scrubber. In addition, Frito-Lay will be installing a new natural gas-fired boiler to generate steam for process heating.

Warehouse Operations

Frito-Lay is proposing to add an approximately 27,000 sq ft warehouse building. This building would be equipped with new (2-crane) automated storage and retrieval systems with 5,184 pallet areas. The height of the new warehouse building will be approximately 84 ft. Construction would be complete on the new warehouse building in 2023.

Receiving and Storage Operations

Frito-Lay is proposing to add one new corn silo, and one new cornmeal silo. The cornmeal tank would be located at the eastern side of the manufacturing building currently under construction. The corn silo would be located on the eastern side of the under-construction 127,000 sq ft manufacturing building. Bulk materials would be received either by truck or by rail. A new second rail branch would be added to the 2nd rail spur (currently under construction) and would be located east of the manufacturing building (currently under construction).

Solar Energy and NZE and ZE Vehicle Infrastructure

Frito-Lay is also making investments to transform the Modesto facility into a near-zero emission freight facility through addition of renewable energy infrastructure, the installation of NZE and ZE infrastructure, and the purchase of NZE and ZE vehicles. These investments include:

- Installation of a solar photovoltaic carport for the on-site generation of carbon-free electricity;
- Light duty vehicle (LDV) electric vehicle supply equipment (EVSE) consisting of 14 employee charging stations and new 696 kWh energy storage equipment;
- A publicly available compressed natural gas (CNG) fueling station with renewable natural gas (RNG) attributes for use in Frito-Lay NZE CNG-fueled vehicles;
- Lithium-ion forklift chargers to support new ZE forklifts;
- 12 box truck and yard tractor EVSE;
- New EVSE and new 2682 kWh energy storage system for ZE heavy-duty vehicles (HDV);
- Purchase of at least 38 CNG tractors capable of utilizing RNG;
- Purchase of at least 12 lithium-ion ZE forklifts;
- Purchase of at least 3 ZE electric yard tractors; and

- Purchase of at least 6 ZE electric box trucks.

Additional Considerations

Prior to construction, grading will be required, with an estimated 12,800 cubic yards of soil disturbance. There are no existing public utility easements inside the property fenceline for irrigation, telephone, or electric utilities. Existing customer-owned utility and irrigation facilities will not need to be removed as a result of this Project. However, existing (customer-owned) utility connections will be extended to new points of service within the Project site. Extensions include a new fire water line, new electric transformers, new service drops from overhead electrical lines, new underground electric service lines, and a new domestic water service line. The landscaped areas will increase by approximately 10,500 sq ft as a result of this Project.

Frito-Lay expects the proposed Project to add 75 employees when the OFS production line is installed, and an additional 55 employees when the FCC production becomes operational. 43 employees will be added to the minimum shift, and 51 employees will be added to the maximum shift.

Daily truck loadings and deliveries before and after the Project are presented below:

	Average Daily		
Loads	**Currently Authorized**	**After Project**	**Change**
Outbound	86	93	7
Inbound	7	5	(2)

Once the new process lines are operational, products that were previously shipped to the facility will instead be manufactured at the Modesto facility. Therefore, inbound loads to the Project site are expected to decrease as a result of the Project. Truck deliveries and loadings are expected to occur 24 hours/day.

The Facility currently receives approximately 28 railcar deliveries per week. This is expected to increase to approximately 33 railcars per week as a result of the Project.

The Project is expected to result in an increase of utility usage at the site as follows:

Table 1.1: Pre- and Post-Project Utility Usage

Utility	**Currently Authorized**	**After Project**	**Change**
Water[1]	581 gpm	836 gpm	255 gpm
Electricity	61,844 MWh	94,209 MWh	32,365 MWh
Sewer	643-693 gpm	858-908 gpm	215 gpm
Natural Gas	580,420 MMBtu/yr	1,023,431 MMBtu/yr	443,011 MMBtu/yr
[1]Facility water is supplied through a combination of onsite wells and City of Modesto service.			

Stormwater is currently handled by overland flow into an at-grade retention basin located on the southeast corner of the property. This Project will add approximately 72,412 sq ft of new paved areas to the site.

2.5 Schedule

Frito-Lay has developed a preliminary project schedule, presented in Table 1.2.

Table 1.2: Frito-Lay Transformation Project Schedule

Task	Start Date	End Date
Construction of new 27,000 sq ft warehouse building	Aug 2022	Jul 2023
Construction of the new 62,000 sq ft manufacturing building	Mar 2023	Nov 2023
Construction of new rail branch	Feb 2022	May 2022
Construction of renewable energy and ZE/NZE infrastructure	Dec 2019	Feb 2022

3. AIR QUALITY ANALYSIS

Air quality within the Project area is regulated by the U.S. Environmental Protection Agency (EPA), the California Air Resources Board (CARB), and the San Joaquin Air Pollution Control District (SJVAPCD). Regional impacts on air quality result from emissions generated during short-term (construction) and long-term (operational) activities. SJVAPCD has established thresholds of significance for the following CAPs: volatile organic compounds (VOC), nitrogen oxides (NO_x), particulate matter (PM), carbon monoxide (CO), and sulfur dioxide (SO_2). The thresholds of significance address construction emissions, operational emissions resulting from permitted equipment and activities, and operational emissions resulting from non-permitted equipment and activities. This section describes the calculation methodology for CAPs and compares the results to the thresholds of significance.

3.1 Construction CAP Emissions

Construction phase CAP emissions at the Project site will primarily consist of emissions from off-road construction equipment and on-road construction vehicles during each phase of construction. Construction phase emission calculations are presented in Appendix A. Potential air emissions associated with the Project's construction phase activities were estimated using the California Emissions Estimator Model (CalEEMod®).[4] Construction phase emissions will be short-term and are anticipated to occur over a roughly 16-month period (see Table A.2).

Assumptions used in CalEEMod® simulation are presented in the following sub-sections. CalEEMod® output files are presented in Appendix B.1.

The primary air pollutants associated with construction emissions will include fugitive PM and diesel exhaust emissions of NO_x and PM. Exhaust emissions will be typically emitted by on-road vehicles and/or off-road equipment. Fugitive emissions result from PM dust suspended in the air by wind action and construction related activities. SO_x and VOC will also be emitted during construction, but to a lesser extent.

<u>Emissions from Construction Equipment</u>

Construction equipment emissions were estimated for off-road equipment engine use based on equipment lists and projected phase durations. The fugitive emissions resultant from off-road equipment usage were also included in this analysis.

Since most of the off-road construction equipment used for construction projects is diesel-fueled, the CalEEMod® model assumes all the equipment operates on diesel fuel. There will be no starting or evaporative emissions associated with the construction equipment as these are considered *de minimis* for diesel-fueled equipment. CalEEMod® calculates the exhaust emissions based on default values for horsepower and load factor taken from the CARB OFFROAD2011 model.[5] CalEEMod® default equipment types and quantities were assumed for each construction phase.

The list of estimated construction equipment for each construction phase is presented in Table A.2.

---

[4] California Emissions Estimator Model Version 2020.4.0. Available at: www.caleemod.com. Accessed: December 2021.

[5] California Emissions Estimator Model User's Guide. Appendix A. Page 7. Version 2020.4.0. Available at: http://www.caleemod.com. Accessed: December 2021.

CalEEMod® was also used to calculate fugitive dust associated with the demolition, site preparation, and grading phases. The quantity of material to be demolished as well as the estimated quantity of material removed during the site preparation and grading phases were provided by the Facility (Table A.3). Fugitive emissions from truck loading were based on the estimated volume of soil to be exported (43,400 cubic yards). Potential PM_{10} and $PM_{2.5}$ emissions from fugitive dust will be controlled by watering the construction site or implementing other equivalent stabilization methods in accordance with SJVAPCD requirements.[6] CalEEMod® defaults assume that the construction site is watered twice a day; a control measure estimated to reduce fugitive dust emissions by 55%.

Emissions from On-Road Trips

Construction activities can generate on-road vehicle exhaust (including evaporative emissions) and entrained road dust emissions from personal vehicles for worker/vendor commuting, and trucks for soil/materials hauling. These emissions were calculated in the CalEEMod® model based on the estimated number of trips (Table A.4) and vehicle miles traveled (VMT) along with emission factors from the EMFAC2014 model. The number of worker, vendor, and hauling trips were estimated using CalEEMod® defaults for all phases.

The mobile source emissions were calculated using trip rates and lengths, as well as emission factors from EMFAC2017 as outlined in the CalEEMod® user's guide.[7]

Details regarding on-road trips generated during the construction phase are presented in Table A.4.

Maximum Emissions from Project Construction

The maximum annual criteria air pollutant emissions estimated due to construction of the Project are summarized in Table 3.1. Detailed CalEEMod® outputs can be found in Appendix B.1. The estimated annual emissions for construction phase activities are less than the SJVAPCD's significance thresholds for construction for all criteria pollutants.

Table 3.1: Project Maximum Annual CAP Emissions from Construction

Calendar Year	Maximum Annual Emissions (tons/year)					
	ROG	CO	SO_2	NO_x	PM_{10}	$PM_{2.5}$
Maximum Overall	**1.16**	**4.22**	**0.01**	**6.22**	**0.93**	**0.52**
SJVAPCD Threshold[1]	**10**	**100**	**27**	**10**	**15**	**15**
Above Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Notes:

1 Criteria pollutant significance thresholds for construction emissions obtained from SJVAPCD Air Quality Thresholds of Significance. Available at: http://www.valleyair.org/transportation/0714-GAMAQI-Criteria-Pollutant-Thresholds-of-Significance.pdf. Accessed: December 2021.

6 Fugitive Dust Control at Construction Sites: New Requirements. Available at: https://www.valleyair.org/busind/comply/PM10/forms/RegVIIICAB.pdf. Accessed: December 2021.

7 California Emissions Estimator Model User's Guide. Appendix A. Page 37. Version 2020.4.0. Available at: http://www.caleemod.com. Accessed: December 2021.

3.2 Operational CAP Emissions

3.2.1 Operational CAP Emissions from Permitted Equipment and Activities

Within the broader category of operational emissions, SJVAPCD has separate emission thresholds for equipment and activities subject to SJVAPCD permits (i.e., permitted), and those which are not subject to SJVAPCD permits (i.e., non-permitted). Portions of the proposed Project will be subject to SJVAPCD permitting requirements under SJVAPCD Regulation II (Permits).

Frito-Lay plans to submit applications to SJVAPCD for ATCs for the following equipment:

- Onion Fried Snack (OFS) process line
- Additional cornmeal receiving, storage, and handling system
- Boiler (future)
- Fried Corn Chip (FCC) process line (future)
- Additional corn receiving, storage, and handling system.

The Facility's post-Project potential to emit was calculated based on equipment-specific emission factors and control efficiency of control equipment. Emission calculations are provided in Appendix C. The increases in facility emissions expected after full Project implementation are compared to SJVAPCD thresholds below.

Table 3.2: Operational CAP Emissions from Permitted Equipment

Pollutant	Post-Project Potential to Emit (tons/year)					
	ROG	CO	SO_2	NO_x	PM_{10}	$PM_{2.5}$
Total	1.62	17.45	0.15	2.02	11.82	11.82
SJVAPCD Threshold[1]	**10**	**100**	**27**	**10**	**15**	**15**
Above Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Notes:

Criteria pollutant significance thresholds for operational emissions from permitted equipment obtained from SJVAPCD Air Quality Thresholds of Significance. Available at: http://www.valleyair.org/transportation/0714-GAMAQI-Criteria-Pollutant-Thresholds-of-Significance.pdf. Accessed: December 2021.

3.2.2 Operational CAP Emissions from Non-Permitted Equipment and Activities

As noted above, SJVAPCD has separate emission thresholds for permitted operational equipment and non-permitted operational equipment. For the purpose of calculating CAP emissions, the non-permitted operational equipment and activities will include Project-related emissions from area sources, non-permitted natural gas usage, and mobile sources (i.e., passenger cars, trucks, trains). Emission calculations for non-permitted operational sources are provided in Appendix D.

Area Source Emissions

Project-related area source emissions will include emissions from architectural coating, consumer products, and landscaping. These emissions were estimated in CalEEMod, using

default emission factors. These emissions, summarized in Table D.1, are dependent on the land use areas, which were provided by the facility and shown in Table A.1.

Emissions from Natural Gas Usage

The Project-related emissions from increased (non-permitted) natural gas usage expected after Project implementation were calculated outside of CalEEMod, using CalEEMod default emission factors for nonresidential land uses.[8] CAP emissions resulting from this category are presented in Table D.8. These totals account for the increase in natural gas required to replace the facility's diesel heavy heavy-duty and medium heavy-duty trucks with natural gas-powered vehicles, as calculated in Table D.7.

Mobile Emissions

Passenger Cars

As a result of the Project, the facility expects to hire 336 employees. Therefore, the expected increase in the number of daily trips was estimated at twice that number, or 672 additional one-way trips per day. Emissions from Project-related passenger cars were calculated. Baseline (calendar year 2020) passenger car emissions were analyzed and compared to post-Project emissions. The total passenger car emissions attributed to the Project were calculated by subtracting the baseline emissions from the Project emissions.

It was assumed that the average passenger car trip length is the distance that an employee will have to travel roundtrip from their home to the facility. This distance was estimated using CalEEMod defaults for home-work trips in urban Stanislaus County.[9]

In both scenarios, passenger car emissions were calculated using EMFAC2021 (EMFAC) default emission factors for the passenger car (LDA), light-duty truck (LDT), and medium-duty vehicle (MDV) vehicle classes.[10] The emission factors in the post-Project scenario are lower than in the baseline scenario as a result of car regulations becoming increasingly stringent over time. However, since the number of passenger car trips increases as a result of the increased facility capacity, the estimated CAP emissions are larger in the post-Project scenario then they are in the baseline scenario for all pollutants except NO_x, as shown in Table D.22. EMFAC output files are presented in Appendix B.2, and additional calculation details can be found in Appendix D.

Trucks

Project-related emissions from trucks were calculated using the same general methodology as passenger vehicles. First, baseline (calendar year 2020) truck emissions were analyzed, then post-Project emissions were evaluated. The total truck emissions attributed to this Project were calculated by subtracting the baseline emissions from the Project emissions. Project-related emissions from trucks included two types of trucks: large delivery trucks and

[8] California Emissions Estimator Model User's Guide. Appendix D. Page D-339. Version 2020.4.0. Available: http://www.aqmd.gov/docs/default-source/caleemod/user-guide-2021/appendix-d2020-4-0-full-merge.pdf?sfvrsn=12. Accessed: December 2021.

[9] California Emissions Estimator Model User's Guide. Appendix D. Page D-86. Version 2020.4.0. Available: http://www.aqmd.gov/docs/default-source/caleemod/user-guide-2021/appendix-d2020-4-0-full-merge.pdf?sfvrsn=12. Accessed: December 2021.

[10] EMFAC Model Version 2021.1.1. Available at: https://arb.ca.gov/emfac/emissions-inventory. Accessed: December 2021

box trucks. Baseline and post-Project emissions for each truck type were calculated using separate methodologies, as described in this section.

The average trip length for large delivery trucks was estimated using the following methodology:

1. The distance from the facility to each of six Frito-Lay distribution centers (three in Northern California, three in Southern California) was mapped.
2. The average trip length for each region was weighted based on the population of the city in which each distribution center is located.
3. To calculate the overall truck trip length, the average trip length to each region was once again weighted, this time assuming that 65% of the trucks are sent to Northern California, and 35% of the trucks are sent to Southern California.

Calculation details can be found in Table D.10. The increase in number of larger delivery truck trips from the baseline to post-Project scenarios was calculated based on the facility's current production levels and load quantities. The snack food production capacity increase was used to estimate the number of delivery loads and ultimately truck trips required as a result of the Project.

The fleet mix for larger delivery trucks also changes between the baseline and post-Project scenarios. The facility currently operates 38 natural gas fueled trucks, and 12 diesel trucks. With the Project, the facility expects to operate 40 natural gas fueled trucks and 14 electric trucks. This change in the heavy-duty fleet mix reflects Frito-Lay's aggressive pursuit of alternative vehicle technologies as part of its corporate sustainability initiative.

EMFAC2021 was used to generate the average truck emission factors for each scenario. For the baseline scenario, EMFAC was run for the heavy-heavy duty truck (HHDT) vehicle class in 2020. Natural gas and diesel HHDT emission factors were averaged based on the expected fleet mix. Those emission factors were then multiplied by the average truck trip length and number of trips to estimate CAP emissions. For the Project scenario, only natural gas HHDT emission factors were obtained from EMFAC, since electric trucks have zero tailpipe emissions. As before, the emission factors were weighted based on fleet mix.

Baseline emissions from box trucks were calculated based on six diesel-fueled box trucks. The number of daily trips for box trucks in the baseline scenario was based on the assumption that each truck takes two trips per day. Since box trucks are confined to local travel, it was assumed that these box trucks travel approximately 15 miles in each direction per trip, for a total of 30 miles per round trip. Note that the box trucks are classified as medium heavy-duty vehicles, and EMFAC emission factors for this vehicle class were used accordingly to calculate both mile- and trip-based emission factors for the baseline scenario. The facility has committed to using electric box trucks during post-Project operations, which would result in zero tailpipe emissions.

While truck usage is expected to increase as a result of the Project, the change in the fleet composition from a mix of natural gas/diesel to natural gas/electric trucks and more stringent regulations result in lower emissions from trucks for some criteria pollutants, such as NO_x. A summary of MHDT and HHDT truck emissions in each scenario can be found in Table D.22. Additional calculation details are presented in Appendix D.

Trains

As with cars and trucks, in order to estimate emissions from trains, the average trip length was estimated. The rail route was mapped in GIS based on its known route. This total distance was estimated at 213 miles (Table D.23). A large portion of that distance is outside of SJVAPCD jurisdiction. For purposes of this analysis, 30% of the total emissions were estimated to occur within SJVAPCD, which is proportional to the percent of the rail distance within SJVAPCD boundaries.

Locomotive-specific emission factors were then identified. Emission factors for volatile organic compounds, carbon monoxide, and sulfur dioxide were obtained or calculated using US EPA Guidance.[11] California has more stringent emission standards than other states, so emission factors for particulate matter and NO_X were calculated separately, using CARB Guidance.[12] Emission factors were converted from grams per gallon to grams per ton-mile using the total ton-miles that Union Pacific freight trains travelled in 2020 and the total gallons of diesel fuel consumed by Union Pacific freight trains in 2020.[13]

Locomotive emissions were then calculated by multiplying these emission factors by the miles that the trains will travel within SJVAPCD and the weight of the trains travelling to the facility each year. The total train weight included the weight of the locomotive itself, as well as the weight of the empty railcars and loaded freight containers. Only the portion of the train weight that could be attributed to Frito-Lay was included in these calculations. This weight was calculated based on the number of railcars that deliver freight to Frito-Lay each week, and the estimated amount of corn, cornmeal, and oil used annually by the facility. The details of these calculations are presented in Table D.25.

As mentioned above, the locomotives travel throughout several other California Air Districts. It was determined that emissions will also be released within the Sacramento, Yolo Solano, Placer, and Northern Sierra Air Districts. While only emissions occurring within SJVAPCD were summed within the Project totals, emissions released in other districts were compared to those Districts' specific CEQA significance thresholds. All emissions totals were below applicable thresholds, as shown in Table D.28.

Off-Road Equipment

The facility uses off-road equipment that include yard tractors and forklifts as part of its daily operations. Emissions from these sources were quantified as part of the Project analysis. Unlike on-road vehicle emissions, off-road emissions are calculated based on daily emission rates as calculated using OFFROAD2021[14]. The data provided by OFFROAD2021 are aggregated within the SJVAPCD jurisdiction, which results in emission factors applicable to the Project scenarios.

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[11] Emission Factors for Locomotives. Available: https://nepis.epa.gov/Exe/ZyPDF.cgi/P100500B.PDF?Dockey=P100500B.PDF. Accessed: December 2021.

[12] 2016 Line Haul Locomotive Model and Update. Available: https://ww3.arb.ca.gov/msei/ordiesel/locolinehaul2017ei.docx. Accessed: December 2021.

[13] 2020 Union Pacific Class I Railroad Annual Report. Available: https://www.up.com/cs/groups/public/@uprr/@investor/documents/investordocuments/pdf_up_r1_2020.pdf. Accessed: December 2021.

[14] OFFROAD Model Version 2021.1.1. Available at: https://arb.ca.gov/emfac/emissions-inventory. Accessed: December 2021

The facility operates four diesel-powered forklifts and one diesel-powered yard tractor under the baseline scenario. In OFFROAD2021, these equipment types were modeled as "Industrial – Forklifts" and "Cargo Handling Equipment – Rail Yard Tractor," respectively. Running OFFROAD2021 resulted in an emission rate and activity estimated for diesel fueled equipment within SJVAPCD, from which emission factors could be calculated. Calculation details can be found in Table D.21.

The facility has committed to reducing CAP and GHG emissions from off-road equipment usage by converting these diesel-powered equipment to electric-powered by the start of post-Project operation. It is estimated that for each piece of diesel off-road equipment retired, three equivalent pieces of electric equipment will have to be utilized in order to make up for time required for equipment cooling and charging. Unlike on-road mobile vehicles, OFFROAD2021 models emissions from off-road equipment based on equipment fuel consumption. Converting from diesel- to electric-powered equipment would therefore result in zero CAP and GHG emissions.

Total Operational CAP Emissions from Non-Permitted Sources and Activities

As detailed above, the incremental CAP emissions resulting from Project implementation include area source emissions, emissions from natural gas usage, and mobile source emissions. Contributions from each of these sources are summarized and compared to SJVAPCD thresholds in Table 3.3:

Table 3.3: Operational CAP Emissions from Non-Permitted Equipment

	Incremental Project Emissions (tons/year)					
	ROG	**CO**	**SO_2**	**NO_x**	**PM_{10}**	**$PM_{2.5}$**
Area Sources	1.2	0.0	0.0	0.0	0.0	0.0
Natural Gas Usage	0.5	4.0	0.0	4.7	0.4	0.4
Mobile Emissions	-0.1	2.8	0.0	-2.7	-0.1	-0.1
Total	1.6	6.8	0.02	2.0	0.3	0.2
SJVAPCD Threshold[1]	10	100	27	10	15	15
Above Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Notes:

Criteria pollutant significance thresholds for operational emissions from non-permitted equipment obtained from SJVAPCD Air Quality Thresholds of Significance. Available at: http://www.valleyair.org/transportation/0714-GAMAQI-Criteria-Pollutant-Thresholds-of-Significance.pdf. Accessed: December 2020.

3.3 Air Quality Impact Analysis

Per Appendix G of the CEQA Guidelines, the air quality impacts of a project would be significant if the project would:

a. Conflict with or obstruct implementation of the applicable air quality plan;

b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation;

c. 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 quality standard;

d. Expose sensitive receptors to substantial pollutant concentrations, or;

e. Create objectionable odors affecting a substantial number of people.[15]

As shown in this report, the CAP emissions from construction, permitted operation, and non-permitted operation will all be under the respective SJVAPCD thresholds of significance. All Project impacts will be less than significant in the surrounding air quality districts as well. Therefore, this Project should have a less-than-significant impact on air quality.

Per the US EPA Green Book, portions of Stanislaus County are currently in non-attainment for ozone and particulate matter.[16] However, the increases in particulate matter emissions, as well as those of ozone precursors such as NO_x and VOCs, will be within the applicable SJVAPCD Thresholds of Significance. Thus, the potential increase in emissions of those pollutants will be considered less than significant.

The SJVAPCD recommends that an ambient air quality analysis be performed if on-site emission increases from construction, permitted operation, or non-permitted operation exceed 100 pounds per day for any pollutant. As shown in the Table 3.4, the expected emission increases for the Project will be less than 100 pounds per day for each pollutant for each category of emissions. Therefore, an air dispersion modeling analysis will not be required.

[15] CEQA Appendix G: Environmental Checklist Form. Available: https://resources.ca.gov/CNRALegacyFiles/ceqa/docs/ab52/final-approved-appendix-G.pdf. Accessed: December 2021.

[16] California Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants. Available: https://www3.epa.gov/airquality/greenbook/anayo_ca.html. Accessed: December 2021.

Table 3.4: Ambient Air Quality Analysis CAP Threshold Comparison

	Post-Project Potential to Emit (lb/day)					
	ROG	**CO**	**SO_2**	**NO_x**	**PM_{10}**	**$PM_{2.5}$**
Construction	6.3	23.1	0.1	34.1	5.1	2.9
Permitted Operation	19.3	95.8	1.3	11.0	64.6	64.6
Non-Permitted Operation	8.9	37.2	0.1	11.1	1.5	1.3
Maximum	19.3	95.8	1.3	34.1	64.6	64.6
SJVAPCD Threshold[1]	100	100	100	100	100	100
Above Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Notes:

[1] Thresholds for ambient air quality screening requirements from SJVAPCD Guidance for Assessing and Mitigating Air Quality Impacts. Available: http://www.valleyair.org/transportation/GAMAQI_12-26-19.pdf. Accessed: December 2021.

The expansion of the existing snack food manufacturing facility under the Project will not result in objectionable odors. Odors during the construction phase, if any, will also be less than significant. Construction equipment is typically fueled by diesel, which could lead to odors. However, diesel-fueled construction equipment is required by regulation to use low sulfur content fuel in accordance with SJVAPCD Rule 4702.[17] Compliance with this rule and use of low sulfur fuel will minimize potential odors. Additionally, the facility is located in an industrial-zoned area. The nearest sensitive receptor is a residence located approximately 2,000 feet from the Project site, and therefore is not expected to be impacted by Project activities. Diesel trucks that will be operated onsite as part of construction activities will not be allowed to idle longer than five minutes in any one location, in accordance with the CARB idling Airborne Toxics Control Measure (13 CCR §2485).[18] Therefore, construction equipment and haul trucks are not expected to generate diesel exhaust odor greater than typically present at the Facility. Given the intermittent and temporary nature of construction activities and the distance to sensitive receptors, any potential odors will not be expected to impact offsite receptors.

[17] Rule 4702, Internal Combustion Engines. Available at: https://www.valleyair.org/rules/currntrules/R4702_Clean.pdf. Accessed: December 2021.

[18] 13 CCR §2485, Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling. Available at: https://www.arb.ca.gov/msprog/truck-idling/13ccr2485_09022016.pdf. Accessed: December 2021.

4. GREENHOUSE GAS ANALYSIS

4.1 Construction Emissions

Greenhouse gas (GHG) emissions were calculated using CalEEMod as described in Section 3.1. The methodology was the same for GHG emissions as for criteria air pollutants. CalEEMod output files are presented in Appendix B.1. Table 4.1 presents a summary of GHG emissions from construction. Additional calculation details are presented in Appendix A.

Table 4.1: Project Maximum Annual GHG Emissions from Construction

Calendar Year	Maximum Annual Emissions (MT/year)			
	Total CO_2	CH_4	N_2O	CO_2e
Maximum Overall	**993**	**0.17**	**0.06**	**1,013**

4.2 Operational Emissions

4.2.1 Operational GHG Emissions from Permitted Equipment and Activities

As described in Section 3, Frito-Lay is expanding its Modesto facility to include additional process lines, and associated receiving, storage, and handling equipment. Greenhouse gas emissions are expected from one boiler rated at 50 MMBtu per hour. The potential GHG emissions from this boiler are estimated in Table 4.2, below.

Table 4.2: Operational GHG Emissions from Permitted Equipment

	Incremental Project Emissions (MT/year)			
	Total CO_2	CH_4	N_2O	CO_2e
Boiler	23,330	0.45	0.43	23,468
Totals	**23,330**	**0.45**	**0.43**	**23,468**

4.2.2 Operational GHG Emissions from Non-Permitted Equipment and Activities

For the purpose of calculating GHG emissions, the non-permitted operational equipment and activities include emissions from area sources, electricity usage, natural gas usage, mobile sources (passenger cars, trucks, trains), water usage, and solid waste disposal.

Area Source Emissions

Area source GHG emissions were estimated in CalEEMod using default emission factors, similar to CAP emissions. These GHG emissions, summarized in Table D.1, are dependent on the land use areas, which were provided by the facility and presented in Table A.1.

Emissions from Electricity Usage

The emissions that will result from Project-related electricity consumption were estimated outside of CalEEMod to account for requirements in Senate Bill 100, which requires ever increasing percentages of renewable energy over time.[19] While Modesto Irrigation District is the electricity provider for Frito-Lay, power content labels were not available for recent

[19] CA Senate Bill 100. Available: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180SB100. Accessed: December 2021.

calendar years. As such, nearby PG&E power content labels were obtained for three previous years (i.e., 2016, 2017, and 2018) and used to calculate compliant carbon dioxide intensity factors instead.[20] These power content labels provide the percentage of PG&E's total energy portfolio sourced from renewable and non-renewable sources. Using these power content labels as a reference, carbon dioxide intensity factors for PG&E's energy portfolio were then backcalculated to obtain a baseline intensity factor, which accounts for only non-renewable sources. Per Senate Bill 100, California utility companies must use at least 33% renewable sources in 2020, and 50% in 2026. By linearly interpolating between the points, it was determined that 38.7% of PG&E's electricity will come from renewable sources by 2022 in order to meet the requirements of Senate Bill 100. The final carbon dioxide intensity factor was calculated by taking that baseline factor, which assumed no renewable energy, and reducing it in accordance with these standards. Detailed calculations can be found in Table D.2. This adjusted carbon dioxide intensity factor was used in all CalEEMod runs; therefore, all GHG emissions were calculated using CalEEMod per Senate Bill 100 requirements.

To calculate the potential GHG emissions from Project-related electricity usage, the annual electricity usage was multiplied by this emission intensity factor. CH_4 and N_2O emissions were calculated using CalEEMod defaults for nonresidential land uses.[21] CO_2e emissions were calculated by multiplying the CO_2, CH_4, and N_2O emissions by their respective global warming potentials, and summing the result. Results are presented in Table D.6.

The increased electricity usage at the facility accounts for the additional electricity required to meet the facility's ambitious electrification goals. These goals include adding electric heavy heavy-duty trucks, medium heavy-duty trucks, yard tractors, and forklifts to the facility's on- and off-road fleet. As mentioned in Section 2.4, the facility has also committed to providing 7.1 MW of onsite solar capacity via solar carports and roof-mounted solar panels. Table D.5 shows a full breakdown of facility electricity use by sector.

Emissions from Natural Gas Usage

GHG emissions from natural gas usage were calculated in the same manner as CAP emissions. Refer to Section 3.2.2 for details, and Table D.8 for emission quantification.

Mobile Emissions

Passenger Cars

Project-related GHG emissions from passenger cars were calculated in the same manner as CAP emissions, except where noted below. Refer to Section 3.2.2 and Appendix D for details.

Trucks

Project-related GHG emissions from trucks were calculated in the same manner as and using the same emission factor sources as the CAP emissions. As previously stated, the facility has committed to converting its fleets of larger delivery trucks and box trucks from diesel-

[20] PG&E Power Content Labels. Available: https://www.pge.com/pge_global/local/assets/data/en-us/your-account/your-bill/understand-your-bill/bill-inserts/2017/november/power-content.pdf, https://www.pge.com/pge_global/common/pdfs/your-account/your-bill/understand-your-bill/bill-inserts/2018/10-18_PowerContent.pdf, and https://www.pge.com/pge_global/common/pdfs/your-account/your-bill/understand-your-bill/bill-inserts/2019/1019-Power-Content-Label.pdf. Accessed: December 2021.

[21] California Emissions Estimator Model User's Guide. Appendix D. Page D-3. Version 2020.4.0. Available: http://www.aqmd.gov/docs/default-source/caleemod/user-guide-2021/appendix-d2020-4-0-full-merge.pdf?sfvrsn=12. Accessed: December 2021.

powered to electric-powered. Post-Project electricity consumption captures the usages from the anticipated 14 electric large delivery trucks and 6 electric box trucks. See Section 3.2.2 for details. A summary of truck emissions is presented in Table D.22.

Trains

The methodology for calculating Project-related GHG emissions from trains was the same as for CAP emissions. See Section 3.2.2. for details. However, the emission factor sources were different for GHGs. The CO_2 emission factor was calculated using methodology outlined in EPA Guidance: Emission Factors for Locomotives.[22] The CH_4 and N_2O emission factors were taken from Table 5 of EPA Guidance: Emission Factors for Greenhouse Gas Inventories.[23] These emission factors are specific to diesel-fueled locomotives. Emission factors were converted into units of gram per ton-mile using Union Pacific locomotive data, as discussed in Section 3.2.2. Train GHG emissions can be found in Table D.27.

GHG emissions were divided up between the different air districts that the trains pass through on the way to the facility. All emissions are below the applicable thresholds in other districts.

Off-Road Equipment

The methodology for calculating Project-related GHG emissions from off-road equipment was the same as for CAP emissions. As previously stated, the facility has committed to converting its forklifts and yard tractor from diesel-powered to electric-powered. Post-Project electricity consumption captures the usages from the anticipated 12 electric forklifts, 3 electric yard tractors, 14 electric delivery trucks and 6 electric box trucks. See Section 3.2.2 for details.

Emissions from Water Usage

Emissions that will result from the increased water usage at the facility were calculated in CalEEMod using default emission factors. Per Table 1.1 in the Project Description, the Project is expected to increase the water needs of the facility by 255 gallons per minute. Emissions from increases in water usage are presented in Table D.32.

Emissions from Solid Waste Disposal

Emissions that will result from the increased waste disposal at the facility were also calculated in CalEEMod using default emission factors. The amount of non-hazardous waste generated in 2020 was obtained from Frito-Lay waste logs. To estimate waste amounts after Project implementation, this value was scaled up based on the expected increased facility capacity. The incremental amount of waste disposed is the difference between the future and present waste totals. As such, the facility is expected to generate an additional 105 tons of non-hazardous waste per year as a result of this Project. These emissions are shown in Table D.33.

Total Operational GHG Emissions from Non-Permitted Sources and Activities

As detailed above, the incremental GHG emissions resulting from Project implementation include emissions from area sources, electricity usage, natural gas usage, mobile sources (passenger cars, trucks, trains, off-road equipment), water usage, and solid waste disposal.

[22] Emission Factors for Locomotives. Available: https://nepis.epa.gov/Exe/ZyPDF.cgi/P100500B.PDF?Dockey=P100500B.PDF. Accessed: December 2021.

[23] Emission Factors for Greenhouse Gas Inventories. Available: https://www.epa.gov/sites/production/files/2015-07/documents/emission-factors_2014.pdf. Accessed: December 2021.

Contributions from each of these sources are presented in Table D.35 and summarized below.

Table 4.3: Operational GHG Emissions from Non-Permitted Equipment

	Incremental Project Emissions (MT/year)			
	Total CO_2	**CH_4**	**N_2O**	**CO_2e**
Area Sources	0.0	0.0	0.0	0.0
Electricity Usage	11,319	1.8	0.2	11,430
Natural Gas Usage	5,138	0.1	0.1	5,168
Mobile Emissions	-101	-1.8	-0.4	-272
Water Usage	203	7.8	0.2	454
Solid Waste Disposal	21	1.3	0.0	53
Totals	**16,580**	**9.2**	**0.1**	**16,833**

4.3 Greenhouse Gas Impact Analysis

CEQA Guidelines on GHG Emissions

Per Appendix G of the CEQA Guidelines, the air quality impacts of a project would be significant if the project would:

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

b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.[24]

SJVAPCD Guidance

In December 2009, the SJVAPCD adopted a Climate Change Action Plan.[25] Per this plan, Projects that are not exempt from the requirements of CEQA can be determined to have a less than significant individual and cumulative impact for GHG emissions in three ways.

First, the facility can demonstrate Project compliance with the District's approved Best Performance Standards (BPS). The District has compiled a list of BPS for stationary sources. If the Project can show that the stationary sources in question are following guidance as outlined in the corresponding BPS, then that source will have a less than significant impact.

Next, the facility can prove that Project elements are complying with approved GHG emission reduction plans or GHG mitigation programs. Such plans must be specified in law and

[24] CEQA Appendix G: Environmental Checklist Form. Available: https://resources.ca.gov/CNRALegacyFiles/ceqa/docs/ab52/final-approved-appendix-G.pdf. Accessed: December 2021.

[25] SJVAPCD Final Staff Report – Addressing Greenhouse Gas Emissions Impacts Under CEQA. Available: http://www.valleyair.org/Programs/CCAP/12-17-09/1%20CCAP%20-%20FINAL%20CEQA%20GHG%20Staff%20Report%20-%20Dec%2017%202009.pdf. Accessed: December 2021.

supported by a CEQA compliant environmental review document adopted by the lead agency.

Finally, the Project can quantify its GHG emissions and demonstrate that these project-specific emissions would be reduced or mitigated by at least 29% compared to a Business as Usual (BAU) approach. If the Project is achieving at least a 29% emission reduction from the BAU case, then the Project would be determined to have a less than significant impact for GHG.

Project Approach to Significance

For purposes of demonstrating that the Project will not have a significant impact, a hybrid approach was used. This section demonstrates compliance with applicable BPS and proves consistency with the several key GHG emission reduction plans and legislation listed in Section 4.3.1.

4.3.1 Regulatory Framework

Federal

Clean Air Act

In April 2007, in *Massachusetts v. EPA*, the U.S. Supreme Court directed the Administrator of the EPA to determine whether GHG emissions from new motor vehicles cause or contribute to air pollution that may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. In making these decisions, the EPA Administrator was directed to follow the language of Section 202(a) of the Clean Air Act (CAA). In December 2009, the Administrator signed a final rule with two distinct findings regarding GHGs under Section 202(a) of the CAA:

- Elevated concentrations of GHGs—CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6—in the atmosphere threaten the public health and welfare of current and future generations. This is referred to as the "endangerment finding."
- The combined emissions of GHGs—CO_2, CH_4, N_2O, and HFCs—from new motor vehicles and new motor vehicle engines contribute to the GHG air pollution that endangers public health and welfare. This is referred to as the "cause or contribute finding."

These two findings were necessary to establish the foundation for regulation of GHGs from new motor vehicles as air pollutants under the CAA.

State

Executive Order S-03-05

In 2005, Governor Schwarzenegger issued Executive Order (EO) S-3-05, which identifies state-wide GHG emission reduction targets to achieve long-term climate stabilization as follows:

- Reduce GHG emissions to 1990 levels by 2020; and
- Reduce GHG emissions to 80 percent below 1990 levels by 2050.

In response to EO S-3-05, California Environmental Protection Agency (CalEPA) created the Climate Action Team (CAT), which in March 2006 published the Climate Action Team Report

(the "2006 CAT Report").[26] The 2006 CAT Report identified a recommended list of strategies that the State could pursue to reduce GHG emissions. These are strategies that could be implemented by various State agencies to ensure that the emission reduction targets in EO S-3-05 are met and can be met with existing authority of the State agencies. The strategies include, but are not limited to, the reduction of passenger and light-duty truck emissions, the reduction of idling times for diesel trucks, an overhaul of shipping technology/infrastructure, increased use of alternative fuels, increased recycling, and landfill methane capture.

AB 32, the Global Warming Solutions Act

Assembly Bill (AB) 32 (Nunez, 2006), the California Global Warming Solutions Act of 2006, was enacted after considerable study and expert testimony before the Legislature. The heart of AB 32 is the requirement that state-wide GHG emissions be reduced to 1990 levels by 2020. In order to achieve this reduction mandate, AB 32 requires California Air Resources Board to adopt rules and regulations in an open public process that achieve the maximum technologically feasible and cost-effective GHG reductions.

In response to these requirements, CARB adopted the *Climate Change Scoping Plan: A Framework for Change* (2008 Scoping Plan) in accordance with Health & Safety Code Section 38561. During the development of the 2008 Scoping Plan, CARB created a planning framework that is comprised of eight emissions sectors: (1) transportation; (2) electricity; (3) commercial and residential; (4) industry; (5) recycling and waste; (6) high global warming potential (GWP) gases; (7) agriculture; and, (8) forest net emissions. The 2008 Scoping Plan establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions from the eight emissions sectors to 1990 levels by 2020.

In November 2017, CARB published California's 2017 Climate Change Scoping Plan (2017 Scoping Plan), which was subsequently adopted by CARB's Board in December 2017.[27] The 2017 Scoping Plan identifies CARB's strategy for achieving the State's 2030 GHG target.

Key elements of CARB's GHG reduction plan that are relevant to this analysis include:

- Achieving a mix of 50 percent for energy generation from renewable sources;
- Establishing targets for transportation-related GHG emissions, particularly by increasing zero emission vehicle fleets and regulating heavy-heavy duty truck emissions; and
- Implementing an extended, more stringent Cap-and-Trade Program.

Assembly Bill 1493

AB 1493 required CARB to adopt regulations to reduce GHG emissions from non-commercial passenger vehicles and light-duty trucks for model years 2009–2016. CARB obtained a waiver from the USEPA that allows for implementation of these regulations notwithstanding possible federal pre-emption concerns.

[26] California Environmental Protection Agency Climate Action Team Report to Governor Schwarzenegger and the Legislature. Available: http://s3-us-west-2.amazonaws.com/ucldc-nuxeo-ref-media/0bdec21c-ca2b-4f4d-9e11-35935ac4cf5f. Accessed: December 2021.

[27] California's 2017 Climate Change Scoping Plan. Available: https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf. Accessed: December 2021.

Executive Order S-01-07

EO S-1-07, as issued by Governor Schwarzenegger, called for a 10 percent or greater reduction in the average fuel carbon intensity for transportation fuels in California regulated by CARB by 2020. In response, CARB approved the Low Carbon Fuel Standard (LCFS) regulations in 2009, which became fully effective in April 2010. Thereafter, a lawsuit was filed challenging CARB's adoption of the regulations; and, in 2013, a court order was issued compelling CARB to remedy substantive and procedural defects of the LCFS adoption process under CEQA.[28] However, the court allowed implementation of the LCFS to continue pending correction of the identified defects. In September 2015, CARB re-adopted the LCFS regulations. The LCFS would reduce GHG emissions by reducing the carbon intensity of transportation fuels used in California by at least 10% by 2020 and, as most recently amended in 2018, by at least 20% by 2030.

Regional

SJVAPCD Guidance

SJVAPCD manages air quality in the San Joaquin Valley Air Basin (SJVAB). The primary role of SJVAPCD is to develop plans, rules, and regulations as well as implement control measures in the SJVAB to control air pollution. SJVAPCD adopted a Climate Change Action Plan (CCAP) to identify strategies to reduce GHG emissions in the SJVAB and evaluate Project significance. More details on this legislation can be found in Section 4.3.

Local

Stanislaus County Air Quality Conformity Analysis

The Stanislaus Council of Governments (StanCOG) is the designated Metropolitan Planning Organization (MPO) for Stanislaus County. It is responsible for regional transportation planning. As such, StanCOG also prepares conformity analyses. The 2014 Air Quality Conformity Analysis describes ways that Projects within the County can comply. This analysis suggests that transportation control measures be followed in order to ensure compliance with the Clean Air Act, and that County-approved emission estimation models be used in Project calculations.

4.3.2 Project Inventory in Context

BPS

The boiler that will be installed as part of the Project will need to comply with a SJVAPCD best performance standard (BPS). While the facility plans to install a boiler, the specific boiler type has not yet been selected. As such, the make, model, and pressure rating of this boiler are not currently known. SJVAPCD lists BPS for boilers based on the equipment's rated steam pressure, so it is currently unclear which BPS is applicable to this boiler. Once the boiler type is selected, the facility will ensure that it will meet the required criteria in order to comply with the applicable BPS.

Consistency Analysis

By complying with several key elements of the legislation outlined above, this Project demonstrates that its overall GHG emission impact will be less than significant.

[28] *POET, LLC v. CARB* (2013) 217 Cal.App.4th 1214.

As shown in Table 4.2, increased natural gas usage is a key driver of emissions as a result of the Project. However, per CARB's Climate Change Scoping Plan, these potential emissions will be covered under CARB's Cap-and-Trade program. As such, the natural gas usage at the facility is already accounted for and regulated in accordance with AB 32. Transportation fuels are also covered under Cap-and-Trade, so the fuels used to power the facility's current truck fleet are also regulated in accordance with CARB's Scoping Plan. The facility's plan to reduce their mobile emissions demonstrates compliance with the Clean Air Act, Executive Order S-03-05, Executive Order S-01-07, and CARB's Climate Change Scoping Plan. Reducing impacts from mobile sources is a key factor in these regulations. In particular, these regulations recommend decarbonizing the transportation sector, increasing usage of alternative fuels, and regulating heavy-duty truck fleets. In accordance with all of these items, Frito-Lay is aggressively pursuing alternative vehicle technologies for its heavy-duty fleet. This is reflected in both their current HHDT fleet, which is comprised of a large percentage of natural gas trucks, and their future HHDT fleet, which will consist of only natural gas and battery electric trucks. The Project site plan includes electric vehicle (EV) parking spaces for employees as well as charging states for the facility's Tesla Tractors. By utilizing a cleaner truck fleet for loads and deliveries, the facility will ensure compliance with federal and state regulations that focus on mobile emissions, and emissions from heavy-duty trucks in particular.

In addition to on-road mobile sources, the facility plans to mitigate potential GHG emissions through additional methods of electrification. As previously discussed in Section 4.2.2, the facility current operates diesel-powered off-road equipment that include forklifts and one yard tractor. Tailpipe emissions from these equipment will effectively be eliminated when the facility replaces them with electric-powered equipment. Additionally, the facility is committed to reducing building energy intensity by installing on-site solar carports and solar panels, which total approximately 7.1 MW of power generation for the facility.

The facility is also complying with state and local legislation by submitting a quantitative greenhouse gas inventory for this Project. This inventory has been compiled following guidance from AB 1493, EO S-01-07, and Stanislaus County Air Quality Conformity Analysis. Emissions from construction and operation were quantified using emission factors and methodology obtained from CalEEMod and EMFAC wherever possible. These California-specific models account for regulatory requirements in their assumptions. For example, requirements resulting from AB 1493, saying that non-commercial passenger vehicles are subject to stricter emission standards, and EO S-01-07, which mandates a reduction in the carbon intensity of transportation fuels, are already incorporated into EMFAC. Note that in both cases, the most recently approved model versions were used in all calculations. Therefore, by using state-approved models to quantify emissions, the Project inventory has been calculated while taking legislative action into consideration.

Impact Determination

Overall, the individual and cumulative GHG impacts of this Project are expected to be less than significant. While the Project could represent a small increase in GHG emissions when compared to the existing conditions on the site, the Project will not conflict with any state-wide emission reduction targets. Further, there are no clear Project alternatives which would be more effective in reducing the Project's impact.

This Project will comply with all applicable BPS and demonstrate consistency with the regulations outlined in Section 4.3.1. Therefore, per SJVAPCD's CEQA guidance, the impacts from this Project will be less than significant.

5. DETERMINATION

5.1 Summary

The proposed Project was analyzed and found to have **less than significant** impacts in the areas of air quality and greenhouse gases. CAP emissions are under below SJVAPCD thresholds for construction, permitted operation, and non-permitted operation. Additionally, GHG emissions are consistent with federal, state, and local legislation, which indicates compliance per SJVAPCD Guidelines. No further analysis of these areas is required.

6. PREPARERS

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APPENDIX A
CONSTRUCTION TABLES

Table A.1. Project Land Use
Frito-Lay, Inc.
Modesto, California

Proposed Project[1]			CalEEMod® Analysis[2]				
Land Use	**Land Use Unit Amount**	**Size Metric**	**Land Use Category**	**Land Use Subtype**	**Land Use Unit Amount**	**Size Metric**	**Acreage**
Manufacturing and Production Operation	189,000	sqft	Industrial	Manufacturing	189	1000 sqft	4
Warehouse Operation	66,000	sqft	Industrial	Refrigerated Warehouse - Rail	66	1000 sqft	2
Asphalt Paving	284,469	sqft	Parking	Other Asphalt Surfaces	284	1000 sqft	32
Concrete Paving	35,107	sqft	Parking	Other Non-Asphalt Surfaces	35	1000 sqft	4

Notes:

[1] Project conditions based on Project Description and data request response.

[2] Land uses as defined in CalEEMod® v2020.4.0.

Abbreviations:

CalEEMod® - California Emissions Estimator Model

sqft - square feet

sy - square yards

Table A.2. Project Construction Assumptions
Frito-Lay, Inc.
Modesto, California

Construction Phase Name[1]	Phase Type	OffRoad Equipment Type[2]	Equipment Unit Amount[2]
Demolition Paving/Underground	Demolition	Concrete/Industrial Saws	2
		Excavators	6
		Rubber Tired Dozers	4
Site Preparation	Site Preparation	Rubber Tired Dozers	6
		Tractors/Loaders/Backhoes	8
Grading	Grading	Excavators	4
		Graders	2
		Rubber Tired Dozers	2
		Scrapers	4
		Tractors/Loaders/Backhoes	4
Building Construction	Building Construction	Cranes	2
		Forklifts	6
		Generator Sets	2
		Tractors/Loaders/Backhoes	6
		Welders	2
Demolition Precast	Demolition	Concrete/Industrial Saws	1
		Excavators	3
		Rubber Tired Dozers	2
Paving	Paving	Pavers	4
		Paving Equipment	4
		Rollers	4
Architectural Coating	Architectural Coating	Air Compressors	2

Notes:

[1] Project specific construction schedule.

[2] Equipment type and amount based on CalEEMod® v2020.4.0 defaults.

Abbreviation:

CalEEMod® - California Emissions Estimator Model

Table A.3. Material Moved During Construction
Frito-Lay, Inc.
Modesto, California

Construction Phase[1]	Material Imported	Material Exported	Units
Grading	29,632	76,336	cy

Construction Phase[1]	Demolished Material	
Demolition	14,160	tons of debris

Notes:
[1] Based on Project data request response.

Abbreviations:
cy - cubic yards
sqft - square feet

Table A.4. Project Construction Trip Information
Frito-Lay, Inc.
Modesto, California

Phase	Worker Trips[1] (trips/day)	Vendor Trips[1] (trips/day)	Hauling Trips[1] (trips/phase)
Demolition	45	0	1,400
Site Preparation	36	0	0
Grading	35	0	13,246
Building Construction	242	94	0
Paving	30	0	0
Architectural Coating	49	0	0

Notes:

[1] Trip rates calculated based on CalEEMod® v2020.4.0 defaults.®

Abbreviations:

CalEEMod® - California Emissions Estimator Model

Table A.5. SJVAPCD Air Quality Significance Thresholds
Frito-Lay, Inc.
Modesto, California

Pollutant	Construction Emissions (tons/year)[1]	Operational Emissions (tons/year)[1]	
		Permitted Equipment and Activities	Non-Permitted Equipment and Activities
Reactive Organic Gases (ROG)	10	10	10
Oxides of Nitrogen (NO_x)	10	10	10
Carbon Monoxide (CO)	100	100	100
Oxides of Sulfur (SO_x)	27	27	27
Respirable Particulate Matter (PM_{10})	15	15	15
Fine Particulate Matter ($PM_{2.5}$)	15	15	15

Notes:

[1] SJVAPCD Air Quality Thresholds of Significance - Criteria Pollutants. Available at: http://www.valleyair.org/transportation/0714-GAMAQI-Criteria-Pollutant-Thresholds-of-Significance.pdf. Accessed: December 2021.

Abbreviations:

CAAQS - California Ambient Air Quality Standards

CCR - California Code of Regulations

CO - carbon monoxide

NAAQS - National Ambient Air Quality Standards

NO_x - oxides of nitrogen

PM_{10} - particulate matter less than 10 microns in diameter

$PM_{2.5}$ - particulate matter less than 2.5 microns in diameter

ROG - reactive organic gases

SJVAPCD - San Joaquin Valley Air Pollution Control District

SO_x - oxides of sulfur

Table A.6. Project Maximum Annual CAP Emissions
Frito-Lay, Inc.
Modesto, California

	Maximum Annual Emissions (tons/year)					
	ROG	**CO**	**SO_2**	**NO_X**	**Total PM_{10}**	**Total $PM_{2.5}$**
Maximum Overall	**1.16**	**4.22**	**0.01**	**6.22**	**0.93**	**0.52**
SJVAPCD Threshold[1]	**10**	**100**	**27**	**10**	**15**	**15**
Above Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Notes:

[1] SJVAPCD Air Quality Thresholds of Significance - Criteria Pollutants. Available at: http://www.valleyair.org/transportation/0714-GAMAQI-Criteria-Pollutant-Thresholds-of-Significance.pdf. Accessed: December 2021.

Abbreviations:

CAP - criteria air pollutant

CO - carbon monoxide

NO_x - oxides of nitrogen

PM_{10} - particulate matter less than 10 microns in diameter

$PM_{2.5}$ - particulate matter less than 2.5 microns in diameter

ROG - reactive organic gases

SJVAPCD - San Joaquin Valley Air Pollution Control District

SO_x - oxides of sulfur

Table A.7. Project Maximum Annual GHG Emissions
Frito-Lay, Inc.
Modesto, California

	Maximum Annual Emissions (MT/year)			
	Total CO_2	**CH_4**	**N_2O**	**CO_2e**
Maximum Overall	**993**	**0.17**	**0.06**	**1,013**

Abbreviations:

CH_4 - methane

CO_2 - carbon dioxide

CO_2e - carbon dioxide equivalents

GHG - greenhouse gas

MT - metric ton

N_2O - nitrous oxide

SJVAPCD - San Joaquin Valley Air Pollution Control District

APPENDIX B
CALEEMOD, EMFAC, AND OFFROAD OUTPUT FILES

APPENDIX B.1
CALEEMOD OUTPUT FILES

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

Modesto Construction Emissions - Approved Project

Stanislaus County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	127.00	1000sqft	2.92	127,000.00	0
Refrigerated Warehouse-Rail	39.00	1000sqft	0.90	39,000.00	0
Other Asphalt Surfaces	222.93	1000sqft	5.12	222,932.00	0
Other Non-Asphalt Surfaces	24.23	1000sqft	0.56	24,232.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	46
Climate Zone	3			**Operational Year**	2022
Utility Company	Modesto Irrigation District				
CO2 Intensity (lb/MWhr)	452.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Construction schedule provided in a data request

Trips and VMT - Consistent with previous runs.

Demolition -

Grading - Data provided by the facility.

Architectural Coating -

Vehicle Trips - Only calculating construction emissions in this run.

Modesto Construction Emissions - Approved Project - Stanislaus County, Annual

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

Vehicle Emission Factors - Consistent with previous runs.

Vehicle Emission Factors - Consistent with previous runs.

Vehicle Emission Factors - Consistent with previous runs.

Consumer Products - Only evaluating construction emissions.

Area Coating - Only evaluating construction emissions.

Energy Use - Only calculating construction emissions in this run.

Water And Wastewater - Only calculating construction emissions in this run.

Solid Waste - Only calculating construction emissions in this run.

Construction Off-road Equipment Mitigation -

Fleet Mix - Consistent with previous runs.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	83000	0
tblAreaCoating	Area_Nonresidential_Interior	249000	0
tblAreaCoating	Area_Parking	14830	0
tblConstructionPhase	NumDays	20.00	64.00
tblConstructionPhase	NumDays	230.00	126.00
tblConstructionPhase	NumDays	20.00	65.00
tblConstructionPhase	NumDays	20.00	70.00
tblConstructionPhase	NumDays	20.00	44.00
tblConstructionPhase	NumDays	10.00	70.00
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblEnergyUse	LightingElect	2.70	0.00
tblEnergyUse	LightingElect	2.45	0.00
tblEnergyUse	NT24E	4.16	0.00
tblEnergyUse	NT24E	21.99	0.00

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

tblEnergyUse	NT24NG	3.84	0.00
tblEnergyUse	T24E	1.75	0.00
tblEnergyUse	T24E	0.42	0.00
tblEnergyUse	T24NG	16.86	0.00
tblEnergyUse	T24NG	0.15	0.00
tblFleetMix	HHD	0.02	0.09
tblFleetMix	HHD	0.02	0.09
tblFleetMix	HHD	0.02	0.09
tblFleetMix	HHD	0.02	0.09
tblFleetMix	LDA	0.51	0.52
tblFleetMix	LDA	0.51	0.52
tblFleetMix	LDA	0.51	0.52
tblFleetMix	LDA	0.51	0.52
tblFleetMix	LDT1	0.05	0.03
tblFleetMix	LDT1	0.05	0.03
tblFleetMix	LDT1	0.05	0.03
tblFleetMix	LDT1	0.05	0.03
tblFleetMix	LDT2	0.17	0.17
tblFleetMix	LDT2	0.17	0.17
tblFleetMix	LDT2	0.17	0.17
tblFleetMix	LDT2	0.17	0.17
tblFleetMix	LHD1	0.04	0.02
tblFleetMix	LHD1	0.04	0.02
tblFleetMix	LHD1	0.04	0.02
tblFleetMix	LHD1	0.04	0.02
tblFleetMix	LHD2	8.4000e-003	5.3520e-003
tblFleetMix	LHD2	8.4000e-003	5.3520e-003
tblFleetMix	LHD2	8.4000e-003	5.3520e-003
tblFleetMix	LHD2	8.4000e-003	5.3520e-003

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

tblFleetMix	MCY	0.03	4.6330e-003
tblFleetMix	MCY	0.03	4.6330e-003
tblFleetMix	MCY	0.03	4.6330e-003
tblFleetMix	MCY	0.03	4.6330e-003
tblFleetMix	MDV	0.17	0.12
tblFleetMix	MDV	0.17	0.12
tblFleetMix	MDV	0.17	0.12
tblFleetMix	MDV	0.17	0.12
tblFleetMix	MH	4.2990e-003	9.1100e-004
tblFleetMix	MH	4.2990e-003	9.1100e-004
tblFleetMix	MH	4.2990e-003	9.1100e-004
tblFleetMix	MH	4.2990e-003	9.1100e-004
tblFleetMix	MHD	0.01	0.03
tblFleetMix	MHD	0.01	0.03
tblFleetMix	MHD	0.01	0.03
tblFleetMix	MHD	0.01	0.03
tblFleetMix	OBUS	8.8600e-004	1.8370e-003
tblFleetMix	OBUS	8.8600e-004	1.8370e-003
tblFleetMix	OBUS	8.8600e-004	1.8370e-003
tblFleetMix	OBUS	8.8600e-004	1.8370e-003
tblFleetMix	SBUS	1.4260e-003	8.4500e-004
tblFleetMix	SBUS	1.4260e-003	8.4500e-004
tblFleetMix	SBUS	1.4260e-003	8.4500e-004
tblFleetMix	SBUS	1.4260e-003	8.4500e-004
tblFleetMix	UBUS	3.0600e-004	1.1190e-003
tblFleetMix	UBUS	3.0600e-004	1.1190e-003
tblFleetMix	UBUS	3.0600e-004	1.1190e-003
tblFleetMix	UBUS	3.0600e-004	1.1190e-003
tblGrading	AcresOfGrading	210.00	112.50

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

tblGrading	AcresOfGrading	105.00	0.00
tblGrading	MaterialExported	0.00	43,400.00
tblGrading	MaterialImported	0.00	14,200.00
tblLandUse	LandUseSquareFeet	222,930.00	222,932.00
tblLandUse	LandUseSquareFeet	24,230.00	24,232.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblSolidWaste	SolidWasteGenerationRate	157.48	0.00
tblSolidWaste	SolidWasteGenerationRate	36.66	0.00
tblVehicleEF	HHD	0.02	1.80
tblVehicleEF	HHD	7.7620e-003	0.01
tblVehicleEF	HHD	0.00	0.10
tblVehicleEF	HHD	6.89	2.81
tblVehicleEF	HHD	0.31	0.63
tblVehicleEF	HHD	2.0380e-003	1.00
tblVehicleEF	HHD	1,234.70	5,476.49
tblVehicleEF	HHD	1,406.07	1,567.25
tblVehicleEF	HHD	0.01	2.95
tblVehicleEF	HHD	6.40	21.99
tblVehicleEF	HHD	3.03	3.12
tblVehicleEF	HHD	2.12	20.52
tblVehicleEF	HHD	3.8050e-003	0.02
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.03	0.01
tblVehicleEF	HHD	0.00	2.7000e-005
tblVehicleEF	HHD	3.6400e-003	0.02
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8890e-003	8.8100e-003

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

tblVehicleEF	HHD	0.03	0.01
tblVehicleEF	HHD	0.00	2.5000e-005
tblVehicleEF	HHD	1.0000e-006	4.8000e-005
tblVehicleEF	HHD	3.2000e-005	1.7230e-003
tblVehicleEF	HHD	0.50	0.74
tblVehicleEF	HHD	0.00	2.5000e-005
tblVehicleEF	HHD	0.06	0.12
tblVehicleEF	HHD	1.4000e-005	1.5300e-004
tblVehicleEF	HHD	1.0000e-006	0.03
tblVehicleEF	HHD	0.01	0.05
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	0.00	4.6000e-005
tblVehicleEF	HHD	1.0000e-006	4.8000e-005
tblVehicleEF	HHD	3.2000e-005	1.7230e-003
tblVehicleEF	HHD	0.57	0.85
tblVehicleEF	HHD	0.00	2.5000e-005
tblVehicleEF	HHD	0.07	0.14
tblVehicleEF	HHD	1.4000e-005	1.5300e-004
tblVehicleEF	HHD	1.0000e-006	0.03
tblVehicleEF	HHD	0.02	1.69
tblVehicleEF	HHD	7.7620e-003	0.01
tblVehicleEF	HHD	0.00	0.09
tblVehicleEF	HHD	6.76	2.05
tblVehicleEF	HHD	0.31	0.63
tblVehicleEF	HHD	1.8860e-003	0.93
tblVehicleEF	HHD	1,226.95	5,801.52
tblVehicleEF	HHD	1,406.07	1,567.25
tblVehicleEF	HHD	0.01	2.95
tblVehicleEF	HHD	6.17	22.70

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

tblVehicleEF	HHD	2.89	2.98
tblVehicleEF	HHD	2.12	20.52
tblVehicleEF	HHD	3.3480e-003	0.02
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.03	0.01
tblVehicleEF	HHD	0.00	2.7000e-005
tblVehicleEF	HHD	3.2030e-003	0.02
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8890e-003	8.8100e-003
tblVehicleEF	HHD	0.03	0.01
tblVehicleEF	HHD	0.00	2.5000e-005
tblVehicleEF	HHD	3.0000e-006	1.2000e-004
tblVehicleEF	HHD	3.9000e-005	1.9690e-003
tblVehicleEF	HHD	0.52	0.70
tblVehicleEF	HHD	1.0000e-006	5.5000e-005
tblVehicleEF	HHD	0.06	0.12
tblVehicleEF	HHD	1.4000e-005	1.5500e-004
tblVehicleEF	HHD	1.0000e-006	0.03
tblVehicleEF	HHD	0.01	0.06
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	0.00	4.5000e-005
tblVehicleEF	HHD	3.0000e-006	1.2000e-004
tblVehicleEF	HHD	3.9000e-005	1.9690e-003
tblVehicleEF	HHD	0.59	0.80
tblVehicleEF	HHD	1.0000e-006	5.5000e-005
tblVehicleEF	HHD	0.07	0.14
tblVehicleEF	HHD	1.4000e-005	1.5500e-004
tblVehicleEF	HHD	1.0000e-006	0.03

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

tblVehicleEF	HHD	0.02	1.94
tblVehicleEF	HHD	7.7620e-003	0.01
tblVehicleEF	HHD	0.00	0.10
tblVehicleEF	HHD	7.07	3.87
tblVehicleEF	HHD	0.31	0.63
tblVehicleEF	HHD	2.2120e-003	1.09
tblVehicleEF	HHD	1,245.41	5,027.65
tblVehicleEF	HHD	1,406.07	1,567.25
tblVehicleEF	HHD	0.01	2.95
tblVehicleEF	HHD	6.72	21.02
tblVehicleEF	HHD	3.08	3.18
tblVehicleEF	HHD	2.12	20.53
tblVehicleEF	HHD	4.4360e-003	0.03
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.03	0.01
tblVehicleEF	HHD	0.00	2.7000e-005
tblVehicleEF	HHD	4.2440e-003	0.02
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8890e-003	8.8100e-003
tblVehicleEF	HHD	0.03	0.01
tblVehicleEF	HHD	0.00	2.5000e-005
tblVehicleEF	HHD	0.00	1.6000e-005
tblVehicleEF	HHD	3.6000e-005	1.7800e-003
tblVehicleEF	HHD	0.46	0.80
tblVehicleEF	HHD	0.00	1.0000e-005
tblVehicleEF	HHD	0.06	0.12
tblVehicleEF	HHD	1.5000e-005	1.6600e-004
tblVehicleEF	HHD	1.0000e-006	0.03

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

tblVehicleEF	HHD	0.01	0.05
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	0.00	4.8000e-005
tblVehicleEF	HHD	0.00	1.6000e-005
tblVehicleEF	HHD	3.6000e-005	1.7800e-003
tblVehicleEF	HHD	0.53	0.92
tblVehicleEF	HHD	0.00	1.0000e-005
tblVehicleEF	HHD	0.07	0.14
tblVehicleEF	HHD	1.5000e-005	1.6600e-004
tblVehicleEF	HHD	1.0000e-006	0.03
tblVehicleEF	LDA	2.6480e-003	4.5420e-003
tblVehicleEF	LDA	0.05	5.9180e-003
tblVehicleEF	LDA	0.67	0.60
tblVehicleEF	LDA	2.24	1.27
tblVehicleEF	LDA	266.55	264.78
tblVehicleEF	LDA	54.55	58.02
tblVehicleEF	LDA	0.04	0.05
tblVehicleEF	LDA	0.20	0.08
tblVehicleEF	LDA	1.5950e-003	1.8570e-003
tblVehicleEF	LDA	1.8990e-003	2.3000e-003
tblVehicleEF	LDA	1.4690e-003	1.7110e-003
tblVehicleEF	LDA	1.7460e-003	2.1150e-003
tblVehicleEF	LDA	0.07	0.05
tblVehicleEF	LDA	0.11	0.11
tblVehicleEF	LDA	0.05	0.03
tblVehicleEF	LDA	0.01	0.01
tblVehicleEF	LDA	0.03	0.03
tblVehicleEF	LDA	0.25	0.08
tblVehicleEF	LDA	2.6370e-003	2.6520e-003

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

tblVehicleEF	LDA	5.4000e-004	6.0200e-004
tblVehicleEF	LDA	0.07	0.05
tblVehicleEF	LDA	0.11	0.11
tblVehicleEF	LDA	0.05	0.03
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.03	0.03
tblVehicleEF	LDA	0.27	0.09
tblVehicleEF	LDA	3.0770e-003	5.2300e-003
tblVehicleEF	LDA	0.05	4.8620e-003
tblVehicleEF	LDA	0.83	0.75
tblVehicleEF	LDA	1.84	1.04
tblVehicleEF	LDA	292.58	291.09
tblVehicleEF	LDA	53.78	58.02
tblVehicleEF	LDA	0.04	0.05
tblVehicleEF	LDA	0.18	0.07
tblVehicleEF	LDA	1.5950e-003	1.8570e-003
tblVehicleEF	LDA	1.8990e-003	2.3000e-003
tblVehicleEF	LDA	1.4690e-003	1.7110e-003
tblVehicleEF	LDA	1.7460e-003	2.1150e-003
tblVehicleEF	LDA	0.16	0.12
tblVehicleEF	LDA	0.13	0.13
tblVehicleEF	LDA	0.11	0.08
tblVehicleEF	LDA	0.01	0.01
tblVehicleEF	LDA	0.03	0.03
tblVehicleEF	LDA	0.20	0.07
tblVehicleEF	LDA	2.8940e-003	2.9170e-003
tblVehicleEF	LDA	5.3200e-004	5.9800e-004
tblVehicleEF	LDA	0.16	0.12
tblVehicleEF	LDA	0.13	0.13

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

tblVehicleEF	LDA	0.11	0.08
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.03	0.03
tblVehicleEF	LDA	0.22	0.07
tblVehicleEF	LDA	2.4650e-003	4.2890e-003
tblVehicleEF	LDA	0.06	6.9310e-003
tblVehicleEF	LDA	0.62	0.56
tblVehicleEF	LDA	2.72	1.53
tblVehicleEF	LDA	257.53	255.65
tblVehicleEF	LDA	55.45	58.02
tblVehicleEF	LDA	0.04	0.06
tblVehicleEF	LDA	0.22	0.09
tblVehicleEF	LDA	1.5950e-003	1.8570e-003
tblVehicleEF	LDA	1.8990e-003	2.3000e-003
tblVehicleEF	LDA	1.4690e-003	1.7110e-003
tblVehicleEF	LDA	1.7460e-003	2.1150e-003
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.11	0.11
tblVehicleEF	LDA	0.02	0.01
tblVehicleEF	LDA	9.7140e-003	0.01
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.29	0.09
tblVehicleEF	LDA	2.5480e-003	2.5600e-003
tblVehicleEF	LDA	5.4900e-004	6.0600e-004
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.11	0.11
tblVehicleEF	LDA	0.02	0.01
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.03	0.04

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

tblVehicleEF	LDA	0.31	0.10
tblVehicleEF	LDT1	7.7460e-003	0.01
tblVehicleEF	LDT1	0.09	0.02
tblVehicleEF	LDT1	1.50	1.60
tblVehicleEF	LDT1	2.57	4.05
tblVehicleEF	LDT1	319.07	331.83
tblVehicleEF	LDT1	66.98	72.74
tblVehicleEF	LDT1	0.13	0.16
tblVehicleEF	LDT1	0.32	0.23
tblVehicleEF	LDT1	2.3800e-003	3.0180e-003
tblVehicleEF	LDT1	2.9220e-003	3.9590e-003
tblVehicleEF	LDT1	2.1910e-003	2.7790e-003
tblVehicleEF	LDT1	2.6870e-003	3.6410e-003
tblVehicleEF	LDT1	0.21	0.21
tblVehicleEF	LDT1	0.29	0.40
tblVehicleEF	LDT1	0.14	0.14
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.13	0.23
tblVehicleEF	LDT1	0.48	0.29
tblVehicleEF	LDT1	3.1570e-003	3.3390e-003
tblVehicleEF	LDT1	6.6300e-004	7.9900e-004
tblVehicleEF	LDT1	0.21	0.21
tblVehicleEF	LDT1	0.29	0.40
tblVehicleEF	LDT1	0.14	0.14
tblVehicleEF	LDT1	0.05	0.05
tblVehicleEF	LDT1	0.13	0.23
tblVehicleEF	LDT1	0.53	0.31
tblVehicleEF	LDT1	8.9040e-003	0.02
tblVehicleEF	LDT1	0.08	0.02

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

tblVehicleEF	LDT1	1.84	1.94
tblVehicleEF	LDT1	2.10	3.30
tblVehicleEF	LDT1	346.37	363.20
tblVehicleEF	LDT1	65.95	72.74
tblVehicleEF	LDT1	0.12	0.14
tblVehicleEF	LDT1	0.30	0.22
tblVehicleEF	LDT1	2.3800e-003	3.0180e-003
tblVehicleEF	LDT1	2.9220e-003	3.9590e-003
tblVehicleEF	LDT1	2.1910e-003	2.7790e-003
tblVehicleEF	LDT1	2.6870e-003	3.6410e-003
tblVehicleEF	LDT1	0.51	0.52
tblVehicleEF	LDT1	0.37	0.50
tblVehicleEF	LDT1	0.30	0.30
tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	0.13	0.22
tblVehicleEF	LDT1	0.40	0.23
tblVehicleEF	LDT1	3.4280e-003	3.6570e-003
tblVehicleEF	LDT1	6.5300e-004	7.8500e-004
tblVehicleEF	LDT1	0.51	0.52
tblVehicleEF	LDT1	0.37	0.50
tblVehicleEF	LDT1	0.30	0.30
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.13	0.22
tblVehicleEF	LDT1	0.43	0.26
tblVehicleEF	LDT1	7.2620e-003	0.01
tblVehicleEF	LDT1	0.11	0.02
tblVehicleEF	LDT1	1.41	1.50
tblVehicleEF	LDT1	3.14	4.94
tblVehicleEF	LDT1	309.62	320.94

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

tblVehicleEF	LDT1	68.15	72.74
tblVehicleEF	LDT1	0.14	0.17
tblVehicleEF	LDT1	0.36	0.26
tblVehicleEF	LDT1	2.3800e-003	3.0180e-003
tblVehicleEF	LDT1	2.9220e-003	3.9590e-003
tblVehicleEF	LDT1	2.1910e-003	2.7790e-003
tblVehicleEF	LDT1	2.6870e-003	3.6410e-003
tblVehicleEF	LDT1	0.07	0.07
tblVehicleEF	LDT1	0.30	0.41
tblVehicleEF	LDT1	0.05	0.05
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.16	0.28
tblVehicleEF	LDT1	0.57	0.34
tblVehicleEF	LDT1	3.0640e-003	3.2280e-003
tblVehicleEF	LDT1	6.7400e-004	8.1500e-004
tblVehicleEF	LDT1	0.07	0.07
tblVehicleEF	LDT1	0.30	0.41
tblVehicleEF	LDT1	0.05	0.05
tblVehicleEF	LDT1	0.05	0.05
tblVehicleEF	LDT1	0.16	0.28
tblVehicleEF	LDT1	0.62	0.37
tblVehicleEF	LDT2	4.8240e-003	7.0580e-003
tblVehicleEF	LDT2	0.08	9.4500e-003
tblVehicleEF	LDT2	1.03	0.87
tblVehicleEF	LDT2	2.94	1.94
tblVehicleEF	LDT2	344.56	373.55
tblVehicleEF	LDT2	72.54	81.99
tblVehicleEF	LDT2	0.10	0.09
tblVehicleEF	LDT2	0.34	0.16

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

tblVehicleEF	LDT2	1.6530e-003	1.8740e-003
tblVehicleEF	LDT2	1.9550e-003	2.3960e-003
tblVehicleEF	LDT2	1.5210e-003	1.7230e-003
tblVehicleEF	LDT2	1.7970e-003	2.2030e-003
tblVehicleEF	LDT2	0.11	0.08
tblVehicleEF	LDT2	0.17	0.16
tblVehicleEF	LDT2	0.09	0.06
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.07	0.08
tblVehicleEF	LDT2	0.38	0.13
tblVehicleEF	LDT2	3.4090e-003	3.7430e-003
tblVehicleEF	LDT2	7.1800e-004	8.5300e-004
tblVehicleEF	LDT2	0.11	0.08
tblVehicleEF	LDT2	0.17	0.16
tblVehicleEF	LDT2	0.09	0.06
tblVehicleEF	LDT2	0.03	0.03
tblVehicleEF	LDT2	0.07	0.08
tblVehicleEF	LDT2	0.42	0.14
tblVehicleEF	LDT2	5.5740e-003	8.0970e-003
tblVehicleEF	LDT2	0.07	7.7590e-003
tblVehicleEF	LDT2	1.28	1.07
tblVehicleEF	LDT2	2.40	1.59
tblVehicleEF	LDT2	371.37	409.70
tblVehicleEF	LDT2	71.46	81.99
tblVehicleEF	LDT2	0.09	0.08
tblVehicleEF	LDT2	0.32	0.15
tblVehicleEF	LDT2	1.6530e-003	1.8740e-003
tblVehicleEF	LDT2	1.9550e-003	2.3960e-003
tblVehicleEF	LDT2	1.5210e-003	1.7230e-003

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

tblVehicleEF	LDT2	1.7970e-003	2.2030e-003
tblVehicleEF	LDT2	0.27	0.19
tblVehicleEF	LDT2	0.20	0.19
tblVehicleEF	LDT2	0.19	0.13
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.07	0.08
tblVehicleEF	LDT2	0.32	0.10
tblVehicleEF	LDT2	3.6740e-003	4.1070e-003
tblVehicleEF	LDT2	7.0700e-004	8.4700e-004
tblVehicleEF	LDT2	0.27	0.19
tblVehicleEF	LDT2	0.20	0.19
tblVehicleEF	LDT2	0.19	0.13
tblVehicleEF	LDT2	0.03	0.03
tblVehicleEF	LDT2	0.07	0.08
tblVehicleEF	LDT2	0.35	0.11
tblVehicleEF	LDT2	4.5050e-003	6.6740e-003
tblVehicleEF	LDT2	0.09	0.01
tblVehicleEF	LDT2	0.97	0.81
tblVehicleEF	LDT2	3.57	2.35
tblVehicleEF	LDT2	335.27	361.00
tblVehicleEF	LDT2	73.76	81.99
tblVehicleEF	LDT2	0.11	0.10
tblVehicleEF	LDT2	0.38	0.18
tblVehicleEF	LDT2	1.6530e-003	1.8740e-003
tblVehicleEF	LDT2	1.9550e-003	2.3960e-003
tblVehicleEF	LDT2	1.5210e-003	1.7230e-003
tblVehicleEF	LDT2	1.7970e-003	2.2030e-003
tblVehicleEF	LDT2	0.04	0.03
tblVehicleEF	LDT2	0.17	0.16

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

tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.09	0.09
tblVehicleEF	LDT2	0.45	0.15
tblVehicleEF	LDT2	3.3170e-003	3.6170e-003
tblVehicleEF	LDT2	7.3000e-004	8.6000e-004
tblVehicleEF	LDT2	0.04	0.03
tblVehicleEF	LDT2	0.17	0.16
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.09	0.09
tblVehicleEF	LDT2	0.49	0.16
tblVehicleEF	LHD1	4.2110e-003	4.5240e-003
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	0.16	0.13
tblVehicleEF	LHD1	1.09	1.38
tblVehicleEF	LHD1	0.88	2.26
tblVehicleEF	LHD1	9.70	9.59
tblVehicleEF	LHD1	771.32	687.17
tblVehicleEF	LHD1	9.30	25.83
tblVehicleEF	LHD1	0.10	0.11
tblVehicleEF	LHD1	1.81	2.70
tblVehicleEF	LHD1	0.28	0.87
tblVehicleEF	LHD1	1.1350e-003	1.1750e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	2.2000e-004	8.3600e-004
tblVehicleEF	LHD1	1.0860e-003	1.1250e-003

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

tblVehicleEF	LHD1	2.5590e-003	2.5990e-003
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	2.0200e-004	7.6900e-004
tblVehicleEF	LHD1	2.7090e-003	3.2480e-003
tblVehicleEF	LHD1	0.08	0.10
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.1780e-003	1.4130e-003
tblVehicleEF	LHD1	0.14	0.17
tblVehicleEF	LHD1	0.21	0.29
tblVehicleEF	LHD1	0.07	0.24
tblVehicleEF	LHD1	9.3000e-005	9.5000e-005
tblVehicleEF	LHD1	7.4910e-003	6.7200e-003
tblVehicleEF	LHD1	9.2000e-005	3.0100e-004
tblVehicleEF	LHD1	2.7090e-003	3.2480e-003
tblVehicleEF	LHD1	0.08	0.10
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	1.1780e-003	1.4130e-003
tblVehicleEF	LHD1	0.17	0.21
tblVehicleEF	LHD1	0.21	0.29
tblVehicleEF	LHD1	0.08	0.26
tblVehicleEF	LHD1	4.2230e-003	4.5240e-003
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	0.16	0.13
tblVehicleEF	LHD1	1.12	1.40
tblVehicleEF	LHD1	0.82	2.09
tblVehicleEF	LHD1	9.70	9.59
tblVehicleEF	LHD1	771.36	687.17
tblVehicleEF	LHD1	9.18	25.83

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

tblVehicleEF	LHD1	0.10	0.11
tblVehicleEF	LHD1	1.72	2.56
tblVehicleEF	LHD1	0.26	0.82
tblVehicleEF	LHD1	1.1350e-003	1.1750e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	2.2000e-004	8.3600e-004
tblVehicleEF	LHD1	1.0860e-003	1.1250e-003
tblVehicleEF	LHD1	2.5590e-003	2.5990e-003
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	2.0200e-004	7.6900e-004
tblVehicleEF	LHD1	6.6950e-003	8.0020e-003
tblVehicleEF	LHD1	0.09	0.12
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	2.4840e-003	2.9640e-003
tblVehicleEF	LHD1	0.14	0.18
tblVehicleEF	LHD1	0.21	0.29
tblVehicleEF	LHD1	0.07	0.22
tblVehicleEF	LHD1	9.3000e-005	9.5000e-005
tblVehicleEF	LHD1	7.4910e-003	6.7210e-003
tblVehicleEF	LHD1	9.1000e-005	2.9800e-004
tblVehicleEF	LHD1	6.6950e-003	8.0020e-003
tblVehicleEF	LHD1	0.09	0.12
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	2.4840e-003	2.9640e-003
tblVehicleEF	LHD1	0.17	0.21
tblVehicleEF	LHD1	0.21	0.29
tblVehicleEF	LHD1	0.07	0.24
tblVehicleEF	LHD1	4.1990e-003	4.5240e-003

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

tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	0.16	0.13
tblVehicleEF	LHD1	1.07	1.35
tblVehicleEF	LHD1	0.95	2.45
tblVehicleEF	LHD1	9.70	9.59
tblVehicleEF	LHD1	771.28	687.17
tblVehicleEF	LHD1	9.43	25.83
tblVehicleEF	LHD1	0.10	0.11
tblVehicleEF	LHD1	1.85	2.76
tblVehicleEF	LHD1	0.30	0.93
tblVehicleEF	LHD1	1.1350e-003	1.1750e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	2.2000e-004	8.3600e-004
tblVehicleEF	LHD1	1.0860e-003	1.1250e-003
tblVehicleEF	LHD1	2.5590e-003	2.5990e-003
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	2.0200e-004	7.6900e-004
tblVehicleEF	LHD1	9.3300e-004	1.1290e-003
tblVehicleEF	LHD1	0.08	0.10
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	5.0200e-004	6.0800e-004
tblVehicleEF	LHD1	0.14	0.17
tblVehicleEF	LHD1	0.23	0.32
tblVehicleEF	LHD1	0.07	0.25
tblVehicleEF	LHD1	9.3000e-005	9.5000e-005
tblVehicleEF	LHD1	7.4910e-003	6.7200e-003
tblVehicleEF	LHD1	9.3000e-005	3.0500e-004

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

tblVehicleEF	LHD1	9.3300e-004	1.1290e-003
tblVehicleEF	LHD1	0.08	0.10
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	5.0200e-004	6.0800e-004
tblVehicleEF	LHD1	0.17	0.21
tblVehicleEF	LHD1	0.23	0.32
tblVehicleEF	LHD1	0.08	0.28
tblVehicleEF	LHD2	3.0330e-003	3.1590e-003
tblVehicleEF	LHD2	8.2820e-003	0.01
tblVehicleEF	LHD2	8.3090e-003	8.2730e-003
tblVehicleEF	LHD2	0.13	0.11
tblVehicleEF	LHD2	0.79	0.85
tblVehicleEF	LHD2	0.55	1.15
tblVehicleEF	LHD2	15.00	14.91
tblVehicleEF	LHD2	789.84	717.98
tblVehicleEF	LHD2	7.04	20.80
tblVehicleEF	LHD2	0.13	0.13
tblVehicleEF	LHD2	1.63	1.93
tblVehicleEF	LHD2	0.18	0.49
tblVehicleEF	LHD2	1.4840e-003	1.4130e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.1800e-004	3.9900e-004
tblVehicleEF	LHD2	1.4200e-003	1.3520e-003
tblVehicleEF	LHD2	2.7150e-003	2.7270e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.0800e-004	3.6700e-004
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.02	0.01

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

tblVehicleEF	LHD2	5.9900e-004	6.1500e-004
tblVehicleEF	LHD2	0.14	0.14
tblVehicleEF	LHD2	0.10	0.08
tblVehicleEF	LHD2	0.04	0.11
tblVehicleEF	LHD2	1.4300e-004	1.4500e-004
tblVehicleEF	LHD2	7.6140e-003	6.9690e-003
tblVehicleEF	LHD2	7.0000e-005	2.2900e-004
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	5.9900e-004	6.1500e-004
tblVehicleEF	LHD2	0.16	0.17
tblVehicleEF	LHD2	0.10	0.08
tblVehicleEF	LHD2	0.05	0.12
tblVehicleEF	LHD2	3.0410e-003	3.1590e-003
tblVehicleEF	LHD2	8.3620e-003	0.01
tblVehicleEF	LHD2	7.8600e-003	7.8120e-003
tblVehicleEF	LHD2	0.13	0.11
tblVehicleEF	LHD2	0.80	0.85
tblVehicleEF	LHD2	0.51	1.07
tblVehicleEF	LHD2	15.00	14.91
tblVehicleEF	LHD2	789.86	717.98
tblVehicleEF	LHD2	6.97	20.80
tblVehicleEF	LHD2	0.13	0.13
tblVehicleEF	LHD2	1.55	1.83
tblVehicleEF	LHD2	0.17	0.46
tblVehicleEF	LHD2	1.4840e-003	1.4130e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.1800e-004	3.9900e-004

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

tblVehicleEF	LHD2	1.4200e-003	1.3520e-003
tblVehicleEF	LHD2	2.7150e-003	2.7270e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.0800e-004	3.6700e-004
tblVehicleEF	LHD2	3.2520e-003	3.2430e-003
tblVehicleEF	LHD2	0.05	0.05
tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	1.2510e-003	1.2750e-003
tblVehicleEF	LHD2	0.14	0.14
tblVehicleEF	LHD2	0.10	0.08
tblVehicleEF	LHD2	0.04	0.11
tblVehicleEF	LHD2	1.4300e-004	1.4500e-004
tblVehicleEF	LHD2	7.6140e-003	6.9690e-003
tblVehicleEF	LHD2	6.9000e-005	2.2800e-004
tblVehicleEF	LHD2	3.2520e-003	3.2430e-003
tblVehicleEF	LHD2	0.05	0.05
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.2510e-003	1.2750e-003
tblVehicleEF	LHD2	0.16	0.17
tblVehicleEF	LHD2	0.10	0.08
tblVehicleEF	LHD2	0.04	0.12
tblVehicleEF	LHD2	3.0240e-003	3.1590e-003
tblVehicleEF	LHD2	8.2020e-003	0.01
tblVehicleEF	LHD2	8.7730e-003	8.7560e-003
tblVehicleEF	LHD2	0.13	0.11
tblVehicleEF	LHD2	0.79	0.84
tblVehicleEF	LHD2	0.59	1.25
tblVehicleEF	LHD2	15.00	14.91
tblVehicleEF	LHD2	789.83	717.98

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

tblVehicleEF	LHD2	7.12	20.80
tblVehicleEF	LHD2	0.13	0.13
tblVehicleEF	LHD2	1.66	1.96
tblVehicleEF	LHD2	0.19	0.52
tblVehicleEF	LHD2	1.4840e-003	1.4130e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.1800e-004	3.9900e-004
tblVehicleEF	LHD2	1.4200e-003	1.3520e-003
tblVehicleEF	LHD2	2.7150e-003	2.7270e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.0800e-004	3.6700e-004
tblVehicleEF	LHD2	4.6800e-004	4.7300e-004
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	2.6000e-004	2.6900e-004
tblVehicleEF	LHD2	0.13	0.14
tblVehicleEF	LHD2	0.11	0.09
tblVehicleEF	LHD2	0.04	0.12
tblVehicleEF	LHD2	1.4300e-004	1.4500e-004
tblVehicleEF	LHD2	7.6140e-003	6.9690e-003
tblVehicleEF	LHD2	7.0000e-005	2.3100e-004
tblVehicleEF	LHD2	4.6800e-004	4.7300e-004
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	2.6000e-004	2.6900e-004
tblVehicleEF	LHD2	0.16	0.17
tblVehicleEF	LHD2	0.11	0.09
tblVehicleEF	LHD2	0.05	0.13

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

tblVehicleEF	MCY	0.36	0.46
tblVehicleEF	MCY	0.26	0.17
tblVehicleEF	MCY	21.88	22.30
tblVehicleEF	MCY	8.87	10.02
tblVehicleEF	MCY	216.43	173.94
tblVehicleEF	MCY	63.05	48.38
tblVehicleEF	MCY	1.18	1.18
tblVehicleEF	MCY	0.27	0.32
tblVehicleEF	MCY	2.0200e-003	2.0280e-003
tblVehicleEF	MCY	3.1820e-003	3.9060e-003
tblVehicleEF	MCY	1.8940e-003	1.9030e-003
tblVehicleEF	MCY	3.0050e-003	3.6950e-003
tblVehicleEF	MCY	1.51	1.57
tblVehicleEF	MCY	0.98	1.05
tblVehicleEF	MCY	0.79	0.82
tblVehicleEF	MCY	2.52	2.55
tblVehicleEF	MCY	0.71	0.77
tblVehicleEF	MCY	1.98	2.27
tblVehicleEF	MCY	2.1420e-003	2.1770e-003
tblVehicleEF	MCY	6.2400e-004	7.1500e-004
tblVehicleEF	MCY	1.51	1.57
tblVehicleEF	MCY	0.98	1.05
tblVehicleEF	MCY	0.79	0.82
tblVehicleEF	MCY	3.07	3.09
tblVehicleEF	MCY	0.71	0.77
tblVehicleEF	MCY	2.15	2.47
tblVehicleEF	MCY	0.35	0.44
tblVehicleEF	MCY	0.22	0.14
tblVehicleEF	MCY	21.99	22.41

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

tblVehicleEF	MCY	8.00	9.11
tblVehicleEF	MCY	216.33	173.94
tblVehicleEF	MCY	60.60	48.38
tblVehicleEF	MCY	1.02	1.02
tblVehicleEF	MCY	0.25	0.29
tblVehicleEF	MCY	2.0200e-003	2.0280e-003
tblVehicleEF	MCY	3.1820e-003	3.9060e-003
tblVehicleEF	MCY	1.8940e-003	1.9030e-003
tblVehicleEF	MCY	3.0050e-003	3.6950e-003
tblVehicleEF	MCY	3.96	4.11
tblVehicleEF	MCY	1.49	1.57
tblVehicleEF	MCY	2.06	2.14
tblVehicleEF	MCY	2.44	2.47
tblVehicleEF	MCY	0.69	0.75
tblVehicleEF	MCY	1.66	1.91
tblVehicleEF	MCY	2.1410e-003	2.1760e-003
tblVehicleEF	MCY	6.0000e-004	6.8800e-004
tblVehicleEF	MCY	3.96	4.11
tblVehicleEF	MCY	1.49	1.57
tblVehicleEF	MCY	2.06	2.14
tblVehicleEF	MCY	2.98	3.00
tblVehicleEF	MCY	0.69	0.75
tblVehicleEF	MCY	1.80	2.07
tblVehicleEF	MCY	0.38	0.48
tblVehicleEF	MCY	0.30	0.20
tblVehicleEF	MCY	23.60	24.08
tblVehicleEF	MCY	10.26	11.52
tblVehicleEF	MCY	219.61	173.94
tblVehicleEF	MCY	66.57	48.38

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

tblVehicleEF	MCY	1.28	1.28
tblVehicleEF	MCY	0.29	0.34
tblVehicleEF	MCY	2.0200e-003	2.0280e-003
tblVehicleEF	MCY	3.1820e-003	3.9060e-003
tblVehicleEF	MCY	1.8940e-003	1.9030e-003
tblVehicleEF	MCY	3.0050e-003	3.6950e-003
tblVehicleEF	MCY	0.42	0.44
tblVehicleEF	MCY	1.03	1.11
tblVehicleEF	MCY	0.23	0.24
tblVehicleEF	MCY	2.65	2.68
tblVehicleEF	MCY	0.83	0.90
tblVehicleEF	MCY	2.38	2.71
tblVehicleEF	MCY	2.1730e-003	2.2100e-003
tblVehicleEF	MCY	6.5900e-004	7.5300e-004
tblVehicleEF	MCY	0.42	0.44
tblVehicleEF	MCY	1.03	1.11
tblVehicleEF	MCY	0.23	0.24
tblVehicleEF	MCY	3.23	3.25
tblVehicleEF	MCY	0.83	0.90
tblVehicleEF	MCY	2.58	2.95
tblVehicleEF	MDV	5.8200e-003	0.01
tblVehicleEF	MDV	0.10	0.02
tblVehicleEF	MDV	1.14	1.51
tblVehicleEF	MDV	3.57	3.90
tblVehicleEF	MDV	429.69	523.07
tblVehicleEF	MDV	90.59	113.05
tblVehicleEF	MDV	0.12	0.19
tblVehicleEF	MDV	0.44	0.37
tblVehicleEF	MDV	1.7060e-003	1.9110e-003

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

tblVehicleEF	MDV	2.0280e-003	2.5040e-003
tblVehicleEF	MDV	1.5740e-003	1.7620e-003
tblVehicleEF	MDV	1.8650e-003	2.3030e-003
tblVehicleEF	MDV	0.13	0.12
tblVehicleEF	MDV	0.20	0.25
tblVehicleEF	MDV	0.11	0.09
tblVehicleEF	MDV	0.03	0.04
tblVehicleEF	MDV	0.09	0.14
tblVehicleEF	MDV	0.51	0.31
tblVehicleEF	MDV	4.2480e-003	5.2430e-003
tblVehicleEF	MDV	8.9600e-004	1.2000e-003
tblVehicleEF	MDV	0.13	0.12
tblVehicleEF	MDV	0.20	0.25
tblVehicleEF	MDV	0.11	0.09
tblVehicleEF	MDV	0.04	0.05
tblVehicleEF	MDV	0.09	0.14
tblVehicleEF	MDV	0.56	0.34
tblVehicleEF	MDV	6.7430e-003	0.02
tblVehicleEF	MDV	0.08	0.02
tblVehicleEF	MDV	1.40	1.86
tblVehicleEF	MDV	2.91	3.19
tblVehicleEF	MDV	458.12	572.32
tblVehicleEF	MDV	89.25	113.05
tblVehicleEF	MDV	0.11	0.17
tblVehicleEF	MDV	0.40	0.34
tblVehicleEF	MDV	1.7060e-003	1.9110e-003
tblVehicleEF	MDV	2.0280e-003	2.5040e-003
tblVehicleEF	MDV	1.5740e-003	1.7620e-003
tblVehicleEF	MDV	1.8650e-003	2.3030e-003

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

tblVehicleEF	MDV	0.32	0.28
tblVehicleEF	MDV	0.23	0.29
tblVehicleEF	MDV	0.23	0.20
tblVehicleEF	MDV	0.03	0.04
tblVehicleEF	MDV	0.08	0.14
tblVehicleEF	MDV	0.42	0.25
tblVehicleEF	MDV	4.5300e-003	5.7410e-003
tblVehicleEF	MDV	8.8300e-004	1.1870e-003
tblVehicleEF	MDV	0.32	0.28
tblVehicleEF	MDV	0.23	0.29
tblVehicleEF	MDV	0.23	0.20
tblVehicleEF	MDV	0.04	0.06
tblVehicleEF	MDV	0.08	0.14
tblVehicleEF	MDV	0.46	0.28
tblVehicleEF	MDV	5.4370e-003	0.01
tblVehicleEF	MDV	0.11	0.03
tblVehicleEF	MDV	1.07	1.41
tblVehicleEF	MDV	4.35	4.73
tblVehicleEF	MDV	419.85	505.97
tblVehicleEF	MDV	92.12	113.05
tblVehicleEF	MDV	0.13	0.21
tblVehicleEF	MDV	0.48	0.40
tblVehicleEF	MDV	1.7060e-003	1.9110e-003
tblVehicleEF	MDV	2.0280e-003	2.5040e-003
tblVehicleEF	MDV	1.5740e-003	1.7620e-003
tblVehicleEF	MDV	1.8650e-003	2.3030e-003
tblVehicleEF	MDV	0.05	0.04
tblVehicleEF	MDV	0.20	0.25
tblVehicleEF	MDV	0.04	0.04

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

tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	0.10	0.17
tblVehicleEF	MDV	0.59	0.36
tblVehicleEF	MDV	4.1510e-003	5.0710e-003
tblVehicleEF	MDV	9.1200e-004	1.2150e-003
tblVehicleEF	MDV	0.05	0.04
tblVehicleEF	MDV	0.20	0.25
tblVehicleEF	MDV	0.04	0.04
tblVehicleEF	MDV	0.03	0.05
tblVehicleEF	MDV	0.10	0.17
tblVehicleEF	MDV	0.65	0.39
tblVehicleEF	MH	0.02	0.05
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	1.84	3.74
tblVehicleEF	MH	2.30	7.23
tblVehicleEF	MH	1,586.30	1,236.08
tblVehicleEF	MH	18.80	58.92
tblVehicleEF	MH	2.15	2.06
tblVehicleEF	MH	0.23	1.02
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	2.8800e-004	1.3450e-003
tblVehicleEF	MH	3.2980e-003	3.2330e-003
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	2.6500e-004	1.2370e-003
tblVehicleEF	MH	1.32	1.71
tblVehicleEF	MH	0.08	0.11
tblVehicleEF	MH	0.37	0.48
tblVehicleEF	MH	0.11	0.16

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

tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	0.10	0.41
tblVehicleEF	MH	0.02	0.01
tblVehicleEF	MH	1.8600e-004	7.1500e-004
tblVehicleEF	MH	1.32	1.71
tblVehicleEF	MH	0.08	0.11
tblVehicleEF	MH	0.37	0.48
tblVehicleEF	MH	0.15	0.22
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	0.11	0.45
tblVehicleEF	MH	0.02	0.05
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	1.91	3.90
tblVehicleEF	MH	2.08	6.49
tblVehicleEF	MH	1,586.42	1,236.08
tblVehicleEF	MH	18.43	58.92
tblVehicleEF	MH	2.01	1.91
tblVehicleEF	MH	0.22	0.95
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	2.8800e-004	1.3450e-003
tblVehicleEF	MH	3.2980e-003	3.2330e-003
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	2.6500e-004	1.2370e-003
tblVehicleEF	MH	3.32	4.30
tblVehicleEF	MH	0.10	0.13
tblVehicleEF	MH	0.75	0.97
tblVehicleEF	MH	0.11	0.17
tblVehicleEF	MH	0.02	0.03

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

tblVehicleEF	MH	0.10	0.38
tblVehicleEF	MH	0.02	0.01
tblVehicleEF	MH	1.8200e-004	7.0300e-004
tblVehicleEF	MH	3.32	4.30
tblVehicleEF	MH	0.10	0.13
tblVehicleEF	MH	0.75	0.97
tblVehicleEF	MH	0.15	0.23
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	0.11	0.42
tblVehicleEF	MH	0.02	0.05
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	1.78	3.59
tblVehicleEF	MH	2.53	8.04
tblVehicleEF	MH	1,586.19	1,236.08
tblVehicleEF	MH	19.19	58.92
tblVehicleEF	MH	2.21	2.14
tblVehicleEF	MH	0.25	1.09
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	2.8800e-004	1.3450e-003
tblVehicleEF	MH	3.2980e-003	3.2330e-003
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	2.6500e-004	1.2370e-003
tblVehicleEF	MH	0.45	0.57
tblVehicleEF	MH	0.09	0.13
tblVehicleEF	MH	0.18	0.23
tblVehicleEF	MH	0.11	0.15
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.11	0.44

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

tblVehicleEF	MH	0.02	0.01
tblVehicleEF	MH	1.9000e-004	7.2900e-004
tblVehicleEF	MH	0.45	0.57
tblVehicleEF	MH	0.09	0.13
tblVehicleEF	MH	0.18	0.23
tblVehicleEF	MH	0.14	0.21
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.12	0.49
tblVehicleEF	MHD	2.6500e-003	0.02
tblVehicleEF	MHD	5.6210e-003	4.9220e-003
tblVehicleEF	MHD	6.8290e-003	0.06
tblVehicleEF	MHD	0.35	0.32
tblVehicleEF	MHD	0.45	0.38
tblVehicleEF	MHD	0.84	3.75
tblVehicleEF	MHD	83.55	206.85
tblVehicleEF	MHD	1,112.28	1,206.01
tblVehicleEF	MHD	6.82	29.96
tblVehicleEF	MHD	0.66	0.98
tblVehicleEF	MHD	2.26	1.79
tblVehicleEF	MHD	1.45	15.84
tblVehicleEF	MHD	1.5800e-003	6.7710e-003
tblVehicleEF	MHD	0.04	0.01
tblVehicleEF	MHD	9.6000e-005	5.6200e-004
tblVehicleEF	MHD	1.5110e-003	6.4780e-003
tblVehicleEF	MHD	0.04	0.01
tblVehicleEF	MHD	8.9000e-005	5.1700e-004
tblVehicleEF	MHD	6.0300e-004	1.0290e-003
tblVehicleEF	MHD	0.02	0.03
tblVehicleEF	MHD	0.02	0.04

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

tblVehicleEF	MHD	2.5700e-004	4.3500e-004
tblVehicleEF	MHD	0.10	0.07
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	0.04	0.22
tblVehicleEF	MHD	7.9100e-004	1.9790e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	6.7000e-005	3.6500e-004
tblVehicleEF	MHD	6.0300e-004	1.0290e-003
tblVehicleEF	MHD	0.02	0.03
tblVehicleEF	MHD	0.02	0.05
tblVehicleEF	MHD	2.5700e-004	4.3500e-004
tblVehicleEF	MHD	0.12	0.09
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	0.04	0.24
tblVehicleEF	MHD	2.5010e-003	0.02
tblVehicleEF	MHD	5.6630e-003	4.9830e-003
tblVehicleEF	MHD	6.4640e-003	0.06
tblVehicleEF	MHD	0.29	0.23
tblVehicleEF	MHD	0.45	0.38
tblVehicleEF	MHD	0.78	3.46
tblVehicleEF	MHD	84.63	219.20
tblVehicleEF	MHD	1,112.29	1,206.01
tblVehicleEF	MHD	6.71	29.96
tblVehicleEF	MHD	0.66	1.01
tblVehicleEF	MHD	2.15	1.70
tblVehicleEF	MHD	1.45	15.81
tblVehicleEF	MHD	1.3350e-003	5.7080e-003
tblVehicleEF	MHD	0.04	0.01
tblVehicleEF	MHD	9.6000e-005	5.6200e-004

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

tblVehicleEF	MHD	1.2770e-003	5.4610e-003
tblVehicleEF	MHD	0.04	0.01
tblVehicleEF	MHD	8.9000e-005	5.1700e-004
tblVehicleEF	MHD	1.5240e-003	2.5990e-003
tblVehicleEF	MHD	0.02	0.04
tblVehicleEF	MHD	0.02	0.04
tblVehicleEF	MHD	5.6900e-004	9.6400e-004
tblVehicleEF	MHD	0.10	0.07
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	0.04	0.21
tblVehicleEF	MHD	8.0200e-004	2.0970e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	6.6000e-005	3.6000e-004
tblVehicleEF	MHD	1.5240e-003	2.5990e-003
tblVehicleEF	MHD	0.02	0.04
tblVehicleEF	MHD	0.02	0.04
tblVehicleEF	MHD	5.6900e-004	9.6400e-004
tblVehicleEF	MHD	0.12	0.09
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	0.04	0.23
tblVehicleEF	MHD	2.7990e-003	0.02
tblVehicleEF	MHD	5.5780e-003	4.8610e-003
tblVehicleEF	MHD	7.2200e-003	0.07
tblVehicleEF	MHD	0.41	0.43
tblVehicleEF	MHD	0.44	0.37
tblVehicleEF	MHD	0.91	4.08
tblVehicleEF	MHD	82.15	189.96
tblVehicleEF	MHD	1,112.27	1,206.01
tblVehicleEF	MHD	6.94	29.96

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

tblVehicleEF	MHD	0.65	0.93
tblVehicleEF	MHD	2.30	1.82
tblVehicleEF	MHD	1.46	15.88
tblVehicleEF	MHD	1.9180e-003	8.2390e-003
tblVehicleEF	MHD	0.04	0.01
tblVehicleEF	MHD	9.6000e-005	5.6200e-004
tblVehicleEF	MHD	1.8350e-003	7.8830e-003
tblVehicleEF	MHD	0.04	0.01
tblVehicleEF	MHD	8.9000e-005	5.1700e-004
tblVehicleEF	MHD	1.9600e-004	3.3400e-004
tblVehicleEF	MHD	0.02	0.03
tblVehicleEF	MHD	0.02	0.04
tblVehicleEF	MHD	1.0200e-004	1.7300e-004
tblVehicleEF	MHD	0.10	0.07
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	0.04	0.24
tblVehicleEF	MHD	7.7800e-004	1.8190e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	6.9000e-005	3.7100e-004
tblVehicleEF	MHD	1.9600e-004	3.3400e-004
tblVehicleEF	MHD	0.02	0.03
tblVehicleEF	MHD	0.02	0.05
tblVehicleEF	MHD	1.0200e-004	1.7300e-004
tblVehicleEF	MHD	0.12	0.09
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	0.04	0.26
tblVehicleEF	OBUS	7.1170e-003	0.01
tblVehicleEF	OBUS	9.4900e-003	0.01
tblVehicleEF	OBUS	0.02	0.04

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

tblVehicleEF	OBUS	0.53	0.30
tblVehicleEF	OBUS	0.94	0.90
tblVehicleEF	OBUS	2.31	7.58
tblVehicleEF	OBUS	89.29	168.97
tblVehicleEF	OBUS	1,388.20	1,346.53
tblVehicleEF	OBUS	16.92	64.86
tblVehicleEF	OBUS	0.44	0.82
tblVehicleEF	OBUS	2.01	2.15
tblVehicleEF	OBUS	0.96	3.93
tblVehicleEF	OBUS	8.7800e-004	1.8500e-004
tblVehicleEF	OBUS	0.03	8.9590e-003
tblVehicleEF	OBUS	1.6800e-004	9.0800e-004
tblVehicleEF	OBUS	8.4000e-004	1.7700e-004
tblVehicleEF	OBUS	0.02	8.5560e-003
tblVehicleEF	OBUS	1.5400e-004	8.3500e-004
tblVehicleEF	OBUS	2.1380e-003	2.2850e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.05
tblVehicleEF	OBUS	7.4000e-004	7.9800e-004
tblVehicleEF	OBUS	0.10	0.10
tblVehicleEF	OBUS	0.07	0.04
tblVehicleEF	OBUS	0.11	0.45
tblVehicleEF	OBUS	8.4900e-004	1.6230e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	1.6700e-004	7.8100e-004
tblVehicleEF	OBUS	2.1380e-003	2.2850e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.06	0.06
tblVehicleEF	OBUS	7.4000e-004	7.9800e-004

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

tblVehicleEF	OBUS	0.12	0.12
tblVehicleEF	OBUS	0.07	0.04
tblVehicleEF	OBUS	0.12	0.49
tblVehicleEF	OBUS	7.1740e-003	0.01
tblVehicleEF	OBUS	9.6990e-003	0.01
tblVehicleEF	OBUS	0.02	0.04
tblVehicleEF	OBUS	0.52	0.28
tblVehicleEF	OBUS	0.96	0.92
tblVehicleEF	OBUS	2.09	6.86
tblVehicleEF	OBUS	89.05	178.07
tblVehicleEF	OBUS	1,388.24	1,346.53
tblVehicleEF	OBUS	16.55	64.86
tblVehicleEF	OBUS	0.43	0.85
tblVehicleEF	OBUS	1.89	2.03
tblVehicleEF	OBUS	0.94	3.86
tblVehicleEF	OBUS	7.4500e-004	1.5600e-004
tblVehicleEF	OBUS	0.03	8.9590e-003
tblVehicleEF	OBUS	1.6800e-004	9.0800e-004
tblVehicleEF	OBUS	7.1300e-004	1.4900e-004
tblVehicleEF	OBUS	0.02	8.5560e-003
tblVehicleEF	OBUS	1.5400e-004	8.3500e-004
tblVehicleEF	OBUS	5.3260e-003	5.6680e-003
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.05	0.05
tblVehicleEF	OBUS	1.4670e-003	1.5780e-003
tblVehicleEF	OBUS	0.10	0.10
tblVehicleEF	OBUS	0.07	0.04
tblVehicleEF	OBUS	0.10	0.42
tblVehicleEF	OBUS	8.4700e-004	1.7100e-003

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

tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	1.6400e-004	7.6900e-004
tblVehicleEF	OBUS	5.3260e-003	5.6680e-003
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.06	0.06
tblVehicleEF	OBUS	1.4670e-003	1.5780e-003
tblVehicleEF	OBUS	0.12	0.12
tblVehicleEF	OBUS	0.07	0.04
tblVehicleEF	OBUS	0.11	0.46
tblVehicleEF	OBUS	7.0490e-003	0.01
tblVehicleEF	OBUS	9.2770e-003	0.01
tblVehicleEF	OBUS	0.02	0.04
tblVehicleEF	OBUS	0.55	0.34
tblVehicleEF	OBUS	0.92	0.88
tblVehicleEF	OBUS	2.54	8.34
tblVehicleEF	OBUS	89.62	156.42
tblVehicleEF	OBUS	1,388.16	1,346.53
tblVehicleEF	OBUS	17.31	64.86
tblVehicleEF	OBUS	0.45	0.79
tblVehicleEF	OBUS	2.05	2.19
tblVehicleEF	OBUS	0.97	4.02
tblVehicleEF	OBUS	1.0610e-003	2.2500e-004
tblVehicleEF	OBUS	0.03	8.9590e-003
tblVehicleEF	OBUS	1.6800e-004	9.0800e-004
tblVehicleEF	OBUS	1.0150e-003	2.1600e-004
tblVehicleEF	OBUS	0.02	8.5560e-003
tblVehicleEF	OBUS	1.5400e-004	8.3500e-004
tblVehicleEF	OBUS	7.7300e-004	8.3600e-004
tblVehicleEF	OBUS	0.02	0.02

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

tblVehicleEF	OBUS	0.05	0.05
tblVehicleEF	OBUS	3.6200e-004	3.9300e-004
tblVehicleEF	OBUS	0.10	0.10
tblVehicleEF	OBUS	0.07	0.04
tblVehicleEF	OBUS	0.11	0.48
tblVehicleEF	OBUS	8.5200e-004	1.5040e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	1.7100e-004	7.9400e-004
tblVehicleEF	OBUS	7.7300e-004	8.3600e-004
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.06	0.06
tblVehicleEF	OBUS	3.6200e-004	3.9300e-004
tblVehicleEF	OBUS	0.12	0.12
tblVehicleEF	OBUS	0.07	0.04
tblVehicleEF	OBUS	0.12	0.52
tblVehicleEF	SBUS	0.05	0.80
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	7.4630e-003	0.07
tblVehicleEF	SBUS	2.25	8.35
tblVehicleEF	SBUS	1.72	0.96
tblVehicleEF	SBUS	1.19	9.02
tblVehicleEF	SBUS	362.74	1,103.94
tblVehicleEF	SBUS	1,093.57	1,031.21
tblVehicleEF	SBUS	5.19	59.88
tblVehicleEF	SBUS	3.59	8.85
tblVehicleEF	SBUS	5.21	3.80
tblVehicleEF	SBUS	0.60	11.63
tblVehicleEF	SBUS	3.8500e-003	9.0020e-003
tblVehicleEF	SBUS	0.01	0.01

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

tblVehicleEF	SBUS	0.03	0.02
tblVehicleEF	SBUS	5.2000e-005	6.3400e-004
tblVehicleEF	SBUS	3.6830e-003	8.6120e-003
tblVehicleEF	SBUS	2.7010e-003	2.5800e-003
tblVehicleEF	SBUS	0.03	0.02
tblVehicleEF	SBUS	4.8000e-005	5.8300e-004
tblVehicleEF	SBUS	1.1380e-003	5.6690e-003
tblVehicleEF	SBUS	0.01	0.04
tblVehicleEF	SBUS	0.26	0.98
tblVehicleEF	SBUS	4.2600e-004	1.9690e-003
tblVehicleEF	SBUS	0.14	0.11
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.05	0.45
tblVehicleEF	SBUS	3.4540e-003	0.01
tblVehicleEF	SBUS	0.01	9.9760e-003
tblVehicleEF	SBUS	5.1000e-005	7.5400e-004
tblVehicleEF	SBUS	1.1380e-003	5.6690e-003
tblVehicleEF	SBUS	0.01	0.04
tblVehicleEF	SBUS	0.37	1.42
tblVehicleEF	SBUS	4.2600e-004	1.9690e-003
tblVehicleEF	SBUS	0.18	0.13
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.05	0.49
tblVehicleEF	SBUS	0.05	0.80
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	6.0170e-003	0.06
tblVehicleEF	SBUS	2.20	8.24
tblVehicleEF	SBUS	1.77	0.98
tblVehicleEF	SBUS	0.80	6.11

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

tblVehicleEF	SBUS	374.58	1,151.97
tblVehicleEF	SBUS	1,093.66	1,031.21
tblVehicleEF	SBUS	4.55	59.88
tblVehicleEF	SBUS	3.69	9.13
tblVehicleEF	SBUS	4.91	3.59
tblVehicleEF	SBUS	0.60	11.58
tblVehicleEF	SBUS	3.2530e-003	7.5880e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.03	0.02
tblVehicleEF	SBUS	5.2000e-005	6.3400e-004
tblVehicleEF	SBUS	3.1120e-003	7.2600e-003
tblVehicleEF	SBUS	2.7010e-003	2.5800e-003
tblVehicleEF	SBUS	0.03	0.02
tblVehicleEF	SBUS	4.8000e-005	5.8300e-004
tblVehicleEF	SBUS	2.7800e-003	0.01
tblVehicleEF	SBUS	0.01	0.05
tblVehicleEF	SBUS	0.26	0.98
tblVehicleEF	SBUS	8.1800e-004	3.8470e-003
tblVehicleEF	SBUS	0.14	0.11
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.04	0.36
tblVehicleEF	SBUS	3.5660e-003	0.01
tblVehicleEF	SBUS	0.01	9.9760e-003
tblVehicleEF	SBUS	4.5000e-005	7.0600e-004
tblVehicleEF	SBUS	2.7800e-003	0.01
tblVehicleEF	SBUS	0.01	0.05
tblVehicleEF	SBUS	0.37	1.41
tblVehicleEF	SBUS	8.1800e-004	3.8470e-003
tblVehicleEF	SBUS	0.19	0.13

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

tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.04	0.40
tblVehicleEF	SBUS	0.05	0.80
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	8.7930e-003	0.08
tblVehicleEF	SBUS	2.31	8.50
tblVehicleEF	SBUS	1.68	0.93
tblVehicleEF	SBUS	1.57	11.95
tblVehicleEF	SBUS	346.40	1,037.60
tblVehicleEF	SBUS	1,093.49	1,031.21
tblVehicleEF	SBUS	5.83	59.88
tblVehicleEF	SBUS	3.46	8.46
tblVehicleEF	SBUS	5.33	3.88
tblVehicleEF	SBUS	0.61	11.68
tblVehicleEF	SBUS	4.6740e-003	0.01
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.03	0.02
tblVehicleEF	SBUS	5.2000e-005	6.3400e-004
tblVehicleEF	SBUS	4.4720e-003	0.01
tblVehicleEF	SBUS	2.7010e-003	2.5800e-003
tblVehicleEF	SBUS	0.03	0.02
tblVehicleEF	SBUS	4.8000e-005	5.8300e-004
tblVehicleEF	SBUS	4.4500e-004	2.1100e-003
tblVehicleEF	SBUS	0.01	0.04
tblVehicleEF	SBUS	0.26	0.98
tblVehicleEF	SBUS	2.1600e-004	9.8800e-004
tblVehicleEF	SBUS	0.14	0.10
tblVehicleEF	SBUS	0.02	0.03
tblVehicleEF	SBUS	0.05	0.53

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

tblVehicleEF	SBUS	3.2990e-003	0.01
tblVehicleEF	SBUS	0.01	9.9750e-003
tblVehicleEF	SBUS	5.8000e-005	8.0300e-004
tblVehicleEF	SBUS	4.4500e-004	2.1100e-003
tblVehicleEF	SBUS	0.01	0.04
tblVehicleEF	SBUS	0.37	1.42
tblVehicleEF	SBUS	2.1600e-004	9.8800e-004
tblVehicleEF	SBUS	0.18	0.13
tblVehicleEF	SBUS	0.02	0.03
tblVehicleEF	SBUS	0.06	0.58
tblVehicleEF	UBUS	2.51	1.25
tblVehicleEF	UBUS	0.02	0.09
tblVehicleEF	UBUS	18.67	10.38
tblVehicleEF	UBUS	1.44	16.27
tblVehicleEF	UBUS	1,779.74	2,021.35
tblVehicleEF	UBUS	16.50	111.40
tblVehicleEF	UBUS	1.33	11.24
tblVehicleEF	UBUS	0.15	15.14
tblVehicleEF	UBUS	0.09	0.58
tblVehicleEF	UBUS	0.02	0.01
tblVehicleEF	UBUS	4.4680e-003	0.20
tblVehicleEF	UBUS	1.3800e-004	1.5470e-003
tblVehicleEF	UBUS	0.04	0.25
tblVehicleEF	UBUS	6.0960e-003	3.0000e-003
tblVehicleEF	UBUS	4.2610e-003	0.19
tblVehicleEF	UBUS	1.2700e-004	1.4220e-003
tblVehicleEF	UBUS	7.7000e-004	9.0800e-003
tblVehicleEF	UBUS	6.9410e-003	0.12
tblVehicleEF	UBUS	3.8100e-004	3.2360e-003

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

tblVehicleEF	UBUS	0.04	0.91
tblVehicleEF	UBUS	1.8410e-003	0.03
tblVehicleEF	UBUS	0.09	1.20
tblVehicleEF	UBUS	9.0160e-003	0.01
tblVehicleEF	UBUS	1.6300e-004	1.4070e-003
tblVehicleEF	UBUS	7.7000e-004	9.0800e-003
tblVehicleEF	UBUS	6.9410e-003	0.12
tblVehicleEF	UBUS	3.8100e-004	3.2360e-003
tblVehicleEF	UBUS	2.57	2.24
tblVehicleEF	UBUS	1.8410e-003	0.03
tblVehicleEF	UBUS	0.10	1.31
tblVehicleEF	UBUS	2.51	1.26
tblVehicleEF	UBUS	0.02	0.08
tblVehicleEF	UBUS	18.67	10.53
tblVehicleEF	UBUS	1.17	12.94
tblVehicleEF	UBUS	1,779.75	2,021.35
tblVehicleEF	UBUS	16.03	111.40
tblVehicleEF	UBUS	1.32	10.61
tblVehicleEF	UBUS	0.14	15.01
tblVehicleEF	UBUS	0.09	0.58
tblVehicleEF	UBUS	0.02	0.01
tblVehicleEF	UBUS	4.4680e-003	0.20
tblVehicleEF	UBUS	1.3800e-004	1.5470e-003
tblVehicleEF	UBUS	0.04	0.25
tblVehicleEF	UBUS	6.0960e-003	3.0000e-003
tblVehicleEF	UBUS	4.2610e-003	0.19
tblVehicleEF	UBUS	1.2700e-004	1.4220e-003
tblVehicleEF	UBUS	1.9430e-003	0.02
tblVehicleEF	UBUS	8.8600e-003	0.16

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

tblVehicleEF	UBUS	8.1500e-004	7.1170e-003
tblVehicleEF	UBUS	0.04	0.93
tblVehicleEF	UBUS	1.7420e-003	0.03
tblVehicleEF	UBUS	0.08	1.05
tblVehicleEF	UBUS	9.0160e-003	0.01
tblVehicleEF	UBUS	1.5900e-004	1.3500e-003
tblVehicleEF	UBUS	1.9430e-003	0.02
tblVehicleEF	UBUS	8.8600e-003	0.16
tblVehicleEF	UBUS	8.1500e-004	7.1170e-003
tblVehicleEF	UBUS	2.57	2.27
tblVehicleEF	UBUS	1.7420e-003	0.03
tblVehicleEF	UBUS	0.09	1.14
tblVehicleEF	UBUS	2.51	1.24
tblVehicleEF	UBUS	0.02	0.10
tblVehicleEF	UBUS	18.66	10.24
tblVehicleEF	UBUS	1.74	19.89
tblVehicleEF	UBUS	1,779.74	2,021.35
tblVehicleEF	UBUS	17.01	111.40
tblVehicleEF	UBUS	1.33	11.48
tblVehicleEF	UBUS	0.16	15.27
tblVehicleEF	UBUS	0.09	0.58
tblVehicleEF	UBUS	0.02	0.01
tblVehicleEF	UBUS	4.4680e-003	0.20
tblVehicleEF	UBUS	1.3800e-004	1.5470e-003
tblVehicleEF	UBUS	0.04	0.25
tblVehicleEF	UBUS	6.0960e-003	3.0000e-003
tblVehicleEF	UBUS	4.2610e-003	0.19
tblVehicleEF	UBUS	1.2700e-004	1.4220e-003
tblVehicleEF	UBUS	2.7900e-004	3.2250e-003

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

tblVehicleEF	UBUS	6.9020e-003	0.14
tblVehicleEF	UBUS	1.7300e-004	1.4550e-003
tblVehicleEF	UBUS	0.04	0.89
tblVehicleEF	UBUS	2.2650e-003	0.04
tblVehicleEF	UBUS	0.10	1.36
tblVehicleEF	UBUS	9.0160e-003	0.01
tblVehicleEF	UBUS	1.6800e-004	1.4690e-003
tblVehicleEF	UBUS	2.7900e-004	3.2250e-003
tblVehicleEF	UBUS	6.9020e-003	0.14
tblVehicleEF	UBUS	1.7300e-004	1.4550e-003
tblVehicleEF	UBUS	2.57	2.21
tblVehicleEF	UBUS	2.2650e-003	0.04
tblVehicleEF	UBUS	0.11	1.49
tblVehicleTrips	ST_TR	6.42	0.00
tblVehicleTrips	ST_TR	2.12	0.00
tblVehicleTrips	SU_TR	5.09	0.00
tblVehicleTrips	SU_TR	2.12	0.00
tblVehicleTrips	WD_TR	3.93	0.00
tblVehicleTrips	WD_TR	2.12	0.00
tblWater	IndoorWaterUseRate	29,368,750.00	0.00
tblWater	IndoorWaterUseRate	9,018,750.00	0.00

2.0 Emissions Summary

Modesto Construction Emissions - Approved Project - Stanislaus 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					
2021	1.0319	6.2239	4.2246	0.0110	1.2138	0.2693	1.4831	0.5415	0.2500	0.7916	0.0000	992.5610	992.5610	0.1722	0.0552	1,013.3106
2022	0.8113	0.2762	0.3881	6.4000e-004	8.3700e-003	0.0142	0.0226	2.2200e-003	0.0132	0.0154	0.0000	56.2570	56.2570	0.0148	2.2000e-004	56.6930
Maximum	**1.0319**	**6.2239**	**4.2246**	**0.0110**	**1.2138**	**0.2693**	**1.4831**	**0.5415**	**0.2500**	**0.7916**	**0.0000**	**992.5610**	**992.5610**	**0.1722**	**0.0552**	**1,013.3106**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	1.0319	6.2239	4.2246	0.0110	0.6581	0.2693	0.9274	0.2741	0.2500	0.5242	0.0000	992.5603	992.5603	0.1722	0.0552	1,013.3099
2022	0.8113	0.2762	0.3881	6.4000e-004	8.3700e-003	0.0142	0.0226	2.2200e-003	0.0132	0.0154	0.0000	56.2569	56.2569	0.0148	2.2000e-004	56.6930
Maximum	**1.0319**	**6.2239**	**4.2246**	**0.0110**	**0.6581**	**0.2693**	**0.9274**	**0.2741**	**0.2500**	**0.5242**	**0.0000**	**992.5603**	**992.5603**	**0.1722**	**0.0552**	**1,013.3099**

Modesto Construction Emissions - Approved Project - Stanislaus 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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**45.47**	**0.00**	**36.91**	**49.18**	**0.00**	**33.13**	**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	**2-8-2021**	**5-7-2021**	4.8123	4.8123
2	**5-8-2021**	**8-7-2021**	1.0184	1.0184
3	**8-8-2021**	**11-7-2021**	0.8287	0.8287
4	**11-8-2021**	**2-7-2022**	0.9936	0.9936
5	**2-8-2022**	**5-7-2022**	0.4632	0.4632
6	**5-8-2022**	**8-7-2022**	0.1128	0.1128
		Highest	4.8123	4.8123

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	tons/yr										MT/yr					
Area	3.5000e-004	3.0000e-005	3.8000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.3800e-003	7.3800e-003	2.0000e-005	0.0000	7.8700e-003
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	0.0000	0.0000	0.0000	0.0000	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	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	**3.5000e-004**	**3.0000e-005**	**3.8000e-003**	**0.0000**	**0.0000**	**1.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**1.0000e-005**	**0.0000**	**7.3800e-003**	**7.3800e-003**	**2.0000e-005**	**0.0000**	**7.8700e-003**

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	3.5000e-004	3.0000e-005	3.8000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.3800e-003	7.3800e-003	2.0000e-005	0.0000	7.8700e-003
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	0.0000	0.0000	0.0000	0.0000	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	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	**3.5000e-004**	**3.0000e-005**	**3.8000e-003**	**0.0000**	**0.0000**	**1.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**1.0000e-005**	**0.0000**	**7.3800e-003**	**7.3800e-003**	**2.0000e-005**	**0.0000**	**7.8700e-003**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	2/8/2021	5/7/2021	5	65	
2	Site Preparation	Site Preparation	2/8/2021	5/14/2021	5	70	
3	Grading	Grading	2/8/2021	5/14/2021	5	70	

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

4	Building Construction	Building Construction	5/18/2021	11/9/2021	5	126	
5	Architectural Coating	Architectural Coating	12/1/2021	2/28/2022	5	64	
6	Paving	Paving	4/1/2022	6/1/2022	5	44	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 5.68

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 249,000; Non-Residential Outdoor: 83,000; Striped Parking Area: 14,830 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
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	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	130	0.42

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

Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	965.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	7,200.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	174.00	68.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	35.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1044	0.0000	0.1044	0.0158	0.0000	0.0158	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1029	1.0218	0.7009	1.2600e-003		0.0504	0.0504		0.0468	0.0468	0.0000	110.5026	110.5026	0.0311	0.0000	111.2801
Total	**0.1029**	**1.0218**	**0.7009**	**1.2600e-003**	**0.1044**	**0.0504**	**0.1548**	**0.0158**	**0.0468**	**0.0627**	**0.0000**	**110.5026**	**110.5026**	**0.0311**	**0.0000**	**111.2801**

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

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.8900e-003	0.0856	0.0167	3.0000e-004	8.2400e-003	1.2700e-003	9.5100e-003	2.2700e-003	1.2100e-003	3.4800e-003	0.0000	29.2242	29.2242	2.2000e-004	4.6000e-003	30.5995
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	1.9100e-003	1.3700e-003	0.0155	4.0000e-005	3.9000e-003	2.0000e-005	3.9200e-003	1.0400e-003	2.0000e-005	1.0600e-003	0.0000	3.3447	3.3447	1.3000e-004	1.1000e-004	3.3812
Total	**4.8000e-003**	**0.0870**	**0.0321**	**3.4000e-004**	**0.0121**	**1.2900e-003**	**0.0134**	**3.3100e-003**	**1.2300e-003**	**4.5400e-003**	**0.0000**	**32.5689**	**32.5689**	**3.5000e-004**	**4.7100e-003**	**33.9806**

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					0.0470	0.0000	0.0470	7.1100e-003	0.0000	7.1100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1029	1.0218	0.7009	1.2600e-003		0.0504	0.0504		0.0468	0.0468	0.0000	110.5024	110.5024	0.0311	0.0000	111.2800
Total	**0.1029**	**1.0218**	**0.7009**	**1.2600e-003**	**0.0470**	**0.0504**	**0.0974**	**7.1100e-003**	**0.0468**	**0.0540**	**0.0000**	**110.5024**	**110.5024**	**0.0311**	**0.0000**	**111.2800**

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

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.8900e-003	0.0856	0.0167	3.0000e-004	8.2400e-003	1.2700e-003	9.5100e-003	2.2700e-003	1.2100e-003	3.4800e-003	0.0000	29.2242	29.2242	2.2000e-004	4.6000e-003	30.5995
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	1.9100e-003	1.3700e-003	0.0155	4.0000e-005	3.9000e-003	2.0000e-005	3.9200e-003	1.0400e-003	2.0000e-005	1.0600e-003	0.0000	3.3447	3.3447	1.3000e-004	1.1000e-004	3.3812
Total	**4.8000e-003**	**0.0870**	**0.0321**	**3.4000e-004**	**0.0121**	**1.2900e-003**	**0.0134**	**3.3100e-003**	**1.2300e-003**	**4.5400e-003**	**0.0000**	**32.5689**	**32.5689**	**3.5000e-004**	**4.7100e-003**	**33.9806**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.6323	0.0000	0.6323	0.3476	0.0000	0.3476	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1361	1.4174	0.7404	1.3300e-003		0.0716	0.0716		0.0658	0.0658	0.0000	117.0250	117.0250	0.0379	0.0000	117.9712
Total	**0.1361**	**1.4174**	**0.7404**	**1.3300e-003**	**0.6323**	**0.0716**	**0.7039**	**0.3476**	**0.0658**	**0.4134**	**0.0000**	**117.0250**	**117.0250**	**0.0379**	**0.0000**	**117.9712**

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

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4600e-003	1.7700e-003	0.0200	5.0000e-005	5.0300e-003	3.0000e-005	5.0700e-003	1.3400e-003	3.0000e-005	1.3700e-003	0.0000	4.3224	4.3224	1.7000e-004	1.4000e-004	4.3695
Total	**2.4600e-003**	**1.7700e-003**	**0.0200**	**5.0000e-005**	**5.0300e-003**	**3.0000e-005**	**5.0700e-003**	**1.3400e-003**	**3.0000e-005**	**1.3700e-003**	**0.0000**	**4.3224**	**4.3224**	**1.7000e-004**	**1.4000e-004**	**4.3695**

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					0.2845	0.0000	0.2845	0.1564	0.0000	0.1564	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1361	1.4174	0.7404	1.3300e-003		0.0716	0.0716		0.0658	0.0658	0.0000	117.0249	117.0249	0.0379	0.0000	117.9711
Total	**0.1361**	**1.4174**	**0.7404**	**1.3300e-003**	**0.2845**	**0.0716**	**0.3561**	**0.1564**	**0.0658**	**0.2222**	**0.0000**	**117.0249**	**117.0249**	**0.0379**	**0.0000**	**117.9711**

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

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4600e-003	1.7700e-003	0.0200	5.0000e-005	5.0300e-003	3.0000e-005	5.0700e-003	1.3400e-003	3.0000e-005	1.3700e-003	0.0000	4.3224	4.3224	1.7000e-004	1.4000e-004	4.3695
Total	**2.4600e-003**	**1.7700e-003**	**0.0200**	**5.0000e-005**	**5.0300e-003**	**3.0000e-005**	**5.0700e-003**	**1.3400e-003**	**3.0000e-005**	**1.3700e-003**	**0.0000**	**4.3224**	**4.3224**	**1.7000e-004**	**1.4000e-004**	**4.3695**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2737	0.0000	0.2737	0.1228	0.0000	0.1228	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1467	1.6240	1.0808	2.1700e-003		0.0695	0.0695		0.0639	0.0639	0.0000	190.7324	190.7324	0.0617	0.0000	192.2746
Total	**0.1467**	**1.6240**	**1.0808**	**2.1700e-003**	**0.2737**	**0.0695**	**0.3432**	**0.1228**	**0.0639**	**0.1867**	**0.0000**	**190.7324**	**190.7324**	**0.0617**	**0.0000**	**192.2746**

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

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0216	0.6389	0.1243	2.2700e-003	0.0615	9.4700e-003	0.0710	0.0169	9.0600e-003	0.0260	0.0000	218.0460	218.0460	1.6600e-003	0.0343	228.3070
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7400e-003	1.9700e-003	0.0222	5.0000e-005	5.5900e-003	4.0000e-005	5.6300e-003	1.4900e-003	3.0000e-005	1.5200e-003	0.0000	4.8026	4.8026	1.9000e-004	1.6000e-004	4.8550
Total	**0.0243**	**0.6408**	**0.1465**	**2.3200e-003**	**0.0671**	**9.5100e-003**	**0.0766**	**0.0184**	**9.0900e-003**	**0.0275**	**0.0000**	**222.8486**	**222.8486**	**1.8500e-003**	**0.0345**	**233.1620**

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					0.1232	0.0000	0.1232	0.0553	0.0000	0.0553	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1467	1.6240	1.0807	2.1700e-003		0.0695	0.0695		0.0639	0.0639	0.0000	190.7322	190.7322	0.0617	0.0000	192.2744
Total	**0.1467**	**1.6240**	**1.0807**	**2.1700e-003**	**0.1232**	**0.0695**	**0.1927**	**0.0553**	**0.0639**	**0.1192**	**0.0000**	**190.7322**	**190.7322**	**0.0617**	**0.0000**	**192.2744**

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

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0216	0.6389	0.1243	2.2700e-003	0.0615	9.4700e-003	0.0710	0.0169	9.0600e-003	0.0260	0.0000	218.0460	218.0460	1.6600e-003	0.0343	228.3070
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7400e-003	1.9700e-003	0.0222	5.0000e-005	5.5900e-003	4.0000e-005	5.6300e-003	1.4900e-003	3.0000e-005	1.5200e-003	0.0000	4.8026	4.8026	1.9000e-004	1.6000e-004	4.8550
Total	**0.0243**	**0.6408**	**0.1465**	**2.3200e-003**	**0.0671**	**9.5100e-003**	**0.0766**	**0.0184**	**9.0900e-003**	**0.0275**	**0.0000**	**222.8486**	**222.8486**	**1.8500e-003**	**0.0345**	**233.1620**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1198	1.0982	1.0442	1.7000e-003		0.0604	0.0604		0.0568	0.0568	0.0000	145.9315	145.9315	0.0352	0.0000	146.8117
Total	**0.1198**	**1.0982**	**1.0442**	**1.7000e-003**		**0.0604**	**0.0604**		**0.0568**	**0.0568**	**0.0000**	**145.9315**	**145.9315**	**0.0352**	**0.0000**	**146.8117**

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

3.5 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0146	0.2833	0.0779	9.1000e-004	0.0284	4.9000e-003	0.0333	8.2000e-003	4.6900e-003	0.0129	0.0000	87.7226	87.7226	8.1000e-004	0.0133	91.6990
Worker	0.0429	0.0309	0.3481	8.2000e-004	0.0876	5.6000e-004	0.0882	0.0233	5.2000e-004	0.0238	0.0000	75.2093	75.2093	2.9100e-003	2.5100e-003	76.0291
Total	**0.0575**	**0.3142**	**0.4260**	**1.7300e-003**	**0.1160**	**5.4600e-003**	**0.1214**	**0.0315**	**5.2100e-003**	**0.0367**	**0.0000**	**162.9318**	**162.9318**	**3.7200e-003**	**0.0158**	**167.7281**

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	0.1198	1.0982	1.0442	1.7000e-003		0.0604	0.0604		0.0568	0.0568	0.0000	145.9313	145.9313	0.0352	0.0000	146.8115
Total	**0.1198**	**1.0982**	**1.0442**	**1.7000e-003**		**0.0604**	**0.0604**		**0.0568**	**0.0568**	**0.0000**	**145.9313**	**145.9313**	**0.0352**	**0.0000**	**146.8115**

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

3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0146	0.2833	0.0779	9.1000e-004	0.0284	4.9000e-003	0.0333	8.2000e-003	4.6900e-003	0.0129	0.0000	87.7226	87.7226	8.1000e-004	0.0133	91.6990
Worker	0.0429	0.0309	0.3481	8.2000e-004	0.0876	5.6000e-004	0.0882	0.0233	5.2000e-004	0.0238	0.0000	75.2093	75.2093	2.9100e-003	2.5100e-003	76.0291
Total	**0.0575**	**0.3142**	**0.4260**	**1.7300e-003**	**0.1160**	**5.4600e-003**	**0.1214**	**0.0315**	**5.2100e-003**	**0.0367**	**0.0000**	**162.9318**	**162.9318**	**3.7200e-003**	**0.0158**	**167.7281**

3.6 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4333					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.5200e-003	0.0176	0.0209	3.0000e-005		1.0800e-003	1.0800e-003		1.0800e-003	1.0800e-003	0.0000	2.9362	2.9362	2.0000e-004	0.0000	2.9413
Total	**0.4358**	**0.0176**	**0.0209**	**3.0000e-005**		**1.0800e-003**	**1.0800e-003**		**1.0800e-003**	**1.0800e-003**	**0.0000**	**2.9362**	**2.9362**	**2.0000e-004**	**0.0000**	**2.9413**

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

3.6 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5700e-003	1.1300e-003	0.0128	3.0000e-005	3.2200e-003	2.0000e-005	3.2400e-003	8.5000e-004	2.0000e-005	8.7000e-004	0.0000	2.7615	2.7615	1.1000e-004	9.0000e-005	2.7916
Total	**1.5700e-003**	**1.1300e-003**	**0.0128**	**3.0000e-005**	**3.2200e-003**	**2.0000e-005**	**3.2400e-003**	**8.5000e-004**	**2.0000e-005**	**8.7000e-004**	**0.0000**	**2.7615**	**2.7615**	**1.1000e-004**	**9.0000e-005**	**2.7916**

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	0.4333					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.5200e-003	0.0176	0.0209	3.0000e-005		1.0800e-003	1.0800e-003		1.0800e-003	1.0800e-003	0.0000	2.9362	2.9362	2.0000e-004	0.0000	2.9413
Total	**0.4358**	**0.0176**	**0.0209**	**3.0000e-005**		**1.0800e-003**	**1.0800e-003**		**1.0800e-003**	**1.0800e-003**	**0.0000**	**2.9362**	**2.9362**	**2.0000e-004**	**0.0000**	**2.9413**

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

3.6 Architectural Coating - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5700e-003	1.1300e-003	0.0128	3.0000e-005	3.2200e-003	2.0000e-005	3.2400e-003	8.5000e-004	2.0000e-005	8.7000e-004	0.0000	2.7615	2.7615	1.1000e-004	9.0000e-005	2.7916
Total	**1.5700e-003**	**1.1300e-003**	**0.0128**	**3.0000e-005**	**3.2200e-003**	**2.0000e-005**	**3.2400e-003**	**8.5000e-004**	**2.0000e-005**	**8.7000e-004**	**0.0000**	**2.7615**	**2.7615**	**1.1000e-004**	**9.0000e-005**	**2.7916**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7724					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.1900e-003	0.0289	0.0372	6.0000e-005		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003	0.0000	5.2342	5.2342	3.4000e-004	0.0000	5.2427
Total	**0.7766**	**0.0289**	**0.0372**	**6.0000e-005**		**1.6800e-003**	**1.6800e-003**		**1.6800e-003**	**1.6800e-003**	**0.0000**	**5.2342**	**5.2342**	**3.4000e-004**	**0.0000**	**5.2427**

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

3.6 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5700e-003	1.7600e-003	0.0206	5.0000e-005	5.7300e-003	3.0000e-005	5.7700e-003	1.5200e-003	3.0000e-005	1.5600e-003	0.0000	4.7689	4.7689	1.7000e-004	1.5000e-004	4.8177
Total	**2.5700e-003**	**1.7600e-003**	**0.0206**	**5.0000e-005**	**5.7300e-003**	**3.0000e-005**	**5.7700e-003**	**1.5200e-003**	**3.0000e-005**	**1.5600e-003**	**0.0000**	**4.7689**	**4.7689**	**1.7000e-004**	**1.5000e-004**	**4.8177**

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	0.7724					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.1900e-003	0.0289	0.0372	6.0000e-005		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003	0.0000	5.2342	5.2342	3.4000e-004	0.0000	5.2427
Total	**0.7766**	**0.0289**	**0.0372**	**6.0000e-005**		**1.6800e-003**	**1.6800e-003**		**1.6800e-003**	**1.6800e-003**	**0.0000**	**5.2342**	**5.2342**	**3.4000e-004**	**0.0000**	**5.2427**

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

3.6 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5700e-003	1.7600e-003	0.0206	5.0000e-005	5.7300e-003	3.0000e-005	5.7700e-003	1.5200e-003	3.0000e-005	1.5600e-003	0.0000	4.7689	4.7689	1.7000e-004	1.5000e-004	4.8177
Total	**2.5700e-003**	**1.7600e-003**	**0.0206**	**5.0000e-005**	**5.7300e-003**	**3.0000e-005**	**5.7700e-003**	**1.5200e-003**	**3.0000e-005**	**1.5600e-003**	**0.0000**	**4.7689**	**4.7689**	**1.7000e-004**	**1.5000e-004**	**4.8177**

3.7 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	0.0243	0.2448	0.3208	5.0000e-004		0.0125	0.0125		0.0115	0.0115	0.0000	44.0606	44.0606	0.0143	0.0000	44.4169
Paving	6.7100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0310**	**0.2448**	**0.3208**	**5.0000e-004**		**0.0125**	**0.0125**		**0.0115**	**0.0115**	**0.0000**	**44.0606**	**44.0606**	**0.0143**	**0.0000**	**44.4169**

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

3.7 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1800e-003	8.1000e-004	9.4900e-003	2.0000e-005	2.6400e-003	2.0000e-005	2.6500e-003	7.0000e-004	1.0000e-005	7.2000e-004	0.0000	2.1933	2.1933	8.0000e-005	7.0000e-005	2.2158
Total	**1.1800e-003**	**8.1000e-004**	**9.4900e-003**	**2.0000e-005**	**2.6400e-003**	**2.0000e-005**	**2.6500e-003**	**7.0000e-004**	**1.0000e-005**	**7.2000e-004**	**0.0000**	**2.1933**	**2.1933**	**8.0000e-005**	**7.0000e-005**	**2.2158**

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	0.0243	0.2448	0.3208	5.0000e-004		0.0125	0.0125		0.0115	0.0115	0.0000	44.0606	44.0606	0.0143	0.0000	44.4168
Paving	6.7100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0310**	**0.2448**	**0.3208**	**5.0000e-004**		**0.0125**	**0.0125**		**0.0115**	**0.0115**	**0.0000**	**44.0606**	**44.0606**	**0.0143**	**0.0000**	**44.4168**

3.7 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1800e-003	8.1000e-004	9.4900e-003	2.0000e-005	2.6400e-003	2.0000e-005	2.6500e-003	7.0000e-004	1.0000e-005	7.2000e-004	0.0000	2.1933	2.1933	8.0000e-005	7.0000e-005	2.2158
Total	**1.1800e-003**	**8.1000e-004**	**9.4900e-003**	**2.0000e-005**	**2.6400e-003**	**2.0000e-005**	**2.6500e-003**	**7.0000e-004**	**1.0000e-005**	**7.2000e-004**	**0.0000**	**2.1933**	**2.1933**	**8.0000e-005**	**7.0000e-005**	**2.2158**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	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

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Manufacturing	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
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
Refrigerated Warehouse-Rail	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

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
Manufacturing	0.516452	0.033212	0.173817	0.123150	0.022816	0.005352	0.027555	0.088301	0.001837	0.001119	0.004633	0.000845	0.000911
Other Asphalt Surfaces	0.516452	0.033212	0.173817	0.123150	0.022816	0.005352	0.027555	0.088301	0.001837	0.001119	0.004633	0.000845	0.000911
Other Non-Asphalt Surfaces	0.516452	0.033212	0.173817	0.123150	0.022816	0.005352	0.027555	0.088301	0.001837	0.001119	0.004633	0.000845	0.000911
Refrigerated Warehouse-Rail	0.516452	0.033212	0.173817	0.123150	0.022816	0.005352	0.027555	0.088301	0.001837	0.001119	0.004633	0.000845	0.000911

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	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

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					
Manufacturing	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 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
Refrigerated Warehouse-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
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**

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					
Manufacturing	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 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
Refrigerated Warehouse-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
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**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	0	0.0000	0.0000	0.0000	0.0000
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
Refrigerated Warehouse-Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	0	0.0000	0.0000	0.0000	0.0000
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
Refrigerated Warehouse-Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

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	3.5000e-004	3.0000e-005	3.8000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.3800e-003	7.3800e-003	2.0000e-005	0.0000	7.8700e-003
Unmitigated	3.5000e-004	3.0000e-005	3.8000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.3800e-003	7.3800e-003	2.0000e-005	0.0000	7.8700e-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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.5000e-004	3.0000e-005	3.8000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.3800e-003	7.3800e-003	2.0000e-005	0.0000	7.8700e-003
Total	**3.5000e-004**	**3.0000e-005**	**3.8000e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**7.3800e-003**	**7.3800e-003**	**2.0000e-005**	**0.0000**	**7.8700e-003**

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.5000e-004	3.0000e-005	3.8000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.3800e-003	7.3800e-003	2.0000e-005	0.0000	7.8700e-003
Total	**3.5000e-004**	**3.0000e-005**	**3.8000e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**7.3800e-003**	**7.3800e-003**	**2.0000e-005**	**0.0000**	**7.8700e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

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			
Manufacturing	0 / 0	0.0000	0.0000	0.0000	0.0000
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
Refrigerated Warehouse-Rail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	0 / 0	0.0000	0.0000	0.0000	0.0000
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
Refrigerated Warehouse-Rail	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

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	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	0	0.0000	0.0000	0.0000	0.0000
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
Refrigerated Warehouse-Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	0	0.0000	0.0000	0.0000	0.0000
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
Refrigerated Warehouse-Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

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

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

Modesto Operations Emissions - Phase I Incremental

Stanislaus County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	127.00	1000sqft	2.92	127,000.00	0
Refrigerated Warehouse-Rail	39.00	1000sqft	0.90	39,000.00	0
Other Asphalt Surfaces	222.93	1000sqft	5.12	222,932.00	0
Other Non-Asphalt Surfaces	24.23	1000sqft	0.56	24,232.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	46
Climate Zone	3			**Operational Year**	2022
Utility Company	Modesto Irrigation District				
CO2 Intensity (lb/MWhr)	222.84	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Carbon Intensity accounts for RPS

Land Use - Land uses provided by the Facility

Construction Phase - Construction schedule provided in a data request

Trips and VMT - Consistent with previous runs.

Demolition -

Grading - Data provided by the facility.

Architectural Coating -

Vehicle Trips - Mobile emissions calculated outside of the model.

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

Vehicle Emission Factors - Consistent with previous runs.

Vehicle Emission Factors - Consistent with previous runs.

Vehicle Emission Factors - Consistent with previous runs.

Consumer Products -

Area Coating -

Energy Use - Energy emissions calculated outside of the model.

Water And Wastewater - Water usages provided by the facility.

Solid Waste - Waste generation rates as provided by the facility.

Construction Off-road Equipment Mitigation -

Fleet Mix - Consistent with previous runs.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	64.00
tblConstructionPhase	NumDays	230.00	126.00
tblConstructionPhase	NumDays	20.00	65.00
tblConstructionPhase	NumDays	20.00	70.00
tblConstructionPhase	NumDays	20.00	44.00
tblConstructionPhase	NumDays	10.00	70.00
tblEnergyUse	LightingElect	2.70	0.00
tblEnergyUse	LightingElect	2.45	0.00
tblEnergyUse	NT24E	4.16	0.00
tblEnergyUse	NT24E	21.99	0.00
tblEnergyUse	NT24NG	3.84	0.00
tblEnergyUse	T24E	1.75	0.00
tblEnergyUse	T24E	0.42	0.00
tblEnergyUse	T24NG	16.86	0.00
tblEnergyUse	T24NG	0.15	0.00
tblFleetMix	HHD	0.02	0.09

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

tblFleetMix	HHD	0.02	0.09
tblFleetMix	HHD	0.02	0.09
tblFleetMix	HHD	0.02	0.09
tblFleetMix	LDA	0.51	0.52
tblFleetMix	LDA	0.51	0.52
tblFleetMix	LDA	0.51	0.52
tblFleetMix	LDA	0.51	0.52
tblFleetMix	LDT1	0.05	0.03
tblFleetMix	LDT1	0.05	0.03
tblFleetMix	LDT1	0.05	0.03
tblFleetMix	LDT1	0.05	0.03
tblFleetMix	LDT2	0.17	0.17
tblFleetMix	LDT2	0.17	0.17
tblFleetMix	LDT2	0.17	0.17
tblFleetMix	LDT2	0.17	0.17
tblFleetMix	LHD1	0.04	0.02
tblFleetMix	LHD1	0.04	0.02
tblFleetMix	LHD1	0.04	0.02
tblFleetMix	LHD1	0.04	0.02
tblFleetMix	LHD2	8.4000e-003	5.3520e-003
tblFleetMix	LHD2	8.4000e-003	5.3520e-003
tblFleetMix	LHD2	8.4000e-003	5.3520e-003
tblFleetMix	LHD2	8.4000e-003	5.3520e-003
tblFleetMix	MCY	0.03	4.6330e-003
tblFleetMix	MCY	0.03	4.6330e-003
tblFleetMix	MCY	0.03	4.6330e-003
tblFleetMix	MCY	0.03	4.6330e-003
tblFleetMix	MDV	0.17	0.12
tblFleetMix	MDV	0.17	0.12

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

tblFleetMix	MDV	0.17	0.12
tblFleetMix	MDV	0.17	0.12
tblFleetMix	MH	4.2990e-003	9.1100e-004
tblFleetMix	MH	4.2990e-003	9.1100e-004
tblFleetMix	MH	4.2990e-003	9.1100e-004
tblFleetMix	MH	4.2990e-003	9.1100e-004
tblFleetMix	MHD	0.01	0.03
tblFleetMix	MHD	0.01	0.03
tblFleetMix	MHD	0.01	0.03
tblFleetMix	MHD	0.01	0.03
tblFleetMix	OBUS	8.8600e-004	1.8370e-003
tblFleetMix	OBUS	8.8600e-004	1.8370e-003
tblFleetMix	OBUS	8.8600e-004	1.8370e-003
tblFleetMix	OBUS	8.8600e-004	1.8370e-003
tblFleetMix	SBUS	1.4260e-003	8.4500e-004
tblFleetMix	SBUS	1.4260e-003	8.4500e-004
tblFleetMix	SBUS	1.4260e-003	8.4500e-004
tblFleetMix	SBUS	1.4260e-003	8.4500e-004
tblFleetMix	UBUS	3.0600e-004	1.1190e-003
tblFleetMix	UBUS	3.0600e-004	1.1190e-003
tblFleetMix	UBUS	3.0600e-004	1.1190e-003
tblFleetMix	UBUS	3.0600e-004	1.1190e-003
tblGrading	AcresOfGrading	210.00	112.50
tblGrading	AcresOfGrading	105.00	0.00
tblGrading	MaterialExported	0.00	43,400.00
tblGrading	MaterialImported	0.00	14,200.00
tblLandUse	LandUseSquareFeet	222,930.00	222,932.00
tblLandUse	LandUseSquareFeet	24,230.00	24,232.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00

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

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblProjectCharacteristics	CO2IntensityFactor	452.98	222.84
tblSolidWaste	SolidWasteGenerationRate	157.48	71.46
tblSolidWaste	SolidWasteGenerationRate	36.66	0.00
tblVehicleEF	HHD	0.02	1.80
tblVehicleEF	HHD	7.7620e-003	0.01
tblVehicleEF	HHD	0.00	0.10
tblVehicleEF	HHD	6.89	2.81
tblVehicleEF	HHD	0.31	0.63
tblVehicleEF	HHD	2.0380e-003	1.00
tblVehicleEF	HHD	1,234.70	5,476.49
tblVehicleEF	HHD	1,406.07	1,567.25
tblVehicleEF	HHD	0.01	2.95
tblVehicleEF	HHD	6.40	21.99
tblVehicleEF	HHD	3.03	3.12
tblVehicleEF	HHD	2.12	20.52
tblVehicleEF	HHD	3.8050e-003	0.02
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.03	0.01
tblVehicleEF	HHD	0.00	2.7000e-005
tblVehicleEF	HHD	3.6400e-003	0.02
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8890e-003	8.8100e-003
tblVehicleEF	HHD	0.03	0.01
tblVehicleEF	HHD	0.00	2.5000e-005
tblVehicleEF	HHD	1.0000e-006	4.8000e-005
tblVehicleEF	HHD	3.2000e-005	1.7230e-003
tblVehicleEF	HHD	0.50	0.74

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

tblVehicleEF	HHD	0.00	2.5000e-005
tblVehicleEF	HHD	0.06	0.12
tblVehicleEF	HHD	1.4000e-005	1.5300e-004
tblVehicleEF	HHD	1.0000e-006	0.03
tblVehicleEF	HHD	0.01	0.05
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	0.00	4.6000e-005
tblVehicleEF	HHD	1.0000e-006	4.8000e-005
tblVehicleEF	HHD	3.2000e-005	1.7230e-003
tblVehicleEF	HHD	0.57	0.85
tblVehicleEF	HHD	0.00	2.5000e-005
tblVehicleEF	HHD	0.07	0.14
tblVehicleEF	HHD	1.4000e-005	1.5300e-004
tblVehicleEF	HHD	1.0000e-006	0.03
tblVehicleEF	HHD	0.02	1.69
tblVehicleEF	HHD	7.7620e-003	0.01
tblVehicleEF	HHD	0.00	0.09
tblVehicleEF	HHD	6.76	2.05
tblVehicleEF	HHD	0.31	0.63
tblVehicleEF	HHD	1.8860e-003	0.93
tblVehicleEF	HHD	1,226.95	5,801.52
tblVehicleEF	HHD	1,406.07	1,567.25
tblVehicleEF	HHD	0.01	2.95
tblVehicleEF	HHD	6.17	22.70
tblVehicleEF	HHD	2.89	2.98
tblVehicleEF	HHD	2.12	20.52
tblVehicleEF	HHD	3.3480e-003	0.02
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04

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

tblVehicleEF	HHD	0.03	0.01
tblVehicleEF	HHD	0.00	2.7000e-005
tblVehicleEF	HHD	3.2030e-003	0.02
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8890e-003	8.8100e-003
tblVehicleEF	HHD	0.03	0.01
tblVehicleEF	HHD	0.00	2.5000e-005
tblVehicleEF	HHD	3.0000e-006	1.2000e-004
tblVehicleEF	HHD	3.9000e-005	1.9690e-003
tblVehicleEF	HHD	0.52	0.70
tblVehicleEF	HHD	1.0000e-006	5.5000e-005
tblVehicleEF	HHD	0.06	0.12
tblVehicleEF	HHD	1.4000e-005	1.5500e-004
tblVehicleEF	HHD	1.0000e-006	0.03
tblVehicleEF	HHD	0.01	0.06
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	0.00	4.5000e-005
tblVehicleEF	HHD	3.0000e-006	1.2000e-004
tblVehicleEF	HHD	3.9000e-005	1.9690e-003
tblVehicleEF	HHD	0.59	0.80
tblVehicleEF	HHD	1.0000e-006	5.5000e-005
tblVehicleEF	HHD	0.07	0.14
tblVehicleEF	HHD	1.4000e-005	1.5500e-004
tblVehicleEF	HHD	1.0000e-006	0.03
tblVehicleEF	HHD	0.02	1.94
tblVehicleEF	HHD	7.7620e-003	0.01
tblVehicleEF	HHD	0.00	0.10
tblVehicleEF	HHD	7.07	3.87
tblVehicleEF	HHD	0.31	0.63

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

tblVehicleEF	HHD	2.2120e-003	1.09
tblVehicleEF	HHD	1,245.41	5,027.65
tblVehicleEF	HHD	1,406.07	1,567.25
tblVehicleEF	HHD	0.01	2.95
tblVehicleEF	HHD	6.72	21.02
tblVehicleEF	HHD	3.08	3.18
tblVehicleEF	HHD	2.12	20.53
tblVehicleEF	HHD	4.4360e-003	0.03
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.03	0.01
tblVehicleEF	HHD	0.00	2.7000e-005
tblVehicleEF	HHD	4.2440e-003	0.02
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8890e-003	8.8100e-003
tblVehicleEF	HHD	0.03	0.01
tblVehicleEF	HHD	0.00	2.5000e-005
tblVehicleEF	HHD	0.00	1.6000e-005
tblVehicleEF	HHD	3.6000e-005	1.7800e-003
tblVehicleEF	HHD	0.46	0.80
tblVehicleEF	HHD	0.00	1.0000e-005
tblVehicleEF	HHD	0.06	0.12
tblVehicleEF	HHD	1.5000e-005	1.6600e-004
tblVehicleEF	HHD	1.0000e-006	0.03
tblVehicleEF	HHD	0.01	0.05
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	0.00	4.8000e-005
tblVehicleEF	HHD	0.00	1.6000e-005
tblVehicleEF	HHD	3.6000e-005	1.7800e-003

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

tblVehicleEF	HHD	0.53	0.92
tblVehicleEF	HHD	0.00	1.0000e-005
tblVehicleEF	HHD	0.07	0.14
tblVehicleEF	HHD	1.5000e-005	1.6600e-004
tblVehicleEF	HHD	1.0000e-006	0.03
tblVehicleEF	LDA	2.6480e-003	4.5420e-003
tblVehicleEF	LDA	0.05	5.9180e-003
tblVehicleEF	LDA	0.67	0.60
tblVehicleEF	LDA	2.24	1.27
tblVehicleEF	LDA	266.55	264.78
tblVehicleEF	LDA	54.55	58.02
tblVehicleEF	LDA	0.04	0.05
tblVehicleEF	LDA	0.20	0.08
tblVehicleEF	LDA	1.5950e-003	1.8570e-003
tblVehicleEF	LDA	1.8990e-003	2.3000e-003
tblVehicleEF	LDA	1.4690e-003	1.7110e-003
tblVehicleEF	LDA	1.7460e-003	2.1150e-003
tblVehicleEF	LDA	0.07	0.05
tblVehicleEF	LDA	0.11	0.11
tblVehicleEF	LDA	0.05	0.03
tblVehicleEF	LDA	0.01	0.01
tblVehicleEF	LDA	0.03	0.03
tblVehicleEF	LDA	0.25	0.08
tblVehicleEF	LDA	2.6370e-003	2.6520e-003
tblVehicleEF	LDA	5.4000e-004	6.0200e-004
tblVehicleEF	LDA	0.07	0.05
tblVehicleEF	LDA	0.11	0.11
tblVehicleEF	LDA	0.05	0.03
tblVehicleEF	LDA	0.01	0.02

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

tblVehicleEF	LDA	0.03	0.03
tblVehicleEF	LDA	0.27	0.09
tblVehicleEF	LDA	3.0770e-003	5.2300e-003
tblVehicleEF	LDA	0.05	4.8620e-003
tblVehicleEF	LDA	0.83	0.75
tblVehicleEF	LDA	1.84	1.04
tblVehicleEF	LDA	292.58	291.09
tblVehicleEF	LDA	53.78	58.02
tblVehicleEF	LDA	0.04	0.05
tblVehicleEF	LDA	0.18	0.07
tblVehicleEF	LDA	1.5950e-003	1.8570e-003
tblVehicleEF	LDA	1.8990e-003	2.3000e-003
tblVehicleEF	LDA	1.4690e-003	1.7110e-003
tblVehicleEF	LDA	1.7460e-003	2.1150e-003
tblVehicleEF	LDA	0.16	0.12
tblVehicleEF	LDA	0.13	0.13
tblVehicleEF	LDA	0.11	0.08
tblVehicleEF	LDA	0.01	0.01
tblVehicleEF	LDA	0.03	0.03
tblVehicleEF	LDA	0.20	0.07
tblVehicleEF	LDA	2.8940e-003	2.9170e-003
tblVehicleEF	LDA	5.3200e-004	5.9800e-004
tblVehicleEF	LDA	0.16	0.12
tblVehicleEF	LDA	0.13	0.13
tblVehicleEF	LDA	0.11	0.08
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.03	0.03
tblVehicleEF	LDA	0.22	0.07
tblVehicleEF	LDA	2.4650e-003	4.2890e-003

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

tblVehicleEF	LDA	0.06	6.9310e-003
tblVehicleEF	LDA	0.62	0.56
tblVehicleEF	LDA	2.72	1.53
tblVehicleEF	LDA	257.53	255.65
tblVehicleEF	LDA	55.45	58.02
tblVehicleEF	LDA	0.04	0.06
tblVehicleEF	LDA	0.22	0.09
tblVehicleEF	LDA	1.5950e-003	1.8570e-003
tblVehicleEF	LDA	1.8990e-003	2.3000e-003
tblVehicleEF	LDA	1.4690e-003	1.7110e-003
tblVehicleEF	LDA	1.7460e-003	2.1150e-003
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.11	0.11
tblVehicleEF	LDA	0.02	0.01
tblVehicleEF	LDA	9.7140e-003	0.01
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.29	0.09
tblVehicleEF	LDA	2.5480e-003	2.5600e-003
tblVehicleEF	LDA	5.4900e-004	6.0600e-004
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.11	0.11
tblVehicleEF	LDA	0.02	0.01
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.31	0.10
tblVehicleEF	LDT1	7.7460e-003	0.01
tblVehicleEF	LDT1	0.09	0.02
tblVehicleEF	LDT1	1.50	1.60
tblVehicleEF	LDT1	2.57	4.05

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

tblVehicleEF	LDT1	319.07	331.83
tblVehicleEF	LDT1	66.98	72.74
tblVehicleEF	LDT1	0.13	0.16
tblVehicleEF	LDT1	0.32	0.23
tblVehicleEF	LDT1	2.3800e-003	3.0180e-003
tblVehicleEF	LDT1	2.9220e-003	3.9590e-003
tblVehicleEF	LDT1	2.1910e-003	2.7790e-003
tblVehicleEF	LDT1	2.6870e-003	3.6410e-003
tblVehicleEF	LDT1	0.21	0.21
tblVehicleEF	LDT1	0.29	0.40
tblVehicleEF	LDT1	0.14	0.14
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.13	0.23
tblVehicleEF	LDT1	0.48	0.29
tblVehicleEF	LDT1	3.1570e-003	3.3390e-003
tblVehicleEF	LDT1	6.6300e-004	7.9900e-004
tblVehicleEF	LDT1	0.21	0.21
tblVehicleEF	LDT1	0.29	0.40
tblVehicleEF	LDT1	0.14	0.14
tblVehicleEF	LDT1	0.05	0.05
tblVehicleEF	LDT1	0.13	0.23
tblVehicleEF	LDT1	0.53	0.31
tblVehicleEF	LDT1	8.9040e-003	0.02
tblVehicleEF	LDT1	0.08	0.02
tblVehicleEF	LDT1	1.84	1.94
tblVehicleEF	LDT1	2.10	3.30
tblVehicleEF	LDT1	346.37	363.20
tblVehicleEF	LDT1	65.95	72.74
tblVehicleEF	LDT1	0.12	0.14

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

tblVehicleEF	LDT1	0.30	0.22
tblVehicleEF	LDT1	2.3800e-003	3.0180e-003
tblVehicleEF	LDT1	2.9220e-003	3.9590e-003
tblVehicleEF	LDT1	2.1910e-003	2.7790e-003
tblVehicleEF	LDT1	2.6870e-003	3.6410e-003
tblVehicleEF	LDT1	0.51	0.52
tblVehicleEF	LDT1	0.37	0.50
tblVehicleEF	LDT1	0.30	0.30
tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	0.13	0.22
tblVehicleEF	LDT1	0.40	0.23
tblVehicleEF	LDT1	3.4280e-003	3.6570e-003
tblVehicleEF	LDT1	6.5300e-004	7.8500e-004
tblVehicleEF	LDT1	0.51	0.52
tblVehicleEF	LDT1	0.37	0.50
tblVehicleEF	LDT1	0.30	0.30
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.13	0.22
tblVehicleEF	LDT1	0.43	0.26
tblVehicleEF	LDT1	7.2620e-003	0.01
tblVehicleEF	LDT1	0.11	0.02
tblVehicleEF	LDT1	1.41	1.50
tblVehicleEF	LDT1	3.14	4.94
tblVehicleEF	LDT1	309.62	320.94
tblVehicleEF	LDT1	68.15	72.74
tblVehicleEF	LDT1	0.14	0.17
tblVehicleEF	LDT1	0.36	0.26
tblVehicleEF	LDT1	2.3800e-003	3.0180e-003
tblVehicleEF	LDT1	2.9220e-003	3.9590e-003

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

tblVehicleEF	LDT1	2.1910e-003	2.7790e-003
tblVehicleEF	LDT1	2.6870e-003	3.6410e-003
tblVehicleEF	LDT1	0.07	0.07
tblVehicleEF	LDT1	0.30	0.41
tblVehicleEF	LDT1	0.05	0.05
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.16	0.28
tblVehicleEF	LDT1	0.57	0.34
tblVehicleEF	LDT1	3.0640e-003	3.2280e-003
tblVehicleEF	LDT1	6.7400e-004	8.1500e-004
tblVehicleEF	LDT1	0.07	0.07
tblVehicleEF	LDT1	0.30	0.41
tblVehicleEF	LDT1	0.05	0.05
tblVehicleEF	LDT1	0.05	0.05
tblVehicleEF	LDT1	0.16	0.28
tblVehicleEF	LDT1	0.62	0.37
tblVehicleEF	LDT2	4.8240e-003	7.0580e-003
tblVehicleEF	LDT2	0.08	9.4500e-003
tblVehicleEF	LDT2	1.03	0.87
tblVehicleEF	LDT2	2.94	1.94
tblVehicleEF	LDT2	344.56	373.55
tblVehicleEF	LDT2	72.54	81.99
tblVehicleEF	LDT2	0.10	0.09
tblVehicleEF	LDT2	0.34	0.16
tblVehicleEF	LDT2	1.6530e-003	1.8740e-003
tblVehicleEF	LDT2	1.9550e-003	2.3960e-003
tblVehicleEF	LDT2	1.5210e-003	1.7230e-003
tblVehicleEF	LDT2	1.7970e-003	2.2030e-003
tblVehicleEF	LDT2	0.11	0.08

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

tblVehicleEF	LDT2	0.17	0.16
tblVehicleEF	LDT2	0.09	0.06
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.07	0.08
tblVehicleEF	LDT2	0.38	0.13
tblVehicleEF	LDT2	3.4090e-003	3.7430e-003
tblVehicleEF	LDT2	7.1800e-004	8.5300e-004
tblVehicleEF	LDT2	0.11	0.08
tblVehicleEF	LDT2	0.17	0.16
tblVehicleEF	LDT2	0.09	0.06
tblVehicleEF	LDT2	0.03	0.03
tblVehicleEF	LDT2	0.07	0.08
tblVehicleEF	LDT2	0.42	0.14
tblVehicleEF	LDT2	5.5740e-003	8.0970e-003
tblVehicleEF	LDT2	0.07	7.7590e-003
tblVehicleEF	LDT2	1.28	1.07
tblVehicleEF	LDT2	2.40	1.59
tblVehicleEF	LDT2	371.37	409.70
tblVehicleEF	LDT2	71.46	81.99
tblVehicleEF	LDT2	0.09	0.08
tblVehicleEF	LDT2	0.32	0.15
tblVehicleEF	LDT2	1.6530e-003	1.8740e-003
tblVehicleEF	LDT2	1.9550e-003	2.3960e-003
tblVehicleEF	LDT2	1.5210e-003	1.7230e-003
tblVehicleEF	LDT2	1.7970e-003	2.2030e-003
tblVehicleEF	LDT2	0.27	0.19
tblVehicleEF	LDT2	0.20	0.19
tblVehicleEF	LDT2	0.19	0.13
tblVehicleEF	LDT2	0.02	0.02

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

tblVehicleEF	LDT2	0.07	0.08
tblVehicleEF	LDT2	0.32	0.10
tblVehicleEF	LDT2	3.6740e-003	4.1070e-003
tblVehicleEF	LDT2	7.0700e-004	8.4700e-004
tblVehicleEF	LDT2	0.27	0.19
tblVehicleEF	LDT2	0.20	0.19
tblVehicleEF	LDT2	0.19	0.13
tblVehicleEF	LDT2	0.03	0.03
tblVehicleEF	LDT2	0.07	0.08
tblVehicleEF	LDT2	0.35	0.11
tblVehicleEF	LDT2	4.5050e-003	6.6740e-003
tblVehicleEF	LDT2	0.09	0.01
tblVehicleEF	LDT2	0.97	0.81
tblVehicleEF	LDT2	3.57	2.35
tblVehicleEF	LDT2	335.27	361.00
tblVehicleEF	LDT2	73.76	81.99
tblVehicleEF	LDT2	0.11	0.10
tblVehicleEF	LDT2	0.38	0.18
tblVehicleEF	LDT2	1.6530e-003	1.8740e-003
tblVehicleEF	LDT2	1.9550e-003	2.3960e-003
tblVehicleEF	LDT2	1.5210e-003	1.7230e-003
tblVehicleEF	LDT2	1.7970e-003	2.2030e-003
tblVehicleEF	LDT2	0.04	0.03
tblVehicleEF	LDT2	0.17	0.16
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.09	0.09
tblVehicleEF	LDT2	0.45	0.15
tblVehicleEF	LDT2	3.3170e-003	3.6170e-003

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

tblVehicleEF	LDT2	7.3000e-004	8.6000e-004
tblVehicleEF	LDT2	0.04	0.03
tblVehicleEF	LDT2	0.17	0.16
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.09	0.09
tblVehicleEF	LDT2	0.49	0.16
tblVehicleEF	LHD1	4.2110e-003	4.5240e-003
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	0.16	0.13
tblVehicleEF	LHD1	1.09	1.38
tblVehicleEF	LHD1	0.88	2.26
tblVehicleEF	LHD1	9.70	9.59
tblVehicleEF	LHD1	771.32	687.17
tblVehicleEF	LHD1	9.30	25.83
tblVehicleEF	LHD1	0.10	0.11
tblVehicleEF	LHD1	1.81	2.70
tblVehicleEF	LHD1	0.28	0.87
tblVehicleEF	LHD1	1.1350e-003	1.1750e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	2.2000e-004	8.3600e-004
tblVehicleEF	LHD1	1.0860e-003	1.1250e-003
tblVehicleEF	LHD1	2.5590e-003	2.5990e-003
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	2.0200e-004	7.6900e-004
tblVehicleEF	LHD1	2.7090e-003	3.2480e-003
tblVehicleEF	LHD1	0.08	0.10

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

tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.1780e-003	1.4130e-003
tblVehicleEF	LHD1	0.14	0.17
tblVehicleEF	LHD1	0.21	0.29
tblVehicleEF	LHD1	0.07	0.24
tblVehicleEF	LHD1	9.3000e-005	9.5000e-005
tblVehicleEF	LHD1	7.4910e-003	6.7200e-003
tblVehicleEF	LHD1	9.2000e-005	3.0100e-004
tblVehicleEF	LHD1	2.7090e-003	3.2480e-003
tblVehicleEF	LHD1	0.08	0.10
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	1.1780e-003	1.4130e-003
tblVehicleEF	LHD1	0.17	0.21
tblVehicleEF	LHD1	0.21	0.29
tblVehicleEF	LHD1	0.08	0.26
tblVehicleEF	LHD1	4.2230e-003	4.5240e-003
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	0.16	0.13
tblVehicleEF	LHD1	1.12	1.40
tblVehicleEF	LHD1	0.82	2.09
tblVehicleEF	LHD1	9.70	9.59
tblVehicleEF	LHD1	771.36	687.17
tblVehicleEF	LHD1	9.18	25.83
tblVehicleEF	LHD1	0.10	0.11
tblVehicleEF	LHD1	1.72	2.56
tblVehicleEF	LHD1	0.26	0.82
tblVehicleEF	LHD1	1.1350e-003	1.1750e-003
tblVehicleEF	LHD1	0.01	0.01

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

tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	2.2000e-004	8.3600e-004
tblVehicleEF	LHD1	1.0860e-003	1.1250e-003
tblVehicleEF	LHD1	2.5590e-003	2.5990e-003
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	2.0200e-004	7.6900e-004
tblVehicleEF	LHD1	6.6950e-003	8.0020e-003
tblVehicleEF	LHD1	0.09	0.12
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	2.4840e-003	2.9640e-003
tblVehicleEF	LHD1	0.14	0.18
tblVehicleEF	LHD1	0.21	0.29
tblVehicleEF	LHD1	0.07	0.22
tblVehicleEF	LHD1	9.3000e-005	9.5000e-005
tblVehicleEF	LHD1	7.4910e-003	6.7210e-003
tblVehicleEF	LHD1	9.1000e-005	2.9800e-004
tblVehicleEF	LHD1	6.6950e-003	8.0020e-003
tblVehicleEF	LHD1	0.09	0.12
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	2.4840e-003	2.9640e-003
tblVehicleEF	LHD1	0.17	0.21
tblVehicleEF	LHD1	0.21	0.29
tblVehicleEF	LHD1	0.07	0.24
tblVehicleEF	LHD1	4.1990e-003	4.5240e-003
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	0.16	0.13
tblVehicleEF	LHD1	1.07	1.35
tblVehicleEF	LHD1	0.95	2.45

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

tblVehicleEF	LHD1	9.70	9.59
tblVehicleEF	LHD1	771.28	687.17
tblVehicleEF	LHD1	9.43	25.83
tblVehicleEF	LHD1	0.10	0.11
tblVehicleEF	LHD1	1.85	2.76
tblVehicleEF	LHD1	0.30	0.93
tblVehicleEF	LHD1	1.1350e-003	1.1750e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	2.2000e-004	8.3600e-004
tblVehicleEF	LHD1	1.0860e-003	1.1250e-003
tblVehicleEF	LHD1	2.5590e-003	2.5990e-003
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	2.0200e-004	7.6900e-004
tblVehicleEF	LHD1	9.3300e-004	1.1290e-003
tblVehicleEF	LHD1	0.08	0.10
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	5.0200e-004	6.0800e-004
tblVehicleEF	LHD1	0.14	0.17
tblVehicleEF	LHD1	0.23	0.32
tblVehicleEF	LHD1	0.07	0.25
tblVehicleEF	LHD1	9.3000e-005	9.5000e-005
tblVehicleEF	LHD1	7.4910e-003	6.7200e-003
tblVehicleEF	LHD1	9.3000e-005	3.0500e-004
tblVehicleEF	LHD1	9.3300e-004	1.1290e-003
tblVehicleEF	LHD1	0.08	0.10
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	5.0200e-004	6.0800e-004
tblVehicleEF	LHD1	0.17	0.21

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

tblVehicleEF	LHD1	0.23	0.32
tblVehicleEF	LHD1	0.08	0.28
tblVehicleEF	LHD2	3.0330e-003	3.1590e-003
tblVehicleEF	LHD2	8.2820e-003	0.01
tblVehicleEF	LHD2	8.3090e-003	8.2730e-003
tblVehicleEF	LHD2	0.13	0.11
tblVehicleEF	LHD2	0.79	0.85
tblVehicleEF	LHD2	0.55	1.15
tblVehicleEF	LHD2	15.00	14.91
tblVehicleEF	LHD2	789.84	717.98
tblVehicleEF	LHD2	7.04	20.80
tblVehicleEF	LHD2	0.13	0.13
tblVehicleEF	LHD2	1.63	1.93
tblVehicleEF	LHD2	0.18	0.49
tblVehicleEF	LHD2	1.4840e-003	1.4130e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.1800e-004	3.9900e-004
tblVehicleEF	LHD2	1.4200e-003	1.3520e-003
tblVehicleEF	LHD2	2.7150e-003	2.7270e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.0800e-004	3.6700e-004
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	5.9900e-004	6.1500e-004
tblVehicleEF	LHD2	0.14	0.14
tblVehicleEF	LHD2	0.10	0.08
tblVehicleEF	LHD2	0.04	0.11
tblVehicleEF	LHD2	1.4300e-004	1.4500e-004

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

tblVehicleEF	LHD2	7.6140e-003	6.9690e-003
tblVehicleEF	LHD2	7.0000e-005	2.2900e-004
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	5.9900e-004	6.1500e-004
tblVehicleEF	LHD2	0.16	0.17
tblVehicleEF	LHD2	0.10	0.08
tblVehicleEF	LHD2	0.05	0.12
tblVehicleEF	LHD2	3.0410e-003	3.1590e-003
tblVehicleEF	LHD2	8.3620e-003	0.01
tblVehicleEF	LHD2	7.8600e-003	7.8120e-003
tblVehicleEF	LHD2	0.13	0.11
tblVehicleEF	LHD2	0.80	0.85
tblVehicleEF	LHD2	0.51	1.07
tblVehicleEF	LHD2	15.00	14.91
tblVehicleEF	LHD2	789.86	717.98
tblVehicleEF	LHD2	6.97	20.80
tblVehicleEF	LHD2	0.13	0.13
tblVehicleEF	LHD2	1.55	1.83
tblVehicleEF	LHD2	0.17	0.46
tblVehicleEF	LHD2	1.4840e-003	1.4130e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.1800e-004	3.9900e-004
tblVehicleEF	LHD2	1.4200e-003	1.3520e-003
tblVehicleEF	LHD2	2.7150e-003	2.7270e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.0800e-004	3.6700e-004
tblVehicleEF	LHD2	3.2520e-003	3.2430e-003

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

tblVehicleEF	LHD2	0.05	0.05
tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	1.2510e-003	1.2750e-003
tblVehicleEF	LHD2	0.14	0.14
tblVehicleEF	LHD2	0.10	0.08
tblVehicleEF	LHD2	0.04	0.11
tblVehicleEF	LHD2	1.4300e-004	1.4500e-004
tblVehicleEF	LHD2	7.6140e-003	6.9690e-003
tblVehicleEF	LHD2	6.9000e-005	2.2800e-004
tblVehicleEF	LHD2	3.2520e-003	3.2430e-003
tblVehicleEF	LHD2	0.05	0.05
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.2510e-003	1.2750e-003
tblVehicleEF	LHD2	0.16	0.17
tblVehicleEF	LHD2	0.10	0.08
tblVehicleEF	LHD2	0.04	0.12
tblVehicleEF	LHD2	3.0240e-003	3.1590e-003
tblVehicleEF	LHD2	8.2020e-003	0.01
tblVehicleEF	LHD2	8.7730e-003	8.7560e-003
tblVehicleEF	LHD2	0.13	0.11
tblVehicleEF	LHD2	0.79	0.84
tblVehicleEF	LHD2	0.59	1.25
tblVehicleEF	LHD2	15.00	14.91
tblVehicleEF	LHD2	789.83	717.98
tblVehicleEF	LHD2	7.12	20.80
tblVehicleEF	LHD2	0.13	0.13
tblVehicleEF	LHD2	1.66	1.96
tblVehicleEF	LHD2	0.19	0.52
tblVehicleEF	LHD2	1.4840e-003	1.4130e-003

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

tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.1800e-004	3.9900e-004
tblVehicleEF	LHD2	1.4200e-003	1.3520e-003
tblVehicleEF	LHD2	2.7150e-003	2.7270e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.0800e-004	3.6700e-004
tblVehicleEF	LHD2	4.6800e-004	4.7300e-004
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	2.6000e-004	2.6900e-004
tblVehicleEF	LHD2	0.13	0.14
tblVehicleEF	LHD2	0.11	0.09
tblVehicleEF	LHD2	0.04	0.12
tblVehicleEF	LHD2	1.4300e-004	1.4500e-004
tblVehicleEF	LHD2	7.6140e-003	6.9690e-003
tblVehicleEF	LHD2	7.0000e-005	2.3100e-004
tblVehicleEF	LHD2	4.6800e-004	4.7300e-004
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	2.6000e-004	2.6900e-004
tblVehicleEF	LHD2	0.16	0.17
tblVehicleEF	LHD2	0.11	0.09
tblVehicleEF	LHD2	0.05	0.13
tblVehicleEF	MCY	0.36	0.46
tblVehicleEF	MCY	0.26	0.17
tblVehicleEF	MCY	21.88	22.30
tblVehicleEF	MCY	8.87	10.02
tblVehicleEF	MCY	216.43	173.94

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

tblVehicleEF	MCY	63.05	48.38
tblVehicleEF	MCY	1.18	1.18
tblVehicleEF	MCY	0.27	0.32
tblVehicleEF	MCY	2.0200e-003	2.0280e-003
tblVehicleEF	MCY	3.1820e-003	3.9060e-003
tblVehicleEF	MCY	1.8940e-003	1.9030e-003
tblVehicleEF	MCY	3.0050e-003	3.6950e-003
tblVehicleEF	MCY	1.51	1.57
tblVehicleEF	MCY	0.98	1.05
tblVehicleEF	MCY	0.79	0.82
tblVehicleEF	MCY	2.52	2.55
tblVehicleEF	MCY	0.71	0.77
tblVehicleEF	MCY	1.98	2.27
tblVehicleEF	MCY	2.1420e-003	2.1770e-003
tblVehicleEF	MCY	6.2400e-004	7.1500e-004
tblVehicleEF	MCY	1.51	1.57
tblVehicleEF	MCY	0.98	1.05
tblVehicleEF	MCY	0.79	0.82
tblVehicleEF	MCY	3.07	3.09
tblVehicleEF	MCY	0.71	0.77
tblVehicleEF	MCY	2.15	2.47
tblVehicleEF	MCY	0.35	0.44
tblVehicleEF	MCY	0.22	0.14
tblVehicleEF	MCY	21.99	22.41
tblVehicleEF	MCY	8.00	9.11
tblVehicleEF	MCY	216.33	173.94
tblVehicleEF	MCY	60.60	48.38
tblVehicleEF	MCY	1.02	1.02
tblVehicleEF	MCY	0.25	0.29

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

tblVehicleEF	MCY	2.0200e-003	2.0280e-003
tblVehicleEF	MCY	3.1820e-003	3.9060e-003
tblVehicleEF	MCY	1.8940e-003	1.9030e-003
tblVehicleEF	MCY	3.0050e-003	3.6950e-003
tblVehicleEF	MCY	3.96	4.11
tblVehicleEF	MCY	1.49	1.57
tblVehicleEF	MCY	2.06	2.14
tblVehicleEF	MCY	2.44	2.47
tblVehicleEF	MCY	0.69	0.75
tblVehicleEF	MCY	1.66	1.91
tblVehicleEF	MCY	2.1410e-003	2.1760e-003
tblVehicleEF	MCY	6.0000e-004	6.8800e-004
tblVehicleEF	MCY	3.96	4.11
tblVehicleEF	MCY	1.49	1.57
tblVehicleEF	MCY	2.06	2.14
tblVehicleEF	MCY	2.98	3.00
tblVehicleEF	MCY	0.69	0.75
tblVehicleEF	MCY	1.80	2.07
tblVehicleEF	MCY	0.38	0.48
tblVehicleEF	MCY	0.30	0.20
tblVehicleEF	MCY	23.60	24.08
tblVehicleEF	MCY	10.26	11.52
tblVehicleEF	MCY	219.61	173.94
tblVehicleEF	MCY	66.57	48.38
tblVehicleEF	MCY	1.28	1.28
tblVehicleEF	MCY	0.29	0.34
tblVehicleEF	MCY	2.0200e-003	2.0280e-003
tblVehicleEF	MCY	3.1820e-003	3.9060e-003
tblVehicleEF	MCY	1.8940e-003	1.9030e-003

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

tblVehicleEF	MCY	3.0050e-003	3.6950e-003
tblVehicleEF	MCY	0.42	0.44
tblVehicleEF	MCY	1.03	1.11
tblVehicleEF	MCY	0.23	0.24
tblVehicleEF	MCY	2.65	2.68
tblVehicleEF	MCY	0.83	0.90
tblVehicleEF	MCY	2.38	2.71
tblVehicleEF	MCY	2.1730e-003	2.2100e-003
tblVehicleEF	MCY	6.5900e-004	7.5300e-004
tblVehicleEF	MCY	0.42	0.44
tblVehicleEF	MCY	1.03	1.11
tblVehicleEF	MCY	0.23	0.24
tblVehicleEF	MCY	3.23	3.25
tblVehicleEF	MCY	0.83	0.90
tblVehicleEF	MCY	2.58	2.95
tblVehicleEF	MDV	5.8200e-003	0.01
tblVehicleEF	MDV	0.10	0.02
tblVehicleEF	MDV	1.14	1.51
tblVehicleEF	MDV	3.57	3.90
tblVehicleEF	MDV	429.69	523.07
tblVehicleEF	MDV	90.59	113.05
tblVehicleEF	MDV	0.12	0.19
tblVehicleEF	MDV	0.44	0.37
tblVehicleEF	MDV	1.7060e-003	1.9110e-003
tblVehicleEF	MDV	2.0280e-003	2.5040e-003
tblVehicleEF	MDV	1.5740e-003	1.7620e-003
tblVehicleEF	MDV	1.8650e-003	2.3030e-003
tblVehicleEF	MDV	0.13	0.12
tblVehicleEF	MDV	0.20	0.25

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

tblVehicleEF	MDV	0.11	0.09
tblVehicleEF	MDV	0.03	0.04
tblVehicleEF	MDV	0.09	0.14
tblVehicleEF	MDV	0.51	0.31
tblVehicleEF	MDV	4.2480e-003	5.2430e-003
tblVehicleEF	MDV	8.9600e-004	1.2000e-003
tblVehicleEF	MDV	0.13	0.12
tblVehicleEF	MDV	0.20	0.25
tblVehicleEF	MDV	0.11	0.09
tblVehicleEF	MDV	0.04	0.05
tblVehicleEF	MDV	0.09	0.14
tblVehicleEF	MDV	0.56	0.34
tblVehicleEF	MDV	6.7430e-003	0.02
tblVehicleEF	MDV	0.08	0.02
tblVehicleEF	MDV	1.40	1.86
tblVehicleEF	MDV	2.91	3.19
tblVehicleEF	MDV	458.12	572.32
tblVehicleEF	MDV	89.25	113.05
tblVehicleEF	MDV	0.11	0.17
tblVehicleEF	MDV	0.40	0.34
tblVehicleEF	MDV	1.7060e-003	1.9110e-003
tblVehicleEF	MDV	2.0280e-003	2.5040e-003
tblVehicleEF	MDV	1.5740e-003	1.7620e-003
tblVehicleEF	MDV	1.8650e-003	2.3030e-003
tblVehicleEF	MDV	0.32	0.28
tblVehicleEF	MDV	0.23	0.29
tblVehicleEF	MDV	0.23	0.20
tblVehicleEF	MDV	0.03	0.04
tblVehicleEF	MDV	0.08	0.14

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

tblVehicleEF	MDV	0.42	0.25
tblVehicleEF	MDV	4.5300e-003	5.7410e-003
tblVehicleEF	MDV	8.8300e-004	1.1870e-003
tblVehicleEF	MDV	0.32	0.28
tblVehicleEF	MDV	0.23	0.29
tblVehicleEF	MDV	0.23	0.20
tblVehicleEF	MDV	0.04	0.06
tblVehicleEF	MDV	0.08	0.14
tblVehicleEF	MDV	0.46	0.28
tblVehicleEF	MDV	5.4370e-003	0.01
tblVehicleEF	MDV	0.11	0.03
tblVehicleEF	MDV	1.07	1.41
tblVehicleEF	MDV	4.35	4.73
tblVehicleEF	MDV	419.85	505.97
tblVehicleEF	MDV	92.12	113.05
tblVehicleEF	MDV	0.13	0.21
tblVehicleEF	MDV	0.48	0.40
tblVehicleEF	MDV	1.7060e-003	1.9110e-003
tblVehicleEF	MDV	2.0280e-003	2.5040e-003
tblVehicleEF	MDV	1.5740e-003	1.7620e-003
tblVehicleEF	MDV	1.8650e-003	2.3030e-003
tblVehicleEF	MDV	0.05	0.04
tblVehicleEF	MDV	0.20	0.25
tblVehicleEF	MDV	0.04	0.04
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	0.10	0.17
tblVehicleEF	MDV	0.59	0.36
tblVehicleEF	MDV	4.1510e-003	5.0710e-003
tblVehicleEF	MDV	9.1200e-004	1.2150e-003

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

tblVehicleEF	MDV	0.05	0.04
tblVehicleEF	MDV	0.20	0.25
tblVehicleEF	MDV	0.04	0.04
tblVehicleEF	MDV	0.03	0.05
tblVehicleEF	MDV	0.10	0.17
tblVehicleEF	MDV	0.65	0.39
tblVehicleEF	MH	0.02	0.05
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	1.84	3.74
tblVehicleEF	MH	2.30	7.23
tblVehicleEF	MH	1,586.30	1,236.08
tblVehicleEF	MH	18.80	58.92
tblVehicleEF	MH	2.15	2.06
tblVehicleEF	MH	0.23	1.02
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	2.8800e-004	1.3450e-003
tblVehicleEF	MH	3.2980e-003	3.2330e-003
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	2.6500e-004	1.2370e-003
tblVehicleEF	MH	1.32	1.71
tblVehicleEF	MH	0.08	0.11
tblVehicleEF	MH	0.37	0.48
tblVehicleEF	MH	0.11	0.16
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	0.10	0.41
tblVehicleEF	MH	0.02	0.01
tblVehicleEF	MH	1.8600e-004	7.1500e-004
tblVehicleEF	MH	1.32	1.71

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

tblVehicleEF	MH	0.08	0.11
tblVehicleEF	MH	0.37	0.48
tblVehicleEF	MH	0.15	0.22
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	0.11	0.45
tblVehicleEF	MH	0.02	0.05
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	1.91	3.90
tblVehicleEF	MH	2.08	6.49
tblVehicleEF	MH	1,586.42	1,236.08
tblVehicleEF	MH	18.43	58.92
tblVehicleEF	MH	2.01	1.91
tblVehicleEF	MH	0.22	0.95
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	2.8800e-004	1.3450e-003
tblVehicleEF	MH	3.2980e-003	3.2330e-003
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	2.6500e-004	1.2370e-003
tblVehicleEF	MH	3.32	4.30
tblVehicleEF	MH	0.10	0.13
tblVehicleEF	MH	0.75	0.97
tblVehicleEF	MH	0.11	0.17
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	0.10	0.38
tblVehicleEF	MH	0.02	0.01
tblVehicleEF	MH	1.8200e-004	7.0300e-004
tblVehicleEF	MH	3.32	4.30
tblVehicleEF	MH	0.10	0.13

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

tblVehicleEF	MH	0.75	0.97
tblVehicleEF	MH	0.15	0.23
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	0.11	0.42
tblVehicleEF	MH	0.02	0.05
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	1.78	3.59
tblVehicleEF	MH	2.53	8.04
tblVehicleEF	MH	1,586.19	1,236.08
tblVehicleEF	MH	19.19	58.92
tblVehicleEF	MH	2.21	2.14
tblVehicleEF	MH	0.25	1.09
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	2.8800e-004	1.3450e-003
tblVehicleEF	MH	3.2980e-003	3.2330e-003
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	2.6500e-004	1.2370e-003
tblVehicleEF	MH	0.45	0.57
tblVehicleEF	MH	0.09	0.13
tblVehicleEF	MH	0.18	0.23
tblVehicleEF	MH	0.11	0.15
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.11	0.44
tblVehicleEF	MH	0.02	0.01
tblVehicleEF	MH	1.9000e-004	7.2900e-004
tblVehicleEF	MH	0.45	0.57
tblVehicleEF	MH	0.09	0.13
tblVehicleEF	MH	0.18	0.23

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

tblVehicleEF	MH	0.14	0.21
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.12	0.49
tblVehicleEF	MHD	2.6500e-003	0.02
tblVehicleEF	MHD	5.6210e-003	4.9220e-003
tblVehicleEF	MHD	6.8290e-003	0.06
tblVehicleEF	MHD	0.35	0.32
tblVehicleEF	MHD	0.45	0.38
tblVehicleEF	MHD	0.84	3.75
tblVehicleEF	MHD	83.55	206.85
tblVehicleEF	MHD	1,112.28	1,206.01
tblVehicleEF	MHD	6.82	29.96
tblVehicleEF	MHD	0.66	0.98
tblVehicleEF	MHD	2.26	1.79
tblVehicleEF	MHD	1.45	15.84
tblVehicleEF	MHD	1.5800e-003	6.7710e-003
tblVehicleEF	MHD	0.04	0.01
tblVehicleEF	MHD	9.6000e-005	5.6200e-004
tblVehicleEF	MHD	1.5110e-003	6.4780e-003
tblVehicleEF	MHD	0.04	0.01
tblVehicleEF	MHD	8.9000e-005	5.1700e-004
tblVehicleEF	MHD	6.0300e-004	1.0290e-003
tblVehicleEF	MHD	0.02	0.03
tblVehicleEF	MHD	0.02	0.04
tblVehicleEF	MHD	2.5700e-004	4.3500e-004
tblVehicleEF	MHD	0.10	0.07
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	0.04	0.22
tblVehicleEF	MHD	7.9100e-004	1.9790e-003

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

tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	6.7000e-005	3.6500e-004
tblVehicleEF	MHD	6.0300e-004	1.0290e-003
tblVehicleEF	MHD	0.02	0.03
tblVehicleEF	MHD	0.02	0.05
tblVehicleEF	MHD	2.5700e-004	4.3500e-004
tblVehicleEF	MHD	0.12	0.09
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	0.04	0.24
tblVehicleEF	MHD	2.5010e-003	0.02
tblVehicleEF	MHD	5.6630e-003	4.9830e-003
tblVehicleEF	MHD	6.4640e-003	0.06
tblVehicleEF	MHD	0.29	0.23
tblVehicleEF	MHD	0.45	0.38
tblVehicleEF	MHD	0.78	3.46
tblVehicleEF	MHD	84.63	219.20
tblVehicleEF	MHD	1,112.29	1,206.01
tblVehicleEF	MHD	6.71	29.96
tblVehicleEF	MHD	0.66	1.01
tblVehicleEF	MHD	2.15	1.70
tblVehicleEF	MHD	1.45	15.81
tblVehicleEF	MHD	1.3350e-003	5.7080e-003
tblVehicleEF	MHD	0.04	0.01
tblVehicleEF	MHD	9.6000e-005	5.6200e-004
tblVehicleEF	MHD	1.2770e-003	5.4610e-003
tblVehicleEF	MHD	0.04	0.01
tblVehicleEF	MHD	8.9000e-005	5.1700e-004
tblVehicleEF	MHD	1.5240e-003	2.5990e-003
tblVehicleEF	MHD	0.02	0.04

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

tblVehicleEF	MHD	0.02	0.04
tblVehicleEF	MHD	5.6900e-004	9.6400e-004
tblVehicleEF	MHD	0.10	0.07
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	0.04	0.21
tblVehicleEF	MHD	8.0200e-004	2.0970e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	6.6000e-005	3.6000e-004
tblVehicleEF	MHD	1.5240e-003	2.5990e-003
tblVehicleEF	MHD	0.02	0.04
tblVehicleEF	MHD	0.02	0.04
tblVehicleEF	MHD	5.6900e-004	9.6400e-004
tblVehicleEF	MHD	0.12	0.09
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	0.04	0.23
tblVehicleEF	MHD	2.7990e-003	0.02
tblVehicleEF	MHD	5.5780e-003	4.8610e-003
tblVehicleEF	MHD	7.2200e-003	0.07
tblVehicleEF	MHD	0.41	0.43
tblVehicleEF	MHD	0.44	0.37
tblVehicleEF	MHD	0.91	4.08
tblVehicleEF	MHD	82.15	189.96
tblVehicleEF	MHD	1,112.27	1,206.01
tblVehicleEF	MHD	6.94	29.96
tblVehicleEF	MHD	0.65	0.93
tblVehicleEF	MHD	2.30	1.82
tblVehicleEF	MHD	1.46	15.88
tblVehicleEF	MHD	1.9180e-003	8.2390e-003
tblVehicleEF	MHD	0.04	0.01

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

tblVehicleEF	MHD	9.6000e-005	5.6200e-004
tblVehicleEF	MHD	1.8350e-003	7.8830e-003
tblVehicleEF	MHD	0.04	0.01
tblVehicleEF	MHD	8.9000e-005	5.1700e-004
tblVehicleEF	MHD	1.9600e-004	3.3400e-004
tblVehicleEF	MHD	0.02	0.03
tblVehicleEF	MHD	0.02	0.04
tblVehicleEF	MHD	1.0200e-004	1.7300e-004
tblVehicleEF	MHD	0.10	0.07
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	0.04	0.24
tblVehicleEF	MHD	7.7800e-004	1.8190e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	6.9000e-005	3.7100e-004
tblVehicleEF	MHD	1.9600e-004	3.3400e-004
tblVehicleEF	MHD	0.02	0.03
tblVehicleEF	MHD	0.02	0.05
tblVehicleEF	MHD	1.0200e-004	1.7300e-004
tblVehicleEF	MHD	0.12	0.09
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	0.04	0.26
tblVehicleEF	OBUS	7.1170e-003	0.01
tblVehicleEF	OBUS	9.4900e-003	0.01
tblVehicleEF	OBUS	0.02	0.04
tblVehicleEF	OBUS	0.53	0.30
tblVehicleEF	OBUS	0.94	0.90
tblVehicleEF	OBUS	2.31	7.58
tblVehicleEF	OBUS	89.29	168.97
tblVehicleEF	OBUS	1,388.20	1,346.53

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

tblVehicleEF	OBUS	16.92	64.86
tblVehicleEF	OBUS	0.44	0.82
tblVehicleEF	OBUS	2.01	2.15
tblVehicleEF	OBUS	0.96	3.93
tblVehicleEF	OBUS	8.7800e-004	1.8500e-004
tblVehicleEF	OBUS	0.03	8.9590e-003
tblVehicleEF	OBUS	1.6800e-004	9.0800e-004
tblVehicleEF	OBUS	8.4000e-004	1.7700e-004
tblVehicleEF	OBUS	0.02	8.5560e-003
tblVehicleEF	OBUS	1.5400e-004	8.3500e-004
tblVehicleEF	OBUS	2.1380e-003	2.2850e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.05
tblVehicleEF	OBUS	7.4000e-004	7.9800e-004
tblVehicleEF	OBUS	0.10	0.10
tblVehicleEF	OBUS	0.07	0.04
tblVehicleEF	OBUS	0.11	0.45
tblVehicleEF	OBUS	8.4900e-004	1.6230e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	1.6700e-004	7.8100e-004
tblVehicleEF	OBUS	2.1380e-003	2.2850e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.06	0.06
tblVehicleEF	OBUS	7.4000e-004	7.9800e-004
tblVehicleEF	OBUS	0.12	0.12
tblVehicleEF	OBUS	0.07	0.04
tblVehicleEF	OBUS	0.12	0.49
tblVehicleEF	OBUS	7.1740e-003	0.01
tblVehicleEF	OBUS	9.6990e-003	0.01

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

tblVehicleEF	OBUS	0.02	0.04
tblVehicleEF	OBUS	0.52	0.28
tblVehicleEF	OBUS	0.96	0.92
tblVehicleEF	OBUS	2.09	6.86
tblVehicleEF	OBUS	89.05	178.07
tblVehicleEF	OBUS	1,388.24	1,346.53
tblVehicleEF	OBUS	16.55	64.86
tblVehicleEF	OBUS	0.43	0.85
tblVehicleEF	OBUS	1.89	2.03
tblVehicleEF	OBUS	0.94	3.86
tblVehicleEF	OBUS	7.4500e-004	1.5600e-004
tblVehicleEF	OBUS	0.03	8.9590e-003
tblVehicleEF	OBUS	1.6800e-004	9.0800e-004
tblVehicleEF	OBUS	7.1300e-004	1.4900e-004
tblVehicleEF	OBUS	0.02	8.5560e-003
tblVehicleEF	OBUS	1.5400e-004	8.3500e-004
tblVehicleEF	OBUS	5.3260e-003	5.6680e-003
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.05	0.05
tblVehicleEF	OBUS	1.4670e-003	1.5780e-003
tblVehicleEF	OBUS	0.10	0.10
tblVehicleEF	OBUS	0.07	0.04
tblVehicleEF	OBUS	0.10	0.42
tblVehicleEF	OBUS	8.4700e-004	1.7100e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	1.6400e-004	7.6900e-004
tblVehicleEF	OBUS	5.3260e-003	5.6680e-003
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.06	0.06

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

tblVehicleEF	OBUS	1.4670e-003	1.5780e-003
tblVehicleEF	OBUS	0.12	0.12
tblVehicleEF	OBUS	0.07	0.04
tblVehicleEF	OBUS	0.11	0.46
tblVehicleEF	OBUS	7.0490e-003	0.01
tblVehicleEF	OBUS	9.2770e-003	0.01
tblVehicleEF	OBUS	0.02	0.04
tblVehicleEF	OBUS	0.55	0.34
tblVehicleEF	OBUS	0.92	0.88
tblVehicleEF	OBUS	2.54	8.34
tblVehicleEF	OBUS	89.62	156.42
tblVehicleEF	OBUS	1,388.16	1,346.53
tblVehicleEF	OBUS	17.31	64.86
tblVehicleEF	OBUS	0.45	0.79
tblVehicleEF	OBUS	2.05	2.19
tblVehicleEF	OBUS	0.97	4.02
tblVehicleEF	OBUS	1.0610e-003	2.2500e-004
tblVehicleEF	OBUS	0.03	8.9590e-003
tblVehicleEF	OBUS	1.6800e-004	9.0800e-004
tblVehicleEF	OBUS	1.0150e-003	2.1600e-004
tblVehicleEF	OBUS	0.02	8.5560e-003
tblVehicleEF	OBUS	1.5400e-004	8.3500e-004
tblVehicleEF	OBUS	7.7300e-004	8.3600e-004
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.05
tblVehicleEF	OBUS	3.6200e-004	3.9300e-004
tblVehicleEF	OBUS	0.10	0.10
tblVehicleEF	OBUS	0.07	0.04
tblVehicleEF	OBUS	0.11	0.48

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

tblVehicleEF	OBUS	8.5200e-004	1.5040e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	1.7100e-004	7.9400e-004
tblVehicleEF	OBUS	7.7300e-004	8.3600e-004
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.06	0.06
tblVehicleEF	OBUS	3.6200e-004	3.9300e-004
tblVehicleEF	OBUS	0.12	0.12
tblVehicleEF	OBUS	0.07	0.04
tblVehicleEF	OBUS	0.12	0.52
tblVehicleEF	SBUS	0.05	0.80
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	7.4630e-003	0.07
tblVehicleEF	SBUS	2.25	8.35
tblVehicleEF	SBUS	1.72	0.96
tblVehicleEF	SBUS	1.19	9.02
tblVehicleEF	SBUS	362.74	1,103.94
tblVehicleEF	SBUS	1,093.57	1,031.21
tblVehicleEF	SBUS	5.19	59.88
tblVehicleEF	SBUS	3.59	8.85
tblVehicleEF	SBUS	5.21	3.80
tblVehicleEF	SBUS	0.60	11.63
tblVehicleEF	SBUS	3.8500e-003	9.0020e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.03	0.02
tblVehicleEF	SBUS	5.2000e-005	6.3400e-004
tblVehicleEF	SBUS	3.6830e-003	8.6120e-003
tblVehicleEF	SBUS	2.7010e-003	2.5800e-003
tblVehicleEF	SBUS	0.03	0.02

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

tblVehicleEF	SBUS	4.8000e-005	5.8300e-004
tblVehicleEF	SBUS	1.1380e-003	5.6690e-003
tblVehicleEF	SBUS	0.01	0.04
tblVehicleEF	SBUS	0.26	0.98
tblVehicleEF	SBUS	4.2600e-004	1.9690e-003
tblVehicleEF	SBUS	0.14	0.11
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.05	0.45
tblVehicleEF	SBUS	3.4540e-003	0.01
tblVehicleEF	SBUS	0.01	9.9760e-003
tblVehicleEF	SBUS	5.1000e-005	7.5400e-004
tblVehicleEF	SBUS	1.1380e-003	5.6690e-003
tblVehicleEF	SBUS	0.01	0.04
tblVehicleEF	SBUS	0.37	1.42
tblVehicleEF	SBUS	4.2600e-004	1.9690e-003
tblVehicleEF	SBUS	0.18	0.13
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.05	0.49
tblVehicleEF	SBUS	0.05	0.80
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	6.0170e-003	0.06
tblVehicleEF	SBUS	2.20	8.24
tblVehicleEF	SBUS	1.77	0.98
tblVehicleEF	SBUS	0.80	6.11
tblVehicleEF	SBUS	374.58	1,151.97
tblVehicleEF	SBUS	1,093.66	1,031.21
tblVehicleEF	SBUS	4.55	59.88
tblVehicleEF	SBUS	3.69	9.13
tblVehicleEF	SBUS	4.91	3.59

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

tblVehicleEF	SBUS	0.60	11.58
tblVehicleEF	SBUS	3.2530e-003	7.5880e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.03	0.02
tblVehicleEF	SBUS	5.2000e-005	6.3400e-004
tblVehicleEF	SBUS	3.1120e-003	7.2600e-003
tblVehicleEF	SBUS	2.7010e-003	2.5800e-003
tblVehicleEF	SBUS	0.03	0.02
tblVehicleEF	SBUS	4.8000e-005	5.8300e-004
tblVehicleEF	SBUS	2.7800e-003	0.01
tblVehicleEF	SBUS	0.01	0.05
tblVehicleEF	SBUS	0.26	0.98
tblVehicleEF	SBUS	8.1800e-004	3.8470e-003
tblVehicleEF	SBUS	0.14	0.11
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.04	0.36
tblVehicleEF	SBUS	3.5660e-003	0.01
tblVehicleEF	SBUS	0.01	9.9760e-003
tblVehicleEF	SBUS	4.5000e-005	7.0600e-004
tblVehicleEF	SBUS	2.7800e-003	0.01
tblVehicleEF	SBUS	0.01	0.05
tblVehicleEF	SBUS	0.37	1.41
tblVehicleEF	SBUS	8.1800e-004	3.8470e-003
tblVehicleEF	SBUS	0.19	0.13
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.04	0.40
tblVehicleEF	SBUS	0.05	0.80
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	8.7930e-003	0.08

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

tblVehicleEF	SBUS	2.31	8.50
tblVehicleEF	SBUS	1.68	0.93
tblVehicleEF	SBUS	1.57	11.95
tblVehicleEF	SBUS	346.40	1,037.60
tblVehicleEF	SBUS	1,093.49	1,031.21
tblVehicleEF	SBUS	5.83	59.88
tblVehicleEF	SBUS	3.46	8.46
tblVehicleEF	SBUS	5.33	3.88
tblVehicleEF	SBUS	0.61	11.68
tblVehicleEF	SBUS	4.6740e-003	0.01
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.03	0.02
tblVehicleEF	SBUS	5.2000e-005	6.3400e-004
tblVehicleEF	SBUS	4.4720e-003	0.01
tblVehicleEF	SBUS	2.7010e-003	2.5800e-003
tblVehicleEF	SBUS	0.03	0.02
tblVehicleEF	SBUS	4.8000e-005	5.8300e-004
tblVehicleEF	SBUS	4.4500e-004	2.1100e-003
tblVehicleEF	SBUS	0.01	0.04
tblVehicleEF	SBUS	0.26	0.98
tblVehicleEF	SBUS	2.1600e-004	9.8800e-004
tblVehicleEF	SBUS	0.14	0.10
tblVehicleEF	SBUS	0.02	0.03
tblVehicleEF	SBUS	0.05	0.53
tblVehicleEF	SBUS	3.2990e-003	0.01
tblVehicleEF	SBUS	0.01	9.9750e-003
tblVehicleEF	SBUS	5.8000e-005	8.0300e-004
tblVehicleEF	SBUS	4.4500e-004	2.1100e-003
tblVehicleEF	SBUS	0.01	0.04

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

tblVehicleEF	SBUS	0.37	1.42
tblVehicleEF	SBUS	2.1600e-004	9.8800e-004
tblVehicleEF	SBUS	0.18	0.13
tblVehicleEF	SBUS	0.02	0.03
tblVehicleEF	SBUS	0.06	0.58
tblVehicleEF	UBUS	2.51	1.25
tblVehicleEF	UBUS	0.02	0.09
tblVehicleEF	UBUS	18.67	10.38
tblVehicleEF	UBUS	1.44	16.27
tblVehicleEF	UBUS	1,779.74	2,021.35
tblVehicleEF	UBUS	16.50	111.40
tblVehicleEF	UBUS	1.33	11.24
tblVehicleEF	UBUS	0.15	15.14
tblVehicleEF	UBUS	0.09	0.58
tblVehicleEF	UBUS	0.02	0.01
tblVehicleEF	UBUS	4.4680e-003	0.20
tblVehicleEF	UBUS	1.3800e-004	1.5470e-003
tblVehicleEF	UBUS	0.04	0.25
tblVehicleEF	UBUS	6.0960e-003	3.0000e-003
tblVehicleEF	UBUS	4.2610e-003	0.19
tblVehicleEF	UBUS	1.2700e-004	1.4220e-003
tblVehicleEF	UBUS	7.7000e-004	9.0800e-003
tblVehicleEF	UBUS	6.9410e-003	0.12
tblVehicleEF	UBUS	3.8100e-004	3.2360e-003
tblVehicleEF	UBUS	0.04	0.91
tblVehicleEF	UBUS	1.8410e-003	0.03
tblVehicleEF	UBUS	0.09	1.20
tblVehicleEF	UBUS	9.0160e-003	0.01
tblVehicleEF	UBUS	1.6300e-004	1.4070e-003

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

tblVehicleEF	UBUS	7.7000e-004	9.0800e-003
tblVehicleEF	UBUS	6.9410e-003	0.12
tblVehicleEF	UBUS	3.8100e-004	3.2360e-003
tblVehicleEF	UBUS	2.57	2.24
tblVehicleEF	UBUS	1.8410e-003	0.03
tblVehicleEF	UBUS	0.10	1.31
tblVehicleEF	UBUS	2.51	1.26
tblVehicleEF	UBUS	0.02	0.08
tblVehicleEF	UBUS	18.67	10.53
tblVehicleEF	UBUS	1.17	12.94
tblVehicleEF	UBUS	1,779.75	2,021.35
tblVehicleEF	UBUS	16.03	111.40
tblVehicleEF	UBUS	1.32	10.61
tblVehicleEF	UBUS	0.14	15.01
tblVehicleEF	UBUS	0.09	0.58
tblVehicleEF	UBUS	0.02	0.01
tblVehicleEF	UBUS	4.4680e-003	0.20
tblVehicleEF	UBUS	1.3800e-004	1.5470e-003
tblVehicleEF	UBUS	0.04	0.25
tblVehicleEF	UBUS	6.0960e-003	3.0000e-003
tblVehicleEF	UBUS	4.2610e-003	0.19
tblVehicleEF	UBUS	1.2700e-004	1.4220e-003
tblVehicleEF	UBUS	1.9430e-003	0.02
tblVehicleEF	UBUS	8.8600e-003	0.16
tblVehicleEF	UBUS	8.1500e-004	7.1170e-003
tblVehicleEF	UBUS	0.04	0.93
tblVehicleEF	UBUS	1.7420e-003	0.03
tblVehicleEF	UBUS	0.08	1.05
tblVehicleEF	UBUS	9.0160e-003	0.01

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

tblVehicleEF	UBUS	1.5900e-004	1.3500e-003
tblVehicleEF	UBUS	1.9430e-003	0.02
tblVehicleEF	UBUS	8.8600e-003	0.16
tblVehicleEF	UBUS	8.1500e-004	7.1170e-003
tblVehicleEF	UBUS	2.57	2.27
tblVehicleEF	UBUS	1.7420e-003	0.03
tblVehicleEF	UBUS	0.09	1.14
tblVehicleEF	UBUS	2.51	1.24
tblVehicleEF	UBUS	0.02	0.10
tblVehicleEF	UBUS	18.66	10.24
tblVehicleEF	UBUS	1.74	19.89
tblVehicleEF	UBUS	1,779.74	2,021.35
tblVehicleEF	UBUS	17.01	111.40
tblVehicleEF	UBUS	1.33	11.48
tblVehicleEF	UBUS	0.16	15.27
tblVehicleEF	UBUS	0.09	0.58
tblVehicleEF	UBUS	0.02	0.01
tblVehicleEF	UBUS	4.4680e-003	0.20
tblVehicleEF	UBUS	1.3800e-004	1.5470e-003
tblVehicleEF	UBUS	0.04	0.25
tblVehicleEF	UBUS	6.0960e-003	3.0000e-003
tblVehicleEF	UBUS	4.2610e-003	0.19
tblVehicleEF	UBUS	1.2700e-004	1.4220e-003
tblVehicleEF	UBUS	2.7900e-004	3.2250e-003
tblVehicleEF	UBUS	6.9020e-003	0.14
tblVehicleEF	UBUS	1.7300e-004	1.4550e-003
tblVehicleEF	UBUS	0.04	0.89
tblVehicleEF	UBUS	2.2650e-003	0.04
tblVehicleEF	UBUS	0.10	1.36

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

tblVehicleEF	UBUS	9.0160e-003	0.01
tblVehicleEF	UBUS	1.6800e-004	1.4690e-003
tblVehicleEF	UBUS	2.7900e-004	3.2250e-003
tblVehicleEF	UBUS	6.9020e-003	0.14
tblVehicleEF	UBUS	1.7300e-004	1.4550e-003
tblVehicleEF	UBUS	2.57	2.21
tblVehicleEF	UBUS	2.2650e-003	0.04
tblVehicleEF	UBUS	0.11	1.49
tblVehicleTrips	ST_TR	6.42	0.00
tblVehicleTrips	ST_TR	2.12	0.00
tblVehicleTrips	SU_TR	5.09	0.00
tblVehicleTrips	SU_TR	2.12	0.00
tblVehicleTrips	WD_TR	3.93	0.00
tblVehicleTrips	WD_TR	2.12	0.00
tblWater	IndoorWaterUseRate	29,368,750.00	105,120,000.00
tblWater	IndoorWaterUseRate	9,018,750.00	0.00

2.0 Emissions Summary

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

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	1.0319	6.2239	4.2246	0.0110	1.2138	0.2693	1.4831	0.5415	0.2500	0.7916	0.0000	992.5610	992.5610	0.1722	0.0552	1,013.3106
2022	0.8113	0.2762	0.3881	6.4000e-004	8.3700e-003	0.0142	0.0226	2.2200e-003	0.0132	0.0154	0.0000	56.2570	56.2570	0.0148	2.2000e-004	56.6930
Maximum	**1.0319**	**6.2239**	**4.2246**	**0.0110**	**1.2138**	**0.2693**	**1.4831**	**0.5415**	**0.2500**	**0.7916**	**0.0000**	**992.5610**	**992.5610**	**0.1722**	**0.0552**	**1,013.3106**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	1.0319	6.2239	4.2246	0.0110	0.6581	0.2693	0.9274	0.2741	0.2500	0.5242	0.0000	992.5603	992.5603	0.1722	0.0552	1,013.3099
2022	0.8113	0.2762	0.3881	6.4000e-004	8.3700e-003	0.0142	0.0226	2.2200e-003	0.0132	0.0154	0.0000	56.2569	56.2569	0.0148	2.2000e-004	56.6930
Maximum	**1.0319**	**6.2239**	**4.2246**	**0.0110**	**0.6581**	**0.2693**	**0.9274**	**0.2741**	**0.2500**	**0.5242**	**0.0000**	**992.5603**	**992.5603**	**0.1722**	**0.0552**	**1,013.3099**

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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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**45.47**	**0.00**	**36.91**	**49.18**	**0.00**	**33.13**	**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	**2-8-2021**	**5-7-2021**	4.8123	4.8123
2	**5-8-2021**	**8-7-2021**	1.0184	1.0184
3	**8-8-2021**	**11-7-2021**	0.8287	0.8287
4	**11-8-2021**	**2-7-2022**	0.9936	0.9936
5	**2-8-2022**	**5-7-2022**	0.4632	0.4632
6	**5-8-2022**	**8-7-2022**	0.1128	0.1128
		Highest	4.8123	4.8123

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	tons/yr										MT/yr					
Area	0.7852	3.0000e-005	3.8000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.3800e-003	7.3800e-003	2.0000e-005	0.0000	7.8700e-003
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	0.0000	0.0000	0.0000	0.0000	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	14.5057	0.0000	14.5057	0.8573	0.0000	35.9373
Water						0.0000	0.0000		0.0000	0.0000	33.3497	57.4939	90.8436	3.4339	0.0819	201.0996
Total	**0.7852**	**3.0000e-005**	**3.8000e-003**	**0.0000**	**0.0000**	**1.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**1.0000e-005**	**47.8555**	**57.5013**	**105.3567**	**4.2911**	**0.0819**	**237.0448**

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.7852	3.0000e-005	3.8000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.3800e-003	7.3800e-003	2.0000e-005	0.0000	7.8700e-003
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	0.0000	0.0000	0.0000	0.0000	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	14.5057	0.0000	14.5057	0.8573	0.0000	35.9373
Water						0.0000	0.0000		0.0000	0.0000	33.3497	57.4939	90.8436	3.4339	0.0819	201.0996
Total	**0.7852**	**3.0000e-005**	**3.8000e-003**	**0.0000**	**0.0000**	**1.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**1.0000e-005**	**47.8555**	**57.5013**	**105.3567**	**4.2911**	**0.0819**	**237.0448**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	2/8/2021	5/7/2021	5	65	
2	Site Preparation	Site Preparation	2/8/2021	5/14/2021	5	70	
3	Grading	Grading	2/8/2021	5/14/2021	5	70	

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

4	Building Construction	Building Construction	5/18/2021	11/9/2021	5	126	
5	Architectural Coating	Architectural Coating	12/1/2021	2/28/2022	5	64	
6	Paving	Paving	4/1/2022	6/1/2022	5	44	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 5.68

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 249,000; Non-Residential Outdoor: 83,000; Striped Parking Area: 14,830 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
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	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	130	0.42

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

Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	965.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	7,200.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	174.00	68.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	35.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1044	0.0000	0.1044	0.0158	0.0000	0.0158	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1029	1.0218	0.7009	1.2600e-003		0.0504	0.0504		0.0468	0.0468	0.0000	110.5026	110.5026	0.0311	0.0000	111.2801
Total	**0.1029**	**1.0218**	**0.7009**	**1.2600e-003**	**0.1044**	**0.0504**	**0.1548**	**0.0158**	**0.0468**	**0.0627**	**0.0000**	**110.5026**	**110.5026**	**0.0311**	**0.0000**	**111.2801**

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

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.8900e-003	0.0856	0.0167	3.0000e-004	8.2400e-003	1.2700e-003	9.5100e-003	2.2700e-003	1.2100e-003	3.4800e-003	0.0000	29.2242	29.2242	2.2000e-004	4.6000e-003	30.5995
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	1.9100e-003	1.3700e-003	0.0155	4.0000e-005	3.9000e-003	2.0000e-005	3.9200e-003	1.0400e-003	2.0000e-005	1.0600e-003	0.0000	3.3447	3.3447	1.3000e-004	1.1000e-004	3.3812
Total	**4.8000e-003**	**0.0870**	**0.0321**	**3.4000e-004**	**0.0121**	**1.2900e-003**	**0.0134**	**3.3100e-003**	**1.2300e-003**	**4.5400e-003**	**0.0000**	**32.5689**	**32.5689**	**3.5000e-004**	**4.7100e-003**	**33.9806**

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					0.0470	0.0000	0.0470	7.1100e-003	0.0000	7.1100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1029	1.0218	0.7009	1.2600e-003		0.0504	0.0504		0.0468	0.0468	0.0000	110.5024	110.5024	0.0311	0.0000	111.2800
Total	**0.1029**	**1.0218**	**0.7009**	**1.2600e-003**	**0.0470**	**0.0504**	**0.0974**	**7.1100e-003**	**0.0468**	**0.0540**	**0.0000**	**110.5024**	**110.5024**	**0.0311**	**0.0000**	**111.2800**

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

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.8900e-003	0.0856	0.0167	3.0000e-004	8.2400e-003	1.2700e-003	9.5100e-003	2.2700e-003	1.2100e-003	3.4800e-003	0.0000	29.2242	29.2242	2.2000e-004	4.6000e-003	30.5995
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	1.9100e-003	1.3700e-003	0.0155	4.0000e-005	3.9000e-003	2.0000e-005	3.9200e-003	1.0400e-003	2.0000e-005	1.0600e-003	0.0000	3.3447	3.3447	1.3000e-004	1.1000e-004	3.3812
Total	**4.8000e-003**	**0.0870**	**0.0321**	**3.4000e-004**	**0.0121**	**1.2900e-003**	**0.0134**	**3.3100e-003**	**1.2300e-003**	**4.5400e-003**	**0.0000**	**32.5689**	**32.5689**	**3.5000e-004**	**4.7100e-003**	**33.9806**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.6323	0.0000	0.6323	0.3476	0.0000	0.3476	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1361	1.4174	0.7404	1.3300e-003		0.0716	0.0716		0.0658	0.0658	0.0000	117.0250	117.0250	0.0379	0.0000	117.9712
Total	**0.1361**	**1.4174**	**0.7404**	**1.3300e-003**	**0.6323**	**0.0716**	**0.7039**	**0.3476**	**0.0658**	**0.4134**	**0.0000**	**117.0250**	**117.0250**	**0.0379**	**0.0000**	**117.9712**

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

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4600e-003	1.7700e-003	0.0200	5.0000e-005	5.0300e-003	3.0000e-005	5.0700e-003	1.3400e-003	3.0000e-005	1.3700e-003	0.0000	4.3224	4.3224	1.7000e-004	1.4000e-004	4.3695
Total	**2.4600e-003**	**1.7700e-003**	**0.0200**	**5.0000e-005**	**5.0300e-003**	**3.0000e-005**	**5.0700e-003**	**1.3400e-003**	**3.0000e-005**	**1.3700e-003**	**0.0000**	**4.3224**	**4.3224**	**1.7000e-004**	**1.4000e-004**	**4.3695**

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					0.2845	0.0000	0.2845	0.1564	0.0000	0.1564	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1361	1.4174	0.7404	1.3300e-003		0.0716	0.0716		0.0658	0.0658	0.0000	117.0249	117.0249	0.0379	0.0000	117.9711
Total	**0.1361**	**1.4174**	**0.7404**	**1.3300e-003**	**0.2845**	**0.0716**	**0.3561**	**0.1564**	**0.0658**	**0.2222**	**0.0000**	**117.0249**	**117.0249**	**0.0379**	**0.0000**	**117.9711**

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

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4600e-003	1.7700e-003	0.0200	5.0000e-005	5.0300e-003	3.0000e-005	5.0700e-003	1.3400e-003	3.0000e-005	1.3700e-003	0.0000	4.3224	4.3224	1.7000e-004	1.4000e-004	4.3695
Total	**2.4600e-003**	**1.7700e-003**	**0.0200**	**5.0000e-005**	**5.0300e-003**	**3.0000e-005**	**5.0700e-003**	**1.3400e-003**	**3.0000e-005**	**1.3700e-003**	**0.0000**	**4.3224**	**4.3224**	**1.7000e-004**	**1.4000e-004**	**4.3695**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2737	0.0000	0.2737	0.1228	0.0000	0.1228	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1467	1.6240	1.0808	2.1700e-003		0.0695	0.0695		0.0639	0.0639	0.0000	190.7324	190.7324	0.0617	0.0000	192.2746
Total	**0.1467**	**1.6240**	**1.0808**	**2.1700e-003**	**0.2737**	**0.0695**	**0.3432**	**0.1228**	**0.0639**	**0.1867**	**0.0000**	**190.7324**	**190.7324**	**0.0617**	**0.0000**	**192.2746**

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

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0216	0.6389	0.1243	2.2700e-003	0.0615	9.4700e-003	0.0710	0.0169	9.0600e-003	0.0260	0.0000	218.0460	218.0460	1.6600e-003	0.0343	228.3070
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7400e-003	1.9700e-003	0.0222	5.0000e-005	5.5900e-003	4.0000e-005	5.6300e-003	1.4900e-003	3.0000e-005	1.5200e-003	0.0000	4.8026	4.8026	1.9000e-004	1.6000e-004	4.8550
Total	**0.0243**	**0.6408**	**0.1465**	**2.3200e-003**	**0.0671**	**9.5100e-003**	**0.0766**	**0.0184**	**9.0900e-003**	**0.0275**	**0.0000**	**222.8486**	**222.8486**	**1.8500e-003**	**0.0345**	**233.1620**

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					0.1232	0.0000	0.1232	0.0553	0.0000	0.0553	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1467	1.6240	1.0807	2.1700e-003		0.0695	0.0695		0.0639	0.0639	0.0000	190.7322	190.7322	0.0617	0.0000	192.2744
Total	**0.1467**	**1.6240**	**1.0807**	**2.1700e-003**	**0.1232**	**0.0695**	**0.1927**	**0.0553**	**0.0639**	**0.1192**	**0.0000**	**190.7322**	**190.7322**	**0.0617**	**0.0000**	**192.2744**

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

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0216	0.6389	0.1243	2.2700e-003	0.0615	9.4700e-003	0.0710	0.0169	9.0600e-003	0.0260	0.0000	218.0460	218.0460	1.6600e-003	0.0343	228.3070
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7400e-003	1.9700e-003	0.0222	5.0000e-005	5.5900e-003	4.0000e-005	5.6300e-003	1.4900e-003	3.0000e-005	1.5200e-003	0.0000	4.8026	4.8026	1.9000e-004	1.6000e-004	4.8550
Total	**0.0243**	**0.6408**	**0.1465**	**2.3200e-003**	**0.0671**	**9.5100e-003**	**0.0766**	**0.0184**	**9.0900e-003**	**0.0275**	**0.0000**	**222.8486**	**222.8486**	**1.8500e-003**	**0.0345**	**233.1620**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1198	1.0982	1.0442	1.7000e-003		0.0604	0.0604		0.0568	0.0568	0.0000	145.9315	145.9315	0.0352	0.0000	146.8117
Total	**0.1198**	**1.0982**	**1.0442**	**1.7000e-003**		**0.0604**	**0.0604**		**0.0568**	**0.0568**	**0.0000**	**145.9315**	**145.9315**	**0.0352**	**0.0000**	**146.8117**

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

3.5 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0146	0.2833	0.0779	9.1000e-004	0.0284	4.9000e-003	0.0333	8.2000e-003	4.6900e-003	0.0129	0.0000	87.7226	87.7226	8.1000e-004	0.0133	91.6990
Worker	0.0429	0.0309	0.3481	8.2000e-004	0.0876	5.6000e-004	0.0882	0.0233	5.2000e-004	0.0238	0.0000	75.2093	75.2093	2.9100e-003	2.5100e-003	76.0291
Total	**0.0575**	**0.3142**	**0.4260**	**1.7300e-003**	**0.1160**	**5.4600e-003**	**0.1214**	**0.0315**	**5.2100e-003**	**0.0367**	**0.0000**	**162.9318**	**162.9318**	**3.7200e-003**	**0.0158**	**167.7281**

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	0.1198	1.0982	1.0442	1.7000e-003		0.0604	0.0604		0.0568	0.0568	0.0000	145.9313	145.9313	0.0352	0.0000	146.8115
Total	**0.1198**	**1.0982**	**1.0442**	**1.7000e-003**		**0.0604**	**0.0604**		**0.0568**	**0.0568**	**0.0000**	**145.9313**	**145.9313**	**0.0352**	**0.0000**	**146.8115**

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

3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0146	0.2833	0.0779	9.1000e-004	0.0284	4.9000e-003	0.0333	8.2000e-003	4.6900e-003	0.0129	0.0000	87.7226	87.7226	8.1000e-004	0.0133	91.6990
Worker	0.0429	0.0309	0.3481	8.2000e-004	0.0876	5.6000e-004	0.0882	0.0233	5.2000e-004	0.0238	0.0000	75.2093	75.2093	2.9100e-003	2.5100e-003	76.0291
Total	**0.0575**	**0.3142**	**0.4260**	**1.7300e-003**	**0.1160**	**5.4600e-003**	**0.1214**	**0.0315**	**5.2100e-003**	**0.0367**	**0.0000**	**162.9318**	**162.9318**	**3.7200e-003**	**0.0158**	**167.7281**

3.6 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4333					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.5200e-003	0.0176	0.0209	3.0000e-005		1.0800e-003	1.0800e-003		1.0800e-003	1.0800e-003	0.0000	2.9362	2.9362	2.0000e-004	0.0000	2.9413
Total	**0.4358**	**0.0176**	**0.0209**	**3.0000e-005**		**1.0800e-003**	**1.0800e-003**		**1.0800e-003**	**1.0800e-003**	**0.0000**	**2.9362**	**2.9362**	**2.0000e-004**	**0.0000**	**2.9413**

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

3.6 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5700e-003	1.1300e-003	0.0128	3.0000e-005	3.2200e-003	2.0000e-005	3.2400e-003	8.5000e-004	2.0000e-005	8.7000e-004	0.0000	2.7615	2.7615	1.1000e-004	9.0000e-005	2.7916
Total	**1.5700e-003**	**1.1300e-003**	**0.0128**	**3.0000e-005**	**3.2200e-003**	**2.0000e-005**	**3.2400e-003**	**8.5000e-004**	**2.0000e-005**	**8.7000e-004**	**0.0000**	**2.7615**	**2.7615**	**1.1000e-004**	**9.0000e-005**	**2.7916**

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	0.4333					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.5200e-003	0.0176	0.0209	3.0000e-005		1.0800e-003	1.0800e-003		1.0800e-003	1.0800e-003	0.0000	2.9362	2.9362	2.0000e-004	0.0000	2.9413
Total	**0.4358**	**0.0176**	**0.0209**	**3.0000e-005**		**1.0800e-003**	**1.0800e-003**		**1.0800e-003**	**1.0800e-003**	**0.0000**	**2.9362**	**2.9362**	**2.0000e-004**	**0.0000**	**2.9413**

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

3.6 Architectural Coating - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5700e-003	1.1300e-003	0.0128	3.0000e-005	3.2200e-003	2.0000e-005	3.2400e-003	8.5000e-004	2.0000e-005	8.7000e-004	0.0000	2.7615	2.7615	1.1000e-004	9.0000e-005	2.7916
Total	**1.5700e-003**	**1.1300e-003**	**0.0128**	**3.0000e-005**	**3.2200e-003**	**2.0000e-005**	**3.2400e-003**	**8.5000e-004**	**2.0000e-005**	**8.7000e-004**	**0.0000**	**2.7615**	**2.7615**	**1.1000e-004**	**9.0000e-005**	**2.7916**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7724					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.1900e-003	0.0289	0.0372	6.0000e-005		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003	0.0000	5.2342	5.2342	3.4000e-004	0.0000	5.2427
Total	**0.7766**	**0.0289**	**0.0372**	**6.0000e-005**		**1.6800e-003**	**1.6800e-003**		**1.6800e-003**	**1.6800e-003**	**0.0000**	**5.2342**	**5.2342**	**3.4000e-004**	**0.0000**	**5.2427**

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

3.6 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5700e-003	1.7600e-003	0.0206	5.0000e-005	5.7300e-003	3.0000e-005	5.7700e-003	1.5200e-003	3.0000e-005	1.5600e-003	0.0000	4.7689	4.7689	1.7000e-004	1.5000e-004	4.8177
Total	**2.5700e-003**	**1.7600e-003**	**0.0206**	**5.0000e-005**	**5.7300e-003**	**3.0000e-005**	**5.7700e-003**	**1.5200e-003**	**3.0000e-005**	**1.5600e-003**	**0.0000**	**4.7689**	**4.7689**	**1.7000e-004**	**1.5000e-004**	**4.8177**

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	0.7724					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.1900e-003	0.0289	0.0372	6.0000e-005		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003	0.0000	5.2342	5.2342	3.4000e-004	0.0000	5.2427
Total	**0.7766**	**0.0289**	**0.0372**	**6.0000e-005**		**1.6800e-003**	**1.6800e-003**		**1.6800e-003**	**1.6800e-003**	**0.0000**	**5.2342**	**5.2342**	**3.4000e-004**	**0.0000**	**5.2427**

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

3.6 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5700e-003	1.7600e-003	0.0206	5.0000e-005	5.7300e-003	3.0000e-005	5.7700e-003	1.5200e-003	3.0000e-005	1.5600e-003	0.0000	4.7689	4.7689	1.7000e-004	1.5000e-004	4.8177
Total	**2.5700e-003**	**1.7600e-003**	**0.0206**	**5.0000e-005**	**5.7300e-003**	**3.0000e-005**	**5.7700e-003**	**1.5200e-003**	**3.0000e-005**	**1.5600e-003**	**0.0000**	**4.7689**	**4.7689**	**1.7000e-004**	**1.5000e-004**	**4.8177**

3.7 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	0.0243	0.2448	0.3208	5.0000e-004		0.0125	0.0125		0.0115	0.0115	0.0000	44.0606	44.0606	0.0143	0.0000	44.4169
Paving	6.7100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0310**	**0.2448**	**0.3208**	**5.0000e-004**		**0.0125**	**0.0125**		**0.0115**	**0.0115**	**0.0000**	**44.0606**	**44.0606**	**0.0143**	**0.0000**	**44.4169**

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

3.7 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1800e-003	8.1000e-004	9.4900e-003	2.0000e-005	2.6400e-003	2.0000e-005	2.6500e-003	7.0000e-004	1.0000e-005	7.2000e-004	0.0000	2.1933	2.1933	8.0000e-005	7.0000e-005	2.2158
Total	**1.1800e-003**	**8.1000e-004**	**9.4900e-003**	**2.0000e-005**	**2.6400e-003**	**2.0000e-005**	**2.6500e-003**	**7.0000e-004**	**1.0000e-005**	**7.2000e-004**	**0.0000**	**2.1933**	**2.1933**	**8.0000e-005**	**7.0000e-005**	**2.2158**

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	0.0243	0.2448	0.3208	5.0000e-004		0.0125	0.0125		0.0115	0.0115	0.0000	44.0606	44.0606	0.0143	0.0000	44.4168
Paving	6.7100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0310**	**0.2448**	**0.3208**	**5.0000e-004**		**0.0125**	**0.0125**		**0.0115**	**0.0115**	**0.0000**	**44.0606**	**44.0606**	**0.0143**	**0.0000**	**44.4168**

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

3.7 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1800e-003	8.1000e-004	9.4900e-003	2.0000e-005	2.6400e-003	2.0000e-005	2.6500e-003	7.0000e-004	1.0000e-005	7.2000e-004	0.0000	2.1933	2.1933	8.0000e-005	7.0000e-005	2.2158
Total	**1.1800e-003**	**8.1000e-004**	**9.4900e-003**	**2.0000e-005**	**2.6400e-003**	**2.0000e-005**	**2.6500e-003**	**7.0000e-004**	**1.0000e-005**	**7.2000e-004**	**0.0000**	**2.1933**	**2.1933**	**8.0000e-005**	**7.0000e-005**	**2.2158**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	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

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Manufacturing	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
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
Refrigerated Warehouse-Rail	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

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
Manufacturing	0.516452	0.033212	0.173817	0.123150	0.022816	0.005352	0.027555	0.088301	0.001837	0.001119	0.004633	0.000845	0.000911
Other Asphalt Surfaces	0.516452	0.033212	0.173817	0.123150	0.022816	0.005352	0.027555	0.088301	0.001837	0.001119	0.004633	0.000845	0.000911
Other Non-Asphalt Surfaces	0.516452	0.033212	0.173817	0.123150	0.022816	0.005352	0.027555	0.088301	0.001837	0.001119	0.004633	0.000845	0.000911
Refrigerated Warehouse-Rail	0.516452	0.033212	0.173817	0.123150	0.022816	0.005352	0.027555	0.088301	0.001837	0.001119	0.004633	0.000845	0.000911

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	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

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					
Manufacturing	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 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
Refrigerated Warehouse-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
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**

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					
Manufacturing	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 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
Refrigerated Warehouse-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
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**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	0	0.0000	0.0000	0.0000	0.0000
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
Refrigerated Warehouse-Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	0	0.0000	0.0000	0.0000	0.0000
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
Refrigerated Warehouse-Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

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	0.7852	3.0000e-005	3.8000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.3800e-003	7.3800e-003	2.0000e-005	0.0000	7.8700e-003
Unmitigated	0.7852	3.0000e-005	3.8000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.3800e-003	7.3800e-003	2.0000e-005	0.0000	7.8700e-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	0.1206					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.6643					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.5000e-004	3.0000e-005	3.8000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.3800e-003	7.3800e-003	2.0000e-005	0.0000	7.8700e-003
Total	**0.7852**	**3.0000e-005**	**3.8000e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**7.3800e-003**	**7.3800e-003**	**2.0000e-005**	**0.0000**	**7.8700e-003**

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	0.1206					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.6643					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.5000e-004	3.0000e-005	3.8000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.3800e-003	7.3800e-003	2.0000e-005	0.0000	7.8700e-003
Total	**0.7852**	**3.0000e-005**	**3.8000e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**7.3800e-003**	**7.3800e-003**	**2.0000e-005**	**0.0000**	**7.8700e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

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	90.8436	3.4339	0.0819	201.0996
Unmitigated	90.8436	3.4339	0.0819	201.0996

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	105.12 / 0	90.8436	3.4339	0.0819	201.0996
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
Refrigerated Warehouse-Rail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**90.8436**	**3.4339**	**0.0819**	**201.0996**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	105.12 / 0	90.8436	3.4339	0.0819	201.0996
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
Refrigerated Warehouse-Rail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**90.8436**	**3.4339**	**0.0819**	**201.0996**

8.0 Waste Detail

8.1 Mitigation Measures Waste

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	14.5057	0.8573	0.0000	35.9373
Unmitigated	14.5057	0.8573	0.0000	35.9373

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	71.46	14.5057	0.8573	0.0000	35.9373
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
Refrigerated Warehouse-Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**14.5057**	**0.8573**	**0.0000**	**35.9373**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	71.46	14.5057	0.8573	0.0000	35.9373
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
Refrigerated Warehouse-Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**14.5057**	**0.8573**	**0.0000**	**35.9373**

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

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

Modesto Construction Emissions - Post-Project - Stanislaus County, Annual

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

Frito Modesto Expansion - Phase I to Phase III Incremental

Stanislaus County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	62.00	1000sqft	1.42	62,000.00	0
Refrigerated Warehouse-Rail	27.00	1000sqft	0.62	27,000.00	0
Other Asphalt Surfaces	61.54	1000sqft	1.41	61,537.00	0
Other Non-Asphalt Surfaces	10.88	1000sqft	0.25	10,875.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	46
Climate Zone	3			**Operational Year**	2023
Utility Company	Modesto Irrigation District				
CO2 Intensity (lb/MWhr)	452.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Obtained from facility.

Construction Phase - Based on construction schedule provided by the facility.

Trips and VMT -

Demolition -

Grading - Data from client.

Architectural Coating -

Vehicle Trips - Only modeling construction emissions.

Consumer Products - Only modeling construction emissions.

Modesto Construction Emissions - Post-Project - Stanislaus County, Annual

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

Area Coating - Only modeling construction emissions.

Energy Use - Only modeling construction emissions.

Water And Wastewater - Only modeling construction emissions.

Solid Waste - Only modeling construction emissions.

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	44500	0
tblAreaCoating	Area_Nonresidential_Interior	133500	0
tblAreaCoating	Area_Parking	4345	0
tblConstructionPhase	NumDays	18.00	20.00
tblConstructionPhase	NumDays	8.00	20.00
tblConstructionPhase	NumDays	18.00	20.00
tblConstructionPhase	NumDays	5.00	10.00
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblEnergyUse	LightingElect	2.70	0.00
tblEnergyUse	LightingElect	2.45	0.00
tblEnergyUse	NT24E	4.16	0.00
tblEnergyUse	NT24E	21.99	0.00
tblEnergyUse	NT24NG	3.84	0.00
tblEnergyUse	T24E	1.75	0.00
tblEnergyUse	T24E	0.42	0.00
tblEnergyUse	T24NG	16.86	0.00
tblEnergyUse	T24NG	0.15	0.00
tblGrading	MaterialExported	0.00	32,936.00
tblGrading	MaterialImported	0.00	15,432.00
tblLandUse	LandUseSquareFeet	61,540.00	61,537.00

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

tblLandUse	LandUseSquareFeet	10,880.00	10,875.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblSolidWaste	SolidWasteGenerationRate	76.88	0.00
tblSolidWaste	SolidWasteGenerationRate	25.38	0.00
tblVehicleTrips	ST_TR	6.42	0.00
tblVehicleTrips	ST_TR	2.12	0.00
tblVehicleTrips	SU_TR	5.09	0.00
tblVehicleTrips	SU_TR	2.12	0.00
tblVehicleTrips	WD_TR	3.93	0.00
tblVehicleTrips	WD_TR	2.12	0.00
tblWater	IndoorWaterUseRate	14,337,500.00	0.00
tblWater	IndoorWaterUseRate	6,243,750.00	0.00

2.0 Emissions Summary

Modesto Construction Emissions - Post-Project - Stanislaus 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	0.3464	3.4761	3.0737	7.8100e-003	0.3621	0.1482	0.5103	0.1313	0.1388	0.2701	0.0000	704.6793	704.6793	0.1068	0.0409	719.5269
2023	0.6363	0.0133	0.0218	4.0000e-005	1.1200e-003	7.1000e-004	1.8300e-003	3.0000e-004	7.1000e-004	1.0100e-003	0.0000	3.4537	3.4537	1.8000e-004	3.0000e-005	3.4662
Maximum	**0.6363**	**3.4761**	**3.0737**	**7.8100e-003**	**0.3621**	**0.1482**	**0.5103**	**0.1313**	**0.1388**	**0.2701**	**0.0000**	**704.6793**	**704.6793**	**0.1068**	**0.0409**	**719.5269**

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	0.3464	3.4761	3.0737	7.8100e-003	0.2417	0.1482	0.3899	0.0806	0.1388	0.2193	0.0000	704.6788	704.6788	0.1068	0.0409	719.5264
2023	0.6363	0.0133	0.0218	4.0000e-005	1.1200e-003	7.1000e-004	1.8300e-003	3.0000e-004	7.1000e-004	1.0100e-003	0.0000	3.4537	3.4537	1.8000e-004	3.0000e-005	3.4662
Maximum	**0.6363**	**3.4761**	**3.0737**	**7.8100e-003**	**0.2417**	**0.1482**	**0.3899**	**0.0806**	**0.1388**	**0.2193**	**0.0000**	**704.6788**	**704.6788**	**0.1068**	**0.0409**	**719.5264**

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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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**33.16**	**0.00**	**23.51**	**38.57**	**0.00**	**18.73**	**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	**1-1-2022**	**3-31-2022**	1.5069	1.5069
2	**4-1-2022**	**6-30-2022**	0.8062	0.8062
3	**7-1-2022**	**9-30-2022**	1.1537	1.1537
4	**10-1-2022**	**12-31-2022**	0.6262	0.6262
5	**1-1-2023**	**3-31-2023**	0.6032	0.6032
		Highest	1.5069	1.5069

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	1.4000e-004	1.0000e-005	1.4800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.8800e-003	2.8800e-003	1.0000e-005	0.0000	3.0700e-003
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	0.0000	0.0000	0.0000	0.0000	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	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	**1.4000e-004**	**1.0000e-005**	**1.4800e-003**	**0.0000**	**0.0000**	**1.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**1.0000e-005**	**0.0000**	**2.8800e-003**	**2.8800e-003**	**1.0000e-005**	**0.0000**	**3.0700e-003**

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	1.4000e-004	1.0000e-005	1.4800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.8800e-003	2.8800e-003	1.0000e-005	0.0000	3.0700e-003
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	0.0000	0.0000	0.0000	0.0000	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	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	**1.4000e-004**	**1.0000e-005**	**1.4800e-003**	**0.0000**	**0.0000**	**1.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**1.0000e-005**	**0.0000**	**2.8800e-003**	**2.8800e-003**	**1.0000e-005**	**0.0000**	**3.0700e-003**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition Paving/Underground	Demolition	1/3/2022	1/28/2022	5	20	
2	Site Preparation	Site Preparation	2/1/2022	2/14/2022	5	10	
3	Grading	Grading	2/1/2022	2/28/2022	5	20	

4	Building Construction	Building Construction	2/14/2022	12/30/2022	5	230	
5	Demolition Precast	Demolition	6/13/2022	7/8/2022	5	20	
6	Paving	Paving	9/1/2022	9/28/2022	5	20	
7	Architectural Coating	Architectural Coating	1/2/2023	1/27/2023	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 20

Acres of Paving: 1.66

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 133,500; Non-Residential Outdoor: 44,500; Striped Parking Area: 4,345 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition Paving/Underground	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition Paving/Underground	Excavators	3	8.00	158	0.38
Demolition Paving/Underground	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Demolition Precast	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition Precast	Excavators	3	8.00	158	0.38

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

Demolition Precast	Rubber Tired Dozers	2	8.00	247	0.40
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	435.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving/Underground										
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	6,046.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	68.00	26.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition Precast	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	14.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

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

3.2 Demolition Paving/Underground - 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					0.0471	0.0000	0.0471	7.1300e-003	0.0000	7.1300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0264	0.2572	0.2059	3.9000e-004		0.0124	0.0124		0.0116	0.0116	0.0000	33.9902	33.9902	9.5500e-003	0.0000	34.2289
Total	**0.0264**	**0.2572**	**0.2059**	**3.9000e-004**	**0.0471**	**0.0124**	**0.0596**	**7.1300e-003**	**0.0116**	**0.0187**	**0.0000**	**33.9902**	**33.9902**	**9.5500e-003**	**0.0000**	**34.2289**

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	8.3000e-004	0.0333	6.2600e-003	1.3000e-004	3.7200e-003	3.3000e-004	4.0500e-003	1.0200e-003	3.2000e-004	1.3400e-003	0.0000	12.8311	12.8311	8.0000e-005	2.0200e-003	13.4344
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4000e-004	3.7000e-004	4.3100e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9970	0.9970	4.0000e-005	3.0000e-005	1.0072
Total	**1.3700e-003**	**0.0336**	**0.0106**	**1.4000e-004**	**4.9200e-003**	**3.4000e-004**	**5.2600e-003**	**1.3400e-003**	**3.3000e-004**	**1.6700e-003**	**0.0000**	**13.8280**	**13.8280**	**1.2000e-004**	**2.0500e-003**	**14.4416**

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

3.2 Demolition Paving/Underground - 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	tons/yr										MT/yr					
Fugitive Dust					0.0212	0.0000	0.0212	3.2100e-003	0.0000	3.2100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0264	0.2572	0.2059	3.9000e-004		0.0124	0.0124		0.0116	0.0116	0.0000	33.9902	33.9902	9.5500e-003	0.0000	34.2289
Total	**0.0264**	**0.2572**	**0.2059**	**3.9000e-004**	**0.0212**	**0.0124**	**0.0336**	**3.2100e-003**	**0.0116**	**0.0148**	**0.0000**	**33.9902**	**33.9902**	**9.5500e-003**	**0.0000**	**34.2289**

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	8.3000e-004	0.0333	6.2600e-003	1.3000e-004	3.7200e-003	3.3000e-004	4.0500e-003	1.0200e-003	3.2000e-004	1.3400e-003	0.0000	12.8311	12.8311	8.0000e-005	2.0200e-003	13.4344
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4000e-004	3.7000e-004	4.3100e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9970	0.9970	4.0000e-005	3.0000e-005	1.0072
Total	**1.3700e-003**	**0.0336**	**0.0106**	**1.4000e-004**	**4.9200e-003**	**3.4000e-004**	**5.2600e-003**	**1.3400e-003**	**3.3000e-004**	**1.6700e-003**	**0.0000**	**13.8280**	**13.8280**	**1.2000e-004**	**2.0500e-003**	**14.4416**

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

3.3 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**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	2.2000e-004	2.5900e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.5982	0.5982	2.0000e-005	2.0000e-005	0.6043
Total	**3.2000e-004**	**2.2000e-004**	**2.5900e-003**	**1.0000e-005**	**7.2000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.5982**	**0.5982**	**2.0000e-005**	**2.0000e-005**	**0.6043**

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

3.3 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	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**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	2.2000e-004	2.5900e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.5982	0.5982	2.0000e-005	2.0000e-005	0.6043
Total	**3.2000e-004**	**2.2000e-004**	**2.5900e-003**	**1.0000e-005**	**7.2000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.5982**	**0.5982**	**2.0000e-005**	**2.0000e-005**	**0.6043**

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

3.4 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					0.0736	0.0000	0.0736	0.0347	0.0000	0.0347	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0195	0.2086	0.1527	3.0000e-004		9.4100e-003	9.4100e-003		8.6600e-003	8.6600e-003	0.0000	26.0548	26.0548	8.4300e-003	0.0000	26.2654
Total	**0.0195**	**0.2086**	**0.1527**	**3.0000e-004**	**0.0736**	**9.4100e-003**	**0.0830**	**0.0347**	**8.6600e-003**	**0.0433**	**0.0000**	**26.0548**	**26.0548**	**8.4300e-003**	**0.0000**	**26.2654**

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	0.0116	0.4625	0.0870	1.8500e-003	0.0516	4.6500e-003	0.0563	0.0142	4.4400e-003	0.0186	0.0000	178.3371	178.3371	1.0900e-003	0.0281	186.7224
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4000e-004	3.7000e-004	4.3100e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9970	0.9970	4.0000e-005	3.0000e-005	1.0072
Total	**0.0121**	**0.4628**	**0.0914**	**1.8600e-003**	**0.0528**	**4.6600e-003**	**0.0575**	**0.0145**	**4.4500e-003**	**0.0190**	**0.0000**	**179.3340**	**179.3340**	**1.1300e-003**	**0.0281**	**187.7296**

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

3.4 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	tons/yr										MT/yr					
Fugitive Dust					0.0331	0.0000	0.0331	0.0156	0.0000	0.0156	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0195	0.2086	0.1527	3.0000e-004		9.4100e-003	9.4100e-003		8.6600e-003	8.6600e-003	0.0000	26.0547	26.0547	8.4300e-003	0.0000	26.2654
Total	**0.0195**	**0.2086**	**0.1527**	**3.0000e-004**	**0.0331**	**9.4100e-003**	**0.0425**	**0.0156**	**8.6600e-003**	**0.0243**	**0.0000**	**26.0547**	**26.0547**	**8.4300e-003**	**0.0000**	**26.2654**

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	0.0116	0.4625	0.0870	1.8500e-003	0.0516	4.6500e-003	0.0563	0.0142	4.4400e-003	0.0186	0.0000	178.3371	178.3371	1.0900e-003	0.0281	186.7224
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4000e-004	3.7000e-004	4.3100e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9970	0.9970	4.0000e-005	3.0000e-005	1.0072
Total	**0.0121**	**0.4628**	**0.0914**	**1.8600e-003**	**0.0528**	**4.6600e-003**	**0.0575**	**0.0145**	**4.4500e-003**	**0.0190**	**0.0000**	**179.3340**	**179.3340**	**1.1300e-003**	**0.0281**	**187.7296**

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	tons/yr										MT/yr					
Off-Road	0.1962	1.7958	1.8818	3.1000e-003		0.0930	0.0930		0.0875	0.0875	0.0000	266.4840	266.4840	0.0638	0.0000	268.0801
Total	**0.1962**	**1.7958**	**1.8818**	**3.1000e-003**		**0.0930**	**0.0930**		**0.0875**	**0.0875**	**0.0000**	**266.4840**	**266.4840**	**0.0638**	**0.0000**	**268.0801**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.2700e-003	0.1641	0.0450	6.2000e-004	0.0198	1.7900e-003	0.0216	5.7200e-003	1.7100e-003	7.4300e-003	0.0000	59.6830	59.6830	3.9000e-004	9.0200e-003	62.3819
Worker	0.0280	0.0191	0.2249	5.7000e-004	0.0625	3.8000e-004	0.0629	0.0166	3.5000e-004	0.0170	0.0000	51.9755	51.9755	1.8500e-003	1.6300e-003	52.5075
Total	**0.0343**	**0.1833**	**0.2699**	**1.1900e-003**	**0.0823**	**2.1700e-003**	**0.0845**	**0.0223**	**2.0600e-003**	**0.0244**	**0.0000**	**111.6586**	**111.6586**	**2.2400e-003**	**0.0107**	**114.8894**

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	tons/yr										MT/yr					
Off-Road	0.1962	1.7958	1.8818	3.1000e-003		0.0930	0.0930		0.0875	0.0875	0.0000	266.4837	266.4837	0.0638	0.0000	268.0798
Total	**0.1962**	**1.7958**	**1.8818**	**3.1000e-003**		**0.0930**	**0.0930**		**0.0875**	**0.0875**	**0.0000**	**266.4837**	**266.4837**	**0.0638**	**0.0000**	**268.0798**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.2700e-003	0.1641	0.0450	6.2000e-004	0.0198	1.7900e-003	0.0216	5.7200e-003	1.7100e-003	7.4300e-003	0.0000	59.6830	59.6830	3.9000e-004	9.0200e-003	62.3819
Worker	0.0280	0.0191	0.2249	5.7000e-004	0.0625	3.8000e-004	0.0629	0.0166	3.5000e-004	0.0170	0.0000	51.9755	51.9755	1.8500e-003	1.6300e-003	52.5075
Total	**0.0343**	**0.1833**	**0.2699**	**1.1900e-003**	**0.0823**	**2.1700e-003**	**0.0845**	**0.0223**	**2.0600e-003**	**0.0244**	**0.0000**	**111.6586**	**111.6586**	**2.2400e-003**	**0.0107**	**114.8894**

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

3.6 Demolition Precast - 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	0.0264	0.2572	0.2059	3.9000e-004		0.0124	0.0124		0.0116	0.0116	0.0000	33.9902	33.9902	9.5500e-003	0.0000	34.2289
Total	**0.0264**	**0.2572**	**0.2059**	**3.9000e-004**		**0.0124**	**0.0124**		**0.0116**	**0.0116**	**0.0000**	**33.9902**	**33.9902**	**9.5500e-003**	**0.0000**	**34.2289**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4000e-004	3.7000e-004	4.3100e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9970	0.9970	4.0000e-005	3.0000e-005	1.0072
Total	**5.4000e-004**	**3.7000e-004**	**4.3100e-003**	**1.0000e-005**	**1.2000e-003**	**1.0000e-005**	**1.2100e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**0.9970**	**0.9970**	**4.0000e-005**	**3.0000e-005**	**1.0072**

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

3.6 Demolition Precast - 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	tons/yr										MT/yr					
Off-Road	0.0264	0.2572	0.2059	3.9000e-004		0.0124	0.0124		0.0116	0.0116	0.0000	33.9902	33.9902	9.5500e-003	0.0000	34.2289
Total	**0.0264**	**0.2572**	**0.2059**	**3.9000e-004**		**0.0124**	**0.0124**		**0.0116**	**0.0116**	**0.0000**	**33.9902**	**33.9902**	**9.5500e-003**	**0.0000**	**34.2289**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4000e-004	3.7000e-004	4.3100e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9970	0.9970	4.0000e-005	3.0000e-005	1.0072
Total	**5.4000e-004**	**3.7000e-004**	**4.3100e-003**	**1.0000e-005**	**1.2000e-003**	**1.0000e-005**	**1.2100e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**0.9970**	**0.9970**	**4.0000e-005**	**3.0000e-005**	**1.0072**

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

3.7 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	1.8500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0129**	**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**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4000e-004	3.7000e-004	4.3100e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9970	0.9970	4.0000e-005	3.0000e-005	1.0072
Total	**5.4000e-004**	**3.7000e-004**	**4.3100e-003**	**1.0000e-005**	**1.2000e-003**	**1.0000e-005**	**1.2100e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**0.9970**	**0.9970**	**4.0000e-005**	**3.0000e-005**	**1.0072**

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

3.7 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	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	1.8500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0129**	**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**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4000e-004	3.7000e-004	4.3100e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9970	0.9970	4.0000e-005	3.0000e-005	1.0072
Total	**5.4000e-004**	**3.7000e-004**	**4.3100e-003**	**1.0000e-005**	**1.2000e-003**	**1.0000e-005**	**1.2100e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**0.9970**	**0.9970**	**4.0000e-005**	**3.0000e-005**	**1.0072**

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

3.8 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	0.6339					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	**0.6358**	**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**

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	4.6000e-004	3.0000e-004	3.6700e-003	1.0000e-005	1.1200e-003	1.0000e-005	1.1200e-003	3.0000e-004	1.0000e-005	3.0000e-004	0.0000	0.9004	0.9004	3.0000e-005	3.0000e-005	0.9091
Total	**4.6000e-004**	**3.0000e-004**	**3.6700e-003**	**1.0000e-005**	**1.1200e-003**	**1.0000e-005**	**1.1200e-003**	**3.0000e-004**	**1.0000e-005**	**3.0000e-004**	**0.0000**	**0.9004**	**0.9004**	**3.0000e-005**	**3.0000e-005**	**0.9091**

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

3.8 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	tons/yr										MT/yr					
Archit. Coating	0.6339					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	**0.6358**	**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**

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	4.6000e-004	3.0000e-004	3.6700e-003	1.0000e-005	1.1200e-003	1.0000e-005	1.1200e-003	3.0000e-004	1.0000e-005	3.0000e-004	0.0000	0.9004	0.9004	3.0000e-005	3.0000e-005	0.9091
Total	**4.6000e-004**	**3.0000e-004**	**3.6700e-003**	**1.0000e-005**	**1.1200e-003**	**1.0000e-005**	**1.1200e-003**	**3.0000e-004**	**1.0000e-005**	**3.0000e-004**	**0.0000**	**0.9004**	**0.9004**	**3.0000e-005**	**3.0000e-005**	**0.9091**

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	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

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	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

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Manufacturing	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
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

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

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
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
Manufacturing	0.515394	0.052058	0.166327	0.163679	0.033750	0.008148	0.012972	0.015736	0.000860	0.000305	0.025297	0.001401	0.004072
Other Asphalt Surfaces	0.515394	0.052058	0.166327	0.163679	0.033750	0.008148	0.012972	0.015736	0.000860	0.000305	0.025297	0.001401	0.004072
Other Non-Asphalt Surfaces	0.515394	0.052058	0.166327	0.163679	0.033750	0.008148	0.012972	0.015736	0.000860	0.000305	0.025297	0.001401	0.004072
Refrigerated Warehouse-Rail	0.515394	0.052058	0.166327	0.163679	0.033750	0.008148	0.012972	0.015736	0.000860	0.000305	0.025297	0.001401	0.004072

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Modesto Construction Emissions - Post-Project - Stanislaus 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					
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

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					
Manufacturing	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 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
Refrigerated Warehouse-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
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**

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					
Manufacturing	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 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
Refrigerated Warehouse-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
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**

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			
Manufacturing	0	0.0000	0.0000	0.0000	0.0000
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
Refrigerated Warehouse-Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	0	0.0000	0.0000	0.0000	0.0000
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
Refrigerated Warehouse-Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

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	1.4000e-004	1.0000e-005	1.4800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.8800e-003	2.8800e-003	1.0000e-005	0.0000	3.0700e-003
Unmitigated	1.4000e-004	1.0000e-005	1.4800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.8800e-003	2.8800e-003	1.0000e-005	0.0000	3.0700e-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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.4000e-004	1.0000e-005	1.4800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.8800e-003	2.8800e-003	1.0000e-005	0.0000	3.0700e-003
Total	**1.4000e-004**	**1.0000e-005**	**1.4800e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**2.8800e-003**	**2.8800e-003**	**1.0000e-005**	**0.0000**	**3.0700e-003**

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.4000e-004	1.0000e-005	1.4800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.8800e-003	2.8800e-003	1.0000e-005	0.0000	3.0700e-003
Total	**1.4000e-004**	**1.0000e-005**	**1.4800e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**2.8800e-003**	**2.8800e-003**	**1.0000e-005**	**0.0000**	**3.0700e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

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			
Manufacturing	0 / 0	0.0000	0.0000	0.0000	0.0000
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
Refrigerated Warehouse-Rail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	0 / 0	0.0000	0.0000	0.0000	0.0000
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
Refrigerated Warehouse-Rail	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

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	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	0	0.0000	0.0000	0.0000	0.0000
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
Refrigerated Warehouse-Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	0	0.0000	0.0000	0.0000	0.0000
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
Refrigerated Warehouse-Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

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

Modesto Operations Emissions - Post-Project - Stanislaus County, Annual

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

Frito Modesto Expansion - Operations

Stanislaus County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	62.00	1000sqft	1.42	62,000.00	0
Refrigerated Warehouse-Rail	27.00	1000sqft	0.62	27,000.00	0
Other Asphalt Surfaces	61.54	1000sqft	1.41	61,537.00	0
Other Non-Asphalt Surfaces	10.88	1000sqft	0.25	10,875.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	46
Climate Zone	3			**Operational Year**	2023
Utility Company	Modesto Irrigation District				
CO2 Intensity (lb/MWhr)	212.66	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Carbon intensity adjusted for RPS.

Land Use - Obtained from facility.

Construction Phase - Based on construction schedule provided by the facility.

Trips and VMT -

Demolition -

Grading - Data from client.

Architectural Coating -

Vehicle Trips - Mobile emissions modeled externally.

Consumer Products -

Modesto Operations Emissions - Post-Project - Stanislaus County, Annual

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

Area Coating -

Energy Use - Energy emissions modeled externally.

Water And Wastewater - Water usage obtained from facility.

Solid Waste - Waste generation obtained by the facility.

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	18.00	20.00
tblConstructionPhase	NumDays	8.00	20.00
tblConstructionPhase	NumDays	18.00	20.00
tblConstructionPhase	NumDays	5.00	10.00
tblConstructionPhase	PhaseEndDate	3/6/2023	1/27/2023
tblConstructionPhase	PhaseEndDate	1/13/2023	12/30/2022
tblConstructionPhase	PhaseEndDate	1/11/2022	1/28/2022
tblConstructionPhase	PhaseEndDate	2/8/2022	7/8/2022
tblConstructionPhase	PhaseEndDate	2/25/2022	2/28/2022
tblConstructionPhase	PhaseEndDate	2/8/2023	9/28/2022
tblConstructionPhase	PhaseEndDate	2/15/2022	2/14/2022
tblConstructionPhase	PhaseStartDate	2/9/2023	1/2/2023
tblConstructionPhase	PhaseStartDate	2/26/2022	2/14/2022
tblConstructionPhase	PhaseStartDate	12/15/2021	1/3/2022
tblConstructionPhase	PhaseStartDate	1/12/2022	6/13/2022
tblConstructionPhase	PhaseStartDate	2/16/2022	2/1/2022
tblConstructionPhase	PhaseStartDate	1/14/2023	9/1/2022
tblConstructionPhase	PhaseStartDate	2/9/2022	2/1/2022
tblEnergyUse	LightingElect	2.70	0.00
tblEnergyUse	LightingElect	2.45	0.00
tblEnergyUse	NT24E	4.16	0.00
tblEnergyUse	NT24E	21.99	0.00

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

tblEnergyUse	NT24NG	3.84	0.00
tblEnergyUse	T24E	1.75	0.00
tblEnergyUse	T24E	0.42	0.00
tblEnergyUse	T24NG	16.86	0.00
tblEnergyUse	T24NG	0.15	0.00
tblGrading	MaterialExported	0.00	32,936.00
tblGrading	MaterialImported	0.00	15,432.00
tblLandUse	LandUseSquareFeet	61,540.00	61,537.00
tblLandUse	LandUseSquareFeet	10,880.00	10,875.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblProjectCharacteristics	CO2IntensityFactor	452.98	212.66
tblSolidWaste	SolidWasteGenerationRate	76.88	33.85
tblSolidWaste	SolidWasteGenerationRate	25.38	0.00
tblVehicleTrips	ST_TR	6.42	0.00
tblVehicleTrips	ST_TR	2.12	0.00
tblVehicleTrips	SU_TR	5.09	0.00
tblVehicleTrips	SU_TR	2.12	0.00
tblVehicleTrips	WD_TR	3.93	0.00
tblVehicleTrips	WD_TR	2.12	0.00
tblWater	IndoorWaterUseRate	14,337,500.00	134,028,000.00
tblWater	IndoorWaterUseRate	6,243,750.00	0.00

2.0 Emissions Summary

Modesto Operations Emissions - Post-Project - Stanislaus 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	0.3464	3.4761	3.0737	7.8100e-003	0.3621	0.1482	0.5103	0.1313	0.1388	0.2701	0.0000	704.6793	704.6793	0.1068	0.0409	719.5269
2023	0.6363	0.0133	0.0218	4.0000e-005	1.1200e-003	7.1000e-004	1.8300e-003	3.0000e-004	7.1000e-004	1.0100e-003	0.0000	3.4537	3.4537	1.8000e-004	3.0000e-005	3.4662
Maximum	**0.6363**	**3.4761**	**3.0737**	**7.8100e-003**	**0.3621**	**0.1482**	**0.5103**	**0.1313**	**0.1388**	**0.2701**	**0.0000**	**704.6793**	**704.6793**	**0.1068**	**0.0409**	**719.5269**

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	0.3464	3.4761	3.0737	7.8100e-003	0.2417	0.1482	0.3899	0.0806	0.1388	0.2193	0.0000	704.6788	704.6788	0.1068	0.0409	719.5264
2023	0.6363	0.0133	0.0218	4.0000e-005	1.1200e-003	7.1000e-004	1.8300e-003	3.0000e-004	7.1000e-004	1.0100e-003	0.0000	3.4537	3.4537	1.8000e-004	3.0000e-005	3.4662
Maximum	**0.6363**	**3.4761**	**3.0737**	**7.8100e-003**	**0.2417**	**0.1482**	**0.3899**	**0.0806**	**0.1388**	**0.2193**	**0.0000**	**704.6788**	**704.6788**	**0.1068**	**0.0409**	**719.5264**

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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**33.16**	**0.00**	**23.51**	**38.57**	**0.00**	**18.73**	**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	**12-15-2021**	**3-14-2022**	1.3899	1.3899
2	**3-15-2022**	**6-14-2022**	0.6510	0.6510
3	**6-15-2022**	**9-14-2022**	1.0951	1.0951
4	**9-15-2022**	**12-14-2022**	0.8468	0.8468
5	**12-15-2022**	**3-14-2023**	0.7133	0.7133
		Highest	1.3899	1.3899

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4158	1.0000e-005	1.4800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.8800e-003	2.8800e-003	1.0000e-005	0.0000	3.0700e-003
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	0.0000	0.0000	0.0000	0.0000	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	6.8712	0.0000	6.8712	0.4061	0.0000	17.0232
Water						0.0000	0.0000		0.0000	0.0000	42.5209	69.9559	112.4768	4.3782	0.1044	253.0532
Total	**0.4158**	**1.0000e-005**	**1.4800e-003**	**0.0000**	**0.0000**	**1.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**1.0000e-005**	**49.3921**	**69.9588**	**119.3510**	**4.7843**	**0.1044**	**270.0795**

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4158	1.0000e-005	1.4800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.8800e-003	2.8800e-003	1.0000e-005	0.0000	3.0700e-003
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	0.0000	0.0000	0.0000	0.0000	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	6.8712	0.0000	6.8712	0.4061	0.0000	17.0232
Water						0.0000	0.0000		0.0000	0.0000	42.5209	69.9559	112.4768	4.3782	0.1044	253.0532
Total	**0.4158**	**1.0000e-005**	**1.4800e-003**	**0.0000**	**0.0000**	**1.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**1.0000e-005**	**49.3921**	**69.9588**	**119.3510**	**4.7843**	**0.1044**	**270.0795**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition Paving/Underground	Demolition	1/3/2022	1/28/2022	5	20	
2	Demolition Precast	Demolition	6/13/2022	7/8/2022	5	20	
3	Site Preparation	Site Preparation	2/1/2022	2/14/2022	5	10	

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

4	Grading	Grading	2/1/2022	2/28/2022	5	20	
5	Building Construction	Building Construction	2/14/2022	12/30/2022	5	230	
6	Paving	Paving	9/1/2022	9/28/2022	5	20	
7	Architectural Coating	Architectural Coating	1/2/2023	1/27/2023	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 20

Acres of Paving: 1.66

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 133,500; Non-Residential Outdoor: 44,500; Striped Parking Area: 4,345 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition Paving/Underground	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition Paving/Underground	Excavators	3	8.00	158	0.38
Demolition Paving/Underground	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Demolition Precast	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition Precast	Excavators	3	8.00	158	0.38

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

Demolition Precast	Rubber Tired Dozers	2	8.00	247	0.40
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	435.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving/Underground										
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	6,046.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	68.00	26.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition Precast	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	14.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

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

3.2 Demolition Paving/Underground - 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					0.0471	0.0000	0.0471	7.1300e-003	0.0000	7.1300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0264	0.2572	0.2059	3.9000e-004		0.0124	0.0124		0.0116	0.0116	0.0000	33.9902	33.9902	9.5500e-003	0.0000	34.2289
Total	**0.0264**	**0.2572**	**0.2059**	**3.9000e-004**	**0.0471**	**0.0124**	**0.0596**	**7.1300e-003**	**0.0116**	**0.0187**	**0.0000**	**33.9902**	**33.9902**	**9.5500e-003**	**0.0000**	**34.2289**

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	8.3000e-004	0.0333	6.2600e-003	1.3000e-004	3.7200e-003	3.3000e-004	4.0500e-003	1.0200e-003	3.2000e-004	1.3400e-003	0.0000	12.8311	12.8311	8.0000e-005	2.0200e-003	13.4344
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4000e-004	3.7000e-004	4.3100e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9970	0.9970	4.0000e-005	3.0000e-005	1.0072
Total	**1.3700e-003**	**0.0336**	**0.0106**	**1.4000e-004**	**4.9200e-003**	**3.4000e-004**	**5.2600e-003**	**1.3400e-003**	**3.3000e-004**	**1.6700e-003**	**0.0000**	**13.8280**	**13.8280**	**1.2000e-004**	**2.0500e-003**	**14.4416**

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

3.2 Demolition Paving/Underground - 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	tons/yr										MT/yr					
Fugitive Dust					0.0212	0.0000	0.0212	3.2100e-003	0.0000	3.2100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0264	0.2572	0.2059	3.9000e-004		0.0124	0.0124		0.0116	0.0116	0.0000	33.9902	33.9902	9.5500e-003	0.0000	34.2289
Total	**0.0264**	**0.2572**	**0.2059**	**3.9000e-004**	**0.0212**	**0.0124**	**0.0336**	**3.2100e-003**	**0.0116**	**0.0148**	**0.0000**	**33.9902**	**33.9902**	**9.5500e-003**	**0.0000**	**34.2289**

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	8.3000e-004	0.0333	6.2600e-003	1.3000e-004	3.7200e-003	3.3000e-004	4.0500e-003	1.0200e-003	3.2000e-004	1.3400e-003	0.0000	12.8311	12.8311	8.0000e-005	2.0200e-003	13.4344
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4000e-004	3.7000e-004	4.3100e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9970	0.9970	4.0000e-005	3.0000e-005	1.0072
Total	**1.3700e-003**	**0.0336**	**0.0106**	**1.4000e-004**	**4.9200e-003**	**3.4000e-004**	**5.2600e-003**	**1.3400e-003**	**3.3000e-004**	**1.6700e-003**	**0.0000**	**13.8280**	**13.8280**	**1.2000e-004**	**2.0500e-003**	**14.4416**

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

3.3 Demolition Precast - 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	0.0264	0.2572	0.2059	3.9000e-004		0.0124	0.0124		0.0116	0.0116	0.0000	33.9902	33.9902	9.5500e-003	0.0000	34.2289
Total	**0.0264**	**0.2572**	**0.2059**	**3.9000e-004**		**0.0124**	**0.0124**		**0.0116**	**0.0116**	**0.0000**	**33.9902**	**33.9902**	**9.5500e-003**	**0.0000**	**34.2289**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4000e-004	3.7000e-004	4.3100e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9970	0.9970	4.0000e-005	3.0000e-005	1.0072
Total	**5.4000e-004**	**3.7000e-004**	**4.3100e-003**	**1.0000e-005**	**1.2000e-003**	**1.0000e-005**	**1.2100e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**0.9970**	**0.9970**	**4.0000e-005**	**3.0000e-005**	**1.0072**

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

3.3 Demolition Precast - 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	tons/yr										MT/yr					
Off-Road	0.0264	0.2572	0.2059	3.9000e-004		0.0124	0.0124		0.0116	0.0116	0.0000	33.9902	33.9902	9.5500e-003	0.0000	34.2289
Total	**0.0264**	**0.2572**	**0.2059**	**3.9000e-004**		**0.0124**	**0.0124**		**0.0116**	**0.0116**	**0.0000**	**33.9902**	**33.9902**	**9.5500e-003**	**0.0000**	**34.2289**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4000e-004	3.7000e-004	4.3100e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9970	0.9970	4.0000e-005	3.0000e-005	1.0072
Total	**5.4000e-004**	**3.7000e-004**	**4.3100e-003**	**1.0000e-005**	**1.2000e-003**	**1.0000e-005**	**1.2100e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**0.9970**	**0.9970**	**4.0000e-005**	**3.0000e-005**	**1.0072**

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

3.4 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**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	2.2000e-004	2.5900e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.5982	0.5982	2.0000e-005	2.0000e-005	0.6043
Total	**3.2000e-004**	**2.2000e-004**	**2.5900e-003**	**1.0000e-005**	**7.2000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.5982**	**0.5982**	**2.0000e-005**	**2.0000e-005**	**0.6043**

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

3.4 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	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**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	2.2000e-004	2.5900e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.5982	0.5982	2.0000e-005	2.0000e-005	0.6043
Total	**3.2000e-004**	**2.2000e-004**	**2.5900e-003**	**1.0000e-005**	**7.2000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.5982**	**0.5982**	**2.0000e-005**	**2.0000e-005**	**0.6043**

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

3.5 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					0.0736	0.0000	0.0736	0.0347	0.0000	0.0347	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0195	0.2086	0.1527	3.0000e-004		9.4100e-003	9.4100e-003		8.6600e-003	8.6600e-003	0.0000	26.0548	26.0548	8.4300e-003	0.0000	26.2654
Total	**0.0195**	**0.2086**	**0.1527**	**3.0000e-004**	**0.0736**	**9.4100e-003**	**0.0830**	**0.0347**	**8.6600e-003**	**0.0433**	**0.0000**	**26.0548**	**26.0548**	**8.4300e-003**	**0.0000**	**26.2654**

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	0.0116	0.4625	0.0870	1.8500e-003	0.0516	4.6500e-003	0.0563	0.0142	4.4400e-003	0.0186	0.0000	178.3371	178.3371	1.0900e-003	0.0281	186.7224
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4000e-004	3.7000e-004	4.3100e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9970	0.9970	4.0000e-005	3.0000e-005	1.0072
Total	**0.0121**	**0.4628**	**0.0914**	**1.8600e-003**	**0.0528**	**4.6600e-003**	**0.0575**	**0.0145**	**4.4500e-003**	**0.0190**	**0.0000**	**179.3340**	**179.3340**	**1.1300e-003**	**0.0281**	**187.7296**

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

3.5 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	tons/yr										MT/yr					
Fugitive Dust					0.0331	0.0000	0.0331	0.0156	0.0000	0.0156	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0195	0.2086	0.1527	3.0000e-004		9.4100e-003	9.4100e-003		8.6600e-003	8.6600e-003	0.0000	26.0547	26.0547	8.4300e-003	0.0000	26.2654
Total	**0.0195**	**0.2086**	**0.1527**	**3.0000e-004**	**0.0331**	**9.4100e-003**	**0.0425**	**0.0156**	**8.6600e-003**	**0.0243**	**0.0000**	**26.0547**	**26.0547**	**8.4300e-003**	**0.0000**	**26.2654**

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	0.0116	0.4625	0.0870	1.8500e-003	0.0516	4.6500e-003	0.0563	0.0142	4.4400e-003	0.0186	0.0000	178.3371	178.3371	1.0900e-003	0.0281	186.7224
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4000e-004	3.7000e-004	4.3100e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9970	0.9970	4.0000e-005	3.0000e-005	1.0072
Total	**0.0121**	**0.4628**	**0.0914**	**1.8600e-003**	**0.0528**	**4.6600e-003**	**0.0575**	**0.0145**	**4.4500e-003**	**0.0190**	**0.0000**	**179.3340**	**179.3340**	**1.1300e-003**	**0.0281**	**187.7296**

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

3.6 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	0.1962	1.7958	1.8818	3.1000e-003		0.0930	0.0930		0.0875	0.0875	0.0000	266.4840	266.4840	0.0638	0.0000	268.0801
Total	**0.1962**	**1.7958**	**1.8818**	**3.1000e-003**		**0.0930**	**0.0930**		**0.0875**	**0.0875**	**0.0000**	**266.4840**	**266.4840**	**0.0638**	**0.0000**	**268.0801**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.2700e-003	0.1641	0.0450	6.2000e-004	0.0198	1.7900e-003	0.0216	5.7200e-003	1.7100e-003	7.4300e-003	0.0000	59.6830	59.6830	3.9000e-004	9.0200e-003	62.3819
Worker	0.0280	0.0191	0.2249	5.7000e-004	0.0625	3.8000e-004	0.0629	0.0166	3.5000e-004	0.0170	0.0000	51.9755	51.9755	1.8500e-003	1.6300e-003	52.5075
Total	**0.0343**	**0.1833**	**0.2699**	**1.1900e-003**	**0.0823**	**2.1700e-003**	**0.0845**	**0.0223**	**2.0600e-003**	**0.0244**	**0.0000**	**111.6586**	**111.6586**	**2.2400e-003**	**0.0107**	**114.8894**

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

3.6 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	tons/yr										MT/yr					
Off-Road	0.1962	1.7958	1.8818	3.1000e-003		0.0930	0.0930		0.0875	0.0875	0.0000	266.4837	266.4837	0.0638	0.0000	268.0798
Total	**0.1962**	**1.7958**	**1.8818**	**3.1000e-003**		**0.0930**	**0.0930**		**0.0875**	**0.0875**	**0.0000**	**266.4837**	**266.4837**	**0.0638**	**0.0000**	**268.0798**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.2700e-003	0.1641	0.0450	6.2000e-004	0.0198	1.7900e-003	0.0216	5.7200e-003	1.7100e-003	7.4300e-003	0.0000	59.6830	59.6830	3.9000e-004	9.0200e-003	62.3819
Worker	0.0280	0.0191	0.2249	5.7000e-004	0.0625	3.8000e-004	0.0629	0.0166	3.5000e-004	0.0170	0.0000	51.9755	51.9755	1.8500e-003	1.6300e-003	52.5075
Total	**0.0343**	**0.1833**	**0.2699**	**1.1900e-003**	**0.0823**	**2.1700e-003**	**0.0845**	**0.0223**	**2.0600e-003**	**0.0244**	**0.0000**	**111.6586**	**111.6586**	**2.2400e-003**	**0.0107**	**114.8894**

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

3.7 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	1.8500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0129**	**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**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4000e-004	3.7000e-004	4.3100e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9970	0.9970	4.0000e-005	3.0000e-005	1.0072
Total	**5.4000e-004**	**3.7000e-004**	**4.3100e-003**	**1.0000e-005**	**1.2000e-003**	**1.0000e-005**	**1.2100e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**0.9970**	**0.9970**	**4.0000e-005**	**3.0000e-005**	**1.0072**

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

3.7 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	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	1.8500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0129**	**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**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4000e-004	3.7000e-004	4.3100e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9970	0.9970	4.0000e-005	3.0000e-005	1.0072
Total	**5.4000e-004**	**3.7000e-004**	**4.3100e-003**	**1.0000e-005**	**1.2000e-003**	**1.0000e-005**	**1.2100e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**0.9970**	**0.9970**	**4.0000e-005**	**3.0000e-005**	**1.0072**

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

3.8 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	0.6339					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	**0.6358**	**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**

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	4.6000e-004	3.0000e-004	3.6700e-003	1.0000e-005	1.1200e-003	1.0000e-005	1.1200e-003	3.0000e-004	1.0000e-005	3.0000e-004	0.0000	0.9004	0.9004	3.0000e-005	3.0000e-005	0.9091
Total	**4.6000e-004**	**3.0000e-004**	**3.6700e-003**	**1.0000e-005**	**1.1200e-003**	**1.0000e-005**	**1.1200e-003**	**3.0000e-004**	**1.0000e-005**	**3.0000e-004**	**0.0000**	**0.9004**	**0.9004**	**3.0000e-005**	**3.0000e-005**	**0.9091**

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

3.8 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	tons/yr										MT/yr					
Archit. Coating	0.6339					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	**0.6358**	**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**

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	4.6000e-004	3.0000e-004	3.6700e-003	1.0000e-005	1.1200e-003	1.0000e-005	1.1200e-003	3.0000e-004	1.0000e-005	3.0000e-004	0.0000	0.9004	0.9004	3.0000e-005	3.0000e-005	0.9091
Total	**4.6000e-004**	**3.0000e-004**	**3.6700e-003**	**1.0000e-005**	**1.1200e-003**	**1.0000e-005**	**1.1200e-003**	**3.0000e-004**	**1.0000e-005**	**3.0000e-004**	**0.0000**	**0.9004**	**0.9004**	**3.0000e-005**	**3.0000e-005**	**0.9091**

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	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

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	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

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Manufacturing	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
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

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

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
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
Manufacturing	0.515394	0.052058	0.166327	0.163679	0.033750	0.008148	0.012972	0.015736	0.000860	0.000305	0.025297	0.001401	0.004072
Other Asphalt Surfaces	0.515394	0.052058	0.166327	0.163679	0.033750	0.008148	0.012972	0.015736	0.000860	0.000305	0.025297	0.001401	0.004072
Other Non-Asphalt Surfaces	0.515394	0.052058	0.166327	0.163679	0.033750	0.008148	0.012972	0.015736	0.000860	0.000305	0.025297	0.001401	0.004072
Refrigerated Warehouse-Rail	0.515394	0.052058	0.166327	0.163679	0.033750	0.008148	0.012972	0.015736	0.000860	0.000305	0.025297	0.001401	0.004072

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Modesto Operations Emissions - Post-Project - Stanislaus 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					
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

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					
Manufacturing	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 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
Refrigerated Warehouse-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
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**

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					
Manufacturing	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 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
Refrigerated Warehouse-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
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**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	0	0.0000	0.0000	0.0000	0.0000
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
Refrigerated Warehouse-Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	0	0.0000	0.0000	0.0000	0.0000
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
Refrigerated Warehouse-Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

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	0.4158	1.0000e-005	1.4800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.8800e-003	2.8800e-003	1.0000e-005	0.0000	3.0700e-003
Unmitigated	0.4158	1.0000e-005	1.4800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.8800e-003	2.8800e-003	1.0000e-005	0.0000	3.0700e-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	0.0634					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3523					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.4000e-004	1.0000e-005	1.4800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.8800e-003	2.8800e-003	1.0000e-005	0.0000	3.0700e-003
Total	**0.4158**	**1.0000e-005**	**1.4800e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**2.8800e-003**	**2.8800e-003**	**1.0000e-005**	**0.0000**	**3.0700e-003**

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	0.0634					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3523					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.4000e-004	1.0000e-005	1.4800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.8800e-003	2.8800e-003	1.0000e-005	0.0000	3.0700e-003
Total	**0.4158**	**1.0000e-005**	**1.4800e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**2.8800e-003**	**2.8800e-003**	**1.0000e-005**	**0.0000**	**3.0700e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

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	112.4768	4.3782	0.1044	253.0532
Unmitigated	112.4768	4.3782	0.1044	253.0532

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	134.028 / 0	112.4768	4.3782	0.1044	253.0532
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
Refrigerated Warehouse-Rail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**112.4768**	**4.3782**	**0.1044**	**253.0532**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	134.028 / 0	112.4768	4.3782	0.1044	253.0532
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
Refrigerated Warehouse-Rail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**112.4768**	**4.3782**	**0.1044**	**253.0532**

8.0 Waste Detail

8.1 Mitigation Measures Waste

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	6.8712	0.4061	0.0000	17.0232
Unmitigated	6.8712	0.4061	0.0000	17.0232

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	33.85	6.8712	0.4061	0.0000	17.0232
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
Refrigerated Warehouse-Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**6.8712**	**0.4061**	**0.0000**	**17.0232**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	33.85	6.8712	0.4061	0.0000	17.0232
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
Refrigerated Warehouse-Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**6.8712**	**0.4061**	**0.0000**	**17.0232**

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

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

APPENDIX B.2
EMFAC OUTPUT FILES

Source: EMFAC2021 (v1.0.1) Emissions Inventory
Region Type: County
Region: Stanislaus
Calendar Year: 2020
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	Total VMT	CVMT	EVMT	Trips	Energy Consumption	NOx_RUNEX	NOx_IDLEX	NOx_STREX	NOx_TOTEX	PM2.5_RUNEX	PM2.5_IDLEX	PM2.5_STREX	PM2.5_TOTEX	PM2.5_PMTW	PM2.5_PMBW	PM2.5_TOTAL	PM10_RUNEX	PM10_IDLEX	PM10_STREX	PM10_TOTEX	PM10_PMTW	PM10_PMBW	PM10_TOTAL	CO2_RUNEX	CO2_IDLEX	CO2_STREX	CO2_TOTEX	CH4_RUNEX
Stanislaus	2020	HHDT	Aggregate	Aggregate	Gasoline	8.69785095	128.0641059	128.0641059	0	174.0265847	0	0.003091637	0	0.000178722	0.003270358	1.73E-06	0	7.42E-07	2.47E-06	7.06E-07	5.75E-06	8.93E-06	1.86E-06	0	7.96E-07	2.66E-06	2.82E-06	1.64E-05	2.19E-05	0.412911209	0	0.012507107	0.425418317	0.000118574
Stanislaus	2020	HHDT	Aggregate	Aggregate	Diesel	5320.373633	7707779.6753	7707779.6753	0	8744.180223	0	2.752721219	0.49855382	0.202622454	3.453897493	0.047058754	0.000747426	0	0.04780618	0.007544786	0.023685836	0.079036803	0.049186542	0.000781221	0	0.049967764	0.030179344	0.067673819	0.147820726	1401.94722	93.47165508	0	1495.418875	0.020957202
Stanislaus	2020	HHDT	Aggregate	Aggregate	Natural Gas	118.1291198	8072.153632	8072.153632	0	928.4841295	0	0.017476	0.001629087	0	0.019105087	3.21E-05	2.42E-06	0	3.46E-05	8.01E-05	0.000420398	0.000535031	3.49E-05	2.63E-06	0	3.76E-05	0.000320329	0.001201138	0.001559044	13.84027419	1.223150962	0	15.06342515	0.022694512
Stanislaus	2020	LDA	Aggregate	Aggregate	Gasoline	187557.3034	6022706.703	6022706.703	0	866595.0068	0	0.464241639	0	0.316630965	0.780872604	0.00834321	0	0.002123775	0.010466985	0.013277795	0.021526816	0.045271596	0.009073726	0	0.002309489	0.011383216	0.053111182	0.061505189	0.125999586	1941.212897	0	73.39131829	2014.604215	0.023696032
Stanislaus	2020	LDA	Aggregate	Aggregate	Diesel	611.8991777	16669.525	16669.525	0	2652.04052	0	0.006203721	0	0	0.006203721	0.000365126	0	0	0.000365126	3.68E-05	5.99E-05	0.000461753	0.000381636	0	0	0.000381636	0.000147	0.000171077	0.006699712	4.196459426	0	0	4.196459426	2.84E-05
Stanislaus	2020	LDA	Aggregate	Aggregate	Electricity	1949.518796	68311.14432	0	68311.14432	9872.087172	26373.73973	0	0	0	0	0	0	0	0	0.0001506	0.000114933	0.000265533	0	0	0	0	0.000602401	0.000328379	0.00093078	0	0	0	0	0
Stanislaus	2020	LDA	Aggregate	Aggregate	Plug-in Hybrid	2659.908203	108945.8408	58551.31034	50394.53044	10998.72042	15220.65019	0.000429171	0	0.001375682	0.001804852	9.36E-05	0	3.02E-05	0.000123787	0.000240184	0.000176973	0.000540945	0.000101827	0	3.28E-05	0.00013463	0.000960738	0.000505636	0.001601004	18.62588341	0	0.830633858	19.45651727	5.94E-05
Stanislaus	2020	LDT1	Aggregate	Aggregate	Gasoline	21022.45823	537315.4407	537315.4407	0	90261.51865	0	0.158006102	0	0.061616193	0.219622294	0.001478602	0	0.000418302	0.001839904	0.001184578	0.002268727	0.005350209	0.00160791	0	0.000455485	0.00206276	0.004738311	0.006482078	0.013283149	206.7196532	0	9.975637117	216.6952904	0.007588952
Stanislaus	2020	LDT1	Aggregate	Aggregate	Diesel	18.16129589	185.8115518	185.8115518	0	56.03440685	0	0.000312893	0	0	0.000312893	4.43E-05	0	0	4.43E-05	4.10E-07	8.83E-07	4.56E-05	4.63E-05	0	0	4.63E-05	1.64E-06	2.52E-06	5.05E-05	0.079576946	0	0	0.079576946	2.05E-06
Stanislaus	2020	LDT1	Aggregate	Aggregate	Electricity	3.203164592	77.04551931	0	77.04551931	14.32122404	29.74592937	0	0	0	0	0	0	0	0	1.70E-07	1.31E-07	3.01E-07	0	0	0	0	6.79E-07	3.74E-07	1.05E-06	0	0	0	0	0
Stanislaus	2020	LDT1	Aggregate	Aggregate	Plug-in Hybrid	0.753011763	31.79112058	16.59837282	15.19274776	3.113703638	4.588662639	1.22E-07	0	3.89E-07	5.11E-07	2.39E-08	0	7.92E-09	3.18E-08	7.01E-08	5.15E-08	1.53E-07	2.60E-08	0	8.61E-09	3.46E-08	2.80E-07	1.47E-07	4.62E-07	0.005280144	0	0.000261575	0.00554172	1.68E-08
Stanislaus	2020	LDT2	Aggregate	Aggregate	Gasoline	75750.38719	2327797.587	2327797.587	0	349034.7231	0	0.365894449	0	0.20487568	0.570770129	0.003485217	0	0.00087741	0.004362628	0.005131915	0.009402394	0.018896937	0.003790285	0	0.000954171	0.004744456	0.020527661	0.026863984	0.052136101	956.516592	0	38.31437251	994.8309645	0.012475097
Stanislaus	2020	LDT2	Aggregate	Aggregate	Diesel	176.8018544	6048.129336	6048.129336	0	837.1728722	0	0.000609357	0	0	0.000609357	8.07E-05	0	0	8.07E-05	1.33E-05	2.31E-05	0.00011707	8.43E-05	0	0	8.43E-05	5.33E-05	6.59E-05	0.000203557	2.074154378	0	0	2.074154378	6.97E-06
Stanislaus	2020	LDT2	Aggregate	Aggregate	Electricity	7.60845964	227.2328458	0	227.2328458	38.80406412	87.73063102	0	0	0	0	0	0	0	0	5.01E-07	3.82E-07	8.83E-07	0	0	0	0	2.00E-06	1.09E-06	3.09E-06	0	0	0	0	0
Stanislaus	2020	LDT2	Aggregate	Aggregate	Plug-in Hybrid	114.920584	4768.852065	2511.653634	2257.198431	475.1966148	681.7412014	1.84E-05	0	5.94E-05	7.78E-05	4.25E-06	0	1.42E-06	5.67E-06	1.05E-05	7.73E-06	2.39E-05	4.62E-06	0	1.54E-06	6.17E-06	4.21E-05	2.21E-05	7.03E-05	0.798987546	0	0.043042632	0.842030177	2.55E-06
Stanislaus	2020	LHDT1	Aggregate	Aggregate	Gasoline	10156.34353	298274.9886	298274.9886	0	151314.3856	0	0.102379083	0.000457437	0.11987162	0.222708141	0.000630408	0	7.38E-05	0.000704239	0.000657584	0.008976019	0.010337842	0.000685384	0	8.02E-05	0.000765586	0.002630335	0.025645768	0.029041689	314.4938104	1.383504399	4.240147924	320.1174628	0.004705074
Stanislaus	2020	LHDT1	Aggregate	Aggregate	Diesel	10300.11632	318583.7149	318583.7149	0	129562.5058	0	1.00963855	0.027473027	0	1.037113577	0.019323683	0.000306177	0	0.01962986	0.001053535	0.009587171	0.030270566	0.020197414	0.000320021	0	0.020517435	0.004214141	0.027393918	0.052123484	224.6540329	1.57565788	0	226.2296908	0.004105783
Stanislaus	2020	LHDT2	Aggregate	Aggregate	Gasoline	1712.453856	57294.28293	57294.28293	0	25513.0109	0	0.011442351	7.46E-05	0.01869687	0.030213781	9.17E-05	0	7.89E-06	9.96E-05	0.000126312	0.002011523	0.002237468	9.98E-05	0	8.58E-06	0.00010836	0.000505249	0.005747208	0.006360817	64.01072397	0.265320918	0.731697734	65.00774262	0.000478345
Stanislaus	2020	LHDT2	Aggregate	Aggregate	Diesel	3375.410036	111516.6733	111516.6733	0	42458.41199	0	0.252457931	0.00876558	0	0.261223511	0.00539325	9.82E-05	0	0.005491417	0.000368778	0.003195196	0.009775391	0.005637109	0.000102605	0	0.005739714	0.001475113	0.011186274	0.018401102	96.38382636	0.821204654	0	97.20503102	0.001186752
Stanislaus	2020	MCY	Aggregate	Aggregate	Gasoline	11004.48443	51337.85675	51337.85675	0	22008.96886	0	0.041150978	0	0.004636302	0.04578728	9.27E-05	0	8.76E-05	0.000180121	5.66E-05	0.000237679	0.00047459	9.88E-05	0	9.27E-05	0.000191225	0.000226361	0.000679084	0.00109667	10.5715603	0	1.428844477	12.00404478	0.011562263
Stanislaus	2020	MDV	Aggregate	Aggregate	Gasoline	86228.05479	2469102.668	2469102.668	0	391124.2325	0	0.534855189	0	0.307921563	0.842776752	0.003740323	0	0.001078877	0.0048192	0.005443444	0.010259301	0.02052194	0.004065783	0	0.001172281	0.005238064	0.021773758	0.029312288	0.056324111	1221.37456	0	52.08859127	1273.463152	0.018291983
Stanislaus	2020	MDV	Aggregate	Aggregate	Diesel	1210.265365	41393.1448	41393.1448	0	5764.812109	0	0.006502348	0	0	0.006502348	0.000381306	0	0	0.000381306	9.13E-05	0.000163344	0.000636802	0.000398547	0	0	0.000398547	0.000365025	0.00046697	0.001230542	18.7095776	0	0	18.7095776	3.44E-05
Stanislaus	2020	MDV	Aggregate	Aggregate	Electricity	18.34877657	563.1046225	0	563.1046225	94.43752731	217.4048598	0	0	0	0	0	0	0	0	1.24E-06	9.45E-07	2.19E-06	0	0	0	0	4.97E-06	2.70E-06	7.67E-06	0	0	0	0	0
Stanislaus	2020	MDV	Aggregate	Aggregate	Plug-in Hybrid	212.7657486	8839.69854	4759.8114	4079.88714	879.7863705	1232.247516	3.49E-05	0	0.000110041	0.000144929	8.87E-06	0	2.89E-06	1.18E-05	1.95E-05	1.43E-05	4.56E-05	9.65E-06	0	3.14E-06	1.28E-05	7.80E-05	4.10E-05	0.000131724	1.514153853	0	0.099524012	1.613677865	4.84E-06
Stanislaus	2020	MH	Aggregate	Aggregate	Gasoline	1648.249026	11801.44272	11801.44272	0	164.8908326	0	0.008965086	0	7.15E-05	0.009036576	2.82E-05	0	9.77E-08	2.83E-05	3.90E-05	0.000205106	0.000272452	3.07E-05	0	1.06E-07	3.08E-05	0.000156106	0.000586017	0.000772897	25.41161972	0	0.005977178	25.4175969	0.000356828
Stanislaus	2020	MH	Aggregate	Aggregate	Diesel	587.0157875	4467.309551	4467.309551	0	58.70157875	0	0.028898304	0	0	0.028898304	0.000736003	0	0	0.000736003	1.97E-05	7.73E-05	0.000832987	0.000769282	0	0	0.000769282	7.88E-05	0.000220817	0.001068889	5.308511511	0	0	5.308511511	3.59E-05
Stanislaus	2020	MHDT	Aggregate	Aggregate	Gasoline	664.24147	24636.72647	24636.72647	0	13290.14333	0	0.024706695	6.38E-05	0.006587558	0.031358089	4.24E-05	0	1.15E-05	5.39E-05	8.15E-05	0.00042818	0.000563536	4.61E-05	0	1.25E-05	5.86E-05	0.000325888	0.001223371	0.001607863	51.41758226	0.40640458	0.720225566	52.5442124	0.000946116
Stanislaus	2020	MHDT	Aggregate	Aggregate	Diesel	4588.208669	210833.7448	210833.7448	0	54187.47093	0	0.662278891	0.113356027	0.066750819	0.842385717	0.012761909	0.000471571	0	0.01323348	0.000697213	0.003666954	0.017597647	0.013338845	0.000492894	0	0.013831839	0.002788853	0.010477011	0.027097703	266.1175009	12.24002369	0	278.3575245	0.001298795
Stanislaus	2020	MHDT	Aggregate	Aggregate	Natural Gas	28.92980439	1541.766173	1541.766173	0	199.344028	0	0.000242662	0.000234327	0	0.000476989	2.06E-06	6.13E-07	0	2.67E-06	5.10E-06	2.72E-05	3.50E-05	2.24E-06	6.67E-07	0	2.90E-06	2.04E-05	7.78E-05	0.000101124	1.740031442	0.191060541	0	1.931091983	0.001338986
Stanislaus	2020	OBUS	Aggregate	Aggregate	Gasoline	167.2241739	6364.289227	6364.289227	0	3345.821272	0	0.006284069	1.20E-05	0.001588028	0.007884056	6.23E-06	0	9.70E-07	7.19E-06	2.10E-05	0.000110214	0.000138456	6.77E-06	0	1.05E-06	7.82E-06	8.42E-05	0.000314899	0.000406908	12.94661091	0.071642739	0.124270942	13.14252459	0.000182566
Stanislaus	2020	OBUS	Aggregate	Aggregate	Diesel	136.2989461	9228.124085	9228.124085	0	1556.758734	0	0.043564144	0.002758184	0.002034266	0.048356595	0.001129346	1.06E-05	0	0.001139963	3.05E-05	0.000204688	0.001375168	0.00118041	1.11E-05	0	0.001191507	0.000122067	0.000584824	0.001898398	14.21293834	0.378563464	0	14.59150381	0.000145336
Stanislaus	2020	OBUS	Aggregate	Aggregate	Natural Gas	1.529490143	88.88306101	88.88306101	0	13.61246227	0	2.40E-05	2.60E-06	0	2.66E-05	7.89E-08	6.47E-09	0	8.54E-08	2.94E-07	1.58E-06	1.96E-06	8.58E-08	7.03E-09	0	9.29E-08	1.18E-06	4.52E-06	5.79E-06	0.102320789	0.002092607	0	0.104413396	7.45E-05
Stanislaus	2020	SBUS	Aggregate	Aggregate	Gasoline	199.1564725	8175.765779	8175.765779	0	796.6258902	0	0.002955172	0.000203022	0.000591166	0.003729357	6.94E-06	0	4.15E-07	7.36E-06	1.80E-05	0.000141681	0.000167064	7.55E-06	0	4.51E-07	8.00E-06	7.21E-05	0.000404804	0.000484905	7.490859676	0.582388569	0.050699918	8.123948163	6.96E-05
Stanislaus	2020	SBUS	Aggregate	Aggregate	Diesel	481.1460994	11361.46075	11361.46075	0	6966.995519	0	0.058599873	0.012589948	0.003232812	0.074422633	0.000339725	1.49E-05	0	0.000354594	3.76E-05	0.000196888	0.000589054	0.000355086	1.55E-05	0	0.000370627	0.000150286	0.000562536	0.00108345	14.58774359	1.216346999	0	15.80409059	4.06E-05
Stanislaus	2020	SBUS	Aggregate	Aggregate	Natural Gas	86.99540599	2288.323345	2288.323345	0	1259.693479	0	0.001309518	0.000503071	0	0.001812589	8.52E-06	1.15E-06	0	9.67E-06	7.57E-06	3.97E-05	5.69E-05	9.27E-06	1.25E-06	0	1.05E-05	3.03E-05	0.000113301	0.000154085	3.180489822	0.399746553	0	3.580236374	0.008311136
Stanislaus	2020	UBUS	Aggregate	Aggregate	Gasoline	18.29547836	1020.776415	1020.776415	0	73.18191345	0	0.000216051	0	7.08E-05	0.000286686	1.16E-06	0	5.82E-08	1.21E-06	3.25E-06	4.25E-05	4.68E-05	1.26E-06	0	6.33E-08	1.32E-06	1.30E-05	0.000123115	0.00011562	1.934367582	0	0.008783795	1.943151377	4.09E-06
Stanislaus	2020	UBUS	Aggregate	Aggregate	Diesel	75.04971484	7917.303225	7917.303225	0	300.1988594	0	0.008164122	0	0	0.008164122	4.66E-05	0	0	4.66E-05	5.62E-05	0.000336002	0.000438787	4.87E-05	0	0	4.87E-05	0.000224848	0.000960007	0.001233533	10.67059282	0	0	10.67059282	3.23E-05
Stanislaus	2020	UBUS	Aggregate	Aggregate	Electricity	5.046756939	101.2376355	0	101.2376355	20.18702775	176.4819127	0	0	0	0	0	0	0	0	1.00E-06	2.15E-06	3.15E-06	0	0	0	0	4.02E-06	6.14E-06	1.02E-05	0	0	0	0	0
Stanislaus	2020	UBUS	Aggregate	Aggregate	Natural Gas	45.93904584	3941.669645	3941.669645	0	183.7561833	0	0.00123937	0	0	0.00123937	6.95E-07	0	0	6.95E-07	2.87E-05	0.00016728	0.000196684	7.26E-07	0	0	7.26E-07	0.000114833	0.000477944	0.000593503	5.562297902	0	0	5.562297902	0.007935483

Source: EMFAC2021 (v1.0.1) Emissions Inventory
Region Type: County
Region: Stanislaus
Calendar Year: 2020
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

CH4_IDLEX	CH4_STREX	CH4_TOTEX	N2O_RUNEX	N2O_IDLEX	N2O_STREX	N2O_TOTEX	ROG_RUNEX	ROG_IDLEX	ROG_STREX	ROG_TOTEX	ROG_DIURN	ROG_HOTSOAK	ROG_RUNLOSS	ROG_TOTAL	TOG_RUNEX	TOG_IDLEX	TOG_STREX	TOG_TOTEX	TOG_DIURN	TOG_HOTSOAK	TOG_RUNLOSS	TOG_TOTAL	CO_RUNEX	CO_IDLEX	CO_STREX	CO_TOTEX	SOx_RUNEX	SOx_IDLEX	SOx_STREX	SOx_TOTEX	NH3_RUNEX	Fuel Consumption
0	2.18E-09	0.000118576	6.73E-05	0	3.31E-06	7.06E-05	0.000861395	0	1.19E-08	0.000861407	0.00012961	4.00E-05	0.000301411	0.001332469	0.0011588	0	1.30E-08	0.001158813	0.00012961	4.00E-05	0.000301411	0.001629875	0.036088389	0	0.000351051	0.03643944	4.08E-06	0	1.24E-07	4.21E-06	3.87E-06	0.04485983
0.001778195	0	0.004735397	0.220877355	0.014726497	0	0.235603853	0.063667757	0.018284044	0	0.1019518	0	0	0	0.1019518	0.072480894	0.04358347	0	0.116064364	0	0	0	0.116064364	0.251430256	0.489426557	0	0.740856813	0.013275602	0.000885121	0	0.014160723	0.162751496	133.5851757
0.004327685	0	0.031022198	0.0028143	0.000249347	0	0.003070778	0.000948409	7.71E-05	0	0.001025507	0	0	0	0.001025507	0.027889701	0.004434112	0	0.032323813	0	0	0	0.032323813	0.132199329	0.008394286	0	0.140593615	0	0	0	0	0.007745594	1.7411022
0	0.087606	0.111302032	0.041957133	0	0.034946261	0.076903395	0.099168419	0	0.433876986	0.533045405	0.389530641	0.111022411	0.276161733	1.30976019	0.144616055	0	0.475035375	0.619651543	0.389530641	0.111022411	0.276161733	1.396366214	7.430610399	0	4.049066962	11.47967736	0.019190866	0	0.000725548	0.019916414	0.022298197	212.4374973
0	0	2.84E-05	0.000661154	0	0	0.000661154	0.000610611	0	0	0.000610611	0	0	0	0.000610611	0.00069514	0	0	0.00069514	0	0	0	0.00069514	0.006570209	0	0	0.006570209	3.98E-05	0	0	3.98E-05	5.70E-05	0.374868058
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0.000502238	0.000561671	7.76E-05	0	0.000248397	0.000326008	0.000188029	0	0	0.000204001	0.00223103	0.001664732	0.000509904	0.004450659	0.000274371	0	0.002236829	0.0025112	0.001664732	0.000509904	0.004449994	0.005130829	0.030663781	0	0.015685314	0.046349095	0.000184136	0	8.21E-06	0.000192347	0.00226791	2.051665436
0	0.017121259	0.02471111	0.010232688	0	0.004831112	0.015053801	0.03570122	0	0	0.097491107	0.133192327	0.113174751	0.029127438	0.388961419	0.364455934	0.052040601	0	0.106739263	0.158779865	0.113174751	0.029127438	0.388961419	0.390043472	1.731876122	0	0.926314608	2.65819073	0.002043634	0	9.86E-05	0.002142254	0.02232459	22.83024761
0	0	2.65E-06	1.25E-05	0	0	1.25E-05	5.71E-05	0	0	5.71E-05	0	0	0	5.71E-05	6.50E-05	0	0	6.50E-05	0	0	0	6.50E-05	0.000333059	0	0	0.000333059	7.54E-07	0	0	7.54E-07	6.35E-07	0.007108577
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1.42E-07	1.59E-07	2.20E-08	0	7.04E-08	9.24E-08	5.33E-08	0	5.78E-07	6.32E-07	3.29E-07	9.62E-08	9.54E-08	1.15E-06	7.78E-08	0	6.33E-07	7.11E-07	3.29E-07	9.62E-08	9.54E-08	1.23E-06	8.69E-06	0	4.44E-06	1.31E-05	5.22E-08	0	2.59E-09	5.48E-08	7.68E-07	0.000584367
0	0.043777049	0.056252146	0.025097416	0	0.017807055	0.042904472	0.05400325	0	0.222537553	0.276540803	0.165732988	0.045980169	0.119957238	0.608211198	0.07873888	0	0.243649189	0.322388069	0.165732988	0.045980169	0.119957238	0.654058464	3.730725252	0	2.02790989	5.758635142	0.00945614	0	0.000378777	0.009834917	0.082813781	104.9036822
0	0	6.97E-06	0.000326784	0	0	0.000326784	0.000150161	0	0	0.000150161	0	0	0	0.000150161	0.000170949	0	0	0.000170949	0	0	0	0.000170949	0.001017163	0	0	0.001017163	1.97E-05	0	0	1.97E-05	2.07E-05	0.185283389
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	2.17E-05	2.42E-05	3.32E-06	0	1.07E-05	1.40E-05	8.07E-06	0	8.83E-05	9.63E-05	5.44E-05	1.55E-05	1.54E-05	0.000181661	1.18E-05	0	9.66E-05	0.000108411	5.44E-05	1.55E-05	1.54E-05	0.000193739	0.001315373	0	0.00067768	0.001993052	7.90E-06	0	4.26E-07	8.32E-06	0.000115251	0.08879103
0.001352243	0.00651291	0.012570226	0.005560262	3.31E-05	0.008599952	0.014193337	0.024223348	0.005237786	0.033906847	0.063367981	0.039021495	0.010390907	0.052542809	0.165323192	0.03510433	0.007640945	0.037120168	0.079865443	0.039021495	0.010390907	0.052542809	0.181820654	0.525635413	0.041887116	0.483264472	1.050787001	0.003109091	1.37E-05	4.19E-05	0.003164687	0.014727983	33.75598647
5.79E-05	0	0.004363667	0.035394334	0.000248246	0	0.03564258	0.088395101	0.001246204	0	0.089641305	0	0	0	0.089641305	0.100631945	0.001418721	0	0.102050666	0	0	0	0.102050666	0.263155657	0.010329181	0	0.27348484	0.002128711	1.49E-05	0	0.002143641	0.045068603	20.20900866
0.000230274	0.000972392	0.001681011	0.00067763	5.92E-06	0.00146316	0.002146713	0.002279605	0.000854801	0.004835886	0.007970293	0.004362816	0.001152269	0.00569109	0.019176468	0.003326361	0.001247324	0.005294686	0.009868371	0.004362816	0.001152269	0.00569109	0.021074546	0.062975238	0.007098137	0.088861378	0.158934753	0.000632811	2.62E-06	7.23E-06	0.000642668	0.002839422	6.854985235
1.90E-05	0	0.001205721	0.015185311	0.000129381	0	0.015314692	0.025550079	0.000408389	0	0.025958467	0	0	0	0.025958467	0.029087066	0.000464923	0	0.029551989	0	0	0	0.029551989	0.069706029	0.003384935	0	0.073090964	0.000913286	7.78E-06	0	0.000921067	0.019158182	8.683286915
0	0.005450345	0.017012608	0.002611973	0	0.000263431	0.002875405	0.081412545	0	0.041680649	0.123093194	0.065620742	0.087632204	0.092790549	0.369136689	0.095160205	0	0.045282461	0.140442667	0.065620742	0.087632204	0.092790549	0.386486161	0.937848302	0	0.208419701	1.146268002	0.000104511	0	1.41E-05	0.000118636	0.000472727	1.26542769
0	0.065035413	0.083327396	0.033909772	0	0.022965735	0.056875507	0.086082002	0	0.358476274	0.444558276	0.212514774	0.059339497	0.155986815	0.872399362	0.122931111	0	0.392452098	0.515383208	0.212514774	0.059339497	0.155986815	0.943224294	4.668116353	0	2.530390658	7.198507011	0.012074531	0	0.000514949	0.01258948	0.086067834	134.2850982
0	0	3.44E-05	0.002947702	0	0	0.002947702	0.000739825	0	0	0.000739825	0	0	0	0.000739825	0.000842241	0	0	0.000842241	0	0	0	0.000842241	0.010871796	0	0	0.010871796	0.000177283	0	0	0.000177283	0.000141447	1.671319156
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	4.03E-05	4.51E-05	6.33E-06	0	2.00E-05	2.63E-05	1.53E-05	0	0.000163419	0.000178705	0.000113318	3.09E-05	3.17E-05	0.000354624	2.23E-05	0	0.000178924	0.000201228	0.000113318	3.09E-05	3.17E-05	0.000377147	0.002492751	0	0.001254666	0.003747417	1.50E-05	0	9.84E-07	1.60E-05	0.000220365	0.170160315
0	7.40E-06	0.000364223	0.000479527	0	6.87E-06	0.000486399	0.001720614	0	3.43E-05	0.00175493	0.011098578	0.003049167	6.77E-05	0.015970327	0.002474506	0	3.76E-05	0.002512063	0.011098578	0.003049167	6.77E-05	0.01672746	0.046570442	0	0.000734382	0.047304824	0.00025122	0	5.91E-08	0.000251279	0.00057901	2.680253835
0	0	3.59E-05	0.000836358	0	0	0.000836358	0.000772282	0	0	0.000772282	0	0	0	0.000772282	0.000879192	0	0	0.000879192	0	0	0	0.000879192	0.002674477	0	0	0.002674477	5.03E-05	0	0	5.03E-05	0.000516441	0.47420723
0.000171902	0.000719256	0.001837274	0.001050039	4.51E-06	0.000425951	0.001480504	0.005105069	0.000727027	0.004277722	0.010109818	0.003337948	0.000877165	0.006601447	0.020926378	0.007449304	0.001060877	0.004681567	0.013193748	0.003337948	0.000877165	0.006601447	0.024010308	0.111366127	0.01090125	0.095700563	0.217967939	0.000508315	4.02E-06	7.12E-06	0.000519453	0.001209235	5.540721545
9.53E-05	0	0.001394056	0.041926921	0.001928421	0	0.043853341	0.027962693	0.002050947	0	0.01001164	0	0	0	0.01001164	0.031833398	0.002334846	0	0.034168244	0	0	0	0.034168244	0.084156748	0.035907304	0	0.120064052	0.002519974	0.000115906	0	0.002635879	0.038714333	24.8655674
0.000639026	0	0.001978012	0.000354717	3.89E-05	0	0.000393666	1.91E-05	9.13E-06	0	2.83E-05	0	0	0	2.83E-05	0.001366533	0.000652173	0	0.002018706	0	0	0	0.002018706	0.005040074	0.001161916	0	0.00620199	0	0	0	0	0.001801476	0.22320478
3.42E-05	0.000148128	0.000362928	0.000280268	8.67E-07	0.000108406	0.00038954	0.000893303	0.000137079	0.000825425	0.001855807	0.00049755	0.000131502	0.000516531	0.00300119	0.001303102	0.000200019	0.000903725	0.002406846	0.00049755	0.000131502	0.000516531	0.003552429	0.02012303	0.001061477	0.017862688	0.039047195	0.00012799	7.08E-07	1.23E-06	0.000129927	0.000315365	1.385862797
7.03E-06	0	0.000152362	0.002239254	5.966E-05	0	0.002298897	0.003129047	0.000151264	0	0.003280312	0	0	0	0.003280312	0.003562182	0.000172203	0	0.003734385	0	0	0	0.003734385	0.008392012	0.001772475	0	0.010164487	0.000134588	3.58E-06	0	0.000138173	0.001725169	1.303453076
7.20E-06	0	8.17E-05	2.09E-05	4.27E-07	0	2.13E-05	1.06E-06	1.03E-07	0	1.17E-06	0	0	0	1.17E-06	7.60E-05	7.35E-06	0	8.34E-05	0	0	0	8.34E-05	0.00031113	1.22E-05	0	0.000323284	0	0	0	0	0.000103855	0.012068596
0.000530517	5.58E-05	0.000656014	0.000180202	1.93E-05	5.58E-05	0.000255099	0.000337751	0.0023305	0.000319752	0.002987742	0.000268456	7.79E-05	0.000147523	0.003481657	0.000492495	0.003450659	0.000350066	0.00424322	0.000268456	7.79E-05	0.000147523	0.004757135	0.008158455	0.018020286	0.008406357	0.034585098	7.41E-05	5.76E-06	5.01E-07	8.03E-05	0.000405551	0.856660183
4.60E-06	0	4.52E-05	0.002298305	0.000191636	0	0.002489941	0.000873899	9.91E-05	0	0.000973015	0	0	0	0.000973015	0.000994867	0.000112836	0	0.001107704	0	0	0	0.001107704	0.00257351	0.002193628	0	0.004767137	0.000138137	1.15E-05	0	0.000149655	0.001544418	1.411773152
0.001433586	0	0.009744721	0.000648364	8.15E-05	0	0.000729855	0.00011875	2.05E-05	0	0.000139233	0	0	0	0.000139233	0.008482123	0.001463079	0	0.009945203	0	0	0	0.009945203	0.027700775	0.002117897	0	0.029818672	0	0	0	0	0.002673791	0.413820719
0	9.44E-06	1.35E-05	1.96E-05	0	6.62E-06	2.62E-05	1.36E-05	0	4.05E-05	5.42E-05	1.34E-05	3.45E-06	7.73E-06	7.87E-05	1.99E-05	0	4.44E-05	6.43E-05	1.34E-05	3.45E-06	7.73E-06	8.88E-05	0.00035056	0	0.000782777	0.001132833	1.91E-05	0	8.68E-08	1.92E-05	5.06E-05	0.204902885
0	0	3.23E-05	0.001681156	0	0	0.001681156	0.000695842	0	0	0.000695842	0	0	0	0.000695842	0.000792163	0	0	0.000792163	0	0	0	0.000792163	0.000793156	0	0	0.000793156	0.000101109	0	0	0.000101109	0.001725847	0.95319983
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0.007935483	0.001133911	0	0	0.001133911	0.000113382	0	0	0.000113382	0	0	0	0.000113382	0.008098743	0	0	0.008098743	0	0	0	0.008098743	0.100814662	0	0	0.100814662	0	0	0	0	0.004214597	0.642916801

Source: EMFAC2021 (v1.0.1) Emissions Inventory
Region Type: County
Region: Stanislaus
Calendar Year: 2022
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	Total VMT	CVMT	EVMT	Trips	Energy Consumption	NOx RUNEX	NOx IDLEX	NOx STREX	NOx TOTEX	PM2.5 RUNEX	PM2.5 IDLEX	PM2.5 STREX	PM2.5 TOTEX	PM2.5 PMTW	PM2.5 PMBW	PM2.5 TOTAL	PM10 RUNEX	PM10 IDLEX	PM10 STREX	PM10 TOTEX	PM10 PMTW	PM10 PMBW	PM10 TOTAL	CO2 RUNEX	CO2 IDLEX	CO2 STREX	CO2 TOTEX	CH4 RUNEX
Stanislaus	2022	HHDT	Aggregate	Aggregate	Gasoline	5.3154938	102.8244068	102.824068	0	106.7508709	0	0.002194764	0	0.000104395	0.002299159	1.06E-06	0	3.04E-07	1.36E-06	5.47E-07	4.50E-06	6.43E-06	1.15E-06	0	3.31E-07	1.48E-06	2.27E-06	1.28E-05	1.66E-05	0.317387214	0	0.006142702	0.323529916	7.23E-05
Stanislaus	2022	HHDT	Aggregate	Aggregate	Diesel	5618.136406	8014513.802	8014513.802	0	92752.26373	0	1.974138604	0.517705229	0.253645171	2.747485004	0.029898849	0.000240212	0	0.029139661	0.007944325	0.02338227	0.057827754	0.037906984	0.000253073	0	0.037323357	0.010185265	0.06852077	0.173273129	1464.094427	99.15367984	0	1535.247806	0.001345495
Stanislaus	2022	HHDT	Aggregate	Aggregate	Natural Gas	138.9506379	9064.559042	9064.559042	0	1103.774706	0	0.016133313	0.001843572	0	0.017976701	3.08E-05	3.13E-06	0	3.39E-05	8.99E-05	0.000470992	0.000594827	3.35E-05	3.41E-06	0	3.69E-05	0.000559711	0.001345692	0.001742279	15.03721324	1.437918976	0	16.47613222	0.026707139
Stanislaus	2022	LDA	Aggregate	Aggregate	Gasoline	185795.1124	7166893.486	7166893.486	0	856792.1618	0	0.42162988	0	0.277924421	0.69955431	0.009445499	0	0.001960253	0.011405752	0.015803296	0.029393426	0.053106473	0.010272731	0	0.002131845	0.012404576	0.063201182	0.074086931	0.149803589	2247.748753	0	69.87803847	2317.626791	0.032261523
Stanislaus	2022	LDA	Aggregate	Aggregate	Diesel	557.2731511	17691.77323	17691.77323	0	2383.092557	0	0.005219329	0	0.005219329	0.00933724	0	0	0	0.000332724	3.86E-05	6.40E-05	0.000429788	0.000342037	0	0	0.000342037	0.000154251	0.000182812	0.0008791	4.347736699	0	0	4.347736699	2.60E-05
Stanislaus	2022	LDA	Aggregate	Aggregate	Electricity	4068.668554	184754.4305	0	184754.4305	20558.41272	71330.45877	0	0	0	0	0	0	0	0	0.000407314	0.000310994	0.000718254	0	0	0	0	0.000162155	0.000088401	0.002517656	0	0	0	0	0
Stanislaus	2022	LDA	Aggregate	Aggregate	Plug-in Hybrid	3611.472192	173788.9025	90734.05688	83054.84367	14933.43751	25085.04486	0.001867822	0.002136168	0.000130322	0	3.70E-05	0.000167349	0.000388139	0.000284226	0.000834749	0.000514137	0	4.03E-05	0.000182008	0.001532556	0.000812172	0.002528726	28.98928884	0	1.107567841	30.08796668	9.44E-05
Stanislaus	2022	LDT1	Aggregate	Aggregate	Gasoline	19345.26372	594610.4767	594610.4767	0	82792.66091	0	0.142856411	0	0.051851176	0.193705588	0.003432013	0	0.000340831	0.001772864	0.001310892	0.002538191	0.005621946	0.001557348	0	0.000370641	0.001927989	0.002245567	0.007151973	0.014423529	223.3888699	0	8.797916971	232.1867869	0.006854749
Stanislaus	2022	LDT1	Aggregate	Aggregate	Diesel	14.38676689	165.8533582	165.853582	0	42.79816683	0	0.000277658	0	0	0.000277658	3.95E-05	0	0	3.95E-05	3.66E-07	7.96E-07	4.07E-05	4.13E-05	0	0	4.13E-05	1.46E-06	2.28E-06	4.52E-05	0.071110695	0	0	0.071110695	2.37E-06
Stanislaus	2022	LDT1	Aggregate	Aggregate	Electricity	6.615462889	268.2738534	0	269.2738534	32.62448345	103.9619318	0	0	0	0	0	0	0	0	5.94E-07	4.54E-07	1.05E-06	0	0	0	0	2.37E-06	1.30E-06	3.67E-06	0	0	0	0	0
Stanislaus	2022	LDT1	Aggregate	Aggregate	Plug-in Hybrid	5.736058139	290.767754	139.6885592	151.0791548	23.71860036	40.63040762	1.03E-06	0	2.97E-06	4.00E-06	1.30E-07	0	3.87E-08	1.69E-07	6.41E-07	4.75E-07	1.38E-06	1.41E-07	0	4.21E-08	1.84E-07	2.56E-06	1.36E-06	4.10E-06	0.064616435	0	0.001920947	0.066536382	1.45E-07
Stanislaus	2022	LDT2	Aggregate	Aggregate	Gasoline	77588.14787	2886979.743	2886979.743	0	357449.2438	0	0.341161581	0	0.173935231	0.515096812	0.004012715	0	0.00083319	0.004845985	0.006364701	0.011770931	0.022980627	0.004364102	0	0.000906136	0.005270238	0.025658803	0.033628661	0.064357702	1140.075601	0	37.41511186	1177.490713	0.017513362
Stanislaus	2022	LDT2	Aggregate	Aggregate	Diesel	204.2114164	8418.145871	8418.145871	0	970.6124513	0	0.005629307	0	0	0.005629307	7.92E-05	0	0	7.92E-05	1.86E-05	3.29E-05	0.000130701	8.28E-05	0	0	8.28E-05	7.42E-05	9.40E-05	0.000251053	2.814969725	0	0	2.814969725	7.73E-06
Stanislaus	2022	LDT2	Aggregate	Aggregate	Electricity	139.9092312	5208.655876	0	5208.655876	721.6109235	2010.970752	0	0	0	0	0	0	0	0	1.15E-05	8.75E-06	2.02E-05	0	0	0	0	4.58E-05	2.50E-05	7.09E-05	0	0	0	0	0
Stanislaus	2022	LDT2	Aggregate	Aggregate	Plug-in Hybrid	300.6775391	14785.02261	7358.873417	7426.155593	1243.301624	2242.918669	5.42E-05	0	0.000155508	0.000209713	8.81E-06	0	2.61E-06	1.14E-05	3.26E-05	2.41E-05	6.82E-05	9.58E-06	0	2.84E-06	1.24E-05	0.000130182	6.90E-05	0.000211799	2.350410071	0	0.10947267	2.459891741	7.02E-06
Stanislaus	2022	LHDT1	Aggregate	Aggregate	Gasoline	9492.143093	332501.294	332501.294	0	141414.7888	0	0.097357032	0.000417106	0.109711833	0.207485971	0.000638887	0	5.91E-05	0.000698018	0.00073304	0.010005944	0.011437052	0.000694848	0	6.43E-05	0.000759158	0.00290236	0.028588555	0.032278873	341.9916663	1.382681703	3.988278473	347.2692365	0.004469336
Stanislaus	2022	LHDT1	Aggregate	Aggregate	Diesel	9683.604913	344078.1158	344078.1158	0	121857.5678	0	1.013830331	0.025916633	0	1.038991964	0.020445468	0.002284978	0	0.022550446	0.001127844	0.010354277	0.032222666	0.021369921	0.000297863	0	0.021667785	0.004551174	0.029580934	0.055803093	242.5447917	1.471163397	0	244.0195911	0.004335042
Stanislaus	2022	LHDT2	Aggregate	Aggregate	Gasoline	3611.102131	60974.34374	60974.34374	0	24003.0212	0	0.010951787	6.88E-05	0.016960682	0.027981237	9.26E-05	0	6.55E-06	9.91E-05	0.000134425	0.002145725	0.002374257	0.000100665	0	7.12E-06	0.000107788	0.000537702	0.006116356	0.006791846	67.4707676	0.248349577	0.679847186	68.39896437	0.000463896
Stanislaus	2022	LHDT2	Aggregate	Aggregate	Diesel	3296.355669	124267.624	124267.624	0	41464.00667	0	0.260811407	0.008284405	0	0.268994812	0.005955817	9.59E-05	0	0.006085185	0.000411176	0.004366275	0.010829501	0.006232518	0.000100227	0	0.006325488	0.001645102	0.012475357	0.020469347	106.9929849	0.795441527	0	107.7884265	0.001394525
Stanislaus	2022	MCY	Aggregate	Aggregate	Gasoline	10681.40648	57567.20952	57567.20952	0	21362.81297	0	0.044463189	0	0.004261582	0.048664771	0.000103903	0	8.01E-05	0.000184042	6.35E-05	0.000266519	0.000514019	0.000113651	0	8.49E-05	0.000195521	0.000258328	0.000761484	0.001235833	11.81134373	0	1.345542858	13.15688659	0.012514161
Stanislaus	2022	MDV	Aggregate	Aggregate	Gasoline	82641.45133	2851817.308	2851817.308	0	372445.6321	0	0.481275204	0	0.253252393	0.736527596	0.004003849	0	0.00094046	0.004945345	0.006176972	0.011838894	0.022969416	0.004554172	0	0.005032402	0.005386774	0.024707887	0.033825688	0.06269206	1350.386727	0	49.06583054	1398.452568	0.016885777
Stanislaus	2022	MDV	Aggregate	Aggregate	Diesel	1235.570055	47397.16098	47397.16098	0	5721.647849	0	0.066335631	0	0	0.066335631	0.000404117	0	0	0.000404117	0.000104493	0.0001948	0.00070361	0.000422599	0	0	0.000422599	0.000417971	0.000556572	0.001397142	21.20223572	0	0	21.20223572	3.75E-05
Stanislaus	2022	MDV	Aggregate	Aggregate	Electricity	148.9139277	5151.344025	0	5151.344025	766.8189846	2120.377998	0	0	0	0	0	0	0	0	1.22E-05	9.26E-06	2.14E-05	0	0	0	0	4.88E-05	2.65E-05	7.51E-05	0	0	0	0	0
Stanislaus	2022	MDV	Aggregate	Aggregate	Plug-in Hybrid	288.0844869	13781.86417	7189.251192	6592.612398	1191.229353	1991.165611	5.30E-05	0	0.000148995	0.000201951	1.17E-05	0	3.41E-06	1.51E-05	3.04E-05	2.25E-05	6.80E-05	1.27E-05	0	3.70E-06	1.64E-05	0.000125135	6.44E-05	0.000202869	2.296262162	0	0.132430092	2.428672254	7.47E-06
Stanislaus	2022	MH	Aggregate	Aggregate	Gasoline	1436.726738	12189.64652	12189.64652	0	143.7301429	0	0.008021018	0	6.46E-05	0.008085568	2.60E-05	0	7.20E-08	2.61E-05	4.03E-05	0.000211853	0.000278253	2.83E-05	0	7.93E-08	2.84E-05	0.000161241	0.000605294	0.000774941	26.22938573	0	0.005097185	26.23108292	0.000380451
Stanislaus	2022	MH	Aggregate	Aggregate	Diesel	571.8906256	5038.471273	5038.471273	0	57.18906256	0	0.015176818	0	0	0.015176818	0.000796647	0	0	0.000796647	2.22E-05	8.72E-05	0.00006063	0.000833803	0	0	0.000833803	8.88E-05	0.00024805	0.001172716	5.980657351	0	0	5.980657351	4.04E-05
Stanislaus	2022	MHDT	Aggregate	Aggregate	Gasoline	594.4882354	27343.98741	27343.98741	0	11894.36082	0	0.020296528	5.76E-05	0.005782356	0.026136455	4.13E-05	0	8.28E-06	4.95E-05	9.04E-05	0.000475231	0.000615191	4.48E-05	0	9.00E-06	5.39E-05	0.000161699	0.001357804	0.001773377	55.95569657	0.359754406	0.627507519	56.94419025	0.000722782
Stanislaus	2022	MHDT	Aggregate	Aggregate	Diesel	4589.774694	21876.8069	21876.8069	0	54384.989	0	0.410389392	0.070783194	0.085690958	0.567063544	0.004134861	0.000212034	0	0.004346894	0.000721158	0.003797017	0.008860809	0.004321821	0.000221621	0	0.004544441	0.002888631	0.01038102	0.018283002	276.2240888	11.8027393	0	286.0263381	0.000505633
Stanislaus	2022	MHDT	Aggregate	Aggregate	Natural Gas	38.71162297	2025.881251	2025.881251	0	274.628678	0	0.000242784	0.00030724	0	0.000570024	2.94E-06	8.90E-07	0	3.83E-06	6.70E-06	3.58E-05	4.42E-05	3.20E-06	9.68E-07	0	4.17E-06	2.68E-05	0.000102235	0.0001332	2.255364588	0.255922163	0	2.511296675	0.001774844
Stanislaus	2022	OBUS	Aggregate	Aggregate	Gasoline	154.0481269	6659.760333	6659.760333	0	3082.194923	0	0.005838276	1.10E-05	0.001469646	0.007169956	6.73E-06	0	9.02E-07	7.63E-06	2.20E-05	0.000115331	0.000144989	7.32E-06	0	9.81E-07	8.30E-06	8.81E-05	0.000239518	0.000429315	16.3473727	0.065033547	0.11293542	13.52581166	0.000166981
Stanislaus	2022	OBUS	Aggregate	Aggregate	Diesel	133.4101724	9328.837255	9328.837255	0	1524.867268	0	0.026037558	0.000122705	0.002248158	0.028461843	0.000510605	3.43E-06	0	0.000514036	3.08E-05	0.000204219	0.000746105	0.000533692	3.59E-06	0	0.000537279	0.000123349	0.000583484	0.001244162	14.26725009	0.362950813	0	14.6302009	6.05E-05
Stanislaus	2022	OBUS	Aggregate	Aggregate	Natural Gas	1.948981874	104.9684569	104.9684569	0	17.2747888	0	2.54E-05	3.27E-06	0	2.89E-05	1.06E-07	8.75E-09	0	1.16E-07	3.47E-07	1.87E-06	2.33E-06	1.54E-07	9.52E-09	0	1.25E-07	1.39E-06	5.34E-06	6.85E-06	0.121586299	0.002712037	0	0.124298136	8.95E-05
Stanislaus	2022	SBUS	Aggregate	Aggregate	Gasoline	201.4635282	9994.568459	9994.568459	0	805.8541129	0	0.003667638	0.00020547	0.000633887	0.004506995	8.17E-06	0	4.11E-07	8.58E-06	2.20E-05	0.000132	0.000203818	8.88E-06	0	4.46E-07	9.34E-06	8.81E-05	0.000494858	0.00059233	9.132890083	0.587783966	0.050779314	9.771662363	8.00E-05
Stanislaus	2022	SBUS	Aggregate	Aggregate	Diesel	483.8465311	11257.4681	11257.4681	0	7006.09777	0	0.052965898	0.012129258	0.003535529	0.068695686	0.00207724	1.23E-05	0	0.00209051	3.72E-05	0.000595085	0.00541863	0.00031068	1.29E-05	0	0.000323546	0.000148911	0.000557387	0.001029844	14.34631954	1.217361117	0	15.5634817	3.77E-05
Stanislaus	2022	SBUS	Aggregate	Aggregate	Natural Gas	92.88661544	2392.316097	2392.316097	0	1345.041632	0	0.001294725	0.000353297	0	0.001648022	8.91E-06	1.27E-06	0	1.02E-05	7.91E-06	4.15E-05	5.95E-05	9.68E-06	1.38E-06	0	1.11E-05	3.16E-05	0.000119845	0.000161163	3.284170915	0.427613727	0	3.711784642	0.000485417
Stanislaus	2022	UBUS	Aggregate	Aggregate	Gasoline	18.57051	1036.121564	1036.121564	0	74.28204402	0	0.000241426	0	7.86E-05	0.000340003	1.18E-06	0	5.93E-08	1.24E-06	3.30E-06	4.31E-05	4.76E-05	1.28E-06	0	6.45E-08	1.34E-06	1.32E-05	0.000123139	0.000137663	1.983432771	0	0.008924305	1.972357076	4.09E-06
Stanislaus	2022	UBUS	Aggregate	Aggregate	Diesel	76.61786757	7815.729754	7815.729754	0	268.4714703	0	0.007111376	0	0	0.007111376	4.55E-05	0	0	4.55E-05	5.51E-05	0.000331692	0.000431257	4.75E-05	0	0	4.75E-05	0.000230426	0.00094769	0.001215563	10.42596591	0	0	10.42596591	3.02E-05
Stanislaus	2022	UBUS	Aggregate	Aggregate	Electricity	5.046766939	101.2376255	0	101.2376255	20.18702775	176.4819127	0	0	0	0	0	0	0	0	1.00E-06	2.15E-06	3.15E-06	0	0	0	0	4.02E-06	6.14E-06	1.02E-05	0	0	0	0	0
Stanislaus	2022	UBUS	Aggregate	Aggregate	Natural Gas	48.26556241	4223.038812	4223.038812	0	193.0622496	0	0.001255685	0	0	0.001255685	7.72E-07	0	0	7.72E-07	3.11E-05	0.000179221	0.000211099	8.07E-07	0	0	8.07E-07	0.000124421	0.000512061	0.00063729	5.915475115	0	0	5.915475115	0.006094834

Source: EMFAC2021 (v1.0.1) Emissions Inventory
Region Type: County
Region: Stanislaus
Calendar Year: 2022
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

CH4 IDLEX	CH4 STREX	CH4 TOTEX	N2O RUNEX	N2O IDLEX	N2O STREX	N2O TOTEX	ROG RUNEX	ROG IDLEX	ROG STREX	ROG TOTEX	ROG DIURN	ROG HOTSOAK	ROG RUNLOSS	ROG TOTAL	TOG RUNEX	TOG IDLEX	TOG STREX	TOG TOTEX	TOG DIURN	TOG HOTSOAK	TOG RUNLOSS	TOG TOTAL	CO RUNEX	CO IDLEX	CO STREX	CO TOTEX	SOx RUNEX	SOx IDLEX	SOx STREX	SOx TOTEX	NHG RUNEX	Fuel Consumption
0	3.07E-09	7.23E-05	4.84E-05	0	1.95E-06	5.04E-05	0.000462894	0	1.67E-08	0.000462911	7.70E-05	2.03E-05	0.000181808	0.000761991	0.000675454	0	1.83E-08	0.000675473	7.70E-05	2.03E-05	0.000181808	0.000954552	0.024579117	0	0.001240601	0.024819717	3.14E-06	0	6.07E-08	3.20E-06	3.41E-06	0.034115825
0.001871558	0	0.003012053	0.235842161	0.015623671	0	0.243538832	0.024554546	0.040239414	0	0.064794686	0	0	0	0.064794686	0.027953482	0.045871811	0	0.073825292	0	0	0	0.073825292	0.598511753	0.56493025	0	1.163372004	0.012180017	0.009038924	0	0	0.014518941	0.138945461	136.9646281
0.004891581	0	0.01159872	0.003065434	0.002293129	0	0.003358563	0.008057936	8.27E-05	0	0.008046049	0	0	0	0.008046049	0.027799304	0.005306826	0	0.032806131	0	0	0	0.032806131	0.138088051	0.009638985	0	0.148026036	0	0	0	0	0.008695605	1.904274006
0	0.077995375	0.109436506	0.042898234	0	0.013604429	0.070502663	0.088507536	0	0.367175832	0.455682368	0.367777128	0.101252773	0.258574673	1.183283961	0.12914356	0	0.402009661	0.531128817	0.367777128	0.101252773	0.258574673	1.292724439	7.584429694	0	3.488881476	11.07331117	0.022231285	0	0.000608916	0.0239221	0.251452102	346.3908693
0	0	2.68E-05	0.000684985	0	0	0.000684985	0.005605534	0	0	0.005605534	0	0	0	0.005605534	0.003638131	0	0	0.003638131	0	0	0	0.003638131	0.004477008	0	0	0.004477008	4.12E-05	0	0	6.12E-05	5.98E-05	0.188330078
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0.000692756	0.000797109	0.00012449	0	0.0003474	0.00047189	0.002293837	0	0.002773871	0.003067708	0.002128286	0.00070483	0.000631897	0.006511722	0.006342966	0	0.003033704	0.009345086	0.002128286	0.00070483	0.000631897	0.00669682	0.047812452	0	0.021296628	0.069109079	0.00028501	0	1.09E-05	0.00029745	0.033738534	1.172738463
0	0.014211671	0.02116642	0.009677387	0	0.004280649	0.013918836	0.031917339	0	0.07837769	0.110295029	0.098904045	0.024545874	0.075226017	0.308970965	0.046547086	0	0.085813199	0.132360285	0.098904045	0.024545874	0.075226017	0.231036221	1.612381669	0	0.773596224	2.349977893	0.002210404	0	8.70E-05	0.00239738	0.024329629	24.50489632
0	0	2.37E-06	1.12E-05	0	0	1.12E-05	5.10E-05	0	0	5.10E-05	0	0	0	5.10E-05	5.80E-05	0	0	5.80E-05	0	0	0	5.80E-05	0.002056415	0	0	0.002056415	6.74E-07	0	0	6.74E-07	5.67E-07	0.00263229
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1.18E-06	1.24E-06	1.90E-07	0	5.48E-07	7.38E-07	4.52E-07	0	4.41E-06	4.86E-06	2.10E-06	6.72E-07	6.18E-07	8.24E-06	6.60E-07	0	4.82E-06	5.48E-06	2.10E-06	6.72E-07	6.18E-07	8.87E-06	7.36E-05	0	3.38E-05	0.000107424	4.41E-07	0	1.90E-08	4.60E-07	6.47E-06	0.004907224
0	0.040301087	0.052834707	0.025642593	0	0.0169629	0.042605493	0.051833192	0	0.195885393	0.247699585	0.166238649	0.043711965	0.119119965	0.576769165	0.079618074	0	0.214447691	0.290358365	0.166238649	0.043711965	0.119119965	0.619128946	1.887675913	0	1.802751112	5.690427025	0.011270808	0	0.000369886	0.011648684	0.10786183	124.1649245
0	0	7.73E-06	0.0004435	0	0	0.0004435	0.000166427	0	0	0.000166427	0	0	0	0.000166427	0.000189466	0	0	0.000189466	0	0	0	0.000189466	0.003112787	0	0	0.003112787	2.67E-05	0	0	2.67E-05	2.88E-05	0.25146013
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	5.75E-05	6.51E-05	1.03E-05	0	2.88E-05	3.88E-05	2.38E-05	0	0.000203042	0.000254773	0.000122979	3.78E-05	3.57E-05	0.000451369	3.48E-05	0	0.000252812	0.000287527	0.000122979	3.78E-05	3.57E-05	0.000484023	0.003877768	0	0.001773027	0.005610846	2.32E-05	0	1.08E-06	2.43E-05	0.000335546	0.259392511
0.001269585	0.005825548	0.011564401	0.005422839	1.22E-05	0.008272703	0.013727694	0.021575235	0.004776806	0.02404041	0.050756151	0.037003627	0.009193959	0.049253507	0.152307344	0.03294173	0.006970364	0.02219338	0.072105833	0.037003627	0.009193959	0.049253507	0.167558927	0.515324365	0.039211614	0.450721083	1.005257061	0.003380936	1.27E-05	3.94E-05	0.003433025	0.016429286	36.61819917
5.44E-05	0	0.004389441	0.038213031	0.000231782	0	0.038444813	0.093330895	0.010171613	0	0.094502508	0	0	0	0.094502508	0.108251819	0.011333803	0	0.119584622	0	0	0	0.107584622	0.277151177	0.009719932	0	0.286842109	0.002298235	1.39E-05	0	0.002312175	0.051247269	21.7979686
0.000217246	0.000885869	0.001542075	0.000670812	5.74E-06	0.001377017	0.002053574	0.003047174	0.000788542	0.004304302	0.007940018	0.004269987	0.001082645	0.005463521	0.01795617	0.002987232	0.001150638	0.004712669	0.008850539	0.004269987	0.001082645	0.005463521	0.019666692	0.060854706	0.006685353	0.085486635	0.148088694	0.000667017	2.46E-06	6.72E-06	0.000676193	0.010022189	7.21258533
1.85E-05	0	0.00013135	0.016856738	0.000125222	0	0.016982211	0.027870368	0.000398824	0	0.028269192	0	0	0	0.028269192	0.031728559	0.000454534	0	0.032182593	0	0	0	0.032182593	0.076138664	0.003656658	0	0.079794298	0.000101813	7.54E-06	0	0.00010135	0.022119135	9.628697438
0	0.005132306	0.017663757	0.002366832	0	0.00024423	0.002311063	0.086698725	0	0.038834342	0.125533066	0.065799517	0.08521832	0.09161057	0.368161473	0.10387623	0	0.04219564	0.144072163	0.065799517	0.08521832	0.09161057	0.38670557	0.910632204	0	0.201036768	1.211668972	0.000116767	0	1.13E-05	0.000130069	0.005349441	1.387377251
0	0.056276284	0.073162161	0.032865789	0	0.026610853	0.059136642	0.075983919	0	0.298516078	0.372497997	0.255859869	0.055587437	0.157259236	0.800965978	0.10782415	0	0.326814528	0.434656943	0.255859869	0.055587437	0.157259236	0.862154924	4.507437982	0	2.119262867	6.646700848	0.013349948	0	0.000475138	0.013825227	0.108282142	147.465076
0	0	3.76E-05	0.003340421	0	0	0.003340421	0.000808233	0	0	0.000808233	0	0	0	0.000808233	0.00392012	0	0	0.00392012	0	0	0	0.00392012	0.012669966	0	0	0.012669966	0.000330902	0	0	0.000202902	0.000161964	1.859387218
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	5.52E-05	6.27E-05	9.84E-06	0	2.77E-05	3.75E-05	2.33E-05	0	0.00022127	0.000249152	0.000104681	4.31E-05	4.25E-05	0.000476127	3.40E-05	0	0.000242262	0.000276235	0.000104681	4.31E-05	4.25E-05	0.000507811	0.003788387	0	0.001698816	0.005487203	2.27E-05	0	1.31E-06	2.40E-05	0.000332841	0.256100455
0	6.16E-06	0.000306606	0.000445785	0	4.43E-06	0.000452212	0.001383286	0	2.72E-05	0.001410513	0.009250353	0.002399047	5.52E-05	0.013115868	0.002014659	0	2.98E-05	0.002048291	0.009250353	0.002399047	5.52E-05	0.013752846	0.035131142	0	0.000601847	0.036132989	0.000329271	0	5.04E-08	0.000259321	0.000608477	2.768134919
0	0	4.04E-05	0.000634831	0	0	0.000634831	0.00087027	0	0	0.00087027	0	0	0	0.00087027	0.003690744	0	0	0.003690744	0	0	0	0.003690744	0.003031275	0	0	0.003031275	5.68E-05	0	0	5.68E-05	0.00062214	0.515145048
0.000162826	0.000637653	0.001152262	0.000912288	4.47E-06	0.000405167	0.00132192	0.003786549	0.000657341	0.00365977	0.00801066	0.002573949	0.000609201	0.004887304	0.016174114	0.005252524	0.000959119	0.004000688	0.010491503	0.002573949	0.000609201	0.004887304	0.018561955	0.081713025	0.009833288	0.079301517	0.17084783	0.000513179	3.54E-06	6.21E-06	0.000542963	0.001352108	6.00460959
6.75E-05	0	0.00057317	0.043204118	0.001850526	0	0.045053645	0.010886137	0.00145405	0	0.012303187	0	0	0	0.012303187	0.013393038	0.001655126	0	0.014948163	0	0	0	0.014948163	0.035635047	0.035433941	0	0.071082288	0.002586738	0.000111765	0	0.002708503	0.047090623	25.50566415
0.000806405	0	0.002581249	0.000459771	5.22E-05	0	0.000511944	2.54E-05	1.13E-05	0	3.68E-05	0	0	0	3.68E-05	0.001811359	0.000822995	0	0.002634354	0	0	0	0.002634354	0.006615312	0.001715558	0	0.00833887	0	0	0	0	0.002827602	0.290267602
3.12E-05	0.000134502	0.000333663	0.000264497	8.28E-07	0.000103219	0.000368545	0.000823489	0.000126315	0.000738903	0.001688906	0.000562226	0.000133138	0.000589653	0.002974923	0.001201925	0.000184518	0.000869006	0.002195249	0.000562226	0.000133138	0.000589653	0.003491266	0.018342119	0.000978086	0.015971279	0.035391084	0.000131952	6.48E-07	1.12E-06	0.000133716	0.000329989	1.43127994
5.57E-06	0	6.61E-05	0.002247811	5.72E-05	0	0.002304994	0.00138266	0.000119076	0	0.001422636	0	0	0	0.001422636	0.001682879	0.000156584	0	0.001839463	0	0	0	0.001839463	0.003737549	0.001727804	0	0.005465352	0.000135102	3.44E-06	0	0.000138539	0.000248363	1.306910051
8.85E-06	0	9.84E-05	2.48E-05	5.53E-07	0	2.53E-05	1.28E-06	1.26E-07	0	1.41E-06	0	0	0	1.41E-06	9.14E-05	9.03E-06	0	0.000100542	0	0	0	0.000100542	0.000371623	1.67E-05	0	0.000388281	0	0	0	0	0.000122685	0.014366969
0.000550602	5.76E-05	0.000688164	0.000226468	1.97E-05	6.04E-05	0.000306573	0.000382795	0.002358987	0.000222394	0.003064177	0.000323832	9.12E-05	0.000175868	0.003655571	0.000585374	0.003442229	0.000312981	0.004315784	0.000323832	9.12E-05	0.000175868	0.004944678	0.009200717	0.018237984	0.008243519	0.03582222	9.03E-05	5.81E-06	5.02E-07	9.66E-05	0.000495771	1.030409587
4.39E-06	0	4.21E-05	0.002265268	0.000919797	0	0.002452665	0.000819516	9.45E-05	0	0.000907063	0	0	0	0.000907063	0.000624887	0.000107625	0	0.000731622	0	0	0	0.000731622	0.002431832	0.002297626	0	0.004731458	0.000135851	1.15E-05	0	0.000147379	0.001623566	1.190297878
0.00150776	0	0.009693177	0.0006695	8.72E-05	0	0.000756672	0.00012124	2.15E-05	0	0.000142783	0	0	0	0.000142783	0.00865949	0.001153878	0	0.01019877	0	0	0	0.01019877	0.028002373	0.002361381	0	0.030363754	0	0	0	0	0.002796301	0.429025692
0	1.06E-05	1.47E-05	2.28E-05	0	6.98E-06	2.97E-05	1.38E-05	0	4.58E-05	5.95E-05	1.42E-05	4.26E-06	7.84E-06	8.59E-05	2.01E-05	0	5.01E-05	7.02E-05	1.42E-05	4.26E-06	7.84E-06	9.65E-05	0.000388205	0	0.000790229	0.001178464	1.94E-05	0	8.82E-08	1.95E-05	5.14E-05	0.207982589
0	0	3.02E-05	0.001642615	0	0	0.001642615	0.000649467	0	0	0.000649467	0	0	0	0.000649467	0.000739368	0	0	0.000739368	0	0	0	0.000739368	0.000733843	0	0	0.000733843	9.88E-05	0	0	9.88E-05	0.001736604	0.931347405
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0.009094834	0.001205908	0	0	0.001205908	0.000129947	0	0	0.000129947	0	0	0	0.000129947	0.009281945	0	0	0.009281945	0	0	0	0.009281945	0.114375025	0	0	0.114375025	0	0	0	0	0.004515449	0.683738701

Source: EMFAC2021 (v1.0.1) Emissions Inventory
Region Type: County
Region: Stanislaus
Calendar Year: 2023
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips. kWh/day for Energy Consumption. tons/day for Emissions. 1000 gallons/day for Fuel Consumption

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	Total VMT	CVMT	EVMT	Trips	Energy Consumption	NOx RUNEX	NOx IDLEX	NOx STREX	NOx TOTEX	PM2.5 RUNEX	PM2.5 IDLEX	PM2.5 STREX	PM2.5 TOTEX	PM2.5 PMTW	PM2.5 PMBW	PM2.5 TOTAL	PM10 RUNEX	PM10 IDLEX	PM10 STREX	PM10 TOTEX	PM10 PMTW	PM10 PMBW	PM10 TOTAL	CO2 RUNEX	CO2 IDLEX	CO2 STREX	CO2 TOTEX
Stanislaus		2023	HHDT	Aggregate	Aggregate	Gasoline	4.036315857	85.9260747	85.9260747	0	80.75860766	0	0.001762156	0	0.000133725	0.001895881	7.96E-07	0	2.22E-07	1.02E-06	4.74E-07	3.68E-06	5.17E-06	8.66E-07	0	2.41E-07	1.11E-06	1.89E-06	1.05E-05	1.35E-05	0.256308838	0	0.004622115	0.260931953
Stanislaus		2023	HHDT	Aaereaate	Aaereaate	Diesel	5768.093174	817261.9059	817261.9059	0	95339.54451	0	1.634838019	0.500906442	0.291725154	2.427469614	0.025402237	0.000228935	0	0.025631172	0.008001631	0.024149603	0.057782406	0.026550814	0.000239286	0	0.0267901	0.032006523	0.068998867	0.12779549	1445.143637	98.13787453	0	1543.281511
Stanislaus		2023	HHDT	Aaereaate	Aaereaate	Electricity	4.417725782	328.3676196	328.3676196	0	79.15760017	600.8677761	0	0	0	0	0	0	0	0	3.22E-06	4.78E-06	8.00E-06	0	0	0	0	1.29E-05	1.36E-05	2.65E-05	0	0	0	0
Stanislaus		2023	HHDT	Aggregate	Aggregate	Natural Gas	144.9795676	9307.311743	9307.311743	0	1149.490472	0	0.015228329	0.001886607	0	0.017114936	2.99E-05	3.41E-06	0	3.33E-05	9.23E-05	0.000485919	0.000615529	3.25E-05	3.71E-06	0	3.62E-05	0.003369344	0.001388341	0.001793873	15.17680027	1.493756186	0	16.67055645
Stanislaus		2023	LDA	Aggregate	Aggregate	Gasoline	185599.532	7279323.636	7279323.636	0	855533.9269	0	0.377086385	0	0.26233461	0.639420995	0.009304827	0	0.00189153	0.011196357	0.016048162	0.026337766	0.053582285	0.010119784	0	0.002057148	0.012176932	0.064192646	0.07525076	0.151620338	2247.57254	0	68.42181201	2315.994352
Stanislaus		2023	LDA	Aggregate	Aggregate	Diesel	528.015576	16506.47608	16506.47608	0	2244.98676	0	0.004367803	0	0	0.004367803	0.000281418	0	0	0.000281418	3.64E-05	6.06E-05	0.000378365	0.000294143	0	0	0.000294143	0.000145562	0.000173019	0.000612724	4.071216314	0	0	4.071216314
Stanislaus		2023	LDA	Aggregate	Aggregate	Electricity	5393.50031	256134.5516	0	256134.5516	27174.14194	98889.07686	0	0	0	0	0	0	0	0	0.00056468	0.000431259	0.000995939	0	0	0	0	0.00225872	0.001232168	0.003490889	0	0	0	0
Stanislaus		2023	LDA	Aggregate	Aggregate	Plug-in Hybrid	4137.978545	200352.8559	102262.8674	98089.98851	17110.54128	29626.10008	0.000753267	0	0.002140127	0.002893394	0.000138826	0	4.02E-05	0.000179068	0.000441702	0.000328155	0.000948925	0.000150986	0	4.38E-05	0.000194752	0.00176681	0.000937585	0.002889148	32.66481778	0	1.255476235	33.92029401
Stanislaus		2023	LDT1	Aggregate	Aggregate	Gasoline	18633.71555	583285.7518	583285.7518	0	79709.27373	0	0.125184147	0	0.046421164	0.171605311	0.001306282	0	0.000307837	0.001614119	0.001285925	0.002486823	0.005386867	0.001420641	0	0.000334778	0.001755419	0.0051437	0.007105209	0.014004329	216.328183	0	8.291053576	224.6192366
Stanislaus		2023	LDT1	Aggregate	Aggregate	Diesel	12.86704141	145.8746057	145.8746057	0	37.52482813	0	0.000243853	0	0	0.000243853	3.47E-05	0	0	3.57E-05	3.22E-07	7.00E-07	3.57E-05	3.63E-05	0	0	3.63E-05	1.29E-06	2.00E-06	3.95E-05	0.062558207	0	0	0.062558207
Stanislaus		2023	LDT1	Aggregate	Aggregate	Electricity	10.88943041	500.6010813	0	500.6010813	53.99850165	193.2733342	0	0	0	0	0	0	0	0	1.10E-06	8.43E-07	1.95E-06	0	0	0	0	4.41E-06	2.41E-06	6.82E-06	0	0	0	0
Stanislaus		2023	LDT1	Aggregate	Aggregate	Plug-in Hybrid	10.41590789	532.1791708	246.0882737	286.0908971	43.06977913	86.4079778	1.81E-06	0	5.39E-06	7.20E-06	2.19E-07	0	6.71E-08	2.86E-07	1.17E-06	8.71E-07	2.23E-06	2.38E-07	0	7.30E-08	3.11E-07	4.69E-06	2.49E-06	7.49E-06	0.078605547	0	0.003436128	0.082041675
Stanislaus		2023	LDT2	Aggregate	Aggregate	Gasoline	78865.47463	2994370.55	2994370.55	0	363638.6521	0	0.306686754	0	0.164337601	0.471024355	0.004006834	0	0.000819279	0.004816113	0.006601457	0.012191642	0.023619212	0.004357758	0	0.000889126	0.005248784	0.026405828	0.034833263	0.066487876	1157.974076	0	37.14600911	1195.120085
Stanislaus		2023	LDT2	Aggregate	Aggregate	Diesel	219.1935299	9155.20852	9155.20852	0	1041.598541	0	0.000597569	0	0	0.000597569	7.52E-05	0	0	7.52E-05	2.02E-05	3.60E-05	0.000131336	7.86E-05	0	0	7.86E-05	8.07E-05	0.000102765	0.000262084	3.019076076	0	0	3.019076076
Stanislaus		2023	LDT2	Aggregate	Aggregate	Electricity	251.4085965	9391.163153	0	9391.163153	1291.083537	3635.764072	0	0	0	0	0	0	0	0	2.07E-05	1.58E-05	3.65E-05	0	0	0	0	8.28E-05	4.51E-05	0.000127901	0	0	0	0
Stanislaus		2023	LDT2	Aggregate	Aggregate	Plug-in Hybrid	416.7742294	20590.29117	9919.764416	10670.52676	1723.363439	3222.817113	7.31E-05	0	0.000215552	0.000288621	1.08E-05	0	3.32E-06	1.43E-05	4.54E-05	3.37E-05	9.34E-05	1.19E-05	0	3.61E-06	1.55E-05	0.000181575	9.63E-05	0.000293366	3.168573379	0	0.149855066	3.318427445
Stanislaus		2023	LHDT1	Aggregate	Aggregate	Gasoline	9208.264848	327704.735	327704.735	0	137189.4259	0	0.087614759	0.000397797	0.104976106	0.192088661	0.000604366	0	5.38E-05	0.000658154	0.000722465	0.009861651	0.011242271	0.000657304	0	5.85E-05	0.000715803	0.002889861	0.028176146	0.03178181	331.8136651	1.237318146	3.8753644	336.9263477
Stanislaus		2023	LHDT1	Aggregate	Aggregate	Diesel	9381.021484	332927.6478	332927.6478	0	118001.4615	0	0.934829913	0.024014351	0	0.958838264	0.019353696	0.000274857	0	0.019628553	0.00110097	0.010018825	0.030748347	0.020238785	0.000287284	0	0.020516069	0.004403879	0.028625213	0.053545161	234.3860508	1.418676784	0	235.8047276
Stanislaus		2023	LHDT2	Aggregate	Aggregate	Gasoline	1562.237281	58782.89759	58782.89759	0	23275.00775	0	0.009834576	6.58E-05	0.016251946	0.026142309	8.65E-05	0	5.90E-06	9.24E-05	0.001259994	0.002063786	0.002285761	9.41E-05	0	6.42E-06	0.000100472	0.000518376	0.005896532	0.006515381	64.53543932	0.239950918	0.655908414	65.45129865
Stanislaus		2023	LHDT2	Aggregate	Aggregate	Diesel	3254.815739	122335.0516	122335.0516	0	40941.48744	0	0.244468476	0.008013962	0	0.252482438	0.005719989	9.48E-05	0	0.005866755	0.000404554	0.004295014	0.010566323	0.006032973	9.91E-05	0	0.006132023	0.001618216	0.012271469	0.020021709	104.8039479	0.781295532	0	105.5852434
Stanislaus		2023	MCY	Aggregate	Aggregate	Gasoline	10546.30132	57009.52529	57009.52529	0	21092.60264	0	0.042885654	0	0.00407119	0.046956844	0.000102592	0	7.61E-05	0.000178674	6.28E-05	0.000263937	0.000505454	0.000109344	0	8.07E-05	0.000189997	0.000251369	0.000754107	0.001195473	11.66245218	0	1.304217166	12.96666934
Stanislaus		2023	MDV	Aggregate	Aggregate	Gasoline	80602.41319	2772635.008	2772635.008	0	363742.0249	0	0.421609645	0	0.231387078	0.652996724	0.003830866	0	0.000890201	0.004721067	0.006112614	0.011730149	0.022563829	0.004166184	0	0.000968068	0.005134252	0.024450455	0.033514711	0.063099419	1316.235306	0	46.14952054	1362.384826
Stanislaus		2023	MDV	Aaereaate	Aaereaate	Diesel	1219.237613	46758.69961	46758.69961	0	5669.359996	0	0.005725032	0	0	0.005725032	0.000384403	0	0	0.000384403	0.000103085	0.000194439	0.000682017	0.000401878	0	0	0.000401878	0.000412341	0.000555539	0.001369758	20.77109468	0	0	20.77109468
Stanislaus		2023	MDV	Aggregate	Aggregate	Electricity	277.6399044	10349.37075	0	10349.37075	1424.788715	3995.711291	0	0	0	0	0	0	0	0	2.28E-05	1.74E-05	4.02E-05	0	0	0	0	9.13E-05	4.97E-05	0.000140943	0	0	0	0
Stanislaus		2023	MDV	Aggregate	Aggregate	Plug-in Hybrid	341.1520269	16340.07675	8294.988782	8045.087965	1410.663631	2429.856347	6.11E-05	0	0.000176441	0.000237542	1.25E-05	0	3.73E-06	1.62E-05	3.60E-05	2.68E-05	7.90E-05	1.36E-05	0	4.06E-06	1.76E-05	0.000144095	7.65E-05	0.000238222	2.649586344	0	0.154905653	2.804491998
Stanislaus		2023	MH	Aggregate	Aggregate	Gasoline	1337.965651	11497.62112	11497.62112	0	133.8500837	0	0.006909795	0	6.15E-05	0.006971344	2.31E-05	0	6.29E-08	2.32E-05	3.80E-05	0.000199826	0.000261049	2.52E-05	0	6.85E-08	2.52E-05	0.000152087	0.00057093	0.000748252	24.72739237	0	0.004715681	24.73210805
Stanislaus		2023	MH	Aggregate	Aggregate	Diesel	564.3825557	4975.231058	4975.231058	0	56.43825557	0	0.030578685	0	0	0.030578685	0.000771807	0	0	0.000771807	2.19E-05	8.61E-05	0.000879817	0.000806705	0	0	0.000806705	8.77E-05	0.000249524	0.001140376	5.917269907	0	0	5.917269907
Stanislaus		2023	MHDT	Aggregate	Aggregate	Gasoline	570.0968733	26942.83315	26942.83315	0	11406.49824	0	0.016929816	5.54E-05	0.005487731	0.022472925	3.98E-05	0	7.24E-06	4.62E-05	8.91E-05	0.000468259	0.000603578	4.24E-05	0	7.87E-06	5.03E-05	0.000356393	0.001337884	0.001744546	54.53553954	0.34268059	0.59354025	55.47178038
Stanislaus		2023	MHDT	Aggregate	Aggregate	Diesel	4656.661664	222058.7636	222058.7636	0	55281.21473	0	0.309057045	0.071126216	0.09730548	0.477488741	0.033317999	0.000177501	0	0.0335155	0.000734334	0.003861754	0.008111588	0.003488929	0.000185527	0	0.003674455	0.002937335	0.01033583	0.017645373	277.1431553	11.59572217	0	288.7388775
Stanislaus		2023	MHDT	Aggregate	Aggregate	Electricity	2.832444125	66.71016602	0	66.71016602	34.39916657	71.79621694	0	0	0	0	0	0	0	0	2.21E-07	5.80E-07	8.01E-07	0	0	0	0	8.82E-07	1.66E-06	2.54E-06	0	0	0	0
Stanislaus		2023	MHDT	Aggregate	Aggregate	Natural Gas	45.89106155	2408.187138	2408.187138	0	340.2108013	0	0.000281234	0.000356621	0	0.000637856	3.61E-06	1.08E-06	0	4.68E-06	7.96E-06	4.25E-05	5.51E-05	3.92E-06	1.17E-06	0	5.09E-06	3.19E-05	0.00012139	0.000158339	2.662472196	0.300561057	0	2.963033253
Stanislaus		2023	OBUS	Aggregate	Aggregate	Gasoline	148.7815027	6373.555589	6373.555589	0	2976.820306	0	0.005259448	1.06E-05	0.00141828	0.006688372	6.57E-06	0	8.76E-07	7.45E-06	2.11E-05	0.000110375	0.000138902	7.15E-06	0	9.53E-07	8.10E-06	8.43E-05	0.000315357	0.000407767	12.6595661	0.062982908	0.108369142	12.83091815
Stanislaus		2023	OBUS	Aggregate	Aggregate	Diesel	133.2995545	9372.579214	9372.579214	0	1526.518106	0	0.023188478	0.001751632	0.00266986	0.02760997	0.000498763	3.18E-06	0	0.000501944	3.10E-05	0.000203964	0.000776903	0.000521315	3.32E-06	0	0.000524639	0.000123978	0.000582756	0.001231373	14.34536313	0.356779413	0	14.70214255
Stanislaus		2023	OBUS	Aaereaate	Aaereaate	Natural Gas	2.169057964	119.8448315	119.8448315	0	19.30461588	0	2.99E-05	3.67E-06	0	3.36E-05	1.18E-07	9.56E-09	0	1.28E-07	3.96E-07	2.13E-06	2.66E-06	1.29E-07	1.04E-08	0	1.39E-07	1.59E-06	6.10E-06	7.82E-06	0.138624	0.003010654	0	0.141634654
Stanislaus		2023	SBUS	Aggregate	Aggregate	Gasoline	202.7119074	10228.7158	10228.7158	0	810.8476294	0	0.003752295	0.000206769	0.000664685	0.004623748	8.34E-06	0	4.14E-07	8.75E-06	2.26E-05	0.000177258	0.000208558	9.07E-06	0	4.50E-07	9.52E-06	9.02E-05	0.000506451	0.000606169	9.334679731	0.590728201	0.050851389	9.976259322
Stanislaus		2023	SBUS	Aggregate	Aggregate	Diesel	485.4709933	11205.15303	11205.15303	0	7019.614191	0	0.050146085	0.012023621	0.003652334	0.06582204	0.000277761	1.13E-05	0	0.00288027	3.71E-05	0.000194179	0.00052026	0.00029032	1.18E-05	0	0.000302095	0.000148219	0.000554797	0.001005111	14.225848	1.217868386	0	15.44371639
Stanislaus		2023	SBUS	Aggregate	Aggregate	Electricity	0.087060199	1.009531064	0	1.009531064	1.260631682	1.063496143	0	0	0	0	0	0	0	0	3.34E-09	8.75E-09	1.21E-08	0	0	0	0	1.34E-08	2.50E-08	3.83E-08	0	0	0	0
Stanislaus		2023	SBUS	Aggregate	Aggregate	Natural Gas	95.89798993	2443.621635	2443.621635	0	1388.602894	0	0.001286294	0.000551742	0	0.001838037	9.10E-06	1.33E-06	0	1.04E-05	8.08E-06	4.23E-05	6.09E-05	9.90E-06	1.45E-06	0	1.13E-05	3.23E-05	0.00012099	0.000164658	3.334402894	0.441793471	0	3.776196365
Stanislaus		2023	UBUS	Aggregate	Aggregate	Gasoline	18.71002833	1043.905782	1043.905782	0	74.84011332	0	0.00028425	0	8.20E-05	0.000366237	1.19E-06	0	5.98E-08	1.25E-06	3.32E-06	4.34E-05	4.80E-05	1.29E-06	0	6.51E-08	1.36E-06	1.33E-05	0.000124064	0.0001387	1.978141096	0	0.008988065	1.987129161
Stanislaus		2023	UBUS	Aggregate	Aggregate	Diesel	71.36802862	7758.148358	7758.148358	0	285.4721145	0	0.006194723	0	0	0.006194723	4.48E-05	0	0	4.48E-05	5.45E-05	0.000329248	0.000428515	4.68E-05	0	0	4.68E-05	0.000217942	0.000940708	0.001205457	10.25716519	0	0	10.25716519
Stanislaus		2023	UBUS	Aaereaate	Aaereaate	Electricity	5.046756939	101.2376355	0	101.2376355	20.18702775	176.4819127	0	0	0	0	0	0	0	0	1.00E-06	2.15E-06	3.15E-06	0	0	0	0	4.02E-06	6.14E-06	1.02E-05	0	0	0	0
Stanislaus		2023	UBUS	Aggregate	Aggregate	Natural Gas	52.47652072	4371.826164	4371.826164	0	209.9060829	0	0.001147736	0	0	0.001147736	8.49E-07	0	0	8.49E-07	3.24E-05	0.000185536	0.000218767	8.88E-07	0	0	8.88E-07	0.000129526	0.000530102	0.000660516	6.050637388	0	0	6.050637388

Source: EMFAC2021 (v1.0.1) Emissions Inventory
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Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips. kWh/day for Energy Consumption. tons/day for Emissions. 1000 gallons/day for Fuel Consumption

CH4 RUNEX	CH4 IDLEX	CH4 STREX	CH4 TOTEX	N2O RUNEX	N2O IDLEX	N2O STREX	N2O TOTEX	ROG RUNEX	ROG IDLEX	ROG STREX	ROG TOTEX	ROG DIURN	ROG HOTSOAK	ROG RUNLOSS	ROG TOTAL	TOG RUNEX	TOG IDLEX	TOG STREX	TOG TOTEX	TOG DIURN	TOG HOTSOAK	TOG RUNLOSS	TOG TOTAL	CO RUNEX	CO IDLEX	CO STREX	CO TOTEX	SOx RUNEX	SOx IDLEX	SOx STREX	SOx TOTEX	NH3 RUNEX	Fuel Consumption
5.44E-05	0	3.08E-09	5.44E-05	3.79E-05	0	2.46E-06	4.04E-05	0.000346642	0	1.67E-08	0.000346658	5.77E-05	1.52E-05	0.000136198	0.000555744	0.000505819	0	1.83E-08	0.000505837	5.77E-05	1.52E-05	0.000136198	0.000714923	0.017775563	0	0.00017131	0.017946873	2.53E-06	0	4.57E-08	2.58E-06	3.06E-06	0.027514948
0.000680793	0.001919681	0	0.002600474	0.227682968	0.015461662	0	0.243144631	0.014657282	0.04133021	0	0.055987492	0	0	0	0.055987492	0.016686199	0.047051298	0	0	0	0	0	0	0.063737498	0.071326022	0.603570856	0	0.674896878	0.013684646	0.000929307	0	0.014613953	0.195902438	137.8607261
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.026256708	0.004971023	0	0.03122773	0.003093389	0.000304512	0	0.033398402	0.000807463	8.27E-05	0	0.000890127	0	0	0	0.000890127	0.027289434	0.005086552	0	0	0	0	0	0	0.032375986	0	0	0.032375986	0.137245026	0.010578092	0	0	0	0.00887326	1.92686206
0.020304808	0	0.073433611	0.093738419	0.040409935	0	0.032747087	0.073157023	0.078251467	0	0.340075663	0.418327131	0.357017156	0.097825641	0.25033038	1.123503308	0.114163771	0	0.372338959	0.48650273	0.357017156	0.097825641	0.25033038	1.191675907	7.168570426	0	3.264566832	10.43313726	0.022219543	0	0.000676419	0.022895962	0.265798758	244.2187107
2.27E-05	0	0	2.27E-05	0.000641422	0	0	0.000641422	0.00048858	0	0	0.00048858	0	0	0	0.00048858	0.000556216	0	0	0	0	0	0	0.000556216	0.005907312	0	0	0.005907312	3.86E-05	0	0	3.86E-05	5.64E-05	0.363680141
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.000106131	0	0.000792209	0.00089834	0.000139787	0	0.000396603	0.00053639	0.000331172	0	0.003178266	0.003509438	0.002407283	0.000823322	0.000723192	0.007463235	0.000483246	0	0.003479801	0.003963047	0.002407283	0.000823322	0.000723192	0.007916843	0.053898535	0	0.024401403	0.078299938	0.000322925	0	1.24E-05	0.000335337	0.004291373	3.576852621
0.006077658	0	0.012843185	0.018920843	0.008649784	0	0.004002867	0.01265265	0.027685436	0	0.070112551	0.097797987	0.091718883	0.022651953	0.068794009	0.280962833	0.04039008	0	0.076764251	0.11715433	0.091718883	0.022651953	0.068794009	0.300319176	1.438929912	0	0.658290395	2.095220307	0.002138624	0	8.20E-05	0.00222059	0.023781011	23.68581785
2.08E-06	0	0	2.08E-06	9.86E-06	0	0	9.86E-06	4.47E-05	0	0	4.47E-05	0	0	0	4.47E-05	5.09E-05	0	0	5.09E-05	0	0	0	5.09E-05	0.000258669	0	0	0.000258669	5.93E-07	0	0	5.93E-07	4.98E-07	0.0055883
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.54E-07	0	1.98E-06	2.24E-06	3.33E-07	0	9.89E-07	1.32E-06	7.97E-07	0	8.00E-06	8.80E-06	3.60E-06	1.19E-06	1.05E-06	1.46E-05	1.16E-06	0	8.76E-06	9.93E-06	3.60E-06	1.19E-06	1.05E-06	1.58E-05	0.000129703	0	6.14E-05	0.000191135	7.77E-07	0	3.40E-08	8.11E-07	1.14E-05	0.008651192
0.011617338	0	0.038536904	0.050154242	0.024077939	0	0.016523751	0.04060169	0.047209041	0	0.184579026	0.231788067	0.164812714	0.042734058	0.117428639	0.556763477	0.068880595	0	0.202090664	0.270971259	0.164812714	0.042734058	0.117428639	0.59594667	3.702789605	0	1.711589383	5.414378988	0.011447753	0	0.000367226	0.011814979	0.114707182	126.0293197
7.74E-06	0	0	7.74E-06	0.000475657	0	0	0.000475657	0.000166567	0	0	0.000166567	0	0	0	0.000166567	0.000189625	0	0	0.000189625	0	0	0	0.000189625	0.001392067	0	0	0.001392067	2.86E-05	0	0	2.86E-05	3.13E-05	0.26969287
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.02E-05	0	7.95E-05	8.97E-05	1.34E-05	0	3.96E-05	5.31E-05	3.21E-05	0	0.000320113	0.000352237	0.00016192	5.10E-05	4.73E-05	0.000612426	4.69E-05	0	0.000350483	0.000397359	0.00016192	5.10E-05	4.73E-05	0.000657548	0.005228298	0	0.002457692	0.00768599	3.13E-05	0	1.48E-06	3.28E-05	0.000458144	0.34092428
0.00404785	0.001218493	0.005488361	0.010754703	0.004897838	3.11E-05	0.008001284	0.012930249	0.020413484	0.004556456	0.027550095	0.052520036	0.039907999	0.008735185	0.047582326	0.144745545	0.029787308	0.00664877	0.030163886	0.066599965	0.039907999	0.008735185	0.047582326	0.158825475	0.483548825	0.038065224	0.440736865	0.962350914	0.003280316	1.22E-05	3.83E-05	0.00333086	0.01619835	35.52846238
0.004021597	5.27E-05	0	0.004154316	0.036927618	0.000223513	0	0.037151131	0.088304665	0.001135004	0	0.089439969	0	0	0	0.089439969	0.130529332	0.001292126	0	0.131821458	0	0	0	0.131821458	0.261496664	0.009407496	0	0.27090416	0.002220927	1.34E-05	0	0.00223437	0.051133142	21.06454291
0.000379681	0.000208467	0.000840957	0.001429105	0.000608424	5.53E-06	0.001322803	0.001936759	0.001745607	0.00075462	0.004069991	0.006570218	0.004211451	0.001044528	0.00533611	0.017162307	0.002547186	0.001110114	0.004456128	0.008104453	0.004211451	0.001044528	0.00533611	0.018696543	0.055204878	0.006486449	0.077534611	0.139225938	0.000638336	2.37E-06	6.48E-06	0.000647053	0.002914231	6.901757663
0.001248817	1.83E-05	0	0.001267108	0.016511905	0.000123093	0	0.016634998	0.026886292	0.000393798	0	0.02728009	0	0	0	0.02728009	0.030608256	0.000448313	0	0.031056569	0	0	0	0.031056569	0.073910203	0.003264001	0	0.077174204	0.000993071	7.40E-06	0	0.001000474	0.022242549	9.431887969
0.012070392	0	0.004959681	0.017030073	0.002792256	0	0.000223923	0.00302618	0.002905305	0	0.037430106	0.120335411	0.065871784	0.084211505	0.091196998	0.363615698	0.09770972	0	0.040672808	0.133832528	0.065871784	0.084211505	0.091196998	0.379662815	0.974479476	0	0.19755057	1.172030046	0.000115295	0	1.29E-05	0.000128189	0.005532368	1.367319081
0.015031843	0	0.05175288	0.066784723	0.029619433	0	0.019322194	0.048941627	0.065039131	0	0.271305828	0.336344959	0.215066861	0.054035152	0.156205512	0.763652484	0.0948234	0	0.297043892	0.391867291	0.215066861	0.054035152	0.156205512	0.817174816	4.134406964	0	1.964109164	6.098516128	0.013012326	0	0.000456235	0.013468561	0.102672796	143.6617777
3.60E-05	0	0	3.60E-05	0.03272494	0	0	0.03272494	0.000775465	0	0	0.000775465	0	0	0	0.000775465	0.000882815	0	0	0.000882815	0	0	0	0.000882815	0.012521597	0	0	0.012521597	0.000196817	0	0	0.000196817	0.000159782	1.85547366
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8.59E-06	0	6.52E-05	7.38E-05	1.13E-05	0	3.26E-05	4.39E-05	2.69E-05	0	0.000262029	0.000288892	0.000164477	5.09E-05	4.82E-05	0.000552409	3.92E-05	0	0.000286889	0.000326087	0.000164477	5.09E-05	4.82E-05	0.000589604	0.004371946	0	0.002011752	0.006383698	2.62E-05	0	1.53E-06	2.77E-05	0.000384034	0.295730177
0.000249928	0	5.68E-06	0.000255609	0.000394558	0	6.22E-06	0.000400775	0.001126708	0	2.48E-05	0.001151517	0.008467584	0.002150097	4.98E-05	0.01181897	0.001644089	0	2.72E-05	0.001671253	0.008467584	0.002150097	4.98E-05	0.012338705	0.027882954	0	0.000542056	0.02842501	0.000244455	0	4.66E-08	0.000244502	0.000567867	2.607969891
3.97E-05	0	0	3.97E-05	0.000932268	0	0	0.000932268	0.000854701	0	0	0.000854701	0	0	0	0.000854701	0.00097302	0	0	0.00097302	0	0	0	0.00097302	0.002941491	0	0	0.002941491	5.61E-05	0	0	5.61E-05	0.000634886	0.528587977
0.000587123	0.000158845	0.00060088	0.001346848	0.000787924	4.42E-06	0.000394493	0.001187276	0.00303337	0.000632933	0.003404855	0.007071488	0.002285069	0.000536184	0.004252383	0.014145123	0.004426768	0.000921575	0.003727887	0.00907823	0.002285069	0.000536184	0.004252383	0.016151865	0.065133766	0.009459467	0.072915673	0.147508905	0.00053914	3.39E-06	5.87E-06	0.000548395	0.001332773	5.84942993
0.00033607	6.23E-05	0	0.00039833	0.043664017	0.001826911	0	0.045490928	0.007235491	0.001340453	0	0.008575945	0	0	0	0.008575945	0.008237056	0.001526004	0	0.00976306	0	0	0	0.00976306	0.027207908	0.037987723	0	0.06519563	0.00262438	0.000109805	0	0.002734185	0.051392302	25.79292955
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.002099892	0.000919772	0	0.003019664	0.000542762	6.13E-05	0	0.000604034	3.00E-05	1.31E-05	0	4.31E-05	0	0	0	4.31E-05	0.002143094	0.000938695	0	0.003081788	0	0	0	0.003081788	0.007824516	0.002090478	0	0.009914994	0	0	0	0	0.002813845	0.342481452
0.000149326	3.11E-05	0.000128552	0.000309024	0.00023899	8.05E-07	1.00E-04	0.00033979	0.000738285	0.000122024	0.000706436	0.001566745	0.000608232	0.000136901	0.000639074	0.002950951	0.001077304	0.000178057	0.000773459	0.002028819	0.000608232	0.000136901	0.000639074	0.003413025	0.016193024	0.000944812	0.015234248	0.032372084	0.000125153	6.23E-07	1.07E-06	0.000126847	0.000315824	1.353004287
5.53E-05	5.57E-06	0	6.09E-05	0.002260118	5.62E-05	0	0.002316329	0.001191565	0.000119874	0	0.001311468	0	0	0	0.001311468	0.00135654	0.000138467	0	0.001493007	0	0	0	0.001493007	0.00348596	0.001835063	0	0.005321023	0.000135842	3.38E-06	0	0.00013922	0.002149079	1.31333657
0.000101831	1.00E-05	0	0.000111839	2.83E-05	6.14E-07	0	2.89E-05	1.45E-06	1.43E-07	0	1.60E-06	0	0	0	1.60E-06	0.000103926	1.02E-05	0	0.00011414	0	0	0	0.00011414	0.000423164	1.81E-05	0	0.000441274	0	0	0	0	0.000140033	0.016370806
7.86E-05	0.000555476	5.83E-05	0.000692338	0.002233804	1.97E-05	6.29E-05	0.000316337	0.000374676	0.002373977	0.00032567	0.003074323	0.000361489	9.98E-05	0.000197931	0.003733514	0.000546726	0.003464101	0.000356568	0.00467396	0.000361489	9.98E-05	0.000197931	0.005026587	0.009163188	0.01835325	0.008168581	0.035685018	9.23E-05	5.84E-06	5.03E-07	9.86E-05	0.000507385	1.05199408
3.64E-05	4.32E-06	0	4.07E-05	0.002241288	0.000191876	0	0.002433164	0.000783088	9.31E-05	0	0.000876192	0	0	0	0.000876192	0.000891486	0.000105992	0	0.000997478	0	0	0	0.000997478	0.023365304	0.002354424	0	0.004719728	0.00013471	1.15E-05	0	0.000146243	0.001667531	1.379581067
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.008568299	0.001545595	0	0.010113894	0.00067974	9.01E-05	0	0.000769802	0.000122424	2.21E-05	0	0.000144508	0	0	0	0.000144508	0.008744577	0.001577393	0	0.010321971	0	0	0	0.010321971	0.028136577	0.002485754	0	0.030622331	0	0	0	0	0.002855249	0.436470705
4.08E-06	0	1.11E-05	1.52E-05	2.42E-05	0	7.13E-06	3.14E-05	1.38E-05	0	4.83E-05	6.21E-05	1.51E-05	5.01E-06	7.90E-06	9.01E-05	2.01E-05	0	5.29E-05	7.30E-05	1.51E-05	5.01E-06	7.90E-06	0.000101009	0.000405335	0	0.000789638	0.001194874	1.96E-05	0	8.89E-08	1.96E-05	5.18E-05	0.209540287
2.84E-05	0	0	2.84E-05	0.001616021	0	0	0.001616021	0.000611269	0	0	0.000611269	0	0	0	0.000611269	0.000695883	0	0	0.000695883	0	0	0	0.000695883	0.000684743	0	0	0.000684743	9.72E-05	0	0	0	9.72E-05	0.001752144	0.916268503
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.010544534	0	0	0.010544534	0.001233462	0	0	0.001233462	0.000150661	0	0	0.000150661	0	0	0	0.000150661	0.01076147	0	0	0.01076147	0	0	0	0.01076147	0.129305386	0	0	0.129305386	0	0	0	0	0.004674539	0.699361398

Source: EMFAC2021 (v1.0.1) Emissions Inventory
Region Type: County
Region: Stanislaus
Calendar Year: 2025
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	Total VMT	CVMT	EVMT	Trips	Energy Consumption	NOx_RUNEX	NOx_IDLEX	NOx_STREX	NOx_TOTEX	PM2.5_RUNEX	PM2.5_IDLEX	PM2.5_STREX	PM2.5_TOTEX	PM2.5_PMTW	PM2.5_PMBW	PM2.5_TOTAL	PM10_RUNEX	PM10_IDLEX	PM10_STREX	PM10_TOTEX	PM10_PMTW	PM10_PMBW	PM10_TOTAL	CO2_RUNEX	CO2_IDLEX	CO2_STREX	CO2_TOTEX
Stanislaus	2025	HHDT	Aggregate	Aggregate	Gasoline	1.71237822	54.2716793	54.2716793	0	34.26005499	0	0.000104967	0	5.78E-05	0.000111722	3.06E-07	0	7.67E-08	3.83E-07	2.99E-07	2.15E-06	2.83E-06	3.32E-07	0	8.35E-08	4.16E-07	1.20E-06	6.15E-06	7.76E-06	0.143479861	0	0.002032407	0.144511767
Stanislaus	2025	HHDT	Aggregate	Aggregate	Diesel	6136.117788	846234.4791	846234.4791	0	101389.9504	0	1.57998509	0.527018865	0.318541705	2.418242078	0.025511008	0.000223216	0	0.025774524	0.008287662	0.025006482	0.059068367	0.026706311	0.000233309	0	0.02693962	0.033150648	0.074647091	0.135137358	1452.152521	99.90790435	0	1552.060425
Stanislaus	2025	HHDT	Aggregate	Aggregate	Electricity	35.83225067	4489.22127	0	4489.22127	560.4602861	8245.511916	0	0	0	0	0	0	0	0	4.35E-05	6.80E-05	0.000111615	0	0	0	0	0.000173812	0.000194177	0.000367989	0	0	0	0
Stanislaus	2025	HHDT	Aggregate	Aggregate	Natural Gas	159.2315479	9901.231291	9901.231291	0	1255.827864	0	0.013637126	0.001973241	0	0.015610367	2.87E-05	3.99E-06	0	3.26E-05	9.82E-05	0.000525341	0.000656218	3.12E-05	4.33E-06	0	3.55E-05	0.000392913	0.001500873	0.001929395	15.73864554	1.626942237	0	17.36658977
Stanislaus	2025	LDA	Aggregate	Aggregate	Gasoline	185607.264	7390051.875	7390051.875	0	854957.4901	0	0.307622221	0	0.237152939	0.544775161	0.008948084	0	0.001786596	0.010736668	0.016292276	0.027000455	0.05402739	0.009718858	0	0.001943686	0.011674944	0.065169102	0.0771441	0.153888146	2205.430742	0	65.7365837	2271.167326
Stanislaus	2025	LDA	Aggregate	Aggregate	Diesel	468.1685439	14295.16178	14295.16178	0	1969.777197	0	0.002929517	0	0	0.002929517	0.000202017	0	0	0.000202017	3.15E-05	5.32E-05	0.000286902	0.000211311	0	0	0.000211311	0.000126062	0.000152848	0.000489421	3.458670685	0	0	3.458670685
Stanislaus	2025	LDA	Aggregate	Aggregate	Electricity	8307.686727	419521.9784	0	419521.9784	41536.23428	161970.1087	0	0	0	0	0	0	0	0	0.000304888	0.000707114	0.001010002	0	0	0	0	0.000489551	0.002020326	0.002509876	0	0	0	0
Stanislaus	2025	LDA	Aggregate	Aggregate	Plug-in Hybrid	5173.761081	248941.1297	121227.9857	127713.1439	21391.41937	38571.17593	0.000897543	0	0.002675814	0.003573358	0.000150142	0	4.61E-05	0.000196221	0.000548821	0.000410715	0.001155757	0.000163293	0	5.01E-05	0.000213408	0.002195285	0.001173471	0.003582164	38.87578321	0	1.526140621	40.41092383
Stanislaus	2025	LDT1	Aggregate	Aggregate	Gasoline	17078.51857	555312.5797	555312.5797	0	74341.8761	0	0.094635211	0	0.038382563	0.132987775	0.000386641	0	0.000253913	0.001348574	0.001324255	0.002384555	0.004949383	0.001181843	0	0.000276153	0.001457996	0.004897819	0.006813014	0.013168029	199.6658018	0	7.404834062	207.0706122
Stanislaus	2025	LDT1	Aggregate	Aggregate	Diesel	10.33090924	112.1439825	112.1439825	0	28.97965341	0	0.000185678	0	0	0.000185678	2.64E-05	0	0	2.64E-05	2.47E-07	5.43E-07	2.72E-05	2.76E-05	0	0	2.76E-05	9.88E-07	1.55E-06	3.02E-05	0.047976483	0	0	0.047976483
Stanislaus	2025	LDT1	Aggregate	Aggregate	Electricity	24.46135573	1271.175881	0	1271.175881	123.0962111	490.7788058	0	0	0	0	0	0	0	0	2.80E-06	2.14E-06	4.94E-06	0	0	0	0	1.12E-05	6.11E-06	1.73E-05	0	0	0	0
Stanislaus	2025	LDT1	Aggregate	Aggregate	Plug-in Hybrid	24.27218347	1235.078643	538.0135428	697.0660999	100.3682856	210.5347381	3.98E-06	0	1.26E-05	1.65E-05	4.63E-07	0	1.51E-07	6.15E-07	2.72E-06	2.04E-06	5.37E-06	5.04E-07	0	1.64E-07	6.68E-07	1.09E-05	5.82E-06	1.76E-05	0.172531605	0	0.007785259	0.180316865
Stanislaus	2025	LDT2	Aggregate	Aggregate	Gasoline	81577.57552	1517939.149	1517939.149	0	376329.0841	0	0.246945689	0	0.146377644	0.393223333	0.003073078	0	0.000804004	0.004077118	0.006962064	0.012970823	0.024710005	0.004321085	0	0.000874467	0.005195552	0.027848256	0.033556493	0.071033302	1171.2649	0	36.67218411	1207.937084
Stanislaus	2025	LDT2	Aggregate	Aggregate	Diesel	245.2797573	10360.66261	10360.66261	0	1327.657887	0	0.005025547	0	0	0.005025547	6.23E-05	0	0	6.23E-05	2.28E-05	4.15E-05	0.000126266	6.48E-05	0	0	6.48E-05	9.14E-05	0.000118581	0.00027471	3.310123931	0	0	3.310123931
Stanislaus	2025	LDT2	Aggregate	Aggregate	Electricity	527.2552341	19429.35136	0	19429.35136	2682.67618	7501.133218	0	0	0	0	0	0	0	0	4.28E-05	3.27E-05	7.55E-05	0	0	0	0	0.000171338	9.34E-05	0.000264748	0	0	0	0
Stanislaus	2025	LDT2	Aggregate	Aggregate	Plug-in Hybrid	652.3487878	31784.82899	14551.37748	17233.4515	2697.462279	5205.053993	0.000107755	0	0.000337389	0.000445124	1.47E-05	0	4.75E-06	1.95E-05	7.01E-05	5.24E-05	0.000141965	1.60E-05	0	5.17E-06	2.12E-05	0.000382294	0.000149756	0.000451233	4.663828375	0	0.229421264	4.895804139
Stanislaus	2025	LHDT1	Aggregate	Aggregate	Gasoline	8631.264111	313971.6482	313971.6482	0	128592.8747	0	0.067963077	0.000359261	0.091573243	0.163495581	0.000529548	0	4.31E-05	0.000573807	0.00068778	0.009388194	0.010648781	0.000575632	0	4.70E-05	0.000062298	0.002751119	0.02682341	0.03019751	306.2463668	1.145464629	3.649287843	311.0410993
Stanislaus	2025	LHDT1	Aggregate	Aggregate	Diesel	8747.763801	305646.147	305646.147	0	133035.8891	0	0.775641122	0.021628171	0	0.796271293	0.016821702	0.000255442	0	0.017076122	0.003610752	0.009639784	0.029384713	0.017582305	0.000265923	0	0.017848228	0.004043006	0.026279542	0.048170777	214.6470858	1.309956327	0	215.9575621
Stanislaus	2025	LHDT1	Aggregate	Aggregate	Electricity	45.04857878	3223.987306	0	3223.987306	630.486161	2098.851016	0	0	0	0	0	0	0	0	7.11E-06	4.85E-05	5.56E-05	0	0	0	0	2.84E-05	0.0001386	0.000169703	0	0	0	0
Stanislaus	2025	LHDT2	Aggregate	Aggregate	Gasoline	1467.012593	53933.30412	53933.30412	0	21856.30179	0	0.007889788	6.01E-05	0.014945225	0.022869003	7.59E-05	0	4.92E-06	8.08E-05	0.000118903	0.001893524	0.002093222	8.25E-05	0	5.36E-06	8.79E-05	0.000475421	0.005410567	0.00597355	58.29826047	0.223610446	0.610382534	59.13275345
Stanislaus	2025	LHDT2	Aggregate	Aggregate	Diesel	3143.47271	115660.2623	115660.2623	0	38545.8322	0	0.205928183	0.007424504	0	0.213276233	0.005247188	9.18E-05	0	0.005338953	0.000382481	0.004060872	0.009782106	0.005484442	9.59E-05	0	0.005582057	0.005129923	0.011601919	0.018712399	98.24820823	0.746474844	0	98.99448317
Stanislaus	2025	LHDT2	Aggregate	Aggregate	Electricity	11.43076433	778.689428	0	778.689428	151.7022353	498.6515852	0	0	0	0	0	0	0	0	1.72E-06	1.27E-05	1.54E-05	0	0	0	0	6.87E-06	3.91E-05	4.58E-05	0	0	0	0
Stanislaus	2025	MCY	Aggregate	Aggregate	Gasoline	10272.42137	55201.47219	55201.47219	0	20544.84274	0	0.038463425	0	0.003693928	0.043157353	9.94E-05	0	7.00E-05	0.000169954	6.08E-05	0.000255567	0.000485976	0.000106271	0	7.43E-05	0.000180615	0.000241397	0.00073019	0.001154203	11.21957407	0	1.22325066	12.44282473
Stanislaus	2025	MDV	Aggregate	Aggregate	Gasoline	7731.82875	266761.24	266761.24	0	34637.1594	0	0.31465429	0	0.188343596	0.502997886	0.003465203	0	0.000787604	0.004252806	0.005880437	0.011412028	0.021545472	0.003768713	0	0.000856586	0.004625298	0.023522569	0.032605796	0.060753643	1224.43539	0	42.37666232	1266.812052
Stanislaus	2025	MDV	Aggregate	Aggregate	Diesel	1198.896454	44211.86607	44211.86607	0	5491.691956	0	0.090536654	0	0	0.090536654	0.000334698	0	0	0.000334698	5.75E-05	0.000189228	0.000621496	0.000349831	0	0	0.000349831	0.000389882	0.000540679	0.001286392	19.27795938	0	0	19.27795938
Stanislaus	2025	MDV	Aggregate	Aggregate	Electricity	580.9889936	21363.45721	0	21363.45721	2954.002223	8248.057707	0	0	0	0	0	0	0	0	4.71E-05	3.60E-05	8.30E-05	0	0	0	0	0.000188393	0.000102716	0.000291109	0	0	0	0
Stanislaus	2025	MDV	Aggregate	Aggregate	Plug-in Hybrid	487.8506886	23292.7111	11076.94674	12215.76432	2017.302598	3689.524912	8.20E-05	0	0.000252312	0.000334623	1.41E-05	0	4.59E-06	1.88E-05	5.14E-05	3.84E-05	0.000938721	1.56E-05	0	4.99E-06	2.04E-05	0.000235407	0.000109842	0.00033283	3.552191181	0	0.214852918	3.767046089
Stanislaus	2025	MH	Aggregate	Aggregate	Gasoline	1168.275376	10160.80344	10160.80344	0	116.8762686	0	0.005218441	0	5.64E-05	0.005274804	1.87E-05	0	5.04E-08	1.88E-05	3.36E-05	0.000176592	0.000229985	2.04E-05	0	5.48E-08	2.04E-05	0.000134404	0.000504549	0.000659391	21.84210926	0	0.004072453	21.84618171
Stanislaus	2025	MH	Aggregate	Aggregate	Diesel	547.5514442	4780.132419	4780.132419	0	54.75514442	0	0.02818702	0	0	0.02818702	0.000703386	0	0	0.000703386	2.11E-05	8.27E-05	0.000807161	0.000735119	0	0	0.000735119	8.43E-05	0.000238228	0.001055777	5.688732911	0	0	5.688732911
Stanislaus	2025	MHDT	Aggregate	Aggregate	Gasoline	527.4780465	25578.03095	25578.03095	0	10553.78063	0	0.011830212	5.06E-05	0.004834113	0.016714661	3.53E-05	0	5.76E-06	4.10E-05	8.46E-05	0.000444329	0.000570317	3.84E-05	0	6.27E-06	4.46E-05	0.000338339	0.001270513	0.001653393	50.68103259	0.31270913	0.534445798	51.52818752
Stanislaus	2025	MHDT	Aggregate	Aggregate	Diesel	6877.538193	22858.61133	22858.61133	0	58108.90637	0	0.271749685	0.068464147	0.103513058	0.443604891	0.002663055	0.000126964	0	0.002790019	0.000755762	0.003074122	0.007519903	0.002783466	0.000112705	0	0.002916171	0.003033948	0.011354633	0.017293853	281.7925297	11.93655411	0	293.7270838
Stanislaus	2025	MHDT	Aggregate	Aggregate	Electricity	39.36276474	2165.99114	0	2165.99114	488.4692587	2359.368649	0	0	0	0	0	0	0	0	7.16E-06	1.88E-05	2.60E-05	0	0	0	0	2.87E-05	5.39E-05	8.26E-05	0	0	0	0
Stanislaus	2025	MHDT	Aggregate	Aggregate	Natural Gas	51.99470418	2616.810677	2616.810677	0	377.1123278	0	0.002832791	0.000405845	0	0.003238636	4.03E-06	1.27E-06	0	5.30E-06	8.65E-06	4.62E-05	6.02E-05	4.38E-06	1.38E-06	0	5.76E-06	3.46E-05	0.000132802	0.000172381	2.860167956	0.342623089	0	3.208791044
Stanislaus	2025	OBUS	Aggregate	Aggregate	Gasoline	137.8163306	5698.858515	5698.858515	0	2757.429344	0	0.006132022	9.74E-06	0.003116256	0.009458825	6.21E-06	0	8.38E-07	7.05E-06	1.88E-05	9.87E-05	0.000124583	6.75E-06	0	9.12E-07	7.66E-06	7.54E-05	0.000281974	0.00036502	11.10816192	0.057605869	0.099181498	11.26356028
Stanislaus	2025	OBUS	Aggregate	Aggregate	Diesel	143.2618426	9448.642267	9448.642267	0	1640.584012	0	0.022834014	0.001792316	0.002860328	0.027487658	0.000694722	3.02E-06	0	0.000697738	3.12E-05	0.000205703	0.000734687	0.000517091	3.15E-06	0	0.000520244	0.000124984	0.000587722	0.00123295	14.28268863	0.374552139	0	14.65725077
Stanislaus	2025	OBUS	Aggregate	Aggregate	Electricity	0.605747968	52.14361693	0	52.14361693	12.11980514	57.84280878	0	0	0	0	0	0	0	0	1.72E-07	4.52E-07	6.24E-07	0	0	0	0	6.90E-07	1.29E-06	1.98E-06	0	0	0	0
Stanislaus	2025	OBUS	Aggregate	Aggregate	Natural Gas	3.34784153	167.6350842	167.6350842	0	29.79573861	0	3.21E-05	5.57E-06	0	3.77E-05	2.13E-07	1.68E-08	0	2.28E-07	5.54E-07	2.98E-06	3.77E-06	2.30E-07	1.82E-08	0	2.48E-07	2.22E-06	8.53E-06	1.10E-05	0.186084933	0.004528267	0	0.190612
Stanislaus	2025	SBUS	Aggregate	Aggregate	Gasoline	204.2239307	10463.4007	10463.4007	0	816.8923228	0	0.003817307	0.00030767	0.000718154	0.004742631	8.42E-06	0	4.18E-07	8.83E-06	2.31E-05	0.000581325	0.000313226	9.15E-06	0	4.55E-07	9.61E-06	9.23E-05	0.000518871	0.00061865	9.524063349	0.598771223	0.050935202	10.16874677
Stanislaus	2025	SBUS	Aggregate	Aggregate	Diesel	487.7559279	11055.02489	11055.02489	0	7062.705836	0	0.044766941	0.011596187	0.033864191	0.090245319	0.000244717	9.56E-06	0	0.000254273	3.66E-05	0.000191577	0.000482408	0.000255782	9.99E-06	0	0.000265769	0.000146233	0.000547364	0.000959366	13.93549689	1.215623301	0	15.15115919
Stanislaus	2025	SBUS	Aggregate	Aggregate	Electricity	2.785288674	82.06254727	0	82.06254727	37.23880093	86.44924916	0	0	0	0	0	0	0	0	2.55E-07	7.11E-07	9.66E-07	0	0	0	0	1.02E-06	2.03E-06	3.05E-06	0	0	0	0
Stanislaus	2025	SBUS	Aggregate	Aggregate	Natural Gas	101.4921062	2527.824881	2527.824881	0	1469.605669	0	0.001265498	0.000582323	0	0.001847822	9.41E-06	1.46E-06	0	1.09E-05	8.36E-06	4.38E-05	6.30E-05	1.02E-05	1.57E-06	0	1.18E-05	3.34E-05	0.000125159	0.000170408	3.412984589	0.468160978	0	3.881145566
Stanislaus	2025	UBUS	Aggregate	Aggregate	Gasoline	19.00321664	1060.263895	1060.263895	0	76.01286577	0	0.000326129	0	8.90E-05	0.000415269	1.21E-06	0	6.10E-08	1.27E-06	3.37E-06	4.41E-05	4.87E-05	1.32E-06	0	6.63E-08	1.38E-06	1.35E-05	0.000126008	0.000140878	2.090456529	0	0.009191981	2.0181761
Stanislaus	2025	UBUS	Aggregate	Aggregate	Diesel	54.38130989	6321.462866	6321.462866	0	217.5252396	0	0.002092845	0	0	0.002092845	3.86E-05	0	0	3.86E-05	4.65E-05	0.000268278	0.000352744	3.97E-05	0	0	3.97E-05	0.000185873	0.000766508	0.000982096	8.291802191	0	0	8.291802191
Stanislaus	2025	UBUS	Aggregate	Aggregate	Electricity	5.046756939	101.2276355	0	101.2276355	20.18702775	176.4819127	0	0	0	0	0	0	0	0	1.00E-06	2.15E-06	3.15E-06	0	0	0	0	4.02E-06	6.14E-06	1.02E-05	0	0	0	0
Stanislaus	2025	UBUS	Aggregate	Aggregate	Natural Gas	71.48397978	6000.146058	6000.146058	0	285.9103191	0	0.001169602	0	0	0.001169602	1.07E-06	0	0	1.07E-06	4.18E-05	0.000214664	0.000397862	1.11E-06	0	0	1.11E-06	0.000167103	0.000272543	0.000891761	6.941658384	0	0	6.941658384

Source: EMFAC2021 (v1.0.1) Emissions Inventory
Region Type: County
Region: Stanislaus
Calendar Year: 2025
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

CH4_RUNEX	CH4_IDLEX	CH4_STREX	CH4_TOTEX	N2O_RUNEX	N2O_IDLEX	N2O_STREX	NOO_TOTEX	ROG_RUNEX	ROG_IDLEX	ROG_STREX	ROG_TOTEX	ROG_DIURN	ROG_HOTSOAK	ROG_RUNLOSS	ROG_TOTAL	TOG_RUNEX	TOG_IDLEX	TOG_STREX	TOG_TOTEX	TOG_DIURN	TOG_HOTSOAK	TOG_RUNLOSS	TOG_TOTAL	CO_RUNEX	CO_IDLEX	CO_STREX	CO_TOTEX	SOx_RUNEX	SOx_IDLEX	SOx_STREX	SOx_TOTEX	NH3_RUNEX	Fuel Consumption
2.26E-05	0	2.62E-09	2.28E-05	2.36E-05	0	1.10E-06	2.48E-05	0.000105828	0	1.42E-08	0.000105822	2.31E-05	6.07E-06	5.44E-05	0.00023411	0.000219621	0	1.54E-08	0.000219637	2.31E-05	6.07E-06	5.44E-05	0.000302224	0.005343182	0	0.005303758	0.005479941	1.41E-06	0	2.01E-08	1.43E-06	2.41E-06	0.015238585
0.000650785	0.002024007	0	0.002674791	0.22878721	0.015740531	0	0.246527752	0.014051219	0.043576307	0	0.057587527	0	0	0	0.057587527	0.015956707	0.049608309	0	0.065559016	0	0	0	0.065559016	0.065078614	0.638368527	0	0.703445141	0.013751016	0.000946068	0	0.014697084	0.203312494	138.6446429
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.025222358	0.005145535	0	0.030367893	0.00320863	0.000331663	0	0.003452093	0.000718819	8.32E-05	0	0.000801087	0	0	0	0.000801087	0.026149648	0.005362388	0	0.031412035	0	0	0	0.031412035	0.136503752	0.01182803	0	0.148313782	0	0	0	0	0.009353425	2.007312903
0.016842919	0	0.066542726	0.082272645	0.036269935	0	0.03114991	0.067918845	0.002168951	0	0.295661585	0.357231526	0.335862045	0.090499996	0.23539912	1.018992607	0.090718246	0	0.332055296	0.423775542	0.335862045	0.090499996	0.23539912	1.070534703	0.440708223	0	2.897327965	3.338236237	0.021802928	0	0.000649873	0.022452801	0.285329859	239.4917568
1.69E-05	0	0	1.69E-05	0.00054915	0	0	0.00054915	0.000364114	0	0	0.000364114	0	0	0	0.000364114	0.000414452	0	0	0.000414452	0	0	0	0.000414452	0.004814493	0	0	0.004818493	3.28E-05	0	0	3.28E-05	4.88E-05	0.308961682
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.000126133	0	0.000984098	0.001132232	0.000164499	0	0.000489805	0.000654304	0.000396182	0	0.003973806	0.004369988	0.00294312	0.001028815	0.000940371	0.002922294	0.000579308	0	0.004350818	0.004928025	0.00294312	0.001028815	0.000940371	0.004841231	0.064270792	0	0.03050923	0.094780022	0.000384327	0	1.52E-05	0.000399503	0.005237731	4.261281426
0.004581298	0	0.010475302	0.01505566	0.008019138	0	0.003501273	0.010320411	0.003607236	0	0.05630052	0.076707757	0.074892579	0.019014916	0.056272821	0.228898073	0.000070501	0	0.060423008	0.091498209	0.074892579	0.019014916	0.056272821	0.242683355	1.141970581	0	0.529584653	1.673555035	0.0019739	0	7.32E-05	0.002047104	0.022655624	21.83523944
1.58E-06	0	0	1.58E-06	7.56E-06	0	0	7.56E-06	3.41E-05	0	0	3.41E-05	0	0	0	3.41E-05	3.88E-05	0	0	3.88E-05	0	0	0	3.88E-05	0.000195307	0	0	0.000195307	4.55E-07	0	0	4.55E-07	3.88E-07	0.00403572
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.56E-07	0	4.59E-06	5.14E-06	7.20E-07	0	2.27E-06	2.99E-06	1.76E-06	0	1.86E-05	2.04E-05	8.09E-06	2.69E-06	2.30E-06	3.35E-05	2.57E-06	0	2.04E-05	2.30E-05	8.09E-06	2.69E-06	2.30E-06	3.61E-05	0.000245235	0	0.000143133	0.000428368	1.71E-06	0	7.70E-08	1.78E-06	2.49E-05	0.019014188
0.009992867	0	0.032692588	0.042624455	0.021428045	0	0.01582693	0.037254975	0.039308273	0	0.164792461	0.204100734	0.162817747	0.040768513	0.115639998	0.522326991	0.05735854	0	0.180427002	0.237785541	0.162817747	0.040768513	0.115639998	0.557011798	2.378006461	0	1.555613156	4.933619616	0.011579146	0	0.000362542	0.011941688	0.126645135	127.3754563
7.47E-06	0	0	7.47E-06	0.000521511	0	0	0.000521511	0.000160736	0	0	0.000160736	0	0	0	0.000160736	0.000182987	0	0	0.000182987	0	0	0	0.000182987	0.005156614	0	0	0.005156614	3.14E-05	0	0	3.14E-05	3.54E-05	0.29565206
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.50E-05	0	0.000123383	0.00013843	1.95E-05	0	6.11E-05	8.06E-05	4.76E-05	0	0.005501051	0.005548606	0.000242499	7.88E-05	7.07E-05	0.00094057	6.94E-05	0	0.005485488	0.006361798	0.000242499	7.88E-05	7.07E-05	0.003039943	0.007714626	0	0.00384686	0.011561486	4.61E-05	0	2.27E-06	4.84E-05	0.000672687	0.518256429
0.003030905	0.001113558	0.004864051	0.009008513	0.003834023	2.89E-05	0.007407697	0.011272627	0.015052582	0.004116754	0.024269407	0.043328743	0.031786757	0.007523955	0.041772073	0.124409528	0.021891732	0.006007158	0.026506254	0.054405164	0.031786757	0.007523955	0.041772073	0.135485929	0.397553189	0.035734212	0.423906684	0.856192085	0.003027557	1.13E-05	3.61E-05	0.003074958	0.01544825	32.79889528
0.003558593	4.92E-05	0	0.003607753	0.033817818	0.000306384	0	0.034024202	0.076614404	0.000558386	0	0.077672791	0	0	0	0.077672791	0.087220406	0.001204902	0	0.088425208	0	0	0	0.088425208	0.225552758	0.008772452	0	0.23432521	0.020313895	1.24E-05	0	0.002046308	0.04987802	19.29140348
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.002396428	0.000190843	0.000759849	0.001247329	0.000496601	5.08E-06	0.001221229	0.001722908	0.001345	0.000869325	0.003656541	0.005690886	0.00400394	0.000966162	0.005021393	0.015831381	0.001962621	0.001005861	0.004003474	0.006971956	0.00400394	0.000966162	0.005021393	0.016962452	0.047363272	0.006096251	0.077725121	0.126184644	0.000576338	2.21E-06	6.04E-06	0.000584587	0.002674072	6.235474966
0.001125326	1.77E-05	0	0.001142992	0.015479014	0.000117607	0	0.015596621	0.024237609	0.000380327	0	0.024607935	0	0	0	0.024607935	0.027581522	0.000432977	0	0.028014498	0	0	0	0.028014498	0.066788736	0.003152344	0	0.069940379	0.006909095	7.07E-06	0	0.000938023	0.021840364	8.843137967
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.011063288	0	0.004618542	0.01568181	0.002614786	0	0.000213619	0.002828405	0.074854419	0	0.034679177	0.109537595	0.06476565	0.002689356	0.089826975	0.346219576	0.088786765	0	0.037689423	0.126476188	0.06476565	0.002689356	0.089826975	0.363135169	0.893456661	0	0.190608804	1.084065465	0.000110917	0	1.21E-05	0.00012301	0.000522937	1.312080321
0.011658282	0	0.043274405	0.054932687	0.021729483	0	0.014890979	0.040620462	0.049080307	0	0.215573304	0.270652611	0.206035407	0.049620466	0.148697298	0.675005782	0.071611908	0	0.242598649	0.314205551	0.206035407	0.049620466	0.148697298	0.718558722	3.435816608	0	1.653123019	5.088924627	0.01210479	0	0.000418936	0.012523727	0.010675018	131.5837481
3.22E-05	0	0	3.22E-05	0.00303725	0	0	0.00303725	0.000084172	0	0	0.000084172	0	0	0	0.000084172	0.000790269	0	0	0.000790269	0	0	0	0.000790269	0.011877046	0	0	0.011877046	0.000102668	0	0	0.000102668	0.000110379	1.722062475
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.15E-05	0	9.25E-05	0.000103946	1.49E-05	0	4.59E-05	6.08E-05	3.62E-05	0	0.000247005	0.000410905	0.000234915	7.40E-05	6.32E-05	0.000705029	5.28E-05	0	0.000433254	0.000463078	0.000234915	7.40E-05	6.32E-05	0.000875202	0.005873606	0	0.002876825	0.008749431	3.51E-05	0	2.12E-06	3.72E-05	0.00051283	0.387230063
0.000181896	0	4.86E-06	0.000186757	0.000311231	0	5.83E-06	0.000318062	0.000796979	0	2.07E-05	0.000817683	0.007148773	0.001762231	4.11E-05	0.009749797	0.00116295	0	2.27E-05	0.001185618	0.007148773	0.001762231	4.11E-05	0.010117732	0.018720091	0	0.000446882	0.019166873	0.000215931	0	4.03E-08	0.000215972	0.000502907	2.303012565
3.75E-05	0	0	3.75E-05	0.000396262	0	0	0.000396262	0.000807521	0	0	0.000807521	0	0	0	0.000807521	0.000919309	0	0	0.000919309	0	0	0	0.000919309	0.002766454	0	0	0.002766454	5.38E-05	0	0	5.38E-05	0.000360044	0.508172257
0.000385741	0.000150086	0.000533711	0.001070148	0.000569232	4.21E-06	0.000366542	0.000960986	0.001691572	0.000589974	0.002955774	0.005470721	0.00183628	0.000420671	0.00332026	0.011932272	0.002018546	0.000860014	0.003236201	0.006914976	0.00183628	0.000420671	0.00332026	0.012476311	0.040646590	0.008795732	0.063612858	0.112057789	0.005501034	3.09E-06	5.28E-06	0.005509469	0.001268187	5.419382981
0.0002684	5.78E-05	0	0.000326205	0.044396528	0.001880294	0	0.046276832	0.005778584	0.002244531	0	0.007523114	0	0	0	0.007523114	0.006579478	0.001416803	0	0.007995281	0	0	0	0.007995281	0.023751328	0.039620974	0	0.063372302	0.002668407	0.000113013	0	0.00278142	0.053354463	26.23852404
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.002206097	0.001013174	0	0.003327472	0.000584287	6.98E-05	0	0.000654133	3.26E-05	1.47E-05	0	4.77E-05	0	0	0	4.77E-05	0.002353542	0.001052593	0	0.003406135	0	0	0	0.003406135	0.008526572	0.002472763	0	0.011069335	0	0	0	0	0.003057612	0.370887304
0.000116887	2.88E-05	0.000119504	0.000261656	0.00018975	7.39E-07	9.26E-05	0.000281102	0.00057565	0.000113018	0.000637189	0.001232677	0.000570287	0.000127507	0.00061382	0.002649492	0.000844949	0.000164845	0.000697541	0.001575536	0.000570287	0.000127507	0.00061382	0.00302775	0.012534029	0.003875227	0.013849909	0.027233165	0.00010982	5.71E-07	9.81E-07	0.000111372	0.000282936	1.187940205
5.55E-05	5.93E-06	0	6.14E-05	0.002250245	5.90E-05	0	0.002309256	0.001194729	0.000127623	0	0.001322352	0	0	0	0.001322352	0.001360108	0.000145289	0	0.001505397	0	0	0	0.001505397	0.00347668	0.001696643	0	0.005446223	0.000135249	3.55E-06	0	0.000387895	0.002166131	1.309326405
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.000147754	1.44E-05	0	0.000162162	3.79E-05	9.22E-07	0	3.89E-05	2.11E-06	2.06E-07	0	2.32E-06	0	0	0	2.32E-06	0.000150794	1.47E-05	0	0.000164598	0	0	0	0.000164598	0.000606233	3.25E-05	0	0.000637816	0	0	0	0	0.000195873	0.023031979
7.54E-05	0.000561224	5.94E-05	0.000696076	0.000241046	1.94E-05	6.69E-05	0.000327389	0.000335641	0.023930803	0.00033082	0.023832763	0.000379405	0.000104465	0.000265533	0.024772166	0.000524057	0.001491572	0.000342206	0.004077855	0.000379405	0.000104465	0.000265533	0.005067238	0.003070728	0.013868816	0.008096511	0.031239656	9.42E-05	5.87E-06	5.04E-07	0.000100528	0.000519026	1.072281642
3.40E-05	4.24E-06	0	3.82E-05	0.002195543	0.000191528	0	0.002387071	0.000731249	9.12E-05	0	0.00082247	0	0	0	0.00082247	0.000832472	0.000103847	0	0.000936219	0	0	0	0.000936219	0.002242707	0.002461752	0	0.00470646	0.000131961	1.15E-05	0	0.000143472	0.001735619	1.353467048
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.008681275	0.001619948	0	0.010301223	0.000895759	9.54E-05	0	0.000791197	0.000124995	7.31E-05	0	0.000147184	0	0	0	0.000147184	0.00086396	0.001649194	0	0.001513153	0	0	0	0.001513153	0.0282678	0.002717039	0	0.030868219	0	0	0	0	0.002953636	0.448601232
4.09E-06	0	1.21E-05	1.62E-05	2.70E-05	0	7.46E-06	3.44E-05	1.39E-05	0	5.30E-05	6.70E-05	2.19E-05	6.61E-06	1.23E-05	0.000107796	2.03E-05	0	5.81E-05	7.84E-05	2.19E-05	6.61E-06	1.23E-05	0.00011923	0.000438331	0	0.000796734	0.001234966	1.99E-05	0	9.01E-08	2.00E-05	5.26E-05	0.212814307
1.85E-05	0	0	1.85E-05	0.001306277	0	0	0.001306277	0.000398911	0	0	0.000398911	0	0	0	0.000398911	0.000454129	0	0	0.000454129	0	0	0	0.000454129	0.00041643	0	0	0.00041643	7.86E-05	0	0	7.86E-05	0.001533015	0.740703405
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.013851701	0	0	0.013851701	0.001415102	0	0	0.001415102	0.000197613	0	0	0.000197613	0	0	0	0.000197613	0.014136677	0	0	0.014136677	0	0	0	0.014136677	0.167285597	0	0	0.167285597	0	0	0	0	0.006415606	0.802346935

APPENDIX B.3
OFFROAD OUTPUT FILES

Model Output: OFFROAD2021 (v1.0.1) Emissions Inventory
Region Type: Air District
Region: San Joaquin Valley Unified APCD
Calendar Year: 2020, 2022, 2023, 2025
Scenario: All Adopted Rules - Exhaust
Vehicle Classification: OFFROAD2021 Equipment Types
Units: tons/day for Emissions, gallons/year for Fuel, hours/year for Activity, Horsepower-hours/year for Horsepower-hours

Region	Calendar Year	Vehicle Category	Model Year	Horsepower Bin	Fuel	HC_tpd	ROG_tpd	TOG_tpd
San Joaquin Valley Unified APCD	2020	Cargo Handling Equipment - Rail Yard Tractor	Aggregate	Aggregate	Diesel	0.000380197	0.000460038	0.000547483
San Joaquin Valley Unified APCD	2020	Industrial - Forklifts	Aggregate	Aggregate	Diesel	0.022035853	0.026663382	0.031731629

Model Output: OFFROAD2021 (v1.0.1) Emissions Inventory
Region Type: Air District
Region: San Joaquin Valley Unified APCD
Calendar Year: 2020, 2022, 2023, 2025
Scenario: All Adopted Rules - Exhaust
Vehicle Classification: OFFROAD2021 Equipment Types
Units: tons/day for Emissions, gallons/year for Fuel, hours/year for Activity, Horsepower-hours/year for Horsepower-hours

CO_tpd	NOx_tpd	CO2_tpd	PM10_tpd	PM2.5_tpd	SOx_tpd	NH3_tpd	Fuel Consumption	Total_Activity_hpy	Total_Population	Horsepower_Hours_hhpy
0.030246966	0.002176935	5.279131205	8.04E-05	7.40E-05	4.88E-05	4.31E-05	171275.598	54138.68724	36.34300647	8489337.688
0.211207955	0.229416229	31.03622815	0.015901788	0.014629645	0.000286284	0.000253314	1006936.242	1077288.988	1463.075672	96404966.11

APPENDIX C
PERMITTED OPERATION TABLES

Table C.1. Summary of Actual Emissions from Proposed Units
Frito-Lay, Inc.
Modesto, CA

Process	Equipment Description	CO		NO_x		PM[1]		SO_x		VOC		TACs[2]		Ammonia[2]	
		(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)
N-1919-XX-X OFS Process Line	Starch Bag Dump Station	--	--	--	--	9.36E-05	3.50E-04	--	--	--	--	--	--	--	--
	Buttermilk Bag Dump Station	--	--	--	--	9.88E-07	3.70E-06	--	--	--	--	--	--	--	--
	Onion Powder Bag Dump Station	--	--	--	--	5.76E-07	2.16E-06	--	--	--	--	--	--	--	--
	Starch Use Bin	--	--	--	--	9.36E-05	3.50E-04	--	--	--	--	--	--	--	--
	Buttermilk Use Bin	--	--	--	--	9.88E-07	3.70E-06	--	--	--	--	--	--	--	--
	Onion Powder Use Bin	--	--	--	--	5.76E-07	2.16E-06	--	--	--	--	--	--	--	--
	Hopper	--	--	--	--	9.62E-05	3.60E-04	--	--	--	--	--	--	--	--
	Blender	--	--	--	--	9.62E-05	3.60E-04	--	--	--	--	--	--	--	--
	Fryer	--	--	--	--	5.00E-02	1.87E-01	--	--	5.45E-03	2.04E-02	--	--	--	--
	Ambient Air Cooler	--	--	--	--	2.32E-01	8.68E-01	--	--	--	--	--	--	--	--
	Seasoner	--	--	--	--	1.38E-01	5.30E-01	--	--	--	--	--	--	--	--
N-1919-XX-X Receiving and Storage (Cornmeal)	Cornmeal Silo	--	--	--	--	5.80E-06	2.17E-05	--	--	--	--	--	--	--	--
N-1919-XX-X Boiler	Boiler	3.69E+00	1.38E+01	1.52E-01	5.68E-01	3.72E-01	1.39E+00	2.94E-02	1.10E-01	2.69E-01	1.01E+00	4.75E-01	1.78E+00	4.45E-01	1.67E+00
N-1919-XX-X FCC Process Line	Corn Clean System	--	--	--	--	3.10E-04	1.16E-03	--	--	--	--	--	--	--	--
	Fryer	--	--	--	--	6.79E-01	2.54E+00	--	--	4.89E-03	1.83E-02	--	--	--	--
	Ambient Air Cooler	--	--	--	--	1.08E-01	4.05E-01	--	--	--	--	--	--	--	--
	Seasoner	--	--	--	--	1.18E-01	4.51E-01	--	--	--	--	--	--	--	--
N-1919-XX-X Receiving and Storage (Corn)	Corn Silo	--	--	--	--	7.76E-04	2.90E-03	--	--	--	--	--	--	--	--
	Total	**3.69**	**13.82**	**0.15**	**0.57**	**1.70**	**6.38**	**0.03**	**0.11**	**0.28**	**1.05**	**0.48**	**1.78**	**0.45**	**1.67**

Notes:
[1] All PM assumed to include total PM, PM_{10}, and $PM_{2.5}$.
[2] Ammonia emissions are shown separately, but the TAC emissions also include contributions from ammonia.

Abbreviations:
FCC - fried corn chip
hr - hour
lb - pound
NO_x - nitrogen oxide compounds ($NO + NO_2$)
OFS - onion fried snack
PM - particulate matter
$PM_{2.5}$ -particulate matter less than 2.5 microns in diameter
PM_{10} - particulate matter less than 10 microns in diameter
SO_x - sulfur oxide compounds
TACs - toxic air contaminants
tpy - tons per year
VOC - volatile organic compound

Table C.2. Summary of Potential Emissions from Proposed Units
Frito-Lay, Inc.
Modesto, CA

Process	Equipment Description	CO		NO_x		PM[1]		SO_x		VOC		TACs[2]		Ammonia[2]	
		(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)
N-1919-XX-X OFS Process Line	Starch Bag Dump Station	--	--	--	--	7.56E-03	3.31E-02	--	--	--	--	--	--	--	--
	Buttermilk Bag Dump Station	--	--	--	--	1.66E-04	7.27E-04	--	--	--	--	--	--	--	--
	Onion Powder Bag Dump Station	--	--	--	--	7.56E-05	3.31E-04	--	--	--	--	--	--	--	--
	Starch Use Bin	--	--	--	--	7.56E-03	3.31E-02	--	--	--	--	--	--	--	--
	Buttermilk Use Bin	--	--	--	--	1.66E-04	7.27E-04	--	--	--	--	--	--	--	--
	Onion Powder Use Bin	--	--	--	--	7.56E-05	3.31E-04	--	--	--	--	--	--	--	--
	Hopper	--	--	--	--	9.76E-04	4.28E-03	--	--	--	--	--	--	--	--
	Blender	--	--	--	--	1.78E-04	7.79E-04	--	--	--	--	--	--	--	--
	Fryer	--	--	--	--	5.00E-02	2.19E-01	--	--	1.15E-02	5.03E-02	--	--	--	--
	Ambient Air Cooler	--	--	--	--	2.32E-01	1.02E+00	--	--	--	--	--	--	--	--
	Seasoner	--	--	--	--	1.38E-01	6.05E-01	--	--	--	--	--	--	--	--
N-1919-XX-X Receiving and Storage (Cornmeal)	Cornmeal Silo	--	--	--	--	2.16E-05	9.46E-05	--	--	--	--	--	--	--	--
N-1919-XX-X Boiler	Boiler	3.69E+00	1.62E+01	1.52E-01	6.64E-01	3.72E-01	1.63E+00	2.94E-02	1.29E-01	2.69E-01	1.18E+00	4.75E-01	2.08E+00	4.45E-01	1.95E+00
N-1919-XX-X FCC Process Line	Corn Clean System	--	--	--	--	3.10E-04	1.36E-03	--	--	--	--	--	--	--	--
	Fryer	--	--	--	--	6.79E-01	2.98E+00	--	--	5.36E-03	2.35E-02	--	--	--	--
	Ambient Air Cooler	--	--	--	--	1.08E-01	4.74E-01	--	--	--	--	--	--	--	--
	Seasoner	--	--	--	--	1.18E-01	5.15E-01	--	--	--	--	--	--	--	--
N-1919-XX-X Receiving and Storage (Corn)	Corn Silo	--	--	--	--	7.76E-04	3.40E-03	--	--	--	--	--	--	--	--
	Total	**3.69**	**16.17**	**0.15**	**0.66**	**1.71**	**7.51**	**0.03**	**0.13**	**0.29**	**1.25**	**0.48**	**2.08**	**0.45**	**1.95**

Notes:
[1] All PM assumed to include total PM, PM_{10}, and $PM_{2.5}$.
[2] Ammonia emissions are shown separately, but the TAC emissions also include contributions from ammonia.

Abbreviations:
FCC - fried corn chip
hr - hour
lb - pound
NO_x - nitrogen oxide compounds ($NO + NO_2$)
OFS - onion fried snack
PM - particulate matter
$PM_{2.5}$ -particulate matter less than 2.5 microns in diameter
PM_{10} - particulate matter less than 10 microns in diameter
SO_x - sulfur oxide compounds
TACs - toxic air contaminants
tpy - tons per year
VOC - volatile organic compound

Table C.3. Emissions Calculations for Proposed Units
Frito-Lay, Inc.
Modesto, CA

Process	Equipment Description	Equipment Quantity	Actual Throughput[1]	Throughput Unit	Emission Factor, PM[2,3,4,5,6,7,8]	Units	Emission Factor, VOC[9]	Units	Control Device	Control Efficiency [10,11,12,13]	Pollutant Controlled	PM Emissions (lb/hr)	Actual PM Emissions (tpy)	VOC Emissions (lb/hr)	Actual VOC Emissions (tpy)
N-1919-XX-X OFS Process Line	Starch Bag Dump Station	1	52	lb/hr	1.80E-06	lb PM / lb conveyed	--	--	Bag Dump Filter	99.99%	PM	9.36E-05	3.50E-04	--	--
	Buttermilk Bag Dump Station	1	25	lb/hr	3.95E-08	lb PM / lb conveyed	--	--	Bag Dump Filter	99.99%	PM	9.88E-07	3.70E-06	--	--
	Onion Powder Bag Dump Station	1	32	lb/hr	1.80E-08	lb PM / lb conveyed	--	--	Bag Dump Filter	99.99%	PM	5.76E-07	2.16E-06	--	--
	Starch Use Bin	1	52	lb/hr	1.80E-06	lb PM / lb conveyed	--	--	IQC Filter	99.99%	PM	9.36E-05	3.50E-04	--	--
	Buttermilk Use Bin	1	25	lb/hr	3.95E-08	lb PM / lb conveyed	--	--	IQC Filter	99.99%	PM	9.88E-07	3.70E-06	--	--
	Onion Powder Use Bin	1	32	lb/hr	1.80E-08	lb PM / lb conveyed	--	--	IQC Filter	99.99%	PM	5.76E-07	2.16E-06	--	--
	Hopper	1	2,217	lb/hr	4.34E-08	lb PM / lb conveyed	--	--	IQC Filter	99.99%	PM	9.62E-05	3.60E-04	--	--
	Blender	1	2,217	lb/hr	4.34E-08	lb PM / lb conveyed	--	--	MQC Filter	99.99%	PM	9.62E-05	3.60E-04	--	--
	Fryer	1	2,566	lb/hr	0.05	lb/hr	0.085	lb/ton	Oil Mist Eliminator	95%	>2 um PM, VOC	5.00E-02	1.87E-01	5.45E-03	2.04E-02
	Ambient Air Cooler	1	2,566	lb/hr	0.23	lb/hr	--	--	--	--	--	2.32E-01	8.68E-01	--	--
N-1919-XX-X Receiving and Storage (Cornmeal)	Cornmeal Silo	1	3,625	lb/hr	0.032	lb/ton grain loaded	--	--	IQC Filter	99.99%	PM	5.80E-06	2.17E-05	--	--
N-1919-XX-X Boiler	Boiler	1	46	MMBtu/hr	7.6	lb/MMscf	5.5	lb/MMscf	SCR	80%	NOx	3.72E-01	1.39E+00	2.69E-01	1.01E+00
N-1919-XX-X FCC Process Line	Corn Clean System	1	18,000	lb/hr	0.005	gr/dcsf	--	--	Fabric Filter, MERV 10	85%	PM	3.10E-04	1.16E-03	--	--
	Fryer	1	2,300	lb/hr	0.68	lb/hr	0.085	lb/ton	Oil Mist Eliminator	95%	>2 um PM, VOC	6.79E-01	2.54E+00	4.89E-03	1.83E-02
	Ambient Air Cooler	1	2,300	lb/hr	0.11	lb/hr	--	--	--	--	PM	1.08E-01	4.05E-01	--	--
N-1919-XX-X Receiving and Storage (Corn)	Corn Silo	1	45,000	lb/hr	0.005	gr/dcsf	--	--	Fabric Filter, MERV 10	85%	PM	7.76E-04	2.90E-03	--	--

Notes:

[1] Throughputs for the equipment provided by the facility.

[2] Emission factors for dump stations and bins were provided by the facility. Starch, buttermilk, onion powder, and cornmeal all have different associated emission factors. For the dump stations and bins, the emission factors shown are broken out by material. The emission factors for the hopper and blender are calculated as averages of each material's emission factor, weighted by throughput of that material into the equipment. These emission factors represent emissions from controlled equipment.

[3] The PM emission factor for the FCC fryer is based on a March 2001 source test from Frito-Lay's Rancho Cucamonga facility, and scaled based on the differences in capacity at the two facilities. The fryer at that facility is equipped with an oil mist eliminator, so this emission factor is controlled.

[4] The emission factor for the FCC and OFS ambient air coolers is based on a source test from Frito-Lay's Kern facility in July 2005. This emission factor was scaled based on ambient air cooler capacity at the facilities.

5 Emission factor for the cornmeal silo is obtained from AP-42. The emission factor used is for grain receiving, and was found in AP-42, Table 9.9.1-1. Available: https://www3.epa.gov/ttn/chief/ap42/ch09/final/c9s0909-1.pdf. Accessed: December 2021.

[6] Boiler emission factors obtained from SCAQMD AER Reporting Tool Help and Support Manual. Available: https://www.aqmd.gov/docs/default-source/planning/annual-emission-reporting/combustion-emission-factors-2014.pdf?sfvrsn=8. Accessed: December 2021.

[7] Emission factors for the corn clean system and corn silo as provided by the facility. These emission factors are controlled, so control devices shown in this tab are for informational purposes only, and do not factor into the emissions calculations for these pieces of equipment.

[8] The PM emission factor for the OFS fryer is based on April 2008 and October 2010 source tests from Frito-Lay's Rancho Cucamonga facility, and scaled based on the differences in capacity at the two facilities. The fryer at that facility is equipped with an oil mist eliminator, so this emission factor is controlled.

9 Fryer VOC emission factors for VOC were obtained from AP-42, Table 9.13.3-2. Available: https://www3.epa.gov/ttn/chief/ap42/ch09/final/c9s13-3.pdf. Accessed: December 2021.

[10] The facility will utilize bag dump stations equipped with screeners. Per Shick Esteve, these stations are equipped with pleated filters composed of spunbound polyester ePTFE membranes. The National Filter Media Corporation claims that ePTFE membranes have an initial fractional efficiency of 99.98% for particulates 0.3 – 0.4 microns in diameter, and an initial fractional efficiency of 100% if the particulate matter size is greater than 0.55 microns in diameter. Based on the expected size of particulates at the facility, using a control efficiency of 99.99% is reasonable for this equipment type. Available: https://shickesteve.com/wp-content/uploads/2018/10/Bag-Dump-1.pdf and https://www.nfm-filter.com/assets/files/NFM-FRACTIONAL-EFFICIENCY-CHART.pdf. Accessed: December 2021.

[11] The facility proposes to use Shick Esteve Model 8-1250 Insertable Quick Change (IQC) filters to control several emission units. Per manufacturer specification, this model uses an ePTFE membrane and has an efficiency rating of at least 99.9%. The National Filter Media Corporation claims that ePTFE membranes have an initial fractional efficiency of 99.98% for particulates 0.3 – 0.4 microns in diameter, and an initial fractional efficiency of 100% if the particulate matter size is greater than 0.55 microns in diameter. Based on the expected size of particulates at the facility, using a control efficiency of 99.99% is reasonable for this equipment type. Available: https://shickesteve.com/wp-content/uploads/2018/10/IQC-Cut-Sheet-1.pdf and https://www.nfm-filter.com/assets/files/NFM-FRACTIONAL-EFFICIENCY-CHART.pdf. Accessed: December 2021.

[12] The facility will control the blender with a mini quick change (MQC) filter. Per Shick Esteve, their filters are spun polyester with PTFE membranes, and have efficiency ratings exceeding 99.99%. Available: https://shickesteve.com/wp-content/uploads/2018/10/MQC-Filter.pdf. Accessed: December 2021.

[13] Per EPA, SCR is capable of reducing NOx by 70-90%. Available: https://www3.epa.gov/ttncatc1/dir1/fscr.pdf. Accessed: December 2021.

[14] Density of cornmeal obtained from Aqua Calc. Available: https://www.aqua-calc.com/page/density-table/substance/cornmeal-coma-and-blank-degermed-coma-and-blank-unenriched-coma-and-blank-yellow. Accessed: December 2021.

Conversion Factors:

1000	mg/g
2000	lb/ton
7000	grains/lb
41.43	lb/scf, cornmeal density[14]

Operating Schedule:

24	hr/day
312	day/year, actual
365	day/year, potential

Abbreviations:

EPA - Environmental Protection Agency
FCC - fried corn chip
g - gram
hr - hour
IQC - insertable quick change
lb - pound
MERV - minimum efficiency reporting value
mg - milligram
MQC - mini quick change
OFS - onion fried snack
PM - particulate matter
scf - standard cubic feet
SCR - selective catalytic reduction
SJVAPCD - San Joaquin Valley Air Pollution Control District
tpy - tons per year
VOC - volatile organic compound
yr - year

Table C.4. Proposed Unit Potential to Emit
Frito-Lay, Inc.
Modesto, CA

Process	Equipment Description	Equipment Quantity	Design Capacity[1]	Design Capacity Unit	Emission Factor, PM[2,3,4,5,6,7,8]	Units	Emission Factor, VOC[9]	Units	Control Device	Control Efficiency [10,11,12,13]	Pollutant Controlled	PM Emissions (lb/hr)	Potential PM Emissions (tpy)	VOC Emissions (lb/hr)	Potential VOC Emissions (tpy)
N-1919-XX-X OFS Process Line	Starch Bag Dump Station	1	4,200	lb/hr	1.80E-06	lb PM / lb conveyed	--	--	Bag Dump Filter	99.99%	PM	7.56E-03	3.31E-02	--	--
	Buttermilk Bag Dump Station	1	4,200	lb/hr	3.95E-08	lb PM / lb conveyed	--	--	Bag Dump Filter	99.99%	PM	1.66E-04	7.27E-04	--	--
	Onion Powder Bag Dump Station	1	4,200	lb/hr	1.80E-08	lb PM / lb conveyed	--	--	Bag Dump Filter	99.99%	PM	7.56E-05	3.31E-04	--	--
	Starch Use Bin	1	4,200	lb/hr	1.80E-06	lb PM / lb conveyed	--	--	IQC Filter	99.99%	PM	7.56E-03	3.31E-02	--	--
	Buttermilk Use Bin	1	4,200	lb/hr	3.95E-08	lb PM / lb conveyed	--	--	IQC Filter	99.99%	PM	1.66E-04	7.27E-04	--	--
	Onion Powder Use Bin	1	4,200	lb/hr	1.80E-08	lb PM / lb conveyed	--	--	IQC Filter	99.99%	PM	7.56E-05	3.31E-04	--	--
	Hopper	1	22,500	lb/hr	4.34E-08	lb PM / lb conveyed	--	--	IQC Filter	99.99%	PM	9.76E-04	4.28E-03	--	--
	Blender	1	4,100	lb/hr	4.34E-08	lb PM / lb conveyed	--	--	MQC Filter	99.99%	PM	1.78E-04	7.79E-04	--	--
	Fryer	1	5,404	lb/hr	0.05	lb/hr	0.085	lb/ton	Oil Mist Eliminator	95%	>2 um PM, VOC	5.00E-02	2.19E-01	1.15E-02	5.03E-02
	Ambient Air Cooler	1	5,404	lb/hr	0.23	lb/hr	--	--	--	--	--	2.32E-01	1.02E+00	--	--
N-1919-XX-X Receiving and Storage (Cornmeal)	Cornmeal Silo	1	13,500	lb/hr	0.032	lb/ton grain loaded	--	--	IQC Filter	99.99%	PM	2.16E-05	9.46E-05	--	--
N-1919-XX-X Boiler	Boiler	1	46	MMBtu/hr	7.6	lb/MMscf	5.5	lb/MMscf	SCR	80%	NOx	3.72E-01	1.63E+00	2.69E-01	1.18E+00
N-1919-XX-X FCC Process Line	Corn Clean System	1	18,000	lb/hr	0.005	gr/dcsf	--	--	Fabric Filter, MERV 10	85%	PM	3.10E-04	1.36E-03	--	--
	Fryer	1	2,522	lb/hr	0.68	lb/hr	0.085	lb/ton	Oil Mist Eliminator	95%	>2 um PM, VOC	6.79E-01	2.98E+00	5.36E-03	2.35E-02
	Ambient Air Cooler	1	2,522	lb/hr	0.11	lb/hr	--	--	--	--	PM	1.08E-01	4.74E-01	--	--
N-1919-XX-X Receiving and Storage (Corn)	Corn Silo	1	45,000	lb/hr	0.005	gr/dcsf	--	--	Fabric Filter, MERV 10	85%	PM	7.76E-04	3.40E-03	--	--

Notes:

[1] Design capacities for the equipment provided by the facility.

[2] Emission factors for dump stations and bins were provided by the facility. Starch, buttermilk, onion powder, and cornmeal all have different associated emission factors. For the dump stations and bins, the emission factors shown are broken out by material. The emission factors for the hopper and blender are calculated as averages of each material's emission factor, weighted by throughput of that material into the equipment.

[3] The PM emission factor for the FCC fryer is based on a March 2001 source test from Frito-Lay's Rancho Cucamonga facility, and scaled based on the differences in capacity at the two facilities. The fryer at that facility is equipped with an oil mist eliminator, so this emission factor is controlled.

[4] The emission factor for the FCC and OFS ambient air coolers is based on a source test from Frito-Lay's Kern facility in July 2005. This emission factor was scaled based on ambient air cooler capacity at the facilities.

[5] Emission factor for the cornmeal silo is obtained from AP-42. The emission factor used is for grain receiving, and was found in AP-42, Table 9.9.1-1. Available: https://www3.epa.gov/ttn/chief/ap42/ch09/final/c9s0909-1.pdf. Accessed: December 2021.

[6] Boiler emission factors obtained from SCAQMD AER Reporting Tool Help and Support Manual. Available: https://www.aqmd.gov/docs/default-source/planning/annual-emission-reporting/combustion-emission-factors-2014.pdf?sfvrsn=8. Accessed: December 2021.

[7] Emission factors for the corn clean system and corn silo as provided by the facility. These emission factors are controlled, so control devices shown in this tab are for informational purposes only, and do not factor into the emissions calculations for these pieces of equipment.

[8] The PM emission factor for the OFS fryer is based on April 2008 and October 2010 source tests from Frito-Lay's Rancho Cucamonga facility, and scaled based on the differences in capacity at the two facilities. The fryer at that facility is equipped with an oil mist eliminator, so this emission factor is controlled.

[9] Fryer VOC emission factors were obtained from AP-42, Table 9.13.3-2. Available: https://www3.epa.gov/ttn/chief/ap42/ch09/final/c9s13-3.pdf. Accessed: December 2021.

[10] The facility will utilize bag dump stations equipped with screeners. Per Shick Esteve, these stations are equipped with pleated filters composed of spunbound polyester ePTFE membranes. The National Filter Media Corporation claims that ePTFE membranes have an initial fractional efficiency of 99.98% for particulates 0.3 – 0.4 microns in diameter, and an initial fractional efficiency of 100% if the particulate matter size is greater than 0.55 microns in diameter. Based on the expected size of particulates at the facility, using a control efficiency of 99.99% is reasonable for this equipment type. Available: https://shickesteve.com/wp-content/uploads/2018/10/Bag-Dump-1.pdf and https://www.nfm-filter.com/assets/files/NFM-FRACTIONAL-EFFICIENCY-CHART.pdf. Accessed: December 2021.

[11] The facility proposes to use Shick Esteve Model 8-1250 Insertable Quick Change (IQC) filters to control several emission units. Per manufacturer specification, this model uses an ePTFE membrane and has an efficiency rating of at least 99.9%. The National Filter Media Corporation claims that ePTFE membranes have an initial fractional efficiency of 99.98% for particulates 0.3 – 0.4 microns in diameter, and an initial fractional efficiency of 100% if the particulate matter size is greater than 0.55 microns in diameter. Based on the expected size of particulates at the facility, using a control efficiency of 99.99% is reasonable for this equipment type. Available: https://shickesteve.com/wp-content/uploads/2018/10/IQC-Cut-Sheet-1.pdf and https://www.nfm-filter.com/assets/files/NFM-FRACTIONAL-EFFICIENCY-CHART.pdf. Accessed: December 2021.

[12] The facility will control the blender with a mini quick change (MQC) filter. Per Shick Esteve, their filters are spun polyester with PTFE membranes, and have efficiency ratings exceeding 99.99%. Available: https://shickesteve.com/wp-content/uploads/2018/10/MQC-Filter.pdf. Accessed: December 2021.

[13] Per EPA, SCR is capable of reducing NOx by 70-90%. Available: https://www3.epa.gov/ttncatc1/dir1/fscr.pdf. Accessed: December 2021.

[14] Density of cornmeal obtained from Aqua Calc. Available: https://www.aqua-calc.com/page/density-table/substance/cornmeal-coma-and-blank-degermed-coma-and-blank-unenriched-coma-and-blank-yellow. Accessed: December 2021.

Conversion Factors:

1000 mg/g
2000 lb/ton
7000 grains/lb
41.43 lb/scf, cornmeal density[14]

Operating Schedule:

24 hr/day
312 day/year, actual
365 day/year, potential

Abbreviations:

EPA - Environmental Protection Agency
FCC - fried corn chip
g - gram
hr - hour
IQC - insertable quick change
lb - pound
MERV - minimum efficiency reporting value
mg - milligram
MQC - mini quick change
OFS - onion fried snack
PM - particulate matter
scf - standard cubic feet
SCR - selective catalytic reduction
SJVAPCD - San Joaquin Valley Air Pollution Control District
tpy - tons per year
VOC - volatile organic compound
yr - year

Table C.5. Seasoner Emissions
Frito-Lay, Inc.
Modesto, CA

Seasoner Parameters							Actual Emissions		Potential Emissions	
Equipment	Throughput[1] (lb/hr)	Estimated Particulate Matter Air Release[2]	Uncontrolled Hourly Emissions (lb/hr)	Wet Scrubber Control Efficiency[3]	Controlled Hourly Emissions (lb/hr)	Controlled Daily Emissions (lb/day)	Annual Emissions (lb/yr)	Annual Emissions (tpy)	Annual Emissions (lb/yr)	Annual Emissions (tpy)
OFS Seasoner	2,763	0.10%	2.76	95%	0.14	3.32	1,061	0.53	1,210	0.61
FCC Seasoner	2,350	0.10%	2.35	95%	0.12	2.82	902	0.45	1,029	0.51

Notes:

[1] Throughputs as provided by the facility.

[2] Estimated PM air release from similar equipment at another Frito-Lay facility.

[3] The type of seasoning scrubber used by the facility is a Tri-Mer 10H. Specification sheets for this equipment type indicate that it can control particles greater than two microns in diameter by 95%. Based on the expected size range of the particulates on the OFS line, a control of 95% was used for this equipment. A copy of the specification sheet for this scrubber can be found in Appendix D.

Operating Schedule:

24 hours/day
320 days/year, actual
365 days/year, potential

Conversion Factor:

2000 lb/ton

Abbreviations:

FCC - fried corn chip
hr - hour
lb - pound
OFS - onion fried snack
PM_{10} - particulate matter less than 10 microns in diameter
PTE - potential to emit
tpy - tons per year
yr - year

Table C.6. Criteria Pollutant and Greenhouse Gas Emissions from Combustion
Frito-Lay, Inc.
Modesto, CA

	CAPs										GHGs							
	CO[1]		NO_x[2]		PM[3]		SO_x[3]		VOC[3]		CO_2[4]		CH_4[4]		N_2O[4]		CO_2e[4]	
	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(MT/yr)	(lb/hr)	(MT/yr)	(lb/hr)	(MT/yr)	(lb/hr)	(MT/yr)
Actual Emissions	3.69	13.82	0.15	0.57	0.37	1.39	0.03	0.11	0.27	1.01	5,871	19,942	0.11	0.38	0.11	0.37	5,906	20,061
Potential Emissions	3.69	16.17	0.15	0.66	0.37	1.63	0.03	0.13	0.27	1.18	5,871	23,330	0.11	0.45	0.11	0.43	5,906	23,468

Notes:

[1] CO emissions calculated based on an emissions limit of 100 ppm, as indicated in an SCAQMD BACT ruling for a 39.9 MMBtu watertube boiler with low NO_x burner and SCR. Available: http://www.aqmd.gov/docs/default-source/bact/laer-bact-determinations/aqmd-laer-bact/2-2-18_laer_lbva_56244_boiler.pdf?sfvrsn=14. Accessed: December 2021.

[2] NO_x emissions calculated based on SJVAPCD Rule 4320, which indicates that boilers with a total rated heat input between 20 and 75 MMBtu/hr will need to meet a NOx limit of 2.5 ppmv on and after December 31, 2023. The boiler is expected to begin operation in 2025. Available: https://www.valleyair.org/rules/currntrules/r4320.pdf. Accessed: December 2021.

[3] PM, SOx, and VOC emissions calculated using emission factors from SCAQMD AER Reporting Tool Help and Support Manual.

[4] GHG emission factors are CalEEMod® version 2020.4.0 defaults for natural gas combustion at nonresidential land uses. Available: http://www.aqmd.gov/docs/default-source/caleemod/user-guide-2021/appendix-d2020-4-0-full-merge.pdf?sfvrsn=12, Table 8.2. Accessed: December 2021.

Boiler Specifications:

50 MMBtu natural gas/hr

Operating Schedule:

24 hours/day
312 days/year, actual
365 days/year, potential

Conversion Factors:

1,020 BTU/scf Natural Gas
2,000 lb/ton
2,204.62 lb/MT

NO_x Emission Calculations:

2.5 ppm
3 $\%O_2$
8710 scf/MMBtu, F_d for natural gas
507,542 stack flow rate, scfh
46 lb NO_x/lb mol
385 scf/lb mole at STP
0.15 lb/hr NO_x

CO Emission Calculations:

100 ppm
3 $\%O_2$
8710 scf/MMBtu, F_d for natural gas
507,542 stack flow rate, scfh
28 lb CO/lb mol
385 scf/lb mole at STP
3.69 lb/hr CO

Abbreviations:

AER - annual emission reporting
BTU - British thermal unit
CO - carbon monoxide
hr - hour
lb - pound
MMBtu - million British thermal units
NO_x - nitrogen oxides (NO + NO_2)
O_2 - oxygen
PM - particulate matter
ppm - parts per million
SCAQMD - South Coast Air Quality Management District
scf - standard cubic foot
scfh - standard cubic feet per hour
SJVAPCD - San Joaquin Valley Air Pollution Control District
SO_x - sulfur oxides
STP - standard temperature and pressure
tpy - tons per year
VOC - volatile organic compound
yr - year

Table C.7. Toxic Air Contaminant Emissions from Combustion
Frito-Lay, Inc.
Modesto, CA

CAS No.	Pollutant	Emissions[1,2] (lb/hr)	Actual Annual Emissions		Potential Annual Emissions	
			Emissions (lb/yr)	Emissions (tpy)	Emissions (lb/yr)	Emissions (tpy)
75-07-0	acetaldehyde	1.52E-04	1.14E+00	5.68E-04	1.33E+00	6.64E-04
107-02-8	acrolein	1.32E-04	9.89E-01	4.95E-04	1.16E+00	5.79E-04
7664-41-7	ammonia	4.45E-01	3.33E+03	1.67E+00	3.90E+03	1.95E+00
71-43-2	benzene	2.84E-04	2.12E+00	1.06E-03	2.49E+00	1.24E-03
100-41-4	ethyl benzene	3.38E-04	2.53E+00	1.26E-03	2.96E+00	1.48E-03
50-00-0	formaldehyde	6.02E-04	4.51E+00	2.25E-03	5.27E+00	2.64E-03
110-54-3	hexane	2.25E-04	1.69E+00	8.43E-04	1.97E+00	9.86E-04
91-20-3	naphthalene	1.47E-05	1.10E-01	5.50E-05	1.29E-01	6.43E-05
1151	PAH (excluding naphthalene)	4.89E-06	3.66E-02	1.83E-05	4.29E-02	2.14E-05
115-07-1	propylene	2.59E-02	1.94E+02	9.71E-02	2.27E+02	1.14E-01
108-88-3	toluene	1.30E-03	9.71E+00	4.85E-03	1.14E+01	5.68E-03
1330-20-7	xylenes	9.64E-04	7.22E+00	3.61E-03	8.44E+00	4.22E-03
	Total	**4.75E-01**	**3.56E+03**	**1.78E+00**	**4.16E+03**	**2.08E+00**

Notes:

[1]TAC emission factors are SJVAPCD defaults for natural gas combustion for external combustion equipment with a rating between 10 and 100 MMBtu/hr. Available: https://www.valleyair.org/busind/pto/emission_factors/emission_factors_idx.htm. Accessed: December 2021.

[2]Ammonia emission factor obtained from SCAQMD AB2588 Supplemental Instructions. Emission factor used assumes the boiler utilizes selective catalytic reduction. Available: http://www.aqmd.gov/docs/default-source/planning/annual-emission-reporting/supplemental-instructions-for-ab2588-facilities.pdf. Accessed: December 2021.

Boiler Specifications:

50	Heat Input (MMBtu/hr)
0.0489	Natural Gas Usage (MMscf/hr)

Operating Schedule:

24	hours/day
312	days/year, actual
365	days/year, potential

Conversion Factors:

1,020	BTU/scf Natural Gas
2,000	lb/ton

Abbreviations:

AB - Assembly Bill
BTU - British thermal unit
CAS - Chemical Abstracts Service
hr - hour
lb - pound
MMBtu - million British thermal units
MMscf - million standard cubic feet
PAH - polycyclic aromatic hydrocarbons
SCAQMD - South Coast Air Quality Management District
scf - standard cubic foot
SJVAPCD - San Joaquin Valley Air Pollution Control District
TAC - toxic air contaminant
tpy - tons per year
yr - year

APPENDIX D
NON-PERMITTED OPERATION TABLES

Table D.1. CAP and GHG Emissions from Area Sources
Frito-Lay Inc.
Modesto, CA

Area Source Subcategory	*Incremental CAP Emissions [1] (tons/year)*					*Incremental GHG Emissions [1] (MT/year)*				
	ROG	**CO**	**SO_2**	**Exhaust PM_{10}**	**Exhaust $PM_{2.5}$**	**NBio-CO_2**	**CO_2**	**CH_4**	**N_2O**	**CO_2e**
Architectural Coating	0.18	--	--	--	--	--	--	--	--	--
Consumer Products	1.02	--	--	--	--	--	--	--	--	--
Landscaping	0.00	0.01	0.00	0.00	0.00	0.01	0.01	0.00	--	0.01
Total	**1.20**	**0.01**	**0.00**	**0.00**	**0.00**	**0.01**	**0.01**	**0.00**	**0.00**	**0.01**

Notes:
[1] Emissions estimated using CalEEMod® version 2020.4.0.

Abbreviations:
CalEEMod® - California Emissions Estimator Model
CAP - criteria air pollutant
CH_4 - methane
CO - carbon monoxide
CO_2 - carbon dioxide
CO_2e - carbon dioxide equivalents
GHG - greenhouse gas
MT - metric ton
N_2O - nitrous oxide
NO_x - nitrogen oxide compounds (NO + NO_2)
$PM_{2.5}$ -particulate matter less than 2.5 microns in diameter
PM_{10} - particulate matter less than 10 microns in diameter
ROG - reactive organic gas
SO_2 - sulfur dioxide

Table D.2. Electricity Carbon Intensity Factor Determination
Frito-Lay Inc.
Modesto, CA

Energy Delivered [MWh]					
	2016	**2017**	**2018**	**Average**	**Units**
Total Energy Delivery[1]	83,407,514	81,945,110	80,368,675	--	MWh
from renewables	27,524,479	27,041,886	31,343,783	--	MWh
from non-renewables	55,883,034	54,903,224	49,024,892	--	MWh
% of Total Energy From Renewables[2]	33%	33%	39%	--	
% of Total Energy From Non-Renewables	67%	67%	61%	--	
CO_2 Intensity Factor per Total Energy Delivered[3]	294	210	206	237	lbs CO_2/MWh delivered
CO_2 Intensity Factor per Total Non-Renewable Energy[4]	438	314	338	364	lbs CO_2/MWh delivered

Estimated Intensity Factors for Total Energy Delivered[5]					
2020 RPS (33%)[6]	**293.7**	**210.4**	**226.6**	**243.56**	lbs CO_2/MWh delivered
2022 RPS (38.7%)[6]	**268.7**	**192.5**	**207.3**	**222.84**	lbs CO_2/MWh delivered
2023 RPS (41.5%)[6]	**256.4**	**183.7**	**197.8**	**212.66**	lbs CO_2/MWh delivered
2025 RPS (47.2%)[6]	**231.4**	**165.8**	**178.6**	**191.94**	lbs CO_2/MWh delivered
2026 RPS (50%)[6]	**219.2**	**157.0**	**169.1**	**163.07**	lbs CO_2/MWh delivered

Conversion Factor:

1000 MWh/GWh

Notes:

[1] The total energy delivered in years 2016, 2017, and 2018 determined using the CEC's Electricity Consumption by Entity database. Available: http://www.ecdms.energy.ca.gov/elecbyutil.aspx. Accessed: December 2021.

[2] The percentages of energy from renewable sources in 2016, 2017, and 2018 are from power content labels for the respective years. Available: https://www.energy.ca.gov/filebrowser/download/516, https://www.energy.ca.gov/filebrowser/download/628, and https://www.energy.ca.gov/sites/default/files/2020-01/2018_PCL_PG_and_E.pdf. Accessed: December 2021.

[3] PG&E carbon intensities obtained from The Climate Registry. Available: https://www.theclimateregistry.org/our-members/cris-public-reports/. Accessed: December 2021.

[4] The emissions metric presented here is calculated based on the total CO_2 emissions divided by the energy delivered from non-renewable sources.

[5] The intensity factors for default RPS assumption are estimated by multiplying the percentage of energy delivered from non-renewable energy by the CO_2 emissions per total non-renewable energy metric calculated above. The estimate provided here assumes that renewable energy sources do not result in any CO_2 emissions.

[6] RPS for 2020 and 2026 based on California Senate Bill (SB) 100. RPS for 2022, 2023 and 2025 determined by linearly interpolating between the 2020 RPS (33%) and the 2026 RPS (50%), as listed in SB 100. Available: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180SB100. Accessed: December 2021.

Abbreviations:

CEC - California Energy Commission
CO_2 - carbon dioxide
GWh - gigawatt-hour
lbs - pounds
MWh - megawatt-hour
RPS - Renewable Portfolio Standard

Table D.3. Electricity Required from On-Road Mobile Sources
Frito-Lay Inc.
Modesto, CA

EMFAC HHDT Electric Emission Factor[1] (kWh/mile)	Project Electric HHDT VMT[2] (miles/day)	Electricity Required for HHDTs (MWh/year)	EMFAC MHDT Electric Emission Factor[2] (kWh/mile)	Project Electric MHDT VMT[2] (miles/day)	Electricity Required for MHDTs (MWh/year)	Total Electricity Required for HHDTs and MHDTs (MWh/year)
1.837	4,444	2,979	1.089	469	186	3,166

Conversion Factors:

365 days/year
1000 kWh/MWh

Notes:

[1] Emission factors for electric HHDT and MHDT vehicles calculated using EMFAC2021 v1.0.1. Available: https://arb.ca.gov/emfac/emissions-inventory. Accessed: December 2021.

[2] VMT calculated on the expected trip lengths and number of trips expected for each vehicle class. Additional calculation details can be found in **Table D.11.**

Abbreviations:

EMFAC - EMission FACtor Model
HHDT - heavy heavy-duty truck
kWh - kilowatt hours
MHDT - medium heavy-duty truck
MWh - megawatt hours
VMT - vehicle miles travelled

Table D.4. Electricity Required from Off-Road Mobile Sources
Frito-Lay Inc.
Modesto, CA

Equipment Type	OFFROAD Diesel Emission Factor[1,2] (gal/hr)	Equivalent Electric Emission Factor[3] (gal/hr)	OFFROAD Electric Emission Factor (Btu/hr)	OFFROAD Equipment Electricity Demand (kW)	Annual Operation[3] (hr/yr)	Annual Electricity Usage (MWh/yr)
Forklifts	0.93	0.25	839	0.25	2,920	8.6
Yard Tractors	3.18	1.18	4,022	1.18	2,920	10.3

Conversion Factors and Constants:

3.8	EER value for an electric forklift[4]
2.7	EER value for electric cargo handling equipment[4]
137,381	energy content of diesel, Btu/gallon
3,412	Btu/kWh
12	quantity of electric forklifts
3	quantity of electric yard tractors
1,000	kWh/MWh

Notes:

[1] Emission factors for forklifts and yard tractors were estimated using OFFROAD2021 v1.0.1. Forklifts were modeled as equipment type "Industrial - Forklifts," and the yard tractors were modeled as equipment type "Cargo Handling Equipment - Rail Yard Tractor." Available: https://arb.ca.gov/emfac/emissions-inventory. Accessed: December 2021.

[2] Fuel consumptions were reported in OFFROAD in gallons of diesel equivalent.

[3] It is assumed that off-road electric equipment operates for eight hours per day, and spends the remaining hours cooling down and charging.

[4] Energy Economy Ratios were used to convert diesel consumption to equivalent electricity usage. These ratios were obtained from CARB's LCFS regulation. Yard tractors were classified as cargo-handling equipment for the purposes of these calculations. Available: https://ww2.arb.ca.gov/sites/default/files/2020-07/2020_lcfs_fro_oal-approved_unofficial_06302020.pdf. Accessed: December 2021.

Abbreviations:

Btu - british thermal unit
CARB - California Air Resources Board
EER - energy economy ratio
EMFAC - EMission FACtor Model
gal - gallon
hr - hour
kW - kilowatt
kWh - kilowatt hour
LCFS - Low Carbon Fuel Standard
MWh - megawatt hour
yr - year

Table D.5. Annual Facility Electricity Usage
Frito-Lay Inc.
Modesto, CA

Sector	Load Type	Annual Electricity (MWh/year)
Building Energy[1]	General/Building/HVAC/Utilities/Lighting	26,280
	Cleaning System	250
	Compressors	6,893
	Process and Packaging	36,612
	Warehouse Operations	6,031
Mobile[2]	Electric On-Road (MHDT and HHDT) Vehicles	3,166
	Electric Off-Road Equipment - Forklifts and Yard Tractors	19
Electricity Required		**79,250**
Solar Generation	On-Site Solar Carports	1,595
	On-Site Solar Panels	9,727
Electricity Generated		**11,321**
Total Annual Facility Electricity Requirements		**67,929**

Notes:
[1] Electricity usage from building energy as provided by the facility and external consultants.
[2] Electricity usage from on-road and off-road mobile sources derived in **Tables D.3 and D.4.**

Abbreviations:
HHDT - heavy heavy-duty truck
HVAC - heating, ventilation, and air conditioning
MHDT - medium heavy-duty truck
MWh - megawatt hours

Table D.6. GHG Emissions from Facility Electricity Usage
Frito-Lay, Inc.
Modesto, CA

Incremental Annual Electricity Use[1] (MWh)	Incremental Electricity Emissions[2,3]			
	CO_2	CH_4	N_2O	CO_2e
	(MT/yr)			
121,691	11,319	1.82	0.22	11,430

Conversion Factors:

2204.62 lb/MT

Notes:

[1] Detailed electricity usages broken out by sector shown in **Table D.5.**

[2] CO_2 emission factor is based on the RPS carbon intensity value as calculated in **Table D.2**.

[3] CH_4 and N_2O emission factors are CalEEMod® version 2020.4.0 defaults for nonresidential land uses. Available: http://www.aqmd.gov/docs/default-source/caleemod/user-guide-2021/appendix-d2020-4-0-full-merge.pdf?sfvrsn=12, Table 1.2. Accessed: December 2021.

Abbreviations:

CalEEMod® - California Emissions Estimator Model
CEC - California Energy Commission
CH_4 - methane
CO_2 - carbon dioxide
CO_2e - carbon dioxide equivalents
kWh - kilowatt hour
lb - pound
MT - metric ton
MWh - megawatt hour
N_2O - nitrous oxide
sqft - square feet
yr - year

Table D.7. Natural Gas Required from On-Road Mobile Sources
Frito-Lay Inc.
Modesto, CA

EMFAC HHDT NG Emission Factor[1] (gal/mile)	Project NG HHDT VMT[2] (miles/day)	NG Required for HHDTs (MMBtu/year)	EMFAC MHDT NG Emission Factor[1] (gal/mile)	Project NG MHDT VMT[2] (miles/day)	NG Required for MHDTs (MMBtu/year)	Total NG Required for HHDTs and MHDTs (MMBtu/year)
0.203	12,698	129,085	0.142	469	3,333	132,418

Conversion Factors:

365 days/year
137,381 energy content of diesel,[3] Btu/gallon
1,000,000 Btu/MMBtu

[1] Emission factors for electric HHDT and MHDT vehicles calculated using EMFAC2021 v1.0.1. Available: https://arb.ca.gov/emfac/emissions-inventory. Accessed: December 2021.

[2] VMT calculated on the expected trip lengths and number of trips expected for each vehicle class. Additional calculation details can be found in **Table D.11.**

[3] Though trucks will run on natural gas, fuel usages from EMFAC are reported in gallons of diesel equivalent. Thus, the energy content of diesel fuel was used to calculate the fuel requirements for these trucks.

Abbreviations:

Btu - british thermal unit
EMFAC - EMission FACtor Model
gal - gallon
HHDT - heavy heavy-duty truck
MHDT - medium heavy-duty truck
MMBtu - million British thermal units
NG - natural gas
VMT - vehicle miles travelled

Table D.8. CAP and GHG Emissions from Facility Natural Gas Usage
Frito-Lay, Inc.
Modesto, CA

Incremental Annual Natural Gas Use[1] (MMBtu/yr)	*Incremental CAP Emissions*[2]						*Incremental GHG Emissions*[2]			
	ROG	CO	SO_2	NO_x	PM_{10}	$PM_{2.5}$	CO_2	CH_4	N_2O	CO_2e
	(tons/yr)						(MT/yr)			
96,274	0.52	3.96	0.03	4.72	0.36	0.36	5,138	0.10	0.09	5,168

Conversion Factors:

2,000 lb/ton
1,000,000 Btu/MMBtu
2,204.62 lb/MT
1,020 Btu/scf Natural gas

Notes:

[1] Natural gas usage required for building operation as provided by the facility. Total usage shown here includes additional natural gas required for on-road mobile sources as calculated in **Table D.7.**

[2] CAP and GHG emission factors are CalEEMod® version 2020.4.0 defaults for nonresidential land uses. Available: http://www.aqmd.gov/docs/default-source/caleemod/user-guide-2021/appendix-d2020-4-0-full-merge.pdf?sfvrsn=12, Table 8.2. Accessed: December 2021.

Abbreviations:

Btu - British thermal unit
CalEEMod® - California Emissions Estimator Model
CAP - criteria air pollutant
CEC - California Energy Commission
CH_4 - methane
CO - carbon monoxide
CO_2 - carbon dioxide
CO_2e - carbon dioxide equivalents
GHG - greenhouse gas
lb - pound
MMBtu - million British thermal units
MT - metric ton
N_2O - nitrous oxide
NO_x - nitrogen oxide compounds ($NO + NO_2$)
$PM_{2.5}$ -particulate matter less than 2.5 microns in diameter
PM_{10} - particulate matter less than 10 microns in diameter
ROG - reactive organic gas
SO_2 - sulfur dioxide
sqft - square feet
yr - year

Table D.9. Passenger Car Trip Determinations
Frito-Lay, Inc.
Modesto, CA

	Commuter Trip Length[1] (miles/trip)	**Increase in Peak Daily Trips[2] (trips/day)**
Passenger Cars	10.8	672

Notes:

[1] Estimated mileage is a CalEEMod® default for home-work trips in Stanislaus County, taken from Table 4.2 of Appendix D. Available: http://www.aqmd.gov/docs/default-source/caleemod/user-guide-2021/appendix-d2020-4-0-full-merge.pdf?sfvrsn=12. Accessed: December 2021.

[2] The number of daily one-way passenger car trips was provided by the facility. The facility expects to add 336 employees as part of the project. The increase in daily passenger car trips in was estimated assuming all employees drive to work and back each day.

Abbreviations:

CalEEMod® - California Emissions Estimator Model

DTC - dorito tortilla chip

FCC - fried corn chip

FCP - fried cheese puff

OFS - onion fried snack

Table D.10. Truck Trip Length Determination
Frito-Lay, Inc.
Modesto, CA

Distribution Center City[1]	Distribution Center Location[1]	Distance from Facility to Distribution Center[2] (miles)	City Population[3]	Region	Average Trip Length, Weighted by Population	Percentage of Trips to Each Region[4]	Overall Trip Length Average (miles/trip)
Fresno	2929 S. Elm	96.7	530,093	Northern California	87	65%	**173**
San Jose	1774 Automation Parkway	85.4	7,753,000				
Santa Rosa	3033 Coffey Lane	148	177,586				
Bakersfield	6320 District Boulevard	207	383,579	Southern California	332	35%	
Torrance	1500 Francisco Street	324	10,040,000				
San Diego	4953 Paramount Drive	425	1,426,000				

Notes:

[1] Distribution center locations provided by the facility.

[2] Distance from facility to distribution centers measured using Google Earth Pro.

[3] City populations based on 2018 data from the United States Census Bureau. Distribution centers in San Jose and Torrance are using populations of their larger surrounding areas: the San Francisco Bay Area and Los Angeles County, respectively.

[4] It is assumed that 65% of truck deliveries from the Modesto facility will go to Northern California, and 35% of truck deliveries will go to Southern California.

Table D.11. Summary of Baseline and Project Mobile Scenarios
Frito-Lay, Inc.
Modesto, CA

Scenario	Calendar Year	Truck Data					Passenger Car Data		
		Cumulative Number of Daily Trips for HHDT[1]	Average HHDT Trip Length (miles/trip)[2]	Cumulative Number of Daily Trips for MHDT[3]	Average MHDT Trip Length (miles/trip)[4]	Fleet Mix[5]	Cumulative Number of Daily Trips[6]	Average Trip Length (miles/trip)[7]	Fleet Mix[8]
Baseline	2020	76	173	12	30	38 NG Trucks, 12 Diesel Trucks, 6 Diesel Box Trucks	1,082	10.8	EMFAC Default
Post-Project	2025	99	173	16	30	40 NG Trucks, 14 Electric Trucks, 6 Electric Box Trucks	1,754	10.8	EMFAC Default

Notes:

[1] Number of daily trips for heavy heavy-duty trucks accounts for inbound and outbound deliveries. These values were based on the increased capacity of each process line expected to be added to the facility.

[2] Average trip length for heavy heavy-duty trucks as determined in **Table D.10**.

[3] Number of daily trips for medium heavy-duty trucks in the baseline based on the assumption that each MHDT takes two trips per day. Number in trips expected after project implementation are scaled based on the increase in heavy heavy-duty trucks during implementation. Note that the box trucks are classified as medium heavy-duty trucks.

[4] As the box trucks are traveling locally, it was assumed that the box trucks travel approximately 15 miles in each direction per trip.

[5] Fleet mix in each scenario as described by the Facility.

[6] According to a data request, there are a total of 541 employees at the facility in the baseline scenario. The facility expects to add 336 employees as part of the project. The number of daily passenger car trips in each scenario was estimated assuming all employees drive to work and back each day.

[7] The average trip length for passenger cars is based on a CalEEMod default for home-work trips in Stanislaus County, taken from Table 4.2 of Appendix D. Available: http://www.aqmd.gov/docs/default-source/caleemod/user-guide-2021/appendix-d2020-4-0-full-merge.pdf?sfvrsn=12. Accessed: December 2021.

[8] The passenger vehicle fleet mix for the baseline and post-project scenarios are based on EMFAC2021 v1.0.1 defaults. These include LDA, LDT, and MDV vehicle classes. Available: https://arb.ca.gov/emfac/emissions-inventory. Accessed: December 2021.

Abbreviations:

CalEEMod - California Emissions Estimator Model
DTC - dorito tortilla chip
EMFAC - Emission Factor Model
FCC - fried corn chip
FCP - fried cheese puff
HHDT - heavy heavy-duty truck
LDA - passenger cars
LDT - light-duty trucks
MDV - medium-duty trucks
MHDT - medium heavy-duty truck
NG - natural gas
OFS - onion fried snack

Table D.12. Emission Factors for Passenger Cars, CY 2020
Frito-Lay, Inc.
Modesto, CA

Year	Vehicle Class	Emission Factor Units	Mobile Emission Factors[1]								
			ROG	CO	SO_2	NO_x	PM_{10}	$PM_{2.5}$	CO_2	CH_4	N_2O
2020	Passenger Vehicles[2]	g/mile	0.07	1.38	0.003	0.12	0.02	0.01	341.52	0.005	0.01
		g/trip	1.16	4.96	0.001	0.46	0.00	0.00	90.95	0.11	0.04

Notes:

[1] Emission factors calculated using EMFAC2021 v1.0.1. These emission factors are for passenger cars in Stanislaus County in calendar year 2020. Available: https://arb.ca.gov/emfac/emissions-inventory. Accessed: December 2021.

[2] Passenger vehicles include LDA, LDT1, LDT2, and MDV vehicle classes.

Abbreviations:

CH_4 - methane
CO - carbon monoxide
CO_2 - carbon dioxide
EMFAC - EMission FACtor model
g - gram
HHDT - heavy-heavy duty truck
LDA - passenger car
LDT - light-duty truck
LHDT - light-heavy duty truck
MDV - medium-duty truck
MHDT - medium-heavy duty truck
N_2O - nitrous oxide
NO_x - nitrogen oxide compounds ($NO + NO_2$)
$PM_{2.5}$ -particulate matter less than 2.5 microns in diameter
PM_{10} - particulate matter less than 10 microns in diameter
ROG - reactive organic gas
SO_2 - sulfur dioxide

Table D.13. Heavy Heavy-Duty Truck Emission Factors, CY 2020
Frito-Lay, Inc.
Modesto, CA

Vehicle Class	Emission Factor Units	Mobile Emission Factors - CY 2020								
		ROG	CO	SO_2	NO_x	PM_{10}	$PM_{2.5}$	CO_2	CH_4	N_2O
Diesel Trucks[1]	g/mile	0.07	0.30	0.02	3.24	0.17	0.09	1,650	0.00	0.26
	g/trip	0.00	0.00	0.00	2.10	0.00	0.00	0.00	0.00	0.00
	g/idle trip	0.40	5.08	0.01	5.17	0.01	0.01	970	0.02	0.15
NG Trucks[1]	g/mile	0.11	14.86	0.00	1.96	0.17	0.06	1,555	3.00	0.32
	g/trip	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	g/idle trip	0.08	8.20	0.00	1.59	0.00	0.00	1,195	4.23	0.24
CY 2020 Truck Scenario[2]	g/mile	0.10	11.36	0.00	2.27	0.17	0.07	1,578	2.28	0.30
	g/trip	0.00	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00
	g/idle trip	0.15	7.45	0.00	2.45	0.00	0.00	1,141	3.22	0.22

CY 2020 Scenario:

38 NG Trucks
12 Diesel Trucks

Notes:

[1] Emission factors for diesel and natural gas trucks obtained from EMFAC2021 v1.0.1. These emission factors are for heavy-heavy duty trucks in Stanislaus County in calendar year 2020. Available: https://arb.ca.gov/emfac/emissions-inventory. Accessed: December 2021.

[2] In CY 2020, the truck fleet that makes deliveries to and from the facility consists of 38 natural gas fueled trucks and 12 diesel trucks.

Abbreviations:

CH_4 - methane
CO - carbon monoxide
CO_2 - carbon dioxide
CY - calendar year
EMFAC - EMission FACtor model
g - gram
LDA - passenger car
LDT - light-duty truck
MDV - medium-duty truck
NG - natural gas
N_2O - nitrous oxide
NO_x - nitrogen oxide compounds ($NO + NO_2$)
$PM_{2.5}$ -particulate matter less than 2.5 microns in diameter
PM_{10} - particulate matter less than 10 microns in diameter
ROG - reactive organic gas
SO_2 - sulfur dioxide

Table D.14. Emission Factors for Passenger Cars, CY 2022

Frito-Lay, Inc.
Modesto, CA

Year	Vehicle Class	Emission Factor Units	Mobile Emission Factors[1]								
			ROG	CO	SO_2	NO_x	PM_{10}	$PM_{2.5}$	CO_2	CH_4	N_2O
2022	Passenger Vehicles[2]	g/mile	0.06	1.15	0.003	0.09	0.02	0.01	327.36	0.004	0.01
		g/trip	1.05	4.28	0.001	0.40	0.00	0.00	86.60	0.10	0.04

Notes:

[1] Emission factors calculated using EMFAC2021 v1.0.1. These emission factors are for passenger cars in Stanislaus County in calendar year 2022. Available: https://arb.ca.gov/emfac/emissions-inventory. Accessed: December 2021.

[2] Passenger vehicles include LDA, LDT1, LDT2, and MDV vehicle classes.

Abbreviations:

CH_4 - methane
CO - carbon monoxide
CO_2 - carbon dioxide
EMFAC - EMission FACtor model
g - gram
HHDT - heavy-heavy duty truck
LDA - passenger car
LDT - light-duty truck
LHDT - light-heavy duty truck
MDV - medium-duty truck
MHDT - medium-heavy duty truck
N_2O - nitrous oxide
NO_x - nitrogen oxide compounds ($NO + NO_2$)
$PM_{2.5}$ -particulate matter less than 2.5 microns in diameter
PM_{10} - particulate matter less than 10 microns in diameter
ROG - reactive organic gas
SO_2 - sulfur dioxide

Table D.15. Heavy Heavy-Duty Truck Emission Factors, CY 2022
Frito-Lay, Inc.
Modesto, CA

Vehicle Class	Emission Factor Units	Mobile Emission Factors - CY 2022								
		ROG	CO	SO_2	NO_x	PM_{10}	$PM_{2.5}$	CO_2	CH_4	N_2O
NG Trucks[1]	g/mile	0.09	13.82	0.00	1.61	0.17	0.06	1,505	2.67	0.31
	g/trip	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	g/idle trip	0.07	8.17	0.00	1.52	0.00	0.00	1,182	4.02	0.24
CY 2022 Truck Scenario[2]	g/mile	0.07	10.50	0.00	1.23	0.13	0.05	1,144	2.03	0.23
	g/trip	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	g/idle trip	0.05	6.21	0.00	1.15	0.00	0.00	898	3.06	0.18

CY 2022 Totals:

38 NG Trucks
12 Electric Trucks[3]

Notes:

[1] Emission factors for diesel and natural gas trucks obtained from EMFAC2021 v1.0.1. These emission factors are for heavy-heavy duty trucks in Stanislaus County in calendar year 2022. Available: https://arb.ca.gov/emfac/emissions-inventory. Accessed: December 2021.

[2] After 2022, the truck fleet that makes deliveries to and from the facility consists of 38 natural gas fueled trucks and 12 electric trucks.

[3] Electric truck emissions are not shown in this table, as the electric trucks will have zero tailpipe emissions.

Abbreviations:

CH_4 - methane
CO - carbon monoxide
CO_2 - carbon dioxide
CY - calendar year
EMFAC - EMission FACtor model
g - gram
LDA - passenger car
LDT - light-duty truck
MDV - medium-duty truck
NG - natural gas
N_2O - nitrous oxide
NO_x - nitrogen oxide compounds ($NO + NO_2$)
$PM_{2.5}$ -particulate matter less than 2.5 microns in diameter
PM_{10} - particulate matter less than 10 microns in diameter
ROG - reactive organic gas
SO_2 - sulfur dioxide

Table D.16. Emission Factors for Passenger Cars, CY 2023
Frito-Lay, Inc.
Modesto, CA

Year	Vehicle Class	Emission Factor Units	Mobile Emission Factors[1]								
			ROG	CO	SO_2	NO_x	PM_{10}	$PM_{2.5}$	CO_2	CH_4	N_2O
2023	Passenger Vehicles[2]	g/mile	0.05	1.06	0.003	0.08	0.02	0.01	315.40	0.003	0.01
		g/trip	1.00	3.99	0.001	0.36	0.00	0.00	83.34	0.09	0.04

Notes:

[1] Emission factors calculated using EMFAC2021 v1.0.1. These emission factors are for passenger cars in Stanislaus County in calendar year 2023. Available: https://arb.ca.gov/emfac/emissions-inventory. Accessed: December 2021.

[2] Passenger vehicles include LDA, LDT1, LDT2, and MDV vehicle classes.

Abbreviations:

CH_4 - methane
CO - carbon monoxide
CO_2 - carbon dioxide
EMFAC - EMission FACtor model
g - gram
HHDT - heavy-heavy duty truck
LDA - passenger car
LDT - light-duty truck
LHDT - light-heavy duty truck
MDV - medium-duty truck
MHDT - medium-heavy duty truck
N_2O - nitrous oxide
NO_x - nitrogen oxide compounds ($NO + NO_2$)
$PM_{2.5}$ -particulate matter less than 2.5 microns in diameter
PM_{10} - particulate matter less than 10 microns in diameter
ROG - reactive organic gas
SO_2 - sulfur dioxide

Table D.17. Heavy Heavy-Duty Truck Emission Factors, CY 2022
Frito-Lay, Inc.
Modesto, CA

Vehicle Class	Emission Factor Units	Mobile Emission Factors - CY 2023								
		ROG	CO	SO_2	NO_x	PM_{10}	$PM_{2.5}$	CO_2	CH_4	N_2O
NG Trucks[1]	g/mile	0.08	13.38	0.00	1.48	0.17	0.06	1,479	2.56	0.30
	g/trip	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	g/idle trip	0.07	8.35	0.00	1.49	0.00	0.00	1,179	3.92	0.24
CY 2022 Truck Scenario[2]	g/mile	0.06	10.03	0.00	1.11	0.13	0.04	1,109	1.92	0.23
	g/trip	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	g/idle trip	0.05	6.26	0.00	1.12	0.00	0.00	884	2.94	0.18

CY 2022 Totals:

39 NG Trucks
13 Electric Trucks[3]

Notes:

[1] Emission factors for diesel and natural gas trucks obtained from EMFAC2021 v1.0.1. These emission factors are for heavy-heavy duty trucks in Stanislaus County in calendar year 2023. Available: https://arb.ca.gov/emfac/emissions-inventory. Accessed: December 2021.

[2] After 2023, the truck fleet that makes deliveries to and from the facility consists of 39 natural gas fueled trucks and 13 electric trucks.

[3] Electric truck emissions are not shown in this table, as the electric trucks will have zero tailpipe emissions.

Abbreviations:

CH_4 - methane
CO - carbon monoxide
CO_2 - carbon dioxide
CY - calendar year
EMFAC - EMission FACtor model
g - gram
LDA - passenger car
LDT - light-duty truck
MDV - medium-duty truck
NG - natural gas
N_2O - nitrous oxide
NO_x - nitrogen oxide compounds ($NO + NO_2$)
$PM_{2.5}$ -particulate matter less than 2.5 microns in diameter
PM_{10} - particulate matter less than 10 microns in diameter
ROG - reactive organic gas
SO_2 - sulfur dioxide

Table D.18. Emission Factors for Passenger Cars, CY 2025
Frito-Lay, Inc.
Modesto, CA

Year	Vehicle Class	Emission Factor Units	Mobile Emission Factors[1]								
			ROG	CO	SO_2	NO_x	PM_{10}	$PM_{2.5}$	CO_2	CH_4	N_2O
2025	Passenger Vehicles[2]	g/mile	0.05	0.90	0.003	0.06	0.02	0.01	302.72	0.003	0.01
		g/trip	0.89	3.45	0.001	0.32	0.00	0.00	79.82	0.08	0.04

Notes:

[1] Emission factors calculated using EMFAC2021 v1.0.1. These emission factors are for passenger cars in Stanislaus County in calendar year 2025. Available: https://arb.ca.gov/emfac/emissions-inventory. Accessed: December 2021.

[2] Passenger vehicles include LDA, LDT1, LDT2, and MDV vehicle classes.

Abbreviations:

CH_4 - methane
CO - carbon monoxide
CO_2 - carbon dioxide
EMFAC - EMission FACtor model
g - gram
HHDT - heavy-heavy duty truck
LDA - passenger car
LDT - light-duty truck
LHDT - light-heavy duty truck
MDV - medium-duty truck
MHDT - medium-heavy duty truck
N_2O - nitrous oxide
NO_x - nitrogen oxide compounds ($NO + NO_2$)
$PM_{2.5}$ -particulate matter less than 2.5 microns in diameter
PM_{10} - particulate matter less than 10 microns in diameter
ROG - reactive organic gas
SO_2 - sulfur dioxide

Table D.19. Heavy Heavy-Duty Truck Emission Factors, CY 2025
Frito-Lay, Inc.
Modesto, CA

Vehicle Class	Emission Factor Units	Mobile Emission Factors - CY 2025								
		ROG	CO	SO_2	NO_x	PM_{10}	$PM_{2.5}$	CO_2	CH_4	N_2O
NG Trucks[1]	g/mile	0.07	12.51	0.00	1.25	0.18	0.06	1,442	2.31	0.29
	g/trip	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	g/idle trip	0.06	8.54	0.00	1.43	0.00	0.00	1,175	3.72	0.24
CY 2025 Truck Scenario[2]	g/mile	0.05	9.26	0.00	0.93	0.13	0.04	1,068	1.71	0.22
	g/trip	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	g/idle trip	0.04	6.33	0.00	1.06	0.00	0.00	871	2.75	0.18

CY 2025 Totals:

40 NG Trucks
14 Electric Trucks[3]

Notes:

[1] Emission factors for diesel and natural gas trucks obtained from EMFAC2021 v1.0.1. These emission factors are for heavy-heavy duty trucks in Stanislaus County in calendar year 2025. Available: https://arb.ca.gov/emfac/emissions-inventory. Accessed: December 2021.

[2] After CY 2025, the truck fleet that makes deliveries to and from the facility consists of 40 natural gas fueled trucks and 14 electric trucks.

[3] Electric truck emissions are not shown in this table, as the electric trucks will have zero tailpipe emissions.

Abbreviations:

CH_4 - methane
CO - carbon monoxide
CO_2 - carbon dioxide
CY - calendar year
EMFAC - EMission FACtor model
g - gram
LDA - passenger car
LDT - light-duty truck
MDV - medium-duty truck
NG - natural gas
N_2O - nitrous oxide
NO_x - nitrogen oxide compounds ($NO + NO_2$)
$PM_{2.5}$ -particulate matter less than 2.5 microns in diameter
PM_{10} - particulate matter less than 10 microns in diameter
ROG - reactive organic gas
SO_2 - sulfur dioxide

Table D.20. Box Truck Emission Factors
Frito-Lay, Inc.
Modesto, CA

Vehicle Class	Emission Factor Units	Mobile Emission Factors - CY 2020								
		ROG	CO	SO_2	NO_x	PM_{10}	$PM_{2.5}$	CO_2	CH_4	N_2O
Box Trucks[1]	g/mile	0.12	0.36	0.01	2.85	0.11	0.07	1,145	0.01	0.18
	g/trip	0.00	0.00	0.00	1.12	0.00	0.00	0.00	0.00	0.00
	g/idle trip	0.03	0.60	0.00	1.90	0.01	0.01	205	0.00	0.03
Baseline Box Truck Scenario[2]	g/mile	0.12	0.36	0.01	2.85	0.11	0.07	1,145	0.01	0.18
	g/trip	0.00	0.00	0.00	1.12	0.00	0.00	0.00	0.00	0.00
	g/idle trip	0.03	0.60	0.00	1.90	0.01	0.01	205	0.00	0.03
Project Box Truck Scenario[3]	g/mile	--	--	--	--	--	--	--	--	--
	g/trip	--	--	--	--	--	--	--	--	--
	g/idle trip	--	--	--	--	--	--	--	--	--

Notes:

[1] Emission factors for diesel box trucks obtained from EMFAC2021 v1.0.1. These emission factors are for medium-heavy duty trucks in Stanislaus County in calendar year 2020. Available: https://arb.ca.gov/emfac/emissions-inventory. Accessed: December 2021.

[2] In the baseline scenario, the facility operates six diesel-fueled box trucks.

[3] After project implementation, the facility's fleet of box trucks will be entirely electric. These box trucks will have zero tailpipe emissions.

Abbreviations:

CH_4 - methane
CO - carbon monoxide
CO_2 - carbon dioxide
CY - calendar year
EMFAC - EMission FACtor model
g - gram
LDA - passenger car
LDT - light-duty truck
MDV - medium-duty truck
NG - natural gas
N_2O - nitrous oxide
NO_x - nitrogen oxide compounds (NO + NO_2)
$PM_{2.5}$ -particulate matter less than 2.5 microns in diameter
PM_{10} - particulate matter less than 10 microns in diameter
ROG - reactive organic gas
SO_2 - sulfur dioxide

Table D.21. Offroad Equipment Emission Factors
Frito-Lay, Inc.
Modesto, CA

Equipment	Parameter	CAP Emissions						GHG Emissions			
		ROG	CO	NO_x	PM_{10}	$PM_{2.5}$	SO_2	CO_2	CH_4	N_2O	CO_2e
Forklifts	OFFROAD Diesel Emissions[1] (tons/day)	0.03	0.21	0.23	0.02	0.01	0.00	31.04	--	--	--
	Diesel Emission Factors[2] (g/hr)	8.20	64.92	70.51	4.89	4.50	0.09	9,539	47.59	9.52	13,565
	Baseline Facility Diesel Forklift Emissions[3,4] (tons/yr)	0.30	2.40	2.61	0.18	0.17	0.00	353	1.76	0.35	502
Yard Tractors	OFFROAD Diesel Emissions[1] (tons/day)	0.00	0.03	0.00	0.00	0.00	0.00	5.28	--	--	--
	Diesel Emission Factors (g/hr)	2.81	185.00	13.31	0.49	0.45	0.30	32,288	8.09	1.62	32,973
	Baseline Facility Diesel Yard Tractor Emissions[3,5] (tons/yr)	0.03	1.71	0.12	0.00	0.00	0.00	299	0.07	0.01	305

Constants:

907,185	g/ton
365	day/year
24	hr/day
0.414	g/gal fuel, CH_4 emission factor[2]
0.0828	g/gal fuel, N_2O emission factor[2]

Global Warming Potentials:

CO_2	1
CH_4	25
N_2O	298

Forklift Operating Parameters:

1,077,289	SJVAPCD forklift activity, hours per year[1]
1,006,936	SJVAPCD forklift fuel consumption, gallons per year[1]
4	number of forklifts at the facility
8400	operating hours per year for each forklift

Yard Truck Operating Parameters:

54,139	SJVAPCD yard tractor activity, hours per year[1]
171,276	SJVAPCD yard tractor fuel consumption, gallons per year[1]
1	number of yard tractors at the facility
8400	operating hours per year for each yard tractor

Notes:

[1] Diesel emissions for CAPs and CO_2, and equipment activities estimated using OFFROAD2021 v1.0.1. Forklifts were modeled as equipment type "Industrial - Forklifts," and the yard tractors were modeled as equipment type "Cargo Handling Equipment - Rail Yard Tractor." Available: https://arb.ca.gov/emfac/emissions-inventory. Accessed: December 2021.

[2] Diesel emission factors were derived from OFFROAD for CAPs and CO_2. For CH_4 and N_2O, these emission factors were derived using fuel-specific emission factors from California's GHG Inventory. Emission factors shown here were taken from the following section of the inventory: Category 1A3 - Fuel Combustion Activities - Transport - Not Specified Transportation - Distillate. Available: http://www.arb.ca.gov/cc/inventory/doc/doc_index.php. Accessed: December 2021.

[3] Baseline emissions represent emissions at the facility before any new permit units are installed. Emissions are only shown for the baseline, as all diesel offroad equipment will be replaced with electric equipment during project implementation. The electric equipment will not have any tailpipe emissions.

[4] Forklift emissions were calculated assuming that there are four forklifts at the facility that operate for 8,400 hours per year.

[5] Yard tractor emissions were calculated assuming that there is one yard tractor at the facility that operates for 8,400 hours per year.

Abbreviations:

CAP - criteria air pollutant
CH_4 - methane
CO - carbon monoxide
CO_2 - carbon dioxide
CO_2e - carbon dioxide equivalents
g - gram
GHG - greenhouse gas
hr - hour
N_2O - nitrous oxide
NO_x - nitrogen oxide compounds ($NO + NO_2$)
PM_{10} - particulate matter less than 10 microns in diameter
ROG - reactive organic gas
SJVAPCD - San Joaquin Valley Air Pollution Control District
SO_2 - sulfur dioxide
yr - year

Table D.22. Total Passenger Car and Truck Emissions in Each Scenario
Frito-Lay, Inc.
Modesto, CA

	CAP Emissions (ton/year)						GHG Emissions (MT/year)			
	ROG	**CO**	**SO_2**	**NO_x**	**PM_{10}**	**$PM_{2.5}$**	**CO_2**	**CH_4**	**N_2O**	**CO_2e**
Passenger Car Trips[1]	0.97	9.31	0.02	0.68	0.15	0.05	2,144	0.07	0.06	2,165
Truck Trips[2]	0.34	64.15	0.00	6.43	0.90	0.31	6,715	10.81	1.37	7,394
Box Truck Trips[3]	--	--	--	--	--	--	--	--	--	--
Total Emissions[4]	**1.31**	**73.45**	**0.02**	**7.11**	**1.05**	**0.36**	**8,860**	**10.88**	**1.43**	**9,558**

Conversion Factors:

453.592 grams/lb
2204.62 lb/MT
2000 lb/ton
365 day/year

Global Warming Potentials:

CO_2	1
CH_4	25
N_2O	298

Notes:

[1] Emissions from passenger car trips calculated using emission factors as derived in **Tables D.12, D.14, D.16, and D.18**. The trip length and number of trips were calculated in **Table D.9**.

[2] Emissions from truck trips estimated using emission factors as derived in **Tables D.13, D.15, D.17, and D.19**. The number of daily one-way truck trips was provided by the facility, and the estimated mileage per trip is calculated in **Table D.10**.

[3] Emissions from box truck trips estimated using emission factors as derived in **Table D.20**. The number of daily one-way truck trips and mileage per trip are estimated in **Table D.11**.

[4] Total emissions in each scenario were calculated as a sum of passenger car trips, truck trips, and truck idling.

Abbreviations:

CAP - criteria air pollutant	MT - metric ton
CH_4 - methane	N_2O - nitrous oxide
CO - carbon monoxide	NO_x - nitrogen oxide compounds (NO + NO_2)
CO_2 - carbon dioxide	$PM_{2.5}$ -particulate matter less than 2.5 microns in diameter
CO_2e - carbon dioxide equivalents	PM_{10} - particulate matter less than 10 microns in diameter
GHG - greenhouse gas	ROG - reactive organic gas
lb - pound	SO_2 - sulfur dioxide

Table D.23. Locomotive Trip Length per Air District
Frito-Lay, Inc.
Modesto, CA

Total Railway Distance within California [1]		
Map Section[2]	**Length (m)**	**Length (mi)**
I-80 from CA Boundary to I-5	205,428	128
I-5 to SR120	94,989	59
Smaller Streets to Facility	42,842	27
Total Rail Distance Traveled	**343,258**	**213**
Distance within SJVAPCD [3]		
I-80 from CA Boundary to I-5	0	0
I-5 to SR120	60,290	37
Smaller Streets to Facility	42,842	27
Rail Distance Traveled within SJVAPCD	*103,131*	*64*
% of Emissions within SJVAPCD	**30.0%**	
Distance within Sacramento Air District [3]		
I-80 from CA Boundary to I-5	27,095	17
I-5 to SR120	17,866	11
Smaller Streets to Facility	0	0
Rail Distance Traveled within Sacramento	*44,961*	*28*
% of Emissions within Sacramento	**13.1%**	
Distance within Yolo Solano Air District [3]		
I-80 from CA Boundary to I-5	12,589	8
I-5 to SR120	16,827	10
Smaller Streets to Facility	0	0
Rail Distance Traveled within Yolo Solano	*29,415*	*18*
% of Emissions within Yolo Solano	**8.6%**	
Distance within Placer Air District [3]		
I-80 from CA Boundary to I-5	133,835	83
I-5 to SR120	0	0
Smaller Streets to Facility	0	0
Rail Distance Traveled within Placer	*133,835*	*83*
% of Emissions within Placer	**39.0%**	
Distance within Northern Sierra Air District [3]		
I-80 from CA Boundary to I-5	31,975	20
I-5 to SR120	0	0
Smaller Streets to Facility	0	0
Rail Distance Traveled within N. Sierra	*31,975*	*20*
% of Emissions within N. Sierra	**9.3%**	

Conversion Factors:

1609.34 meters/mile

Notes:

[1] For purposes of this CEQA analysis, the total rail distance that trains travel to deliver freight to the facility was estimated starting at the point where the railway enters California.

[2] It was estimated that after entering California, the railroad tracks approximately followed the direction of Interstate 80, Interstate 5, and State Route 120. The total distance of each of these segments was calculated in ArcGIS Pro. Available: https://www.esri.com/en-us/arcgis/products/arcgis-pro/overview. Accessed: December 2021.

[3] A map of California air districts was placed on top of the estimated railroad path. The percentages of emissions attributed to each district were calculated by taking the percentage of total rail miles traveled in each district. The portions of the track that overlapped with each district boundary were also calculated in ArcGIS Pro. Available: https://www.esri.com/en-us/arcgis/products/arcgis-pro/overview. Accessed: December 2021.

Abbreviations:

CA - California

CEQA - California Environmental Quality Act

I-5 - Interstate 5

I-80 - Interstate 80

m - meters

mi - miles

SJVAPCD - San Joaquin Valley Air Pollution Control District

SR120 - State Route 120

Table D.24. CAP Emission Factors for Locomotives
Frito-Lay, Inc.
Modesto, CA

Scenario	Emissions	HC[1]	ROG[2]	CO[1]	SO_2[3]	NO_x[4]	PM_{10}[4,5]	$PM_{2.5}$[4,5]
Baseline	Emission Factors (g/gal)	3.20	3.37	26.62	0.10	68.57	1.01	1.01
	Emission Factors (g/ton-mile)[6]	0.012	0.013	0.100	0.0004	0.257	0.004	0.004
Post-Project	Emission Factors (g/gal)	2.60	2.74	26.62	0.10	52.25	0.78	0.78
	Emission Factors (g/ton-mile)[6]	0.010	0.010	0.100	0.0004	0.196	0.003	0.003

Conversion Factors and Constants:

20.8	bhp-hr/gal[7]
206,111,061,000	ton-miles, freight trains[6]
773,476,896	gallons of diesel fuel consumed, freight trains[6]
266.5	ton-mile/gal
3,200	g/gal, density of diesel[3]
1	unitless conversion factor (fraction of fuel sulfur converted to SO_2)[3]
15	ppm, sulfur content of ultra-low sulfur diesel[8]
907,185	g/ton

Notes:
[1] Emission factors for HC and CO are obtained from Tables 1 and 7 in US EPA guidance, Emission Factors for Locomotives. Values used are for large line-haul trains in calendar year 2022, 2023, and 2025. Available: https://nepis.epa.gov/Exe/ZyPDF.cgi/P100500B.PDF?Dockey=P100500B.PDF. Accessed: December 2021.
[2] ROG emissions can be estimated as 1.053 times HC emissions per US EPA guidance, Emission Factors for Locomotives. Available: https://nepis.epa.gov/Exe/ZyPDF.cgi/P100500B.PDF?Dockey=P100500B.PDF. Accessed: December 2021.
[3] SO_X emission factors were calculated using methodology outlined in US EPA guidance, Emission Factors for Locomotives. Available: https://nepis.epa.gov/Exe/ZyPDF.cgi/P100500B.PDF?Dockey=P100500B.PDF. Accessed: December 2021.
[4] Emission factors for NO_x and PM are obtained from Table 8-1 in CARB guidance, 2016 Line Haul Locomotive Model & Update. Available: https://ww3.arb.ca.gov/msei/ordiesel/locolinehaul2017ei.docx. Accessed: December 2021.
[5] It is conservatively assumed that PM, PM_{10}, and $PM_{2.5}$ emissions are all equal.
[6] Emission factors were converted from grams per gallon to grams per ton-mile using the total ton-miles that Union Pacific freight trains travelled in 2020 and the total gallons of diesel fuel consumed by Union Pacific freight trains in 2020. These values were taken from pages 93 and 86, respectively, of the 2020 Union Pacific Class I Railroad Annual Report. Available: https://www.up.com/cs/groups/public/@uprr/@investor/documents/investordocuments/pdf_up_r1_2020.pdf. Accessed: December 2021.
[7] Bhp-hr/gal conversion factor taken from Table 3 of US EPA guidance. Value used is for large-line haul locomotives. Available: https://nepis.epa.gov/Exe/ZyPDF.cgi/P100500B.PDF?Dockey=P100500B.PDF. Accessed: December 2021.
[8] In accordance with US EPA regulations, it is assumed that all diesel used in locomotives is ULSD. Available: https://www.epa.gov/diesel-fuel-standards/diesel-fuel-standards-and-rulemakings. Accessed: December 2021.

Abbreviations:
bhp - brake horsepower
CARB - California Air Resources Board
DTC - dorito tortilla chip
FCC - fried corn chip
FCP - fried cheese puff
g - gram
gal - gallon
HC - hydrocarbon
hr - hour
NO_x - nitrogen oxide compounds (NO + NO_2)
OFS - onion fried snack
PM - particulate matter
$PM_{2.5}$ -particulate matter less than 2.5 microns in diameter
PM_{10} - particulate matter less than 10 microns in diameter
ppm - parts per million
ROG - reactive organic gas
SO_2 - sulfur dioxide
ULSD - ultra low sulfur diesel
US EPA - United States Environmental Protection Agency

Table D.25. CAP Emissions from Locomotives
Frito-Lay, Inc.
Modesto, CA

Emissions	HC	ROG	CO	SO_2	NO_x	PM_{10}	$PM_{2.5}$
Incremental Emissions (ton/year)[1,2]	0.979	1.030	8.493	0.031	20.752	0.308	0.308
Incremental SJVAPCD Emissions (ton/year)[3]	0.294	0.310	2.552	0.009	6.235	0.092	0.092

Conversions and Constants:

2,000	lb/ton
52	week/year
907,185	g/ton
213	mi, one-way trip length
211.75	tons, locomotive[4]
32	tons, covered hopper railcar (empty)[5]
307.75	tons, weight, per train, unloaded

[1] Criteria air pollutant emissions are calculated by multiplying emission factors by the total locomotive weight and trip length.

[2] Total locomotive weight includes the weight of the locomotive, railcars, and loaded freight containers.

[3] Criteria air pollutant emissions within San Joaquin Valley were calculated by multiplying the total locomotive emissions by the percentage of the rail route that is within the SJVAPCD. The rail route breakdown in shown in **Table D.23**.

[4] Locomotive weight estimated from 2014 fleet data for Norfolk Southern. Available: https://www.epa.gov/sites/production/files/2014-08/documents/smith.pdf. Accessed: December 2021.

[5] Large covered hopper weight estimated using the load limit and gross weight for Union Pacific covered hoppers. Available: https://www.up.com/customers/all/equipment/descriptions/covered_hoppers/index.htm. Accessed: December 2021.

[6] Railcar delivery frequency and freight quantities as provided by the facility via data request.

Abbreviations:

CO - carbon monoxide
g - gram
HC - hydrocarbon
lb - pound
mi - mile
NO_x - nitrogen oxide compounds ($NO + NO_2$)
$PM_{2.5}$ -particulate matter less than 2.5 microns in diameter
PM_{10} - particulate matter less than 10 microns in diameter
ROG - reactive organic gas
SJVAPCD - San Joaquin Valley Air Pollution Control District
SO_2 - sulfur dioxide

Table D.26. GHG Emission Factors for Locomotives
Frito-Lay, Inc.
Modesto, CA

	CO_2[1]	CH_4[2]	N_2O[2]	CO_2e
Emission Factors (g/gal)	10,202	0.80	0.26	10,299
Emission Factors (g/ton-mile)[3]	38.28	0.003	0.001	38.65

Conversion Factors and Constants:

206,111,061,000	ton-miles, freight trains[3]
773,476,896	gallons of diesel fuel consumed, freight trains[3]
266.5	ton-mile/gal
3,200	g/gal, density of diesel[1]
44.01	g/mol, molecular weight of carbon dioxide
12.01	g/mol, molecular weight of carbon
87%	carbon content of diesel fuel by mass[1]

Global Warming Potentials:

CO_2	1
CH_4	25
N_2O	298

Notes:

[1] CO_2 emission factors were calculated using methodology outlined in US EPA guidance, Emission Factors for Locomotives. Available: https://nepis.epa.gov/Exe/ZyPDF.cgi/P100500B.PDF?Dockey=P100500B.PDF. Accessed: December 2021.

[2] CH_4 and N_2O emission factors obtained from Table 5 in US EPA guidance, Emission Factors for Greenhouse Gas Inventories. Emission factors chosen are for Diesel Locomotives. Available: https://www.epa.gov/sites/production/files/2015-07/documents/emission-factors_2014.pdf. Accessed: December 2021.

[3] Emission factors were converted from grams per gallon to grams per ton-mile using the total ton-miles that Union Pacific freight trains travelled in 2020 and the total gallons of diesel fuel consumed by Union Pacific freight trains in 2020. These values were taken from pages 93 and 86, respectively, of the 2020 Union Pacific Class I Railroad Annual Report. Available: https://www.up.com/cs/groups/public/@uprr/@investor/documents/investordocuments/pdf_up_r1_2020.pdf. Accessed: December 2021.

Abbreviations:

CH_4 - methane
CO_2 - carbon dioxide
CO_2e - carbon dioxide equivalents
g - gram
gal - gallon
mol - mole
N_2O - nitrous oxide
US EPA - United States Environmental Protection Agency

Table D.27. GHG Emissions from Locomotives
Frito-Lay, Inc.
Modesto, CA

Emissions	CO_2	CH_4	N_2O	CO_2e
Incremental Emissions (ton/year)[1,2]	3,254	0	0	3,285
Incremental SJVAPCD Emissions (MT/year)[3]	978	0	0	987

Conversions and Constants:

1.10231	ton/metric ton
2,000	lb/ton
52	week/year
907,185	g/ton
213	mi, one-way trip length
212	tons, locomotive[4]
32	tons, covered hopper railcar (empty)[5]
308	tons, weight, per train, unloaded

[1] Greenhouse gas emissions are calculated by multiplying emission factors by the total locomotive weight and trip length.

[2] Total locomotive weight includes the weight of the locomotive, railcars, and loaded freight containers.

[3] Greenhouse emissions within San Joaquin Valley were calculated by multiplying the total locomotive emissions by the percentage of the rail route that is within the SJVAPCD. This methodology in shown in **Table D.23**.

[4] Locomotive weight estimated from 2014 fleet data for Norfolk Southern. Available: https://www.epa.gov/sites/production/files/2014-08/documents/smith.pdf. Accessed: December 2021.

[5] Large covered hopper weight estimated using the load limit and gross weight for Union Pacific covered hoppers. Available: https://www.up.com/customers/all/equipment/descriptions/covered_hoppers/index.htm. Accessed: December 2021.

[6] Railcar delivery frequency and freight quantities as provided by the facility via data request.

Abbreviations:

CH_4 - methane
CO_2 - carbon dioxide
CO_2e - carbon dioxide equivalents
g - gram
lb - pound
mi - mile
MT - metric ton
N_2O - nitrous oxide
SJVAPCD - San Joaquin Valley Air Pollution Control Dis

Table D.28. Locomotive CAP Emissions in Other Air Districts and Associated Threshold Comparisons
Frito-Lay, Inc.
Modesto, CA

Air District		ROG	CO	SO_2	NO_x	PM_{10}	$PM_{2.5}$
Sacramento	Threshold[1] (lb/day)	65	--	--	65	80	82
	Percentage of Emissions in District[2]	13.1%	--	--	13.1%	13.1%	13.1%
	Incremental Emissions (lb/day)	0.7	--	--	14.9	0.2	0.2
	Exceeds Threshold?	**No**	**--**	**--**	**No**	**No**	**No**
Yolo-Solano	Threshold[3] (tpy)	10	--	--	10	14.6	--
	Percentage of Emissions in District[2]	8.6%	--	--	8.6%	8.6%	--
	Incremental Emissions (lb/day)	0.5	--	--	10	0.1	--
	Exceeds Threshold?	**No**	**--**	**--**	**No**	**No**	--
Placer	Threshold[4] (lb/day)	55	--	--	55	82	--
	Percentage of Emissions in District[2]	39.0%	--	--	39.0%	39.0%	--
	Incremental Emissions (lb/day)	2.2	--	--	44.3	0.7	--
	Exceeds Threshold?	**No**	**--**	**--**	**No**	**No**	--
Northern Sierra	Threshold[5] (lb/day)	24	--	--	24	79	--
	Percentage of Emissions in District[2]	9.3%	--	--	9.3%	9.3%	--
	Incremental Emissions (lb/day)	0.5	--	--	10.6	0.2	--
	Exceeds Threshold?	**No**	**--**	**--**	**No**	**No**	--

Conversion Factors:

2000 lb/ton
365 day/year

Notes:

[1] SMAQMD Thresholds of Significance Table taken from the District's CEQA Guide. Available: http://www.airquality.org/LandUseTransportation/Documents/CH2ThresholdsTable4-2020.pdf. Accessed: December 2021.

[2] Percentage of railcar emissions in each district were based on the mileage that trains will travel in each district. These distances were measured in ArcGIS Pro.

[3] YSAQMD Thresholds of Significance for Criteria Pollutants of Concern taken from Table 1 of the District's Handbook for Assessing and Mitigating Air Quality Impacts. Available: http://www.ysaqmd.org/wp-content/uploads/Planning/CEQAHandbook2007.pdf. Accessed: December 2021.

[4] Operational phase project-level criteria pollutant thresholds found on PCAPCD website. Available: https://www.placer.ca.gov/1804/CEQA-Thresholds. Accessed: December 2021.

[5] NSAQMD thresholds taken from District Guidelines for Assessing and Mitigating Air Quality Impacts of Land Use Projects. Thresholds shown are Level A thresholds. Available: https://www.mynevadacounty.com/DocumentCenter/View/15131/NSAQMD-Attachment-Land-Use-Guidelines-PDF. Accessed: December 2021.

Abbreviations:

CEQA - California Environmental Quality Act
CO - carbon monoxide
lb - pound
NO_x - nitrogen oxide compounds (NO + NO_2)
NSAQMD - Northern Sierra Air Quality Management District
PCAPCD - Placer County Air Pollution Control District
$PM_{2.5}$ -particulate matter less than 2.5 microns in diameter
PM_{10} - particulate matter less than 10 microns in diameter
ROG - reactive organic gas
SMAQMD - Sacramento Metropolitan Air Quality Management District
SO_2 - sulfur dioxide
tpy - tons per year
YSAQMD - Yolo-Solano Air Quality Management District

Table D.29. Locomotive GHG Emissions in Other Air Districts and Associated Threshold Comparisons
Frito-Lay, Inc.
Modesto, CA

Air District		CO_2e
Sacramento	Threshold[1] (MT/year)	1,100
	Percentage of Emissions in District[2]	13.1%
	Total Emissions (MT/year)	390
	Exceeds Threshold?	**No**
Yolo-Solano	Threshold[3] (MT/year)	1,100
	Percentage of Emissions in District[2]	8.6%
	Total Emissions (MT/year)	255
	Exceeds Threshold?	**No**
Placer	Threshold[4] (MT/year)	10,000
	Percentage of Emissions in District[2]	39.0%
	Total Emissions (MT/year)	1,162
	Exceeds Threshold?	**No**
Northern Sierra	Threshold[5] (MT/year)	10,000
	Percentage of Emissions in District[2]	9.3%
	Total Emissions (MT/year)	278
	Exceeds Threshold?	**No**

Conversion Factors:

2000 lb/ton
365 day/year
1.10231 ton/metric ton

Notes:

[1] SMAQMD Thresholds of Significance Table taken from the District's CEQA Guide. For comparison purposes, the threshold here is for construction. Operational compliance is demonstrated via consistency with the Climate Change Scoping Plan. Available: http://www.airquality.org/LandUseTransportation/Documents/CH2ThresholdsTable4-2020.pdf. Accessed: December 2021.

[2] Percentage of railcar emissions in each district were based on the mileage that trains will travel in each district. These distances were measured in ArcGIS Pro.

[3] Yolo-Solano did not have specific greenhouse gas thresholds. Emissions were conservatively compared to the Sacramento GHG Thresholds instead.

[4] Greenhouse gas threshold found in the PCAPCD 2017 CEQA Handbook, Chapter 2. Value shown is the bright-line threshold. Available: https://www.placer.ca.gov/DocumentCenter/View/2047/Chapter-2-Thresholds-of-Significance-PDF

[5] Per guidance, operational emissions would not have a significant impact on the environment if projected GHG emissions are less than 1,100 metric tons of CO2e per year. Available: https://www.mynevadacounty.com/DocumentCenter/View/11224/90-Greenhouse-Gas-Emissions-PDF. Accessed: December 2021.

Abbreviations:

CEQA - California Environmental Quality Act
CO_2e - carbon dioxide equivalents
GHG - greenhouse gas
lb - pound
MT - metric ton
PCAPCD - Placer County Air Pollution Control District
SMAQMD - Sacramento Metropolitan Air Quality Management District

Table D.30. Criteria Air Pollutant Mobile Source Emissions
Frito-Lay, Inc.
Modesto, CA

Mobile Source Activity	Incremental Project Emissions[1] (ton/year)					
	ROG	**CO**	**SO_2**	**NO_x**	**PM_{10}**	**$PM_{2.5}$**
Passenger Cars[2]	0.13	0.68	0.01	-0.08	0.05	0.02
Trucks[2]	-0.19	3.76	-0.02	-5.69	-0.02	-0.05
Box Trucks[2]	-0.02	-0.06	0.00	-0.43	-0.02	-0.01
Trains[3]	0.31	2.55	0.01	6.23	0.09	0.09
Off-Road Equipment[4]	-0.33	-4.12	-0.01	-2.73	-0.19	-0.17
Total Emissions[5]	**-0.1**	**2.8**	**0.0**	**-2.7**	**-0.1**	**-0.1**

Notes:

[1] Mobile source emissions shown in this table only represent changes expected to occur as a result of the project.

[2] Emissions from passenger cars, trucks, and box trucks as calculated in **Table D.22**.

[3] Emissions from trains as calculated in **Table D.25.**

[4] Emissions from off-road equipment, which includes forklifts and yard tractors, as calculated in **Table D.21.**

[5] CAP totals are the sum of emissions expected from passenger cars, trucks, trains, and offroad equipment.

Abbreviations:

CAP - criteria air pollutant

CO - carbon monoxide

NO_x - nitrogen oxide compounds ($NO + NO_2$)

$PM_{2.5}$ -particulate matter less than 2.5 microns in diameter

PM_{10} - particulate matter less than 10 microns in diameter

ROG - reactive organic gas

SO_2 - sulfur dioxide

Table D.31. Greenhouse Gas Mobile Source Emissions
Frito-Lay, Inc.
Modesto, CA

Mobile Source Activity	Incremental Project Emissions[1] (MT/year)			
	CO_2	CH_4	N_2O	CO_2e
Passenger Cars[2]	652	0.01	0.01	654
Trucks[2]	-897	-0.23	-0.09	-931
Box Trucks[2]	-151	0.00	-0.02	-158
Trains[3]	887	0.07	0.02	895
Off-Road Equipment[4]	-592	-1.67	-0.33	-733
Total Emissions[5]	**-101**	**-1.83**	**-0.42**	**-272**

Notes:

[1] Mobile source emissions shown in this table only represent changes expected to occur as a result of the project.

[2] Emissions from passenger cars, trucks, and box trucks as calculated in **Table D.22**.

[3] Emissions from trains as calculated in **Table D.27.**

[4] Emissions from off-road equipment, which includes forklifts and yard tractors, as calculated in **Table D.21**.

[5] GHG totals are the sum of emissions expected from passenger cars, trucks, trains, and offroad equipment.

Abbreviations:

CH_4 - methane

CO_2 - carbon dioxide

CO_2e - carbon dioxide equivalents

GHG - greenhouse gas

MT - metric ton

N_2O - nitrous oxide

Conversion Factors:

1.10231 ton/metric ton

Table D.32. GHG Emissions from Water Usage
Frito-Lay, Inc.
Modesto, CA

Incremental Water Usage (Mgal/year)[1]	*Incremental GHG Emissions[2] (MT/year)*			
	Total CO_2	**CH_4**	**N_2O**	**CO_2e**
239.15	203.32	7.81	0.19	454.15

Notes:

[1] Water usage provided by the facility, and emissions estimated using CalEEMod® version 2020.4.0.

Abbreviations:

CalEEMod® - California Emissions Estimator Model
CH_4 - methane
CO_2 - carbon dioxide
CO_2e - carbon dioxide equivalents
GHG - greenhouse gas
Mgal - million gallons
MT - metric ton
N_2O - nitrous oxide

Table D.33. GHG Emissions from Solid Waste Disposal
Frito-Lay, Inc.
Modesto, CA

Incremental Waste Disposed[1] (tons)	*Incremental GHG Emissions[2] (MT/year)*			
	Total CO_2	**CH_4**	**N_2O**	**CO_2e**
105.30	21.38	1.26	0.00	52.96

Notes:

[1] Amount of waste disposed calculated by scaling the weight of non-hazardous waste created by the facility in 2020, using the increased capacity of the facility after project implementation

[2] Emissions estimated using CalEEMod® version 2020.4.0.

Abbreviations:

CalEEMod® - California Emissions Estimator Model
CH_4 - methane
CO_2 - carbon dioxide
CO_2e - carbon dioxide equivalents
GHG - greenhouse gas
MT - metric ton
N_2O - nitrous oxide

Table D.34. Net Change in CAP Emissions Expected after Project Implementation
Frito-Lay, Inc.
Modesto, CA

	Incremental CAP Emissions[1] (tons/year)					
	ROG	**CO**	**SO_2**	**NO_x**	**PM_{10}**	**$PM_{2.5}$**
Area Sources[2]	1.2	0.0	0.0	0.0	0.0	0.0
Natural Gas Usage[3]	0.5	4.0	0.0	4.7	0.4	0.4
Mobile Emissions[4]	-0.1	2.8	0.0	-2.7	-0.1	-0.1
Totals[5]	**1.6**	**6.8**	**0.02**	**2.0**	**0.3**	**0.2**
SJVAPCD Thresholds[6]	**10**	**100**	**27**	**10**	**15**	**15**
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Notes:

[1] CAP emissions shown in this table only represent changes expected to occur as a result of the project.

[2] Emissions from area sources as calculated in **Table D.1**.

[3] Emissions from natural gas usage as calculated in **Table D.8**.

[4] Emissions from mobile sources as shown in **Table D.30**.

[5] Total CAP emissions account for emissions from area sources, natural gas usage, and mobile emissions.

[6] Thresholds shown are SJVAPCD Air Quality Thresholds of Significance Operational Emissions:Non-Permitted Equipment and Activities. Available: http://www.valleyair.org/transportation/0714-GAMAQI-Criteria-Pollutant-Thresholds-of-Significance.pdf. Accessed: December 2021.

Abbreviations:

CAP - criteria air pollutant

CO - carbon monoxide

NO_x - nitrogen oxide compounds ($NO + NO_2$)

$PM_{2.5}$ -particulate matter less than 2.5 microns in diameter

PM_{10} - particulate matter less than 10 microns in diameter

ROG - reactive organic gas

SJVAPCD - San Joaquin Valley Air Pollution Control District

SO_2 - sulfur dioxide

Table D.35. Net Change in GHG Emissions Expected after Project Implementation
Frito-Lay, Inc.
Modesto, CA

	Incremental GHG Emissions [1] ***(MT/year)***			
	CO_2	**CH_4**	**N_2O**	**CO_2e**
Area Sources[2]	0.0	0.0	0.0	0.0
Electricity Usage[3]	11,319	1.8	0.2	11,430
Natural Gas Usage[4]	5,138	0.1	0.1	5,168
Mobile Emissions[5]	-101	-1.8	-0.4	-272
Water Usage[6]	203	7.8	0.2	454
Solid Waste Disposal[7]	21	1.3	0.0	53
Totals[8]	**16,580**	**9.2**	**0.1**	**16,833**

Notes:

[1] GHG emissions shown in this table only represent changes expected to occur as a result of the project.

[2] Emissions from area sources as calculated in **Table D.1**.

[3] Emissions from electricity usage as calculated in **Table D.6**.

[4] Emissions from natural gas usage as calculated in **Table D.8**.

[5] Emissions from mobile sources as shown in **Table D.31**.

[6] Emissions from water usage as shown in **Table D.32**.

[7] Emissions from solid waste disposal as shown in **Table D.33**.

[8] Total GHG emissions account for emissions from area sources, natural gas usage, electricity usage, mobile emissions, water usage, and solid waste disposal.

Abbreviations:

CH_4 - methane

CO_2 - carbon dioxide

CO_2e - carbon dioxide equivalents

GHG - greenhouse gas

MT - metric ton

N_2O - nitrous oxide

Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2022-AWP-3488-OE

Issued Date: 03/22/2022

Elisabeth Gleeson
Frito-Lay
600 Garner Road
Modesto, CA 95357

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Building #10 76' SILO
Location:	Modesto, CA
Latitude:	37-37-51.95N NAD 83
Longitude:	120-54-59.66W
Heights:	111 feet site elevation (SE) 76 feet above ground level (AGL) 187 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

_____ At least 10 days prior to start of construction (7460-2, Part 1)
__X__ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/ lighting are accomplished on a voluntary basis, we recommend it be installed in accordance with FAA Advisory circular 70/7460-1 M.

The structure considered under this study lies in proximity to an airport and occupants may be subjected to noise from aircraft operating to and from the airport.

This determination expires on 09/22/2023 unless:

(a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
(b) extended, revised, or terminated by the issuing office.
(c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within

Attachment II

6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, effective 21 Nov 2007, will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.This determination includes all previously filed frequencies and power for this structure.

If construction or alteration is dismantled or destroyed, you must submit notice to the FAA within 5 days after the construction or alteration is dismantled or destroyed.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

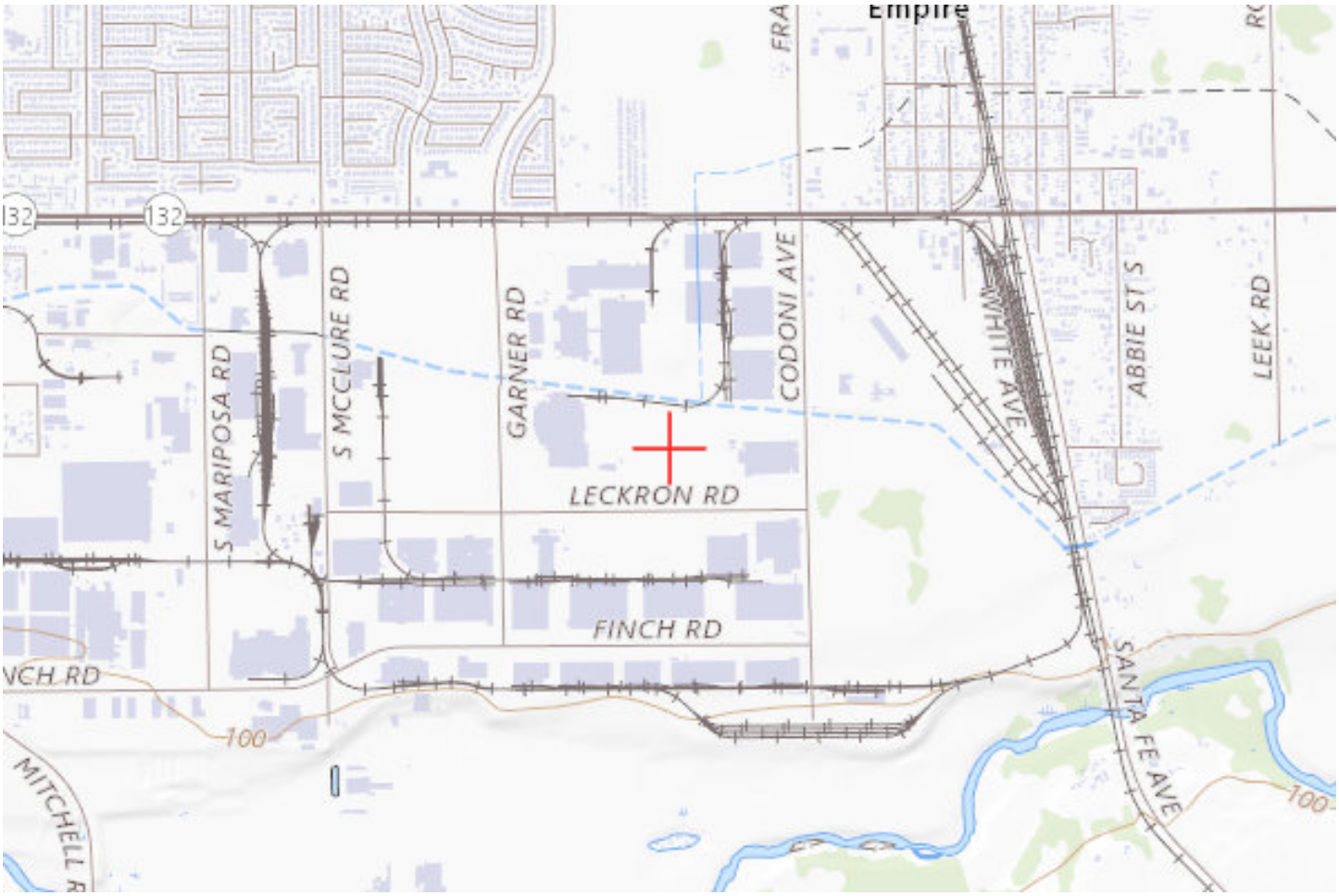
This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (206) 231-2989, or dan.shoemaker@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2022-AWP-3488-OE.

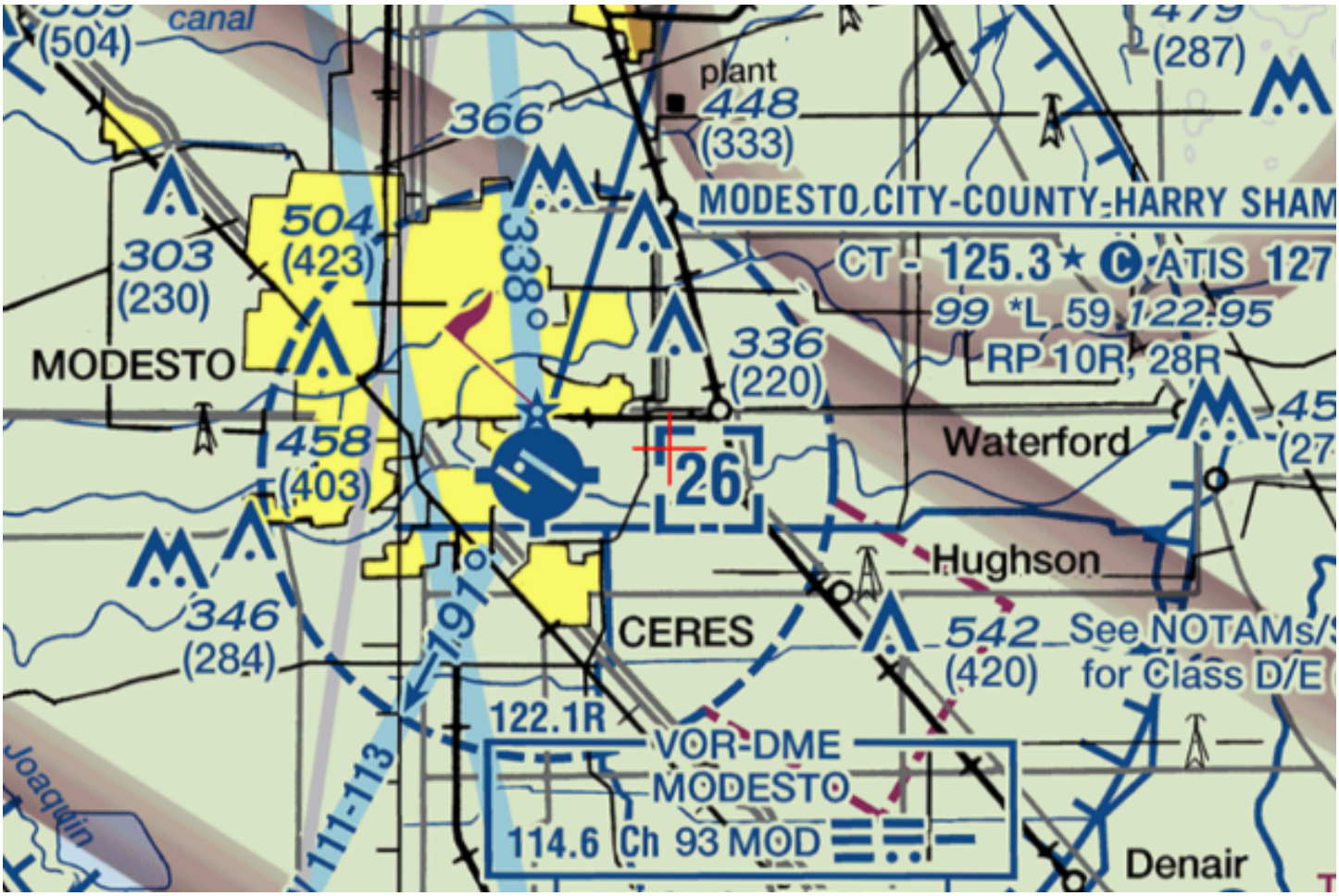
Signature Control No: 512919444-519348860 (DNE)
Daniel Shoemaker
Specialist

Attachment(s)
Map(s)

TOPO Map for ASN 2022-AWP-3488-OE



Sectional Map for ASN 2022-AWP-3488-OE



Mail Processing Center
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Fort Worth, TX 76177

Aeronautical Study No.
2022-AWP-3487-OE

Issued Date: 03/22/2022

Elisabeth Gleeson
Frito-Lay
600 Garner Road
Modesto, CA 95357

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Building #9 MANUF BLDG ROCK ROOM NE CORNER
Location:	Modesto, CA
Latitude:	37-37-50.38N NAD 83
Longitude:	120-55-00.77W
Heights:	111 feet site elevation (SE) 45 feet above ground level (AGL) 156 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

_____ At least 10 days prior to start of construction (7460-2, Part 1)
__X__ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/ lighting are accomplished on a voluntary basis, we recommend it be installed in accordance with FAA Advisory circular 70/7460-1 M.

The structure considered under this study lies in proximity to an airport and occupants may be subjected to noise from aircraft operating to and from the airport.

This determination expires on 09/22/2023 unless:

(a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
(b) extended, revised, or terminated by the issuing office.
(c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within

6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, effective 21 Nov 2007, will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.This determination includes all previously filed frequencies and power for this structure.

If construction or alteration is dismantled or destroyed, you must submit notice to the FAA within 5 days after the construction or alteration is dismantled or destroyed.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

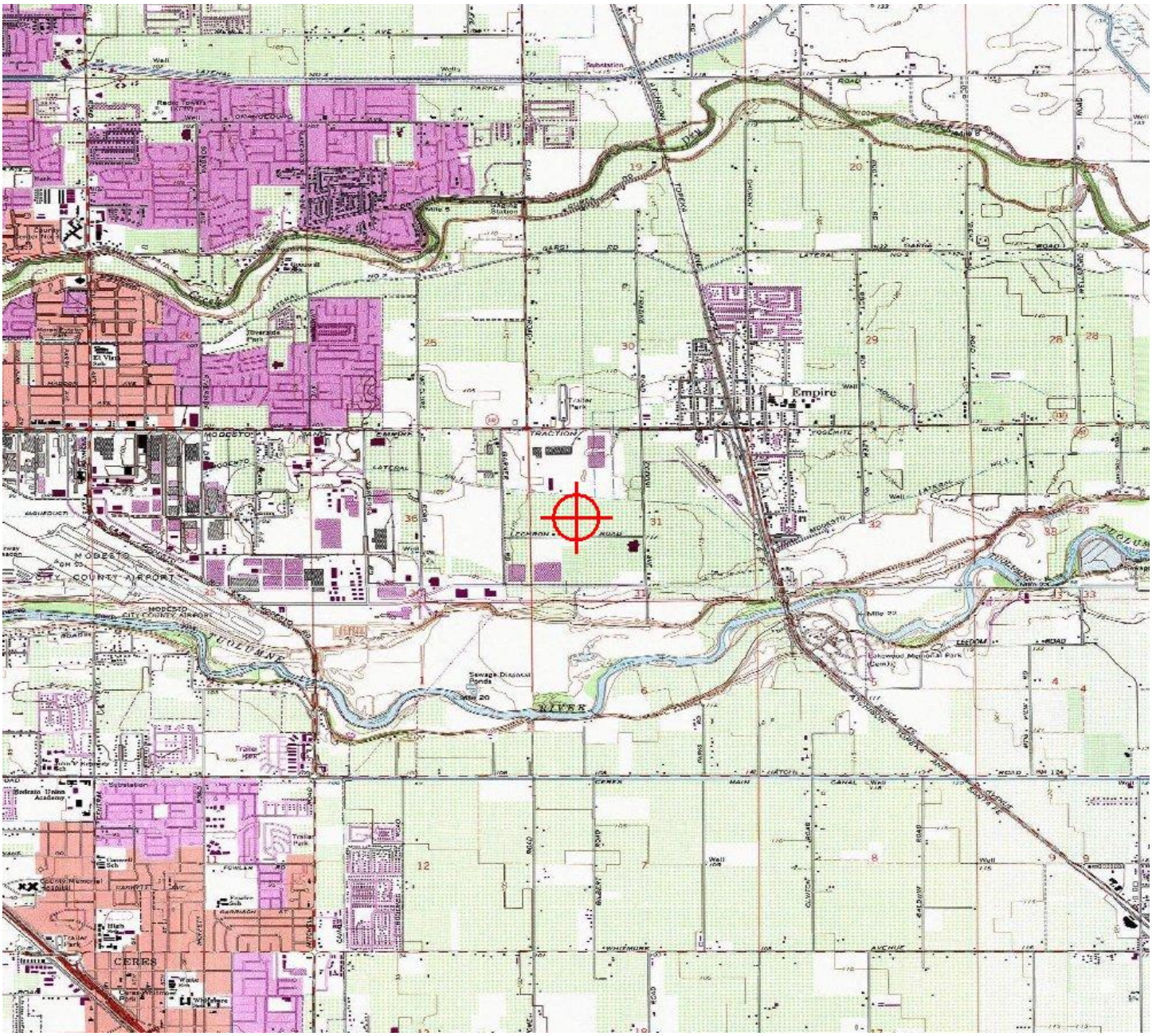
This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (206) 231-2989, or dan.shoemaker@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2022-AWP-3487-OE.

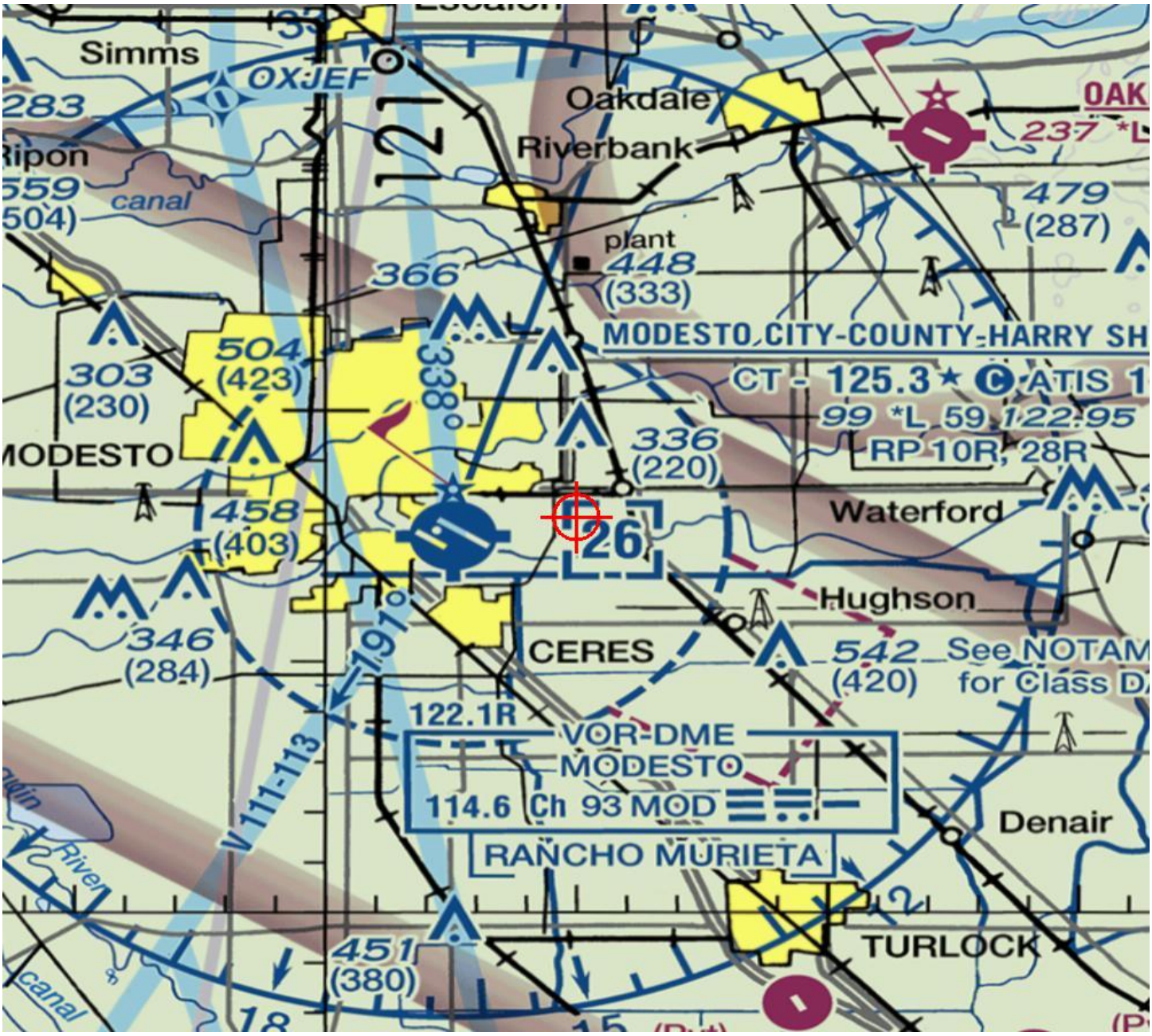
Signature Control No: 512919443-519348855 (DNE)
Daniel Shoemaker
Specialist

Attachment(s)
Map(s)

TOPO Map for ASN 2022-AWP-3487-OE



Sectional Map for ASN 2022-AWP-3487-OE



Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2022-AWP-3486-OE

Issued Date: 03/22/2022

Elisabeth Gleeson
Frito-Lay
600 Garner Road
Modesto, CA 95357

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Building #8 MANUF BLDG SE CORNER
Location:	Modesto, CA
Latitude:	37-37-51.44N NAD 83
Longitude:	120-55-07.14W
Heights:	111 feet site elevation (SE)
	45 feet above ground level (AGL)
	156 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

_____ At least 10 days prior to start of construction (7460-2, Part 1)
__X__ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/ lighting are accomplished on a voluntary basis, we recommend it be installed in accordance with FAA Advisory circular 70/7460-1 M.

The structure considered under this study lies in proximity to an airport and occupants may be subjected to noise from aircraft operating to and from the airport.

This determination expires on 09/22/2023 unless:

(a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
(b) extended, revised, or terminated by the issuing office.
(c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within

6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, effective 21 Nov 2007, will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.This determination includes all previously filed frequencies and power for this structure.

If construction or alteration is dismantled or destroyed, you must submit notice to the FAA within 5 days after the construction or alteration is dismantled or destroyed.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

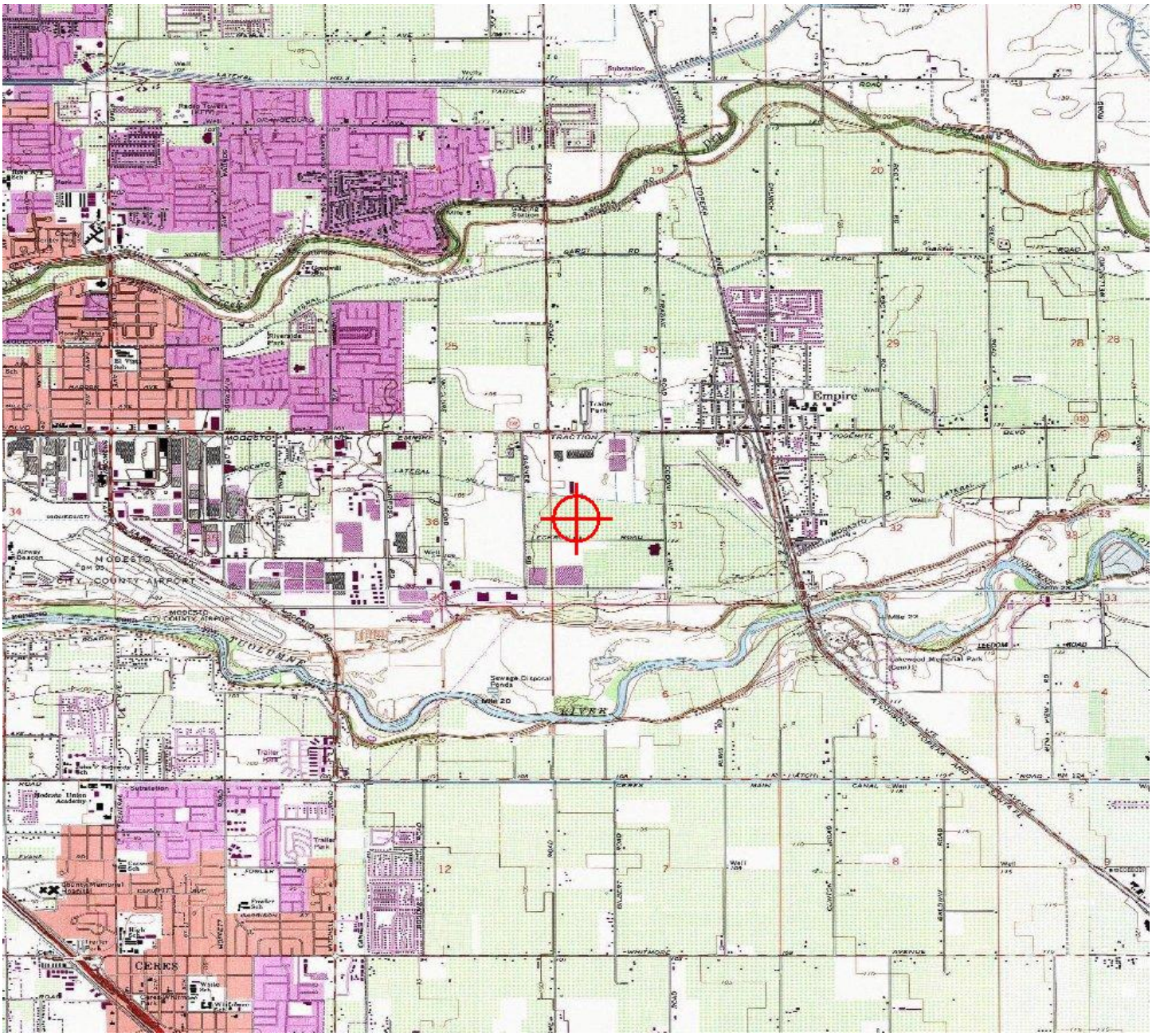
This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (206) 231-2989, or dan.shoemaker@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2022-AWP-3486-OE.

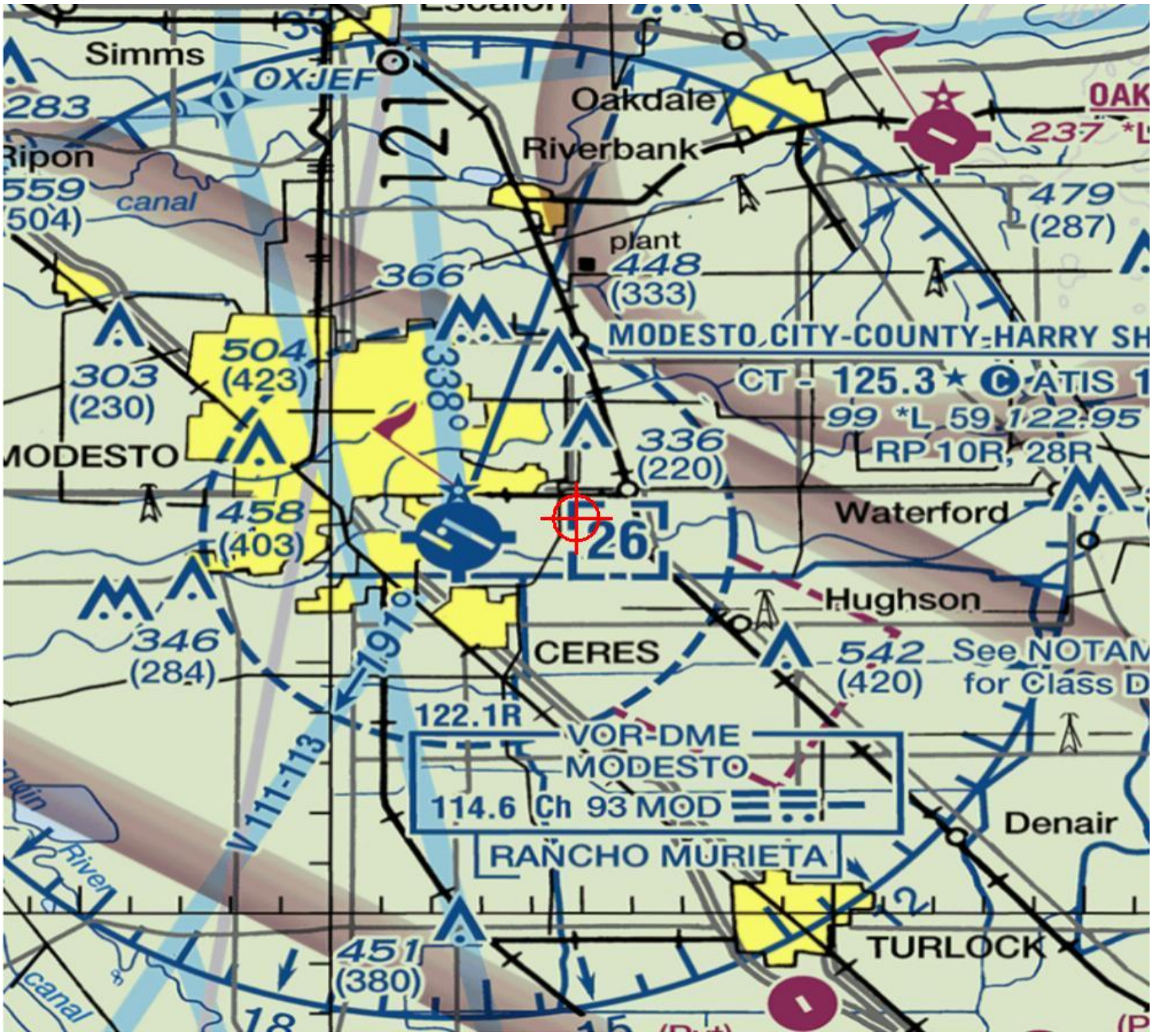
Signature Control No: 512919442-519348858 (DNE)
Daniel Shoemaker
Specialist

Attachment(s)
Map(s)

TOPO Map for ASN 2022-AWP-3486-OE



Sectional Map for ASN 2022-AWP-3486-OE



Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2022-AWP-3485-OE

Issued Date: 03/22/2022

Elisabeth Gleeson
Frito-Lay
600 Garner Road
Modesto, CA 95357

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Building #7 MANUF BLDG NW CORNER
Location:	Modesto, CA
Latitude:	37-37-52.09N NAD 83
Longitude:	120-55-08.37W
Heights:	111 feet site elevation (SE)
	45 feet above ground level (AGL)
	156 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

_____ At least 10 days prior to start of construction (7460-2, Part 1)
__X__ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/ lighting are accomplished on a voluntary basis, we recommend it be installed in accordance with FAA Advisory circular 70/7460-1 M.

The structure considered under this study lies in proximity to an airport and occupants may be subjected to noise from aircraft operating to and from the airport.

This determination expires on 09/22/2023 unless:

(a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
(b) extended, revised, or terminated by the issuing office.
(c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within

6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, effective 21 Nov 2007, will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.This determination includes all previously filed frequencies and power for this structure.

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This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

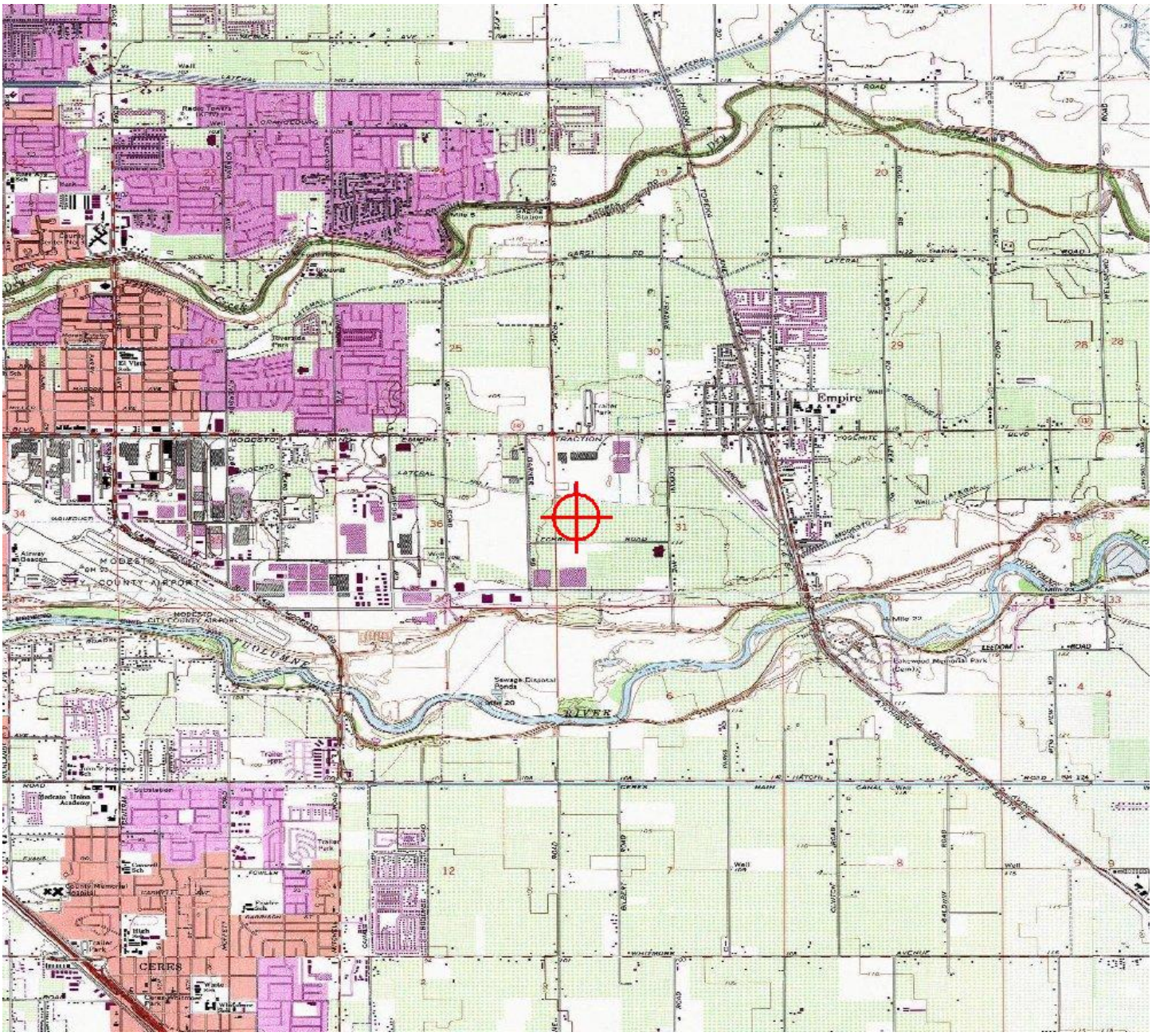
This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (206) 231-2989, or dan.shoemaker@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2022-AWP-3485-OE.

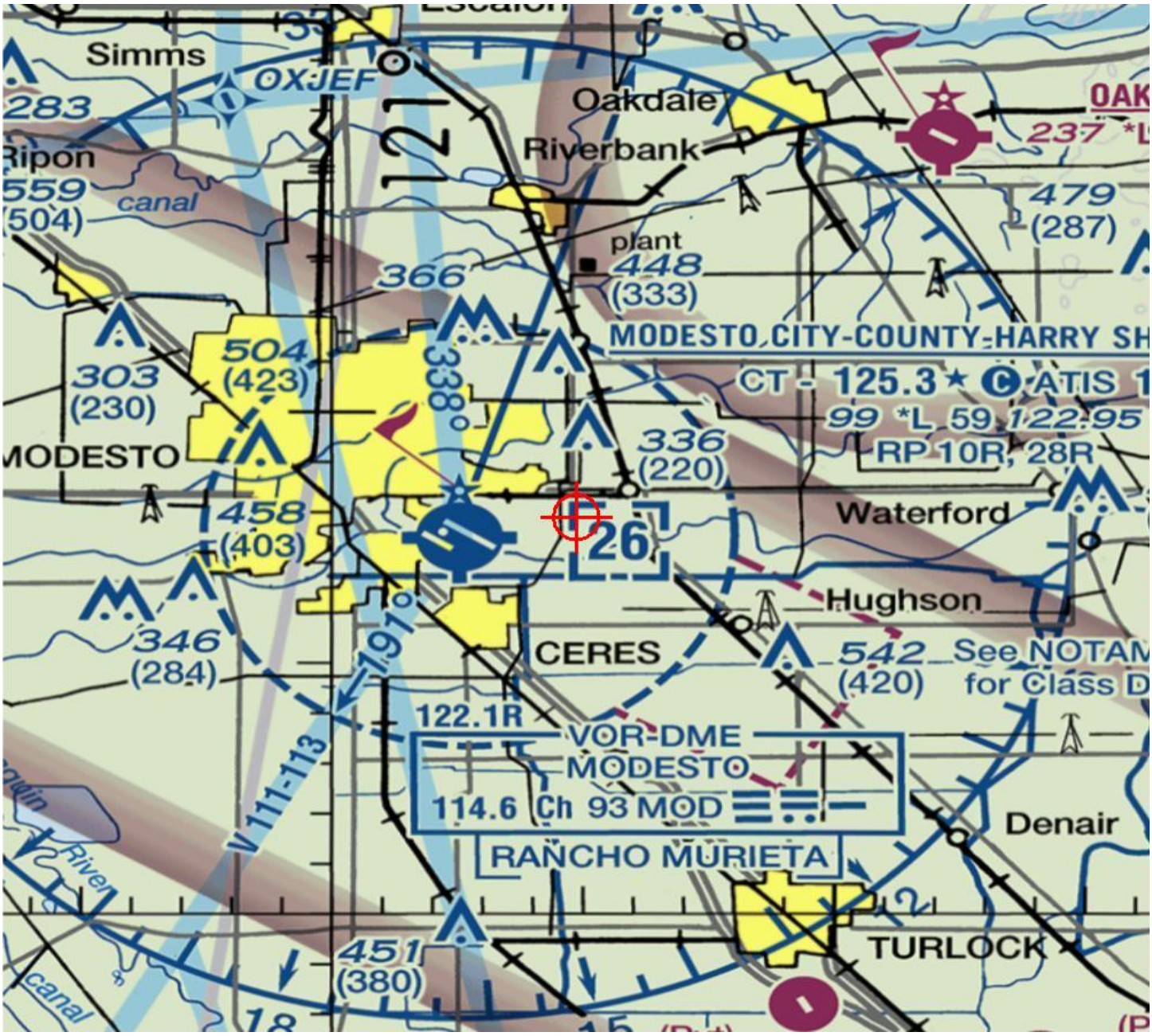
Signature Control No: 512919441-519348853 (DNE)
Daniel Shoemaker
Specialist

Attachment(s)
Map(s)

TOPO Map for ASN 2022-AWP-3485-OE



Sectional Map for ASN 2022-AWP-3485-OE



Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2022-AWP-3484-OE

Issued Date: 03/22/2022

Elisabeth Gleeson
Frito-Lay
600 Garner Road
Modesto, CA 95357

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Building #6 MANUF BLDG ROCK ROOM NW CORNER
Location:	Modesto, CA
Latitude:	37-37-50.45N NAD 83
Longitude:	120-55-06.76W
Heights:	111 feet site elevation (SE) 45 feet above ground level (AGL) 156 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

_____ At least 10 days prior to start of construction (7460-2, Part 1)
__X__ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/ lighting are accomplished on a voluntary basis, we recommend it be installed in accordance with FAA Advisory circular 70/7460-1 M.

The structure considered under this study lies in proximity to an airport and occupants may be subjected to noise from aircraft operating to and from the airport.

This determination expires on 09/22/2023 unless:

(a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
(b) extended, revised, or terminated by the issuing office.
(c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within

6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, effective 21 Nov 2007, will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.This determination includes all previously filed frequencies and power for this structure.

If construction or alteration is dismantled or destroyed, you must submit notice to the FAA within 5 days after the construction or alteration is dismantled or destroyed.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

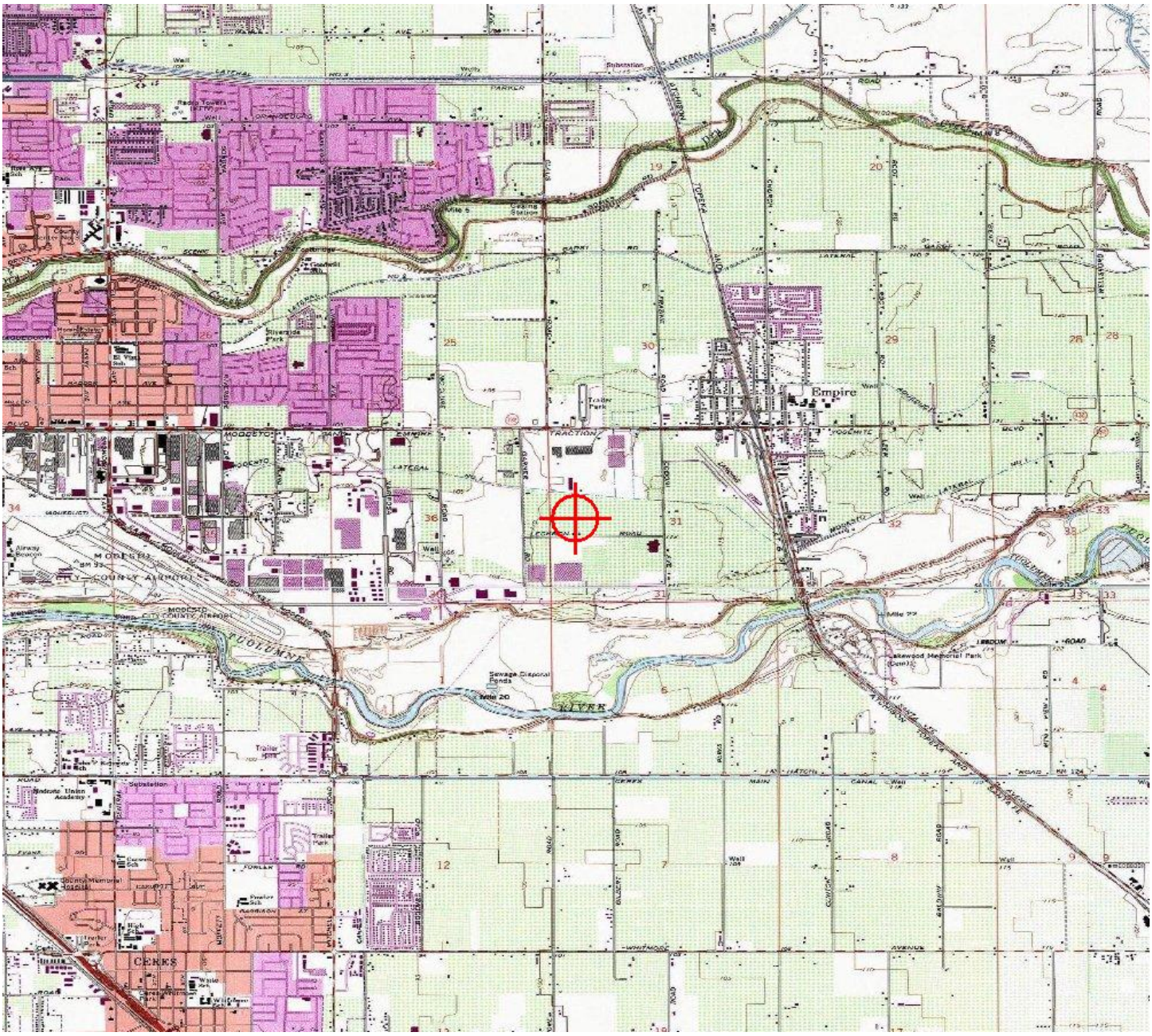
This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (206) 231-2989, or dan.shoemaker@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2022-AWP-3484-OE.

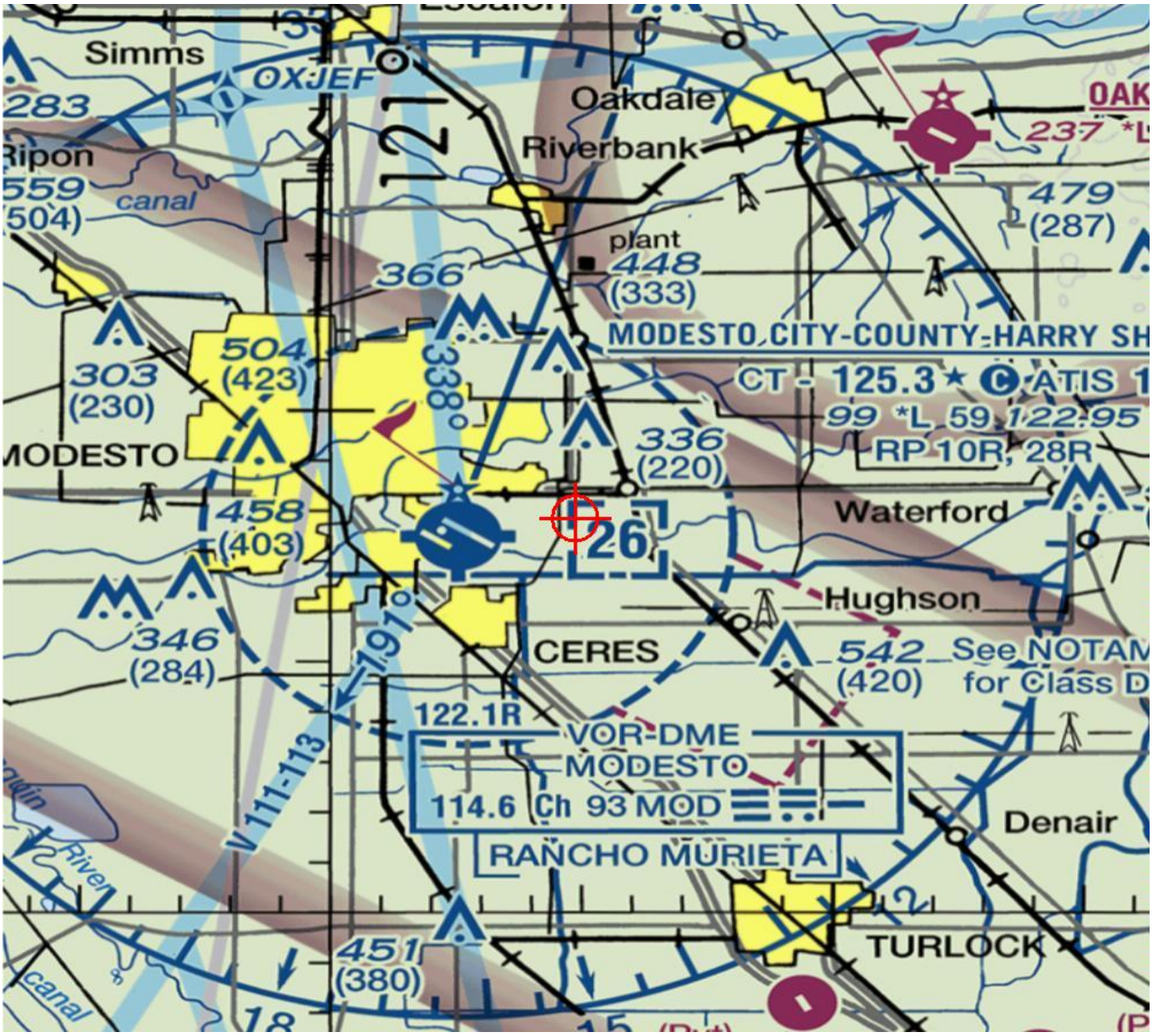
Signature Control No: 512919440-519348857 (DNE)
Daniel Shoemaker
Specialist

Attachment(s)
Map(s)

TOPO Map for ASN 2022-AWP-3484-OE



Sectional Map for ASN 2022-AWP-3484-OE



Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
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10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2022-AWP-3483-OE

Issued Date: 03/22/2022

Elisabeth Gleeson
Frito-Lay
600 Garner Road
Modesto, CA 95357

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Building #5 MANUF BLDG ROCK ROOM SE CORNER
Location:	Modesto, CA
Latitude:	37-37-49.17N NAD 83
Longitude:	120-55-00.17W
Heights:	111 feet site elevation (SE) 45 feet above ground level (AGL) 156 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

_____ At least 10 days prior to start of construction (7460-2, Part 1)
__X__ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/ lighting are accomplished on a voluntary basis, we recommend it be installed in accordance with FAA Advisory circular 70/7460-1 M.

The structure considered under this study lies in proximity to an airport and occupants may be subjected to noise from aircraft operating to and from the airport.

This determination expires on 09/22/2023 unless:

(a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
(b) extended, revised, or terminated by the issuing office.
(c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within

6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

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This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (206) 231-2989, or dan.shoemaker@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2022-AWP-3483-OE.

Signature Control No: 512919439-519348851 (DNE)
Daniel Shoemaker
Specialist

Attachment(s)
Map(s)

TOPO Map for ASN 2022-AWP-3483-OE

Sectional Map for ASN 2022-AWP-3483-OE

Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2022-AWP-3482-OE

Issued Date: 03/22/2022

Elisabeth Gleeson
Frito-Lay
600 Garner Road
Modesto, CA 95357

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Building #4 ASRS BLDG SW CORNER
Location:	Modesto, CA
Latitude:	37-37-55.46N NAD 83
Longitude:	120-55-08.30W
Heights:	111 feet site elevation (SE) 48 feet above ground level (AGL) 159 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

_____ At least 10 days prior to start of construction (7460-2, Part 1)
__X__ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/ lighting are accomplished on a voluntary basis, we recommend it be installed in accordance with FAA Advisory circular 70/7460-1 M.

The structure considered under this study lies in proximity to an airport and occupants may be subjected to noise from aircraft operating to and from the airport.

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(a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
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6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, effective 21 Nov 2007, will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.This determination includes all previously filed frequencies and power for this structure.

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This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

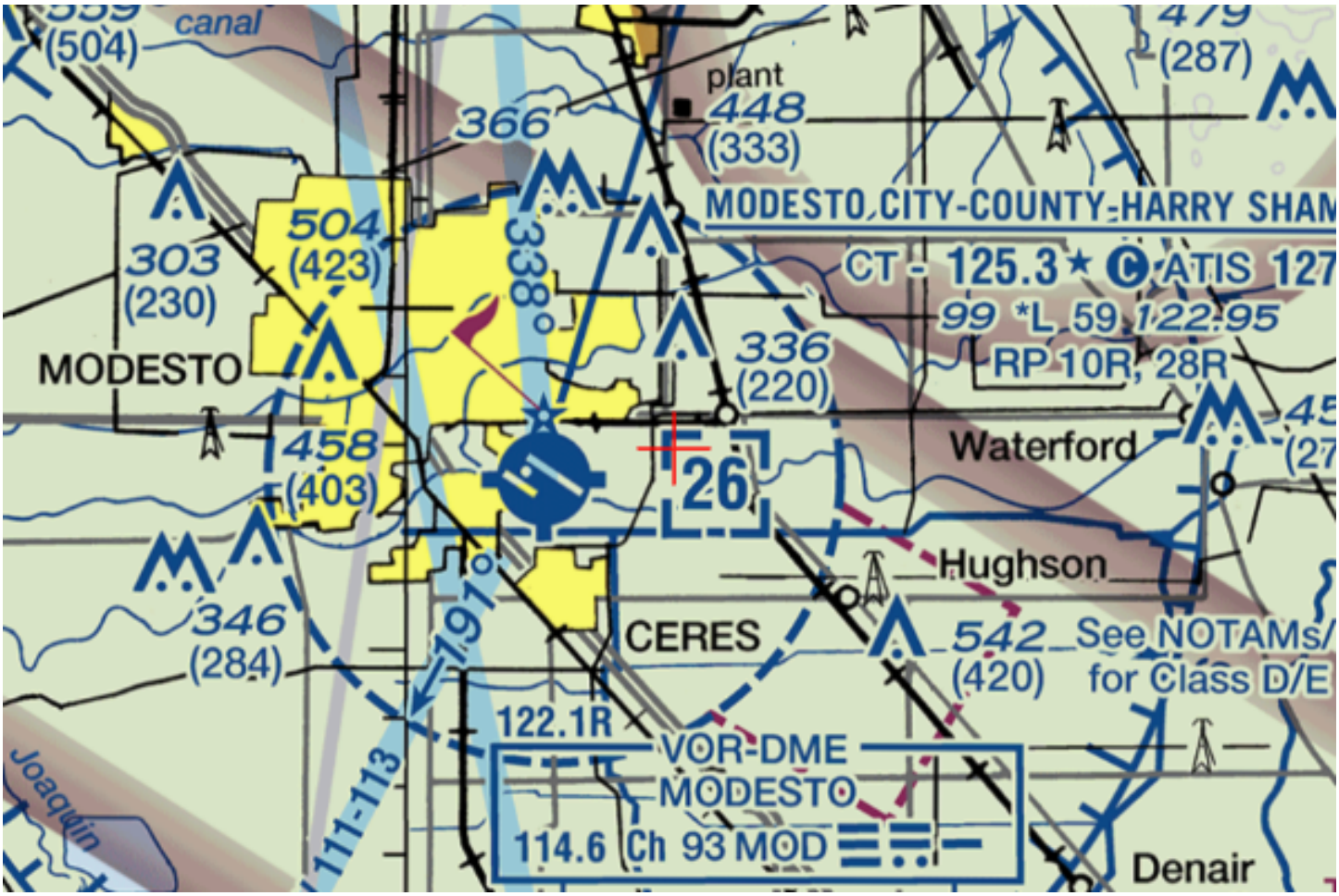
If we can be of further assistance, please contact our office at (206) 231-2989, or dan.shoemaker@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2022-AWP-3482-OE.

Signature Control No: 512919438-519348861 (DNE)
Daniel Shoemaker
Specialist

Attachment(s)
Map(s)

TOPO Map for ASN 2022-AWP-3482-OE

Sectional Map for ASN 2022-AWP-3482-OE



Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2022-AWP-3481-OE

Issued Date: 03/22/2022

Elisabeth Gleeson
Frito-Lay
600 Garner Road
Modesto, CA 95357

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Building #3 ASRS BLDG NW CORNERN037° 37' 56"
Location:	Modesto, CA
Latitude:	37-37-56.24N NAD 83
Longitude:	120-55-08.29W
Heights:	111 feet site elevation (SE) 48 feet above ground level (AGL) 159 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

_____ At least 10 days prior to start of construction (7460-2, Part 1)
__X__ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/ lighting are accomplished on a voluntary basis, we recommend it be installed in accordance with FAA Advisory circular 70/7460-1 M.

The structure considered under this study lies in proximity to an airport and occupants may be subjected to noise from aircraft operating to and from the airport.

This determination expires on 09/22/2023 unless:

(a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
(b) extended, revised, or terminated by the issuing office.
(c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within

6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, effective 21 Nov 2007, will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.This determination includes all previously filed frequencies and power for this structure.

If construction or alteration is dismantled or destroyed, you must submit notice to the FAA within 5 days after the construction or alteration is dismantled or destroyed.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

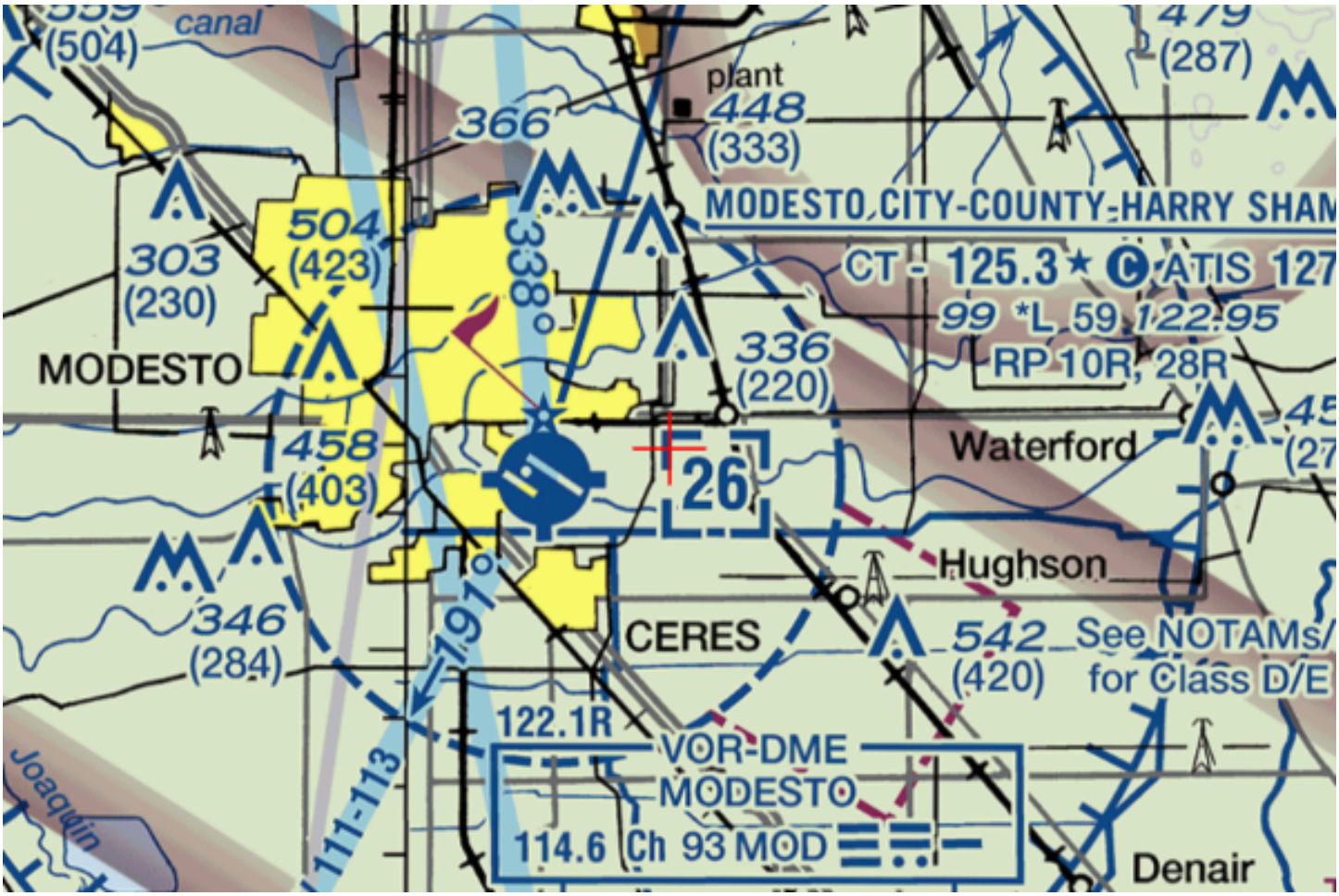
If we can be of further assistance, please contact our office at (206) 231-2989, or dan.shoemaker@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2022-AWP-3481-OE.

Signature Control No: 512919437-519348852 (DNE)
Daniel Shoemaker
Specialist

Attachment(s)
Map(s)

TOPO Map for ASN 2022-AWP-3481-OE

Sectional Map for ASN 2022-AWP-3481-OE



Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2022-AWP-3480-OE

Issued Date: 03/22/2022

Elisabeth Gleeson
Frito-Lay
600 Garner Road
Modesto, CA 95357

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Building #2 ASRS BLDG SE CORNER
Location:	Modesto, CA
Latitude:	37-37-54.89N NAD 83
Longitude:	120-55-03.00W
Heights:	111 feet site elevation (SE)
	97 feet above ground level (AGL)
	208 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

_____ At least 10 days prior to start of construction (7460-2, Part 1)
__X__ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/ lighting are accomplished on a voluntary basis, we recommend it be installed in accordance with FAA Advisory circular 70/7460-1 M.

The structure considered under this study lies in proximity to an airport and occupants may be subjected to noise from aircraft operating to and from the airport.

This determination expires on 09/22/2023 unless:

(a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
(b) extended, revised, or terminated by the issuing office.
(c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within

6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, effective 21 Nov 2007, will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.This determination includes all previously filed frequencies and power for this structure.

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This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

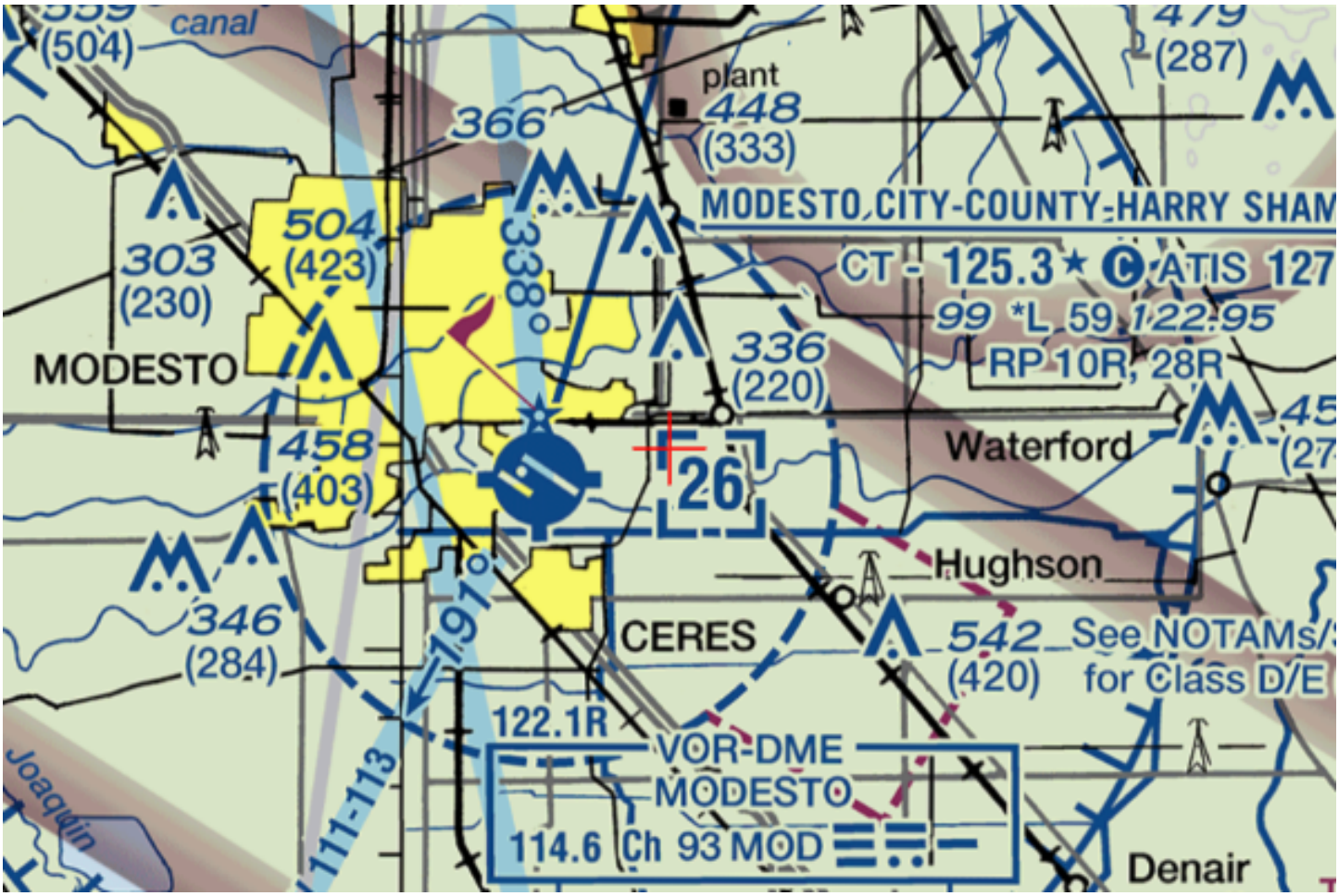
If we can be of further assistance, please contact our office at (206) 231-2989, or dan.shoemaker@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2022-AWP-3480-OE.

Signature Control No: 512919436-519348856 (DNE)
Daniel Shoemaker
Specialist

Attachment(s)
Map(s)

TOPO Map for ASN 2022-AWP-3480-OE

Sectional Map for ASN 2022-AWP-3480-OE



Mail Processing Center
Federal Aviation Administration
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10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2022-AWP-3479-OE

Issued Date: 03/22/2022

Elisabeth Gleeson
Frito-Lay
600 Garner Road
Modesto, CA 95357

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Building #1 ASRS BLDG NE CORNER
Location:	Modesto, CA
Latitude:	37-37-55.45N NAD 83
Longitude:	120-55-02.99W
Heights:	111 feet site elevation (SE) 97 feet above ground level (AGL) 208 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

_____ At least 10 days prior to start of construction (7460-2, Part 1)
__X__ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/ lighting are accomplished on a voluntary basis, we recommend it be installed in accordance with FAA Advisory circular 70/7460-1 M.

The structure considered under this study lies in proximity to an airport and occupants may be subjected to noise from aircraft operating to and from the airport.

This determination expires on 09/22/2023 unless:

(a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
(b) extended, revised, or terminated by the issuing office.
(c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within

6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, effective 21 Nov 2007, will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.This determination includes all previously filed frequencies and power for this structure.

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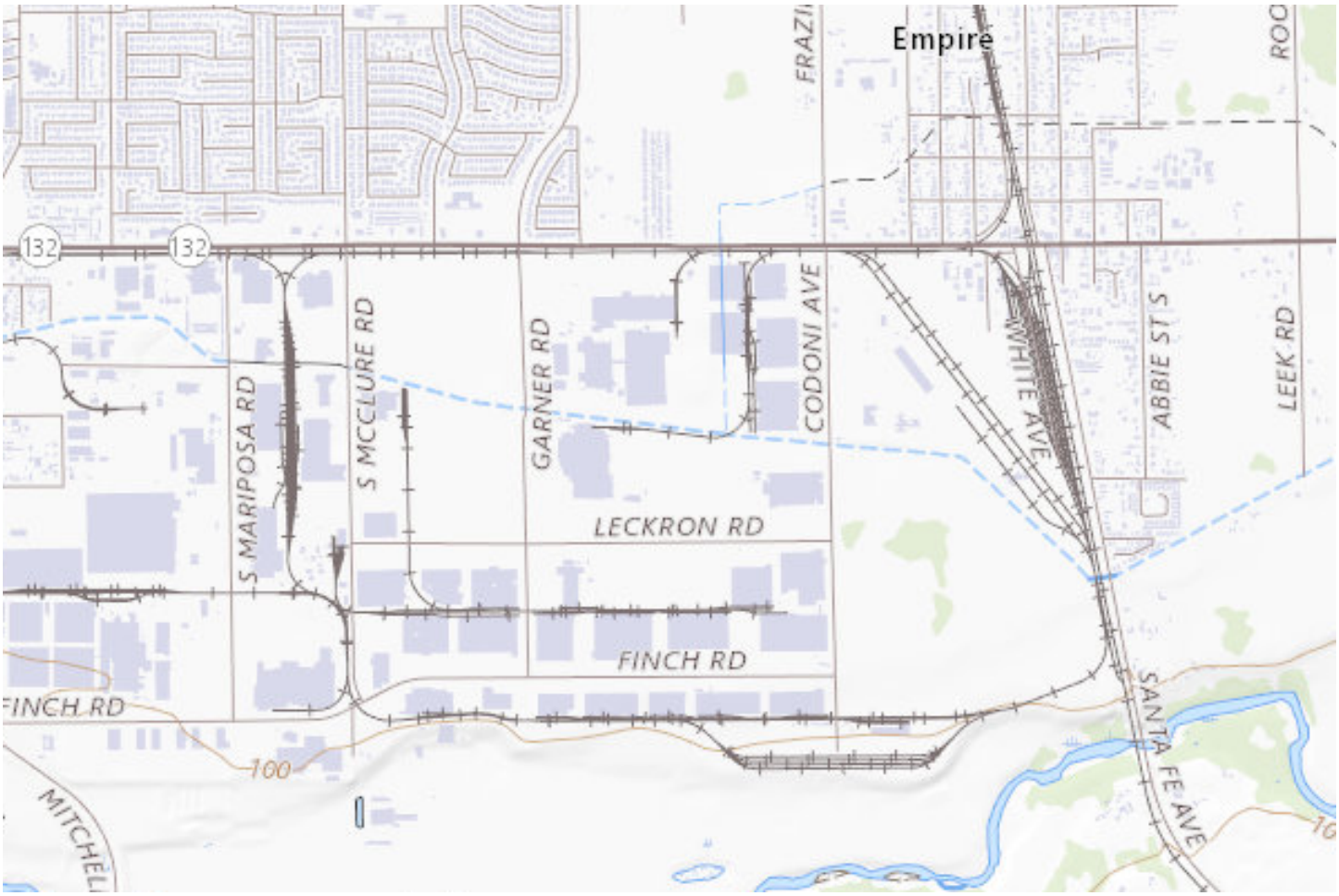
This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (206) 231-2989, or dan.shoemaker@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2022-AWP-3479-OE.

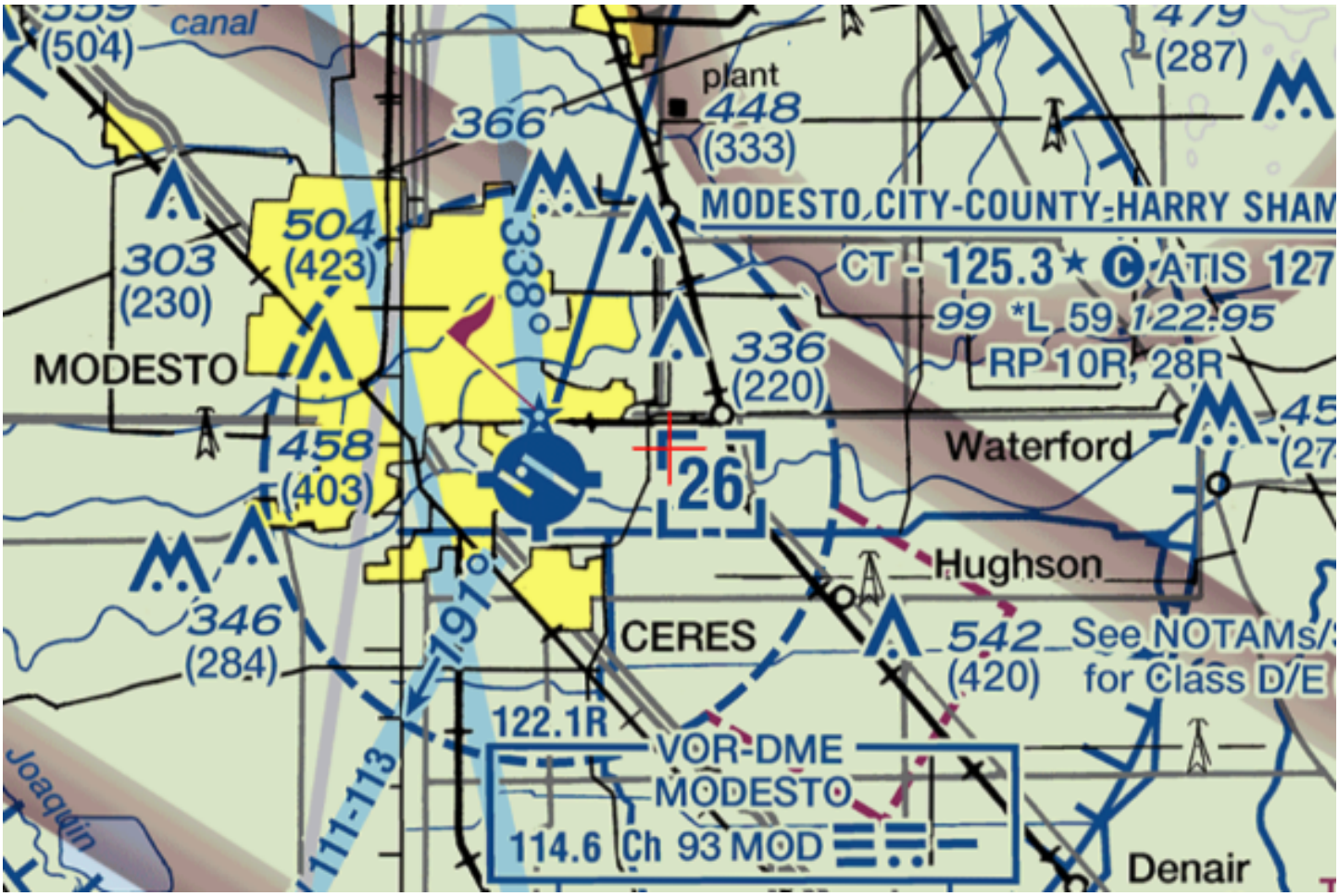
Signature Control No: 512919435-519348854 (DNE)
Daniel Shoemaker
Specialist

Attachment(s)
Map(s)

TOPO Map for ASN 2022-AWP-3479-OE



Sectional Map for ASN 2022-AWP-3479-OE



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Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2022-AWP-3489-OE

Issued Date: 03/22/2022

Elisabeth Gleeson
Frito-Lay
600 Garner Road
Modesto, CA 95357

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Building #11 70' SILO
Location:	Modesto, CA
Latitude:	37-37-52.92N NAD 83
Longitude:	120-54-59.70W
Heights:	111 feet site elevation (SE) 70 feet above ground level (AGL) 181 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

_____ At least 10 days prior to start of construction (7460-2, Part 1)
__X__ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/ lighting are accomplished on a voluntary basis, we recommend it be installed in accordance with FAA Advisory circular 70/7460-1 M.

The structure considered under this study lies in proximity to an airport and occupants may be subjected to noise from aircraft operating to and from the airport.

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If we can be of further assistance, please contact our office at (206) 231-2989, or dan.shoemaker@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2022-AWP-3489-OE.

Signature Control No: 512919445-519348859 (DNE)
Daniel Shoemaker
Specialist

Attachment(s)
Map(s)

TOPO Map for ASN 2022-AWP-3489-OE

Sectional Map for ASN 2022-AWP-3489-OE