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CEQA Guidelines Section 15183 Checklist
Marketplace @ Main Project
City of Manteca, San Joaquin County, California

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ACRONYMS AND ABBREVIATIONS

°C	degrees Celsius (Centigrade)
°F	degrees Fahrenheit
µg/m^3	micrograms per cubic meter
AAQA	Ambient Air Quality Analysis
ACM	asbestos-containing material
ADA	Americans with Disabilities Act
AERMOD	American Meteorological Society/EPA Regulatory Model
APN	Accessor's Parcel Number
AQMD	Air Quality Management District
AQP	Air Quality Plan
ARB	California Air Resources Board
Basin Plan	Water Quality Control Plan
BAU	Business As Usual
BERD	California Built Environment Resource Directory
BIOS 5	Biogeographic Information and Observation System
BMP	Best Management Practice
CalEEMod	California Emissions Estimator Model
CALGreen	California Green Building Standards Code
CalRecycle	California Department of Resources Recycling and Recovery
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CBC	California Building Standards Code
CCIC	Central California Information Center
CDF	California Department of Finance
CDFW	California Department of Fish and Wildlife
CDNC	California Digital Newspaper Collection
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CHL	California Historical Landmarks
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CNPSEI	CNPS Electronic Inventory
CO_2e	carbon dioxide equivalent
COG	Council of Governments
CPHI	California Points of Historical Interest

CRHR	California Register of Historical Resources
dB	decibel
dBA	A-weighted decibel
DPM	diesel particulate matter
DWR	California Department of Water Resources
EIR	Environmental Impact Report
EPA	United States Environmental Protection Agency
ESA	Environmental Site Assessment
EV	electric vehicle
FAR	floor area ratio
FCS	FirstCarbon Solutions
FEIR	Final Environmental Impact Report
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FMMP	Farmland Mapping and Monitoring Program
FTA	Federal Transit Administration
GAMAQI	Guidance for Assessing and Mitigating Air Quality Impacts
GHG	greenhouse gas
HARP2	Hotspots Analysis and Reporting Program
HI	hazard index
HRA	Health Risk Assessment
HVAC	heating, ventilation, and air conditioning
ICSC	International Council of Shopping Centers
in/sec	inch per second
IPaC	Information for Planning and Consultation
LBP	lead-based paint
LCFS	Low Carbon Fuel Standard
L_{dn}	day/night average sound level
LEV	Low Emission Vehicle
L_{eq}	equivalent continuous sound level
L_{max}	maximum noise/sound level
MBTA	Migratory Bird Treaty Act
MIR	Maximally Impacted Sensitive Receptor
MM	Mitigation Measure
mph	miles per hour
MRP	Municipal Regional Stormwater NPDES Permit
MSL	mean sea level
MT	metric tons

MWELO	Model Water Efficient Landscape Ordinance
NAHC	Native American Heritage Commission
NEPA	National Environmental Policy Act
NFHL	National Flood Hazard Layer
NO_2	nitrogen dioxide
NO_X	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Place
NWI	National Wetlands Inventory
NWIC	Northwest Information Center
OEHHA	California Office of Environmental Health Hazard Assessment
OHP	California Office of Historic Preservation
OPR	Governor's Office of Planning and Research
OSHA	Occupational Safety and Health Administration
PFIP	Public Facilities Implementation Plan
PG&E	Pacific Gas and Electric Company
PM_{10}	particulate matter less than 10 microns in diameter
$PM_{2.5}$	particulate matter less than 2.5 microns in diameter
PPV	peak particle velocity
REC	Recognized Environmental Condition
REL	Reference Exposure Level
ROG	reactive organic gases
RPS	Renewable Portfolio Standard
RWQCB	Regional Water Quality Control Board
SCS	Sustainable Communities Strategy
RTP	Regional Transportation Plan
SJMSCP	San Joaquin County Multi-Species Habitat Conservation and Open Space Plan
SLCP	Short-Lived Climate Pollutant
SMAQMD	Sacramento Metro Air Quality Management District
South Coast AQMD	South Coast Air Quality Management District
State Water Board	California State Water Resources Control Board
SWPPP	Storm Water Pollution Prevention Plan
TAC	toxic air contaminate
TIA	Transportation Impact Analysis
TPA	Transit Priority Area
UBC	Uniform Building Code
UCMP	University of California Museum of Paleontology
USACE	United States Army Corp of Engineers

USFWS	United States Fish and Wildlife Service
UWMP	Urban Water Management Plan
VMT	Vehicle Miles Traveled
VOC	volatile organic compounds
WATERS	Watershed Assessment, Tracking and Environmental Results System
WELO	Water Efficient Landscape Ordinance
WQCF	Wastewater Quality Control Facility
ZEV	Zero-Emission Vehicle

SECTION 1: INTRODUCTION

This Environmental Checklist and attached supporting documents have been prepared to determine whether and to what extent the Manteca General Plan 2023 Final Environmental Impact Report (State Clearinghouse No. 2002042088) (Appendix B) prepared for the City of Manteca remains sufficient to address the potential impacts of the proposed Marketplace @ Main Project (proposed project), or whether additional documentation is required under the California Environmental Quality Act (CEQA) (Public Resources Code [PRC], § 21000, *et seq.*).

1.1 - CEQA Assessment

The following Environmental Checklist has been prepared pursuant to CEQA Guidelines Section 15183 (Projects Consistent with a Community Plan or Zoning) to determine whether the proposed project requires additional environmental review.

CEQA Guidelines Section 15183 mandates that projects that are consistent with the development density established by existing zoning, a community plan or general plan policies for which a Final Environmental Impact Report (FEIR) was certified (in this case, the Manteca General Plan 2023 FEIR) shall not require additional environmental review, except as might be necessary to examine whether there are project-specific significant effects that are peculiar to the proposed project or its site.

1.2 - Summary of Results

This Environmental Checklist concludes that the proposed project falls within the scope of the analysis for the Manteca General Plan 2023 FEIR and, therefore, no further environmental review is required.[1]

[1] Since the preparation of this checklist, a Modified Project has been proposed. FCS evaluated the Modified Project in a Memorandum included in Appendix A, which confirms that the Modified Project would remain consistent with the development density and general plan policies evaluated in the Manteca General Plan 2023 FEIR and would not change the conclusions in this May 4, 2022, 15183 Checklist.

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SECTION 2: PROJECT DESCRIPTION

2.1 - Project Location

The project site is located in the City of Manteca (City), in San Joaquin County (County), California (Exhibit 1). The project site encompasses 10.5 acres located southwest of the intersection of South Main Street and West Atherton Drive on Assessor's Parcel Number (APN) 224-021-47. The project site is located on the *Manteca, California* United States Geological Survey 7.5-minute Topographic Quadrangle Map, Range 7 East, Township 2 South, Section 8 (Latitude 37° 46' 30" North; Longitude 121° 12' 58" West).

The project site is bounded by vacant land, Terra Bella Park, and single-family residential uses (west), West Atherton Drive and vacant land (north), South Main Street and vacant land (east), and single-family residential and estate residential uses (south) (Exhibit 2).

2.2 - Existing Conditions

The rectangular-shaped project site is mostly undeveloped. A single-family residence and garage are located in the southeastern portion of the project site, adjacent to South Main Street. Ornamental landscaping including trees, shrubs, and turf surround the residence.

The project site is relatively flat and gently slopes from east to west and is approximately 33 feet above mean sea level (MSL). The project site is routinely tilled for weed abatement purposes. The project frontage along Atherton Drive is improved with a sidewalk, curb, and gutter.

The project site is mapped as Farmland of Statewide Importance by the California Department of Conservation Farmland Mapping and Monitoring Program (FMMP) and previously supported an orchard. However, the orchard was removed at some point between 2015 and 2017 and the project site has not supported cultivated agriculture since that time.

The Manteca General Plan 2023 (General Plan) designates the project site 'General Commercial.' The General Commercial land use designation allows for a floor area ratio (FAR) of 0.6 and a maximum site coverage of 40 percent. It allows for heavy commercial uses, highway oriented commercial retail, public and quasi-public uses, and similar compatible uses. The designation is also intended to accommodate visitor serving commercial uses, lodging, commercial recreation and public gathering facilities, such as amphitheaters, or publics gardens.

The Manteca Zoning Ordinance designates the site as 'General Commercial.' The General Commercial Zone allows for a variety of uses, convenience stores, grocery stores and supermarkets, home improvement supplies, building materials stores, neighborhood markets, restaurants, and general retail. Drive in and drive-thru uses are permitted upon issuance of a Minor Use Permit. The maximum allowable building height is 35 feet and the maximum FAR is 0.6 feet.

2.3 - Project Background

The Manteca City Council adopted the General Plan and certified the associated Manteca General Plan 2023 FEIR in 2003. The City Council adopted updates to the Housing, Circulation, Air Quality, and Safety Elements between 2010 and 2016. The City is currently undertaking a General Plan Update, which would maintain the Commercial land use designation for the project site.

2.4 - Project Description

2.4.1 - Summary

The project applicant (California Gold Development Company) is proposing to remove the existing single-family residence, garage, ornamental landscaping, and turf in order to develop a 113,167-square-foot neighborhood shopping center on the site.

The shopping center would include a 50,071-square-foot grocery store, a 38,000-square-foot hardware store, and a 5,900-square-foot retail shop space in one building at the southern portion of the project site. The grocery store would include a covered patio and a grocery pick up area. The proposed project would include 9,000 square feet of additional retail shop space at the northwest corner of the project site, including a 2,400-square-foot drive-thru restaurant space at the north end of the building. The project applicant proposes two additional drive-thru restaurants as well. The second drive-thru restaurant would consist of a 2,200-square-foot building located at the northwest corner of the project site, along West Atherton Drive, and the third drive-thru restaurant would consist of a 4,400-square-foot building located at the northeast corner of the project site. A drive-thru car wash, which includes a 3,596-square-foot building containing a car wash tunnel, equipment room, and office would be located at the southeast portion of the project site. The car wash would have two self-vacuum areas located within masonry enclosures.

2.4.2 - Access, Circulation, and Parking

Vehicular access would be taken from three locations along West Atherton Drive and two along South Main Street. Vehicular access would also be provided from a driveway at the west side of the project site.

The proposed project would provide 540 off-street parking spaces, 107 more spaces than the 433 required, given the proposed land uses. Sixty-one parking spaces would be designated future electric vehicle (EV) charging spaces. Fourteen parking spaces would be Americans with Disabilities Act (ADA) compliant. No on-street parking is proposed on South Main Street or West Atherton Drive.

Pedestrian access would be provided at the north project site entrance, along South Main Street, and at the west entrance along West Atherton Drive. Pedestrian pathways would be 5 feet wide. Pedestrian pathways and driveway crossings would provide for circulation throughout the project site. The sidewalks along South Main Street and West Atherton Drive would be 10 feet wide.

Per Municipal Code Section 17.52.110, if a project site contains more than 400 total vehicle parking spaces, 10 bicycle parking spaces are required. The proposed project would provide 28 bicycle parking spaces throughout the project site, as well as bike lanes along both street frontages.

2.4.3 - Building Design

The proposed building materials and design would include cream colored exterior concrete with gray and tan vertical boards. The buildings would also include black and dark bronze trim as well as a dark bronze awning and masonry accents. Decorative black light fixtures would be featured on building exteriors.

2.4.4 - Landscaping

The proposed project would feature a variety of landscaping, including trees and shrubs along the edge of the project site, along proposed buildings and entrance driveways, throughout the parking lot, and along pedestrian walkways. The landscaping features are intended to provide shade, screen buildings, and provide visual interest. The landscaping features would incorporate low and medium water use trees, shrubs, and groundcover, compliant with the City's Water Efficient Landscape Ordinance (WELO).

2.4.5 - Utilities

- **Storm Drainage**: The proposed project would utilize the City's storm drainage system.
- **Water**: Water for the proposed project would be provided by the City.
- **Wastewater**: Wastewater services would be provided by the City. Wastewater from the City is treated at the City of Manteca Wastewater Quality Control Facility (WQCF).
- **Gas and Electricity**: Gas and Electricity would be provided by Pacific Gas and Electric Company (PG&E).

Storm Drainage

The proposed project's storm drainage system would consist of bioretention areas, inlets, underground piping, and basins that would capture runoff which would then be routed to a mechanical filtration device at the southwest corner of the project site. The drainage system for the proposed project would connect to a detention basin of up to 4.37-acres southwest of the project site in Terra Bella Park.

Water and Sewer

Service laterals would connect to existing water and sewer lines within West Atherton Drive.

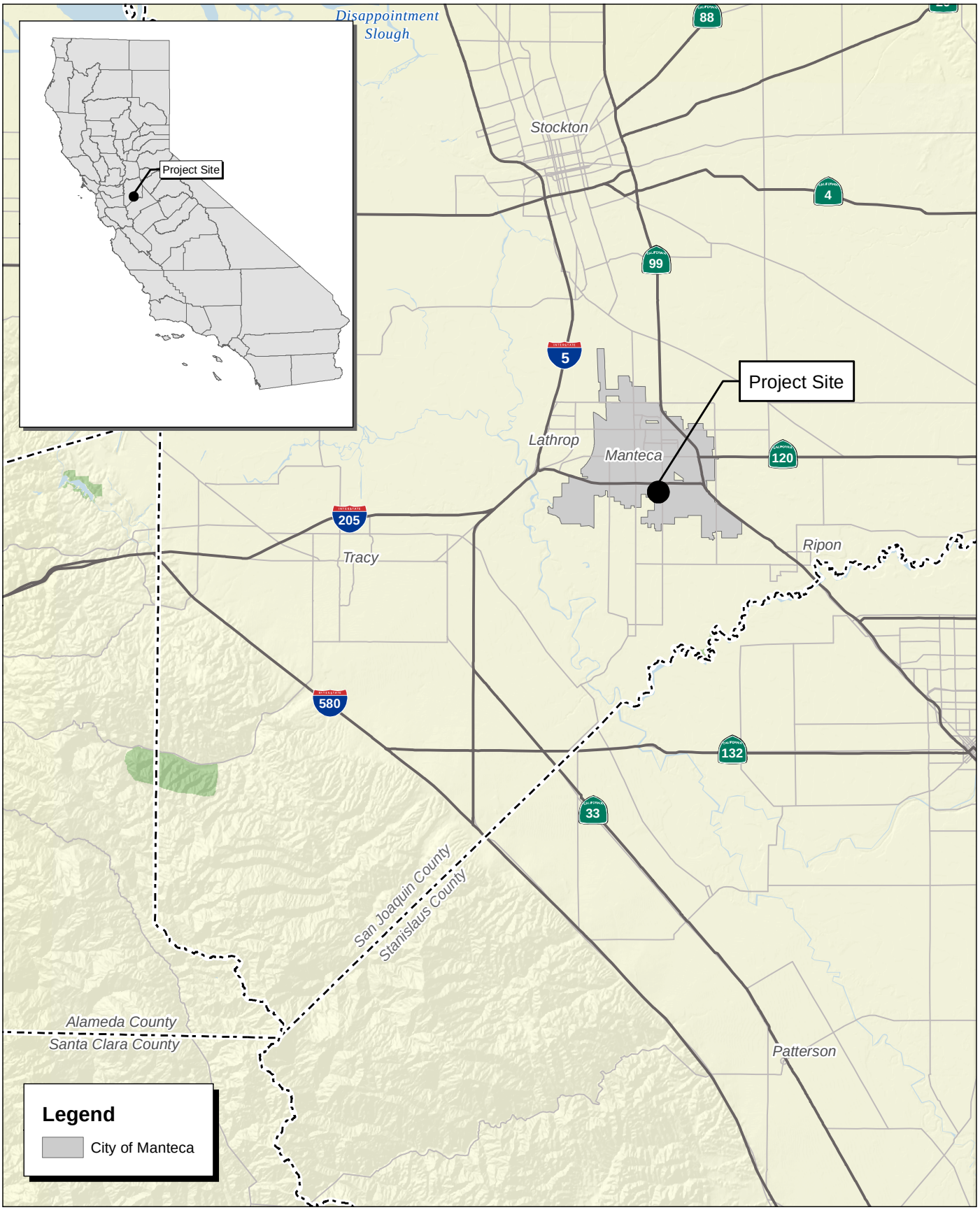
2.4.6 - Roadway Improvements

The proposed project would include roadway improvements for South Main Street and areas of West Atherton Drive (Exhibit 4). The proposed project would construct a median as well as right turn lanes into the project driveways along South Main Street. A second left turn lane is proposed on South Main Street. In total, approximately 1 acre would be disturbed for off-site improvements.

2.4.7 - Neighboring Parcels

Immediately west of the project site is an undeveloped parcel proposed for a future 200-unit multi-family residential project. The future multi-family residential development would have reciprocal access to the western most West Atherton Drive driveway and utilities would be accessible within the driveway to serve it. The multi-family residential use is separate from the proposed project and would undergo a separate environmental review process.

Furthermore, the parcels to the north, east, and northeast of the project site are undeveloped parcels. The southeast corner of the South Main Street and West Atherton Drive intersection is undergoing a site plan review for 210 proposed apartments on 10.31 acres. A preliminary City staff review has been conducted for proposed 796 dwelling units on approximately 39 acres at the northeast corner of the intersection. A General Plan Amendment, rezone and minor subdivision has been approved for 26 commercial-mixed use parcels on 48 acres at the northwest corner of the intersection.



Source: Census 2000 Data, The California Spatial Information Library (CaSIL).

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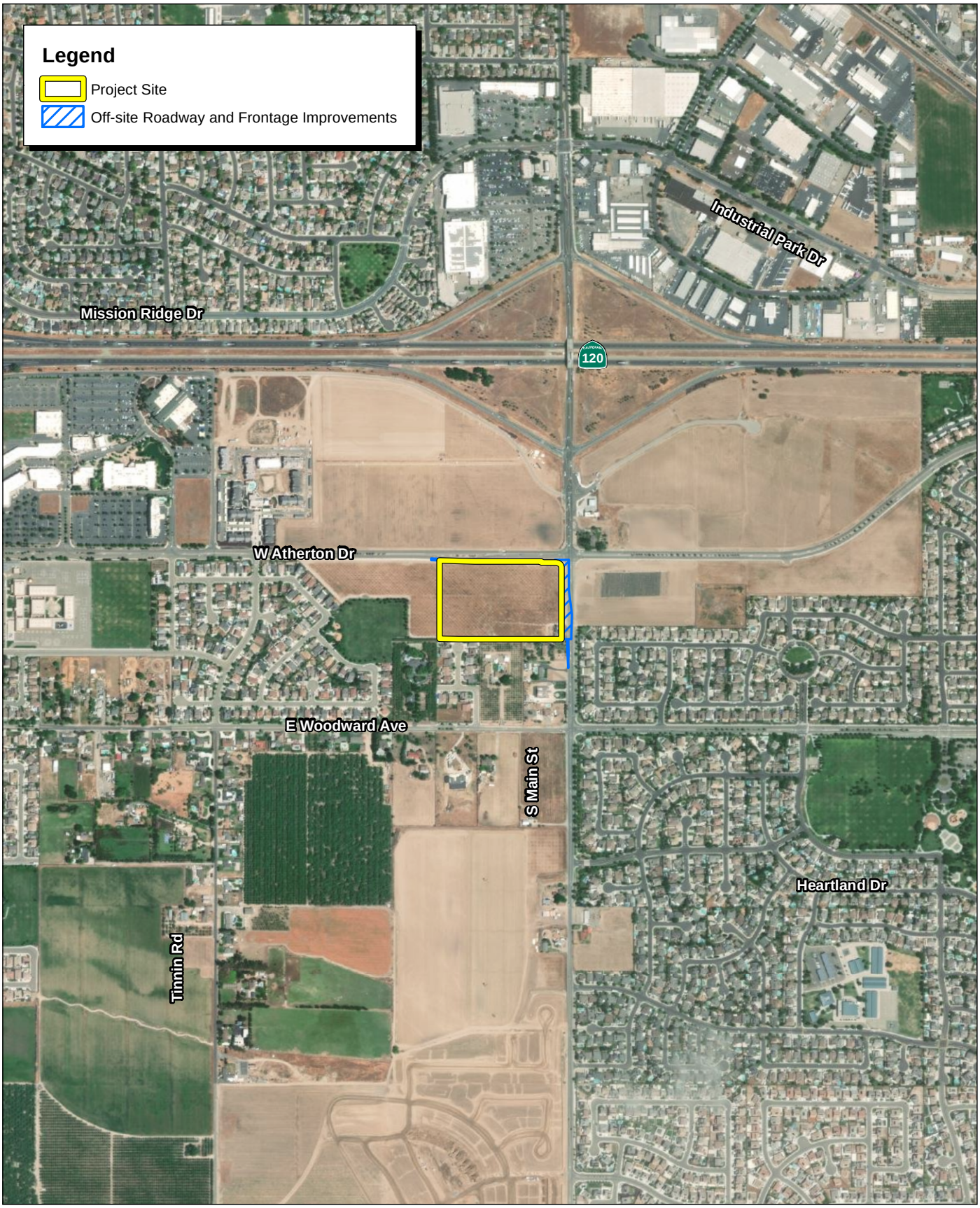
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Exhibit 1
Regional Location Map

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CITY OF MANTECA
MARKETPLACE AT MAIN
INITIAL STUDY/CONSISTENCY CHECKLIST

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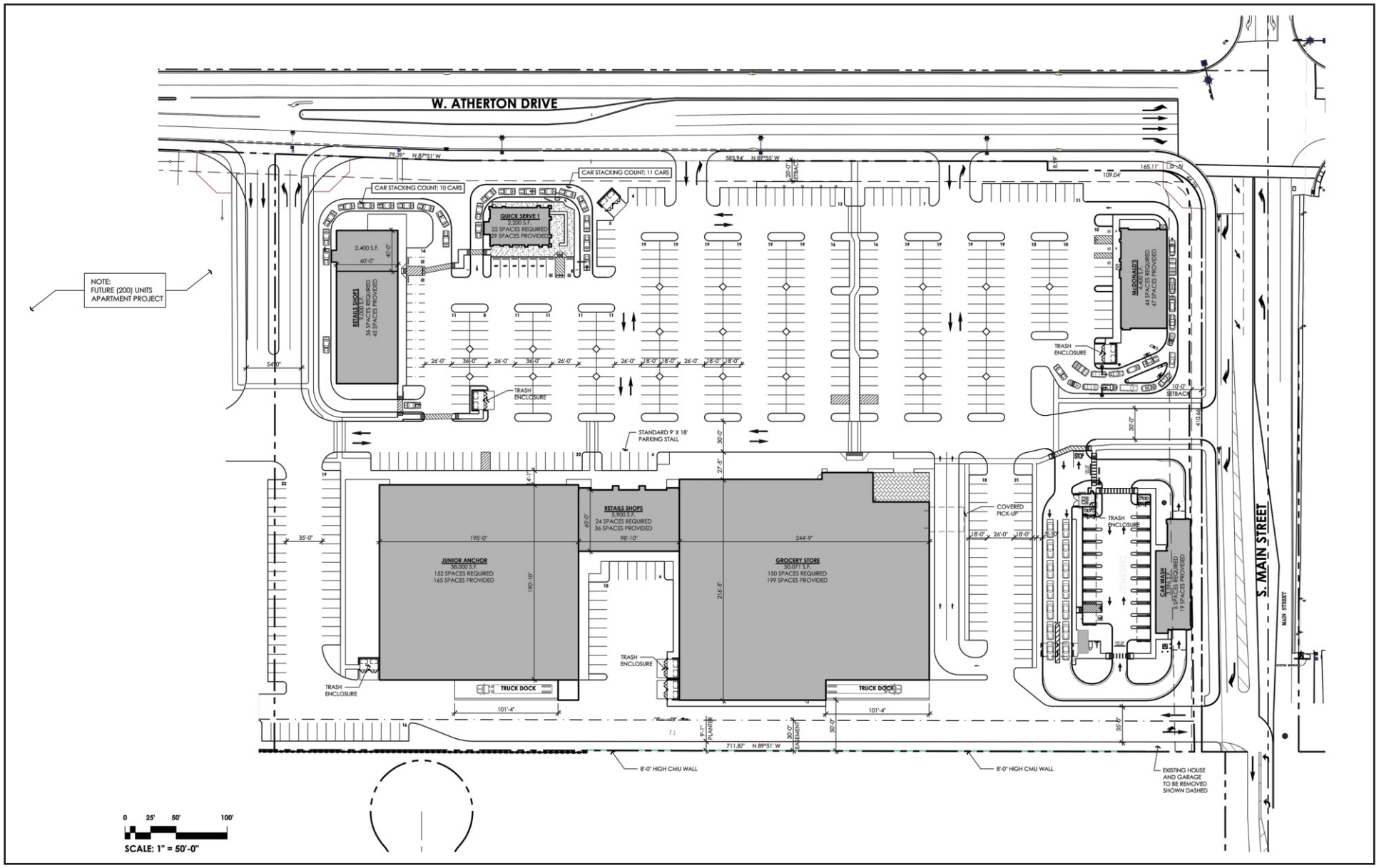
Source: ESRI Aerial Imagery.

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Exhibit 2
Local Vicinity Map

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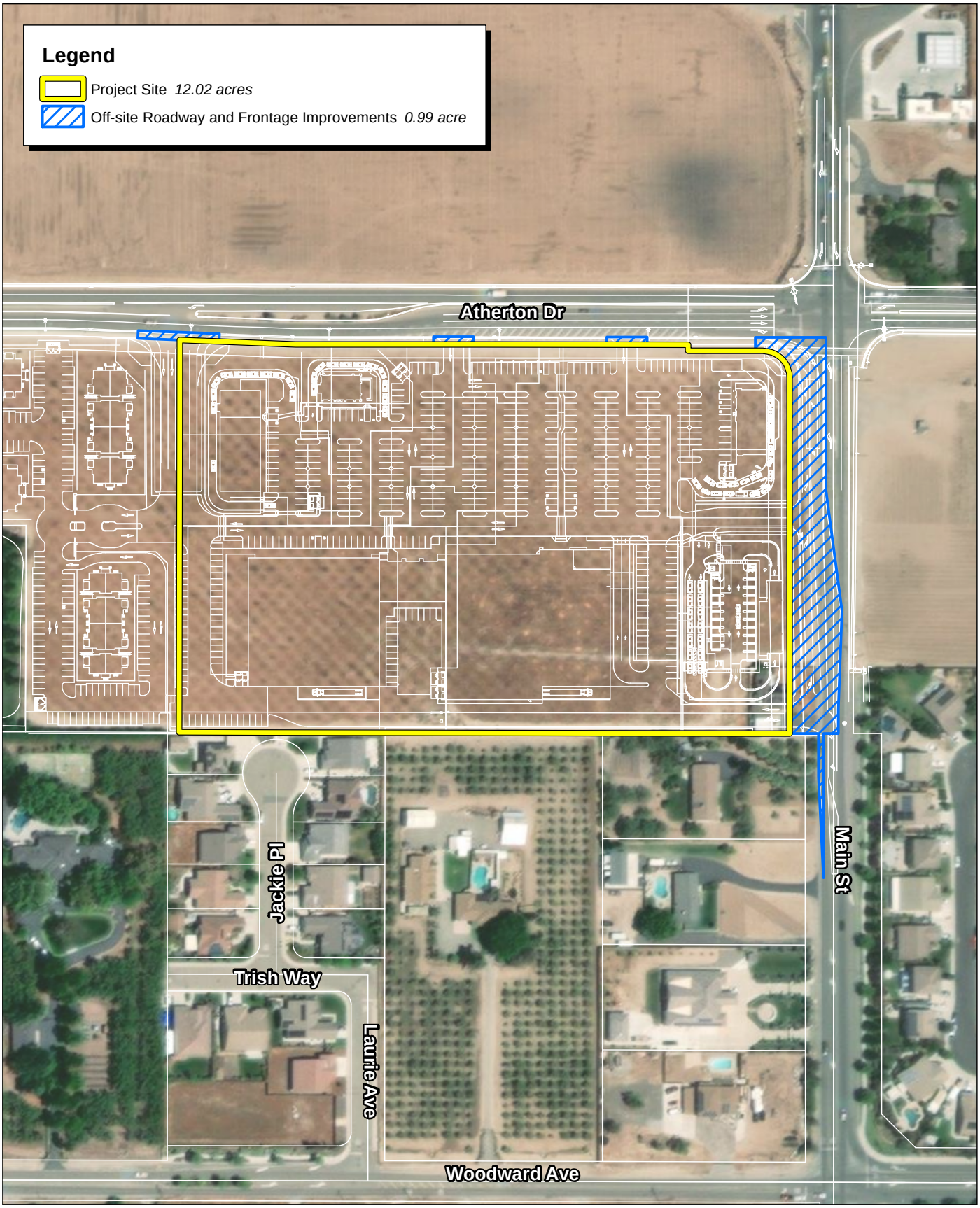


Source: API, Planning & Architecture, 01/05/2022.

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Exhibit 3
Conceptual Site Plan

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Source: ESRI Aerial Imagery. NorthStar Engineering Group, Inc., 01/2022.

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200 100 0 200 Feet

Exhibit 4
Project Off-site Roadway and Frontage Improvements

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SECTION 3: CEQA GUIDELINES SECTION 15183: PROJECTS CONSISTENT WITH A COMMUNITY PLAN OR ZONING

CEQA Guidelines Section 15183 mandates that projects that are consistent with the development density established by existing zoning, community plan, or general plan policies for which an EIR was certified shall not require additional environmental review, except as might be necessary to examine whether there are project-specific significant effects which are peculiar to the project or its site. This streamlines the review of such projects and reduces the need to prepare repetitive environmental studies.

Proposed Project Qualifies for No Further Environmental Review under CEQA Guidelines Section 15183

CEQA Section 15183 applies to the project since it meets all of the following conditions.

(d)(1)(B) The project is consistent with a zoning action which zoned or designated the parcel on which the project would be located to accommodate a particular density of development.

Consistent: The project site is designated "Commercial" by the Manteca Zoning Ordinance.

(d)(1)(C) The project is consistent with the City of Manteca General Plan.

Consistent: The project site is designated "Commercial" by the Manteca General Plan 2023.

(d)(2) An EIR was certified by the lead agency for the zoning action, the community plan, or the general plan.

Consistent: The City prepared an EIR for the Manteca General Plan 2023, which was certified by the Manteca City Council on October 6, 2003.

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SECTION 4: ENVIRONMENTAL CHECKLIST

CEQA Guidelines Section 15183(b) states that:

> (b) In approving a project meeting the requirements of this section, a public agency shall limit its examination of environmental effects to those which the agency determines, in an initial study or other analysis:
>
> (1) Are peculiar to the project or the parcel on which the project would be located;
>
> (2) Were not analyzed as significant effects in a prior FEIR on the zoning action, general plan, or community plan, with which the project is consistent;
>
> (3) Are potentially significant off-site impacts and cumulative impacts which were not discussed in the prior FEIR prepared for the general plan, community plan, or zoning action; or
>
> (4) Are previously identified significant effects which, as a result of substantial new information which was not known at the time the FEIR was certified, are determined to have a more severe adverse impact than discussed in the prior FEIR.

The following pages of this document contain an Environmental Checklist that examines the proposed project's potential environmental effects within the parameters outlined at CEQA Guidelines Section 15183(b). The "Prior FEIR" used for comparison is the Manteca General Plan 2023 EIR certified by the Manteca City Council on October 6, 2003, including all impact determinations and significance thresholds utilized therein.

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Environmental Issues	Prior FEIR Determination	CEQA Section 15183(b) Criteria			
		Effect Peculiar to Project or Site?	New Significant Effect?	New Significant Off-site, Cumulative Impact?	New Information, More Severe Adverse Impact?
4.1 Aesthetics *Except as provided in Public Resources Code Section 21099, would the project:*					
a) Have a substantial adverse effect on a scenic vista?	Significant unavoidable impact	No	No	No	No
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a State Scenic Highway?	N/A	No	No	No	No
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?	Significant unavoidable impact	No	No	No	No
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	Less than significant impact with mitigation incorporated	No	No	No	No

a) Scenic Vista

The FEIR found that buildout of the General Plan would have a potentially significant impact on scenic vistas. The FEIR sets forth Mitigation Measure (MM) AV-1.1 to reduce the severity of the impact. However, the FEIR concluded that residual impacts would be significant and unavoidable.

The General Plan designates the project site for 'Commercial' use and the proposed shopping center is consistent with that land use designation. Although there are no designated scenic vistas or other scenic resources within the project site or its vicinity, the proposed project would convert undeveloped land into a commercial use. However, because the proposed project is consistent with the project site's land use designation, it would not result in new or more severe impacts than what was previously disclosed in the FEIR. Furthermore, it would be required to comply with MM AV-1.1. No additional analysis is required.

b) State Scenic Highways

The FEIR did not address State Scenic Highways. There are no Officially Designated or Eligible State Scenic Highways within the General Plan Planning Area (Planning Area). Therefore, there is no possibility of substantial damage to the viewshed of a State Scenic Highway. No impact would occur.

The project site is visible from State Route (SR) 120; however, because this facility is not designated as an Officially Designated or Eligible State Scenic Highway, no adverse impacts would occur. For these reasons, the proposed project would not result in new or more severe impacts than what was disclosed in the FEIR. No additional analysis is required.

c) Visual Character

The FEIR found that buildout of the General Plan would have a potentially significant impact on visual character. The FEIR set forth MM AV-2.1 to reduce the severity of the impact. However, the FEIR concluded that residual impacts would be significant and unavoidable.

The proposed project consists of the development of a 113,167-square-foot neighborhood shopping center on the project site. The area surrounding the project site includes residential uses and undeveloped land. The proposed project would change the visual character of the area by converting a mostly undeveloped project site into a commercial use. However, the General Plan designates the project site for 'Commercial' use and the proposed shopping center is consistent with that land use designation. The General Commercial Zoning District has development standards for building setbacks, building heights, and FAR.

The proposed project is adjacent to a residential area at its southern boundary. The General Commercial Zoning District requires that rear setback to be 40 feet if the proposed project is adjacent to the residential zone. The proposed project would incorporate a 50-foot rear setback where it is adjacent to residential uses, which would comply with this standard.

The maximum allowed building height for the General Commercial Zoning District is 35 feet. The peak height at the entry feature of the grocery store building would be approximately 45 feet. Per Section 17.10.100 of the Municipal Code, the project applicant would need to obtain a Minor Zone Modification from the City to allow for this building height.[2] The remainder of the grocery store building, retail shops building, drive-thru restaurant buildings, and the car wash tunnel would be below 35 feet in height and compliant with height standards for the General Commercial Zoning District.

The maximum allowable FAR is 0.6. The proposed project would have a FAR of 0.2 and would comply with this standard.

The proposed project would feature various landscaping, including trees and shrubs along the edge of the project site, along proposed buildings and entrance driveways, throughout the parking lot,

[2] City of Manteca. Manteca Municipal Code Section 17.10.100 Minor Zone Modification. Website: https://www.ci.manteca.ca.us/CityClerk/Pages/Municipal-Code.aspx. Accessed January 24, 2022.

and along pedestrian walkways. The landscaping features are intended to screen buildings and provide visual interest. Furthermore, the building design of the proposed project would create visual interest as well. The proposed building materials and design would include cream colored exterior concrete with gray and tan vertical boards. The buildings would also include black and dark bronze trim as well as a dark bronze awning and masonry accents. Decorative black light fixtures would be featured on building exteriors.

Given the City approves a Minor Zone Modification for the proposed height of the grocery store, development of the proposed project would not conflict with applicable zoning and other regulations governing scenic quality and the proposed project would not result in new or more severe impacts than what was considered in the General Plan FEIR. No additional analysis is required.

d) Light or Glare

The FEIR found that buildout of the General Plan would have a potentially significant impact in terms of introducing new sources of substantial light or glare. The FEIR set forth MM AV-3.1 to reduce the severity of the impact. The FEIR concluded that the residual impacts would be less than significant after implementation of mitigation.

The General Plan designates the project site for 'Commercial' use and the proposed shopping center is consistent with that land use designation. Street lights currently exist along West Atherton Drive and South Main Street. Light fixtures would be featured on building exteriors. Additional lighting would be featured throughout the parking lot and at project driveways. Shrubs and trees would be located around the perimeter of the project site in order to shield headlights from cars circulating the proposed parking lot. However, the proposed project would be required to implement MM AV-3.1 and provide minimal but appropriate levels of lighting as well as full cut-offs or shielding to limit light trespass. For these reasons, the proposed project would not result in new or more severe impacts than what was disclosed in the FEIR. No additional analysis is required.

Applicable General Plan FEIR Mitigation Measures

General Plan EIR MM AV-1.1

AV-1.1 The Resource Conservation Element of the proposed Manteca General Plan 2023 provides the following policy regarding existing scenic vistas:

> **RC-P-17** New development shall maximize the potential for open space and visual experiences.

General Plan EIR MM AV-3.1

The impact of light and glare can be minimized by incorporating design features and operating requirements into new development that limit light and glare on-site.

AV-3.1 The Community Design Element of the Manteca General Plan 2023 provides the following policies to mitigate the degradation of the existing night sky amenity in the City of Manteca:

CD-P-44 Provide minimal levels of street, parking, building, site, and public area lighting to meet safety standards and provide direction.

CD-P-45 Provide directional shielding for all exterior lighting to minimize the annoyance of direct or indirect glare.

CD-P-46 Provide automatic shutoff or motion sensors for lighting features in newly developed areas.

The City shall adopt light and glare standards that minimize the creation of new light source and the annoyance of direct and indirect glare.

Conclusion

The conclusions from the FEIR remain unchanged.

Environmental Issues	Prior FEIR Determination	CEQA Section 15183(b) Criteria			
		Effect Peculiar to Project or Site?	New Significant Effect?	New Significant Off-site, Cumulative Impact?	New Information, More Severe Adverse Impact?
4.2 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 Dept. 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:*					
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 nonagricultural use?	Significant unavoidable impact	No	No	No	No
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	Significant unavoidable impact	No	No	No	No
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))?	N/A	No	No	No	No
d) Result in the loss of forest land or conversion of forest land to non-forest use?	N/A	No	No	No	No
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to nonagricultural use or conversion of forest land to non-forest use?	Less than significant impact with mitigation incorporated	No	No	No	No

a) Conversion of Important Farmland

The FEIR found that buildout of the General Plan would have a potentially significant impact on conversion of Important Farmland. The FEIR sets forth MM AG-1.1 and MM AG-1.2 to reduce the severity of the impacts. However, the FEIR concluded that residual impacts would be significant and unavoidable.

The project site is mapped as Farmland of Statewide Importance and previously supported an orchard. However, the orchard was removed at some point between 2015 and 2017 and the site has not supported cultivated agriculture since that time. The General Plan designates the project site for 'Commercial' use and the proposed shopping center is consistent with that land use designation. To the extent that the development of the shopping center converts Important Farmland to nonagricultural use, this was previously considered by the FEIR. For these reasons, the proposed project would not result in new or more severe impacts than what was disclosed in the FEIR. No additional analysis is required.

b) Agricultural Zoning and Williamson Act Contracts

The FEIR found that buildout of the General Plan would have a potentially significant impact on cancellation of Williamson Act contracts and conflicts with agricultural zoning. The FEIR set forth MM AG-2.1 to reduce the severity of the impact. However, the FEIR concluded that the residual impacts would be significant and unavoidable.

The project site is not encumbered by an active Williamson Act contract. The project site is zoned 'Commercial' by the Manteca Zoning Ordinance, a nonagricultural designation. The development of the proposed project would have no impacts or conflicts with Williamson Act contracts or agricultural zoning. For these reasons, the proposed project would not result in new or more severe impacts than what was disclosed in the FEIR. No additional analysis is required.

c-d) Forest Zoning and Conversion of Forest Land

The FEIR did not address conflicts with forest zoning or conversion of forest land. There are no forest lands within the Planning Area. Furthermore, neither the General Plan nor the Manteca Zoning Ordinance contains a Forest zoning district. Therefore, there would be no possible conflicts with forest zoning or conversion of forest land. The project site is zoned 'Commercial' by the Manteca Zoning Ordinance, a non-forest designation. No impact would occur.

e) Pressures to Convert Farmland or Forest Land

The FEIR found that buildout of the General Plan would have a potentially significant impact on pressures to convert farmland or forest land. The FEIR set forth MM AG-3.1 to reduce the severity of the impact. The FEIR concluded that the residual impacts would be less than significant after implementation of mitigation.

The project site is mapped as Farmland of Statewide Importance and previously supported an orchard. However, the orchard was removed at some point between 2015 and 2017 and the project site has not supported cultivated agriculture since that time. The proposed project would convert former Farmland to a nonagricultural use. However, this was previously considered by the FEIR. The proposed project would not result in new or more severe impacts than what was disclosed in the FEIR. No additional analysis is required.

Applicable General Plan FEIR Mitigation Measures

None required.

Conclusion

The conclusions from the FEIR remain unchanged.

Environmental Issues	Prior FEIR Determination	CEQA Section 15183(b) Criteria			
		Effect Peculiar to Project or Site?	New Significant Effect?	New Significant Off-site, Cumulative Impact?	New Information, More Severe Adverse Impact?
4.3 Air Quality *Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.* *Would the project:*					
a) Conflict with or obstruct implementation of the applicable air quality plan?	Potentially significant	No	No	No	No
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or State ambient air quality standard?	Significant and unavoidable	No	No	No	No
c) Expose sensitive receptors to substantial pollutant concentrations?	Potentially significant	No	No	No	No
d) Result in other emissions (such as those leading to odors or) adversely affecting a substantial number of people?	Potentially significant	No	No	No	No

a) Air Quality Plan Conflict

The Manteca General Plan FEIR found that buildout of the General Plan would have a potentially significant impact in terms of conflicts with an air quality management plan. To mitigate potential impacts, the FEIR set forth MM AQ-1.1 to reduce the severity of the impact. The FEIR concluded that the residual significance would be less than significant after implementation of mitigation.

This document proposes the following criteria for determining project consistency with the current Air Quality Plans (AQPs):

1. Will the project conform to the growth assumptions in the AQPs?
2. Will the project comply with applicable control measures in the AQPs?

The use of the criteria listed above is a standard approach for CEQA analysis of projects in the San Joaquin Valley Air Pollution Control District (Valley Air District) jurisdiction, as well as within other air districts, for the following reasons:

- AQP emissions inventories and attainment modeling are based on growth assumptions for the area within the air district's jurisdiction.

- AQPs rely on a set of air district-initiated control measures as well as implementation of federal and State measures to reduce emissions within their jurisdictions, with the goal of attaining the air quality standards.

AQPs are plans for reaching attainment of air quality standards. The assumptions, inputs, and control measures are analyzed to determine whether the San Joaquin Valley Air Basin (Air Basin) can reach attainment for the ambient air quality standards. In order to show attainment of the standards, the Valley Air District analyzes the growth projections in the valley, contributing factors in air pollutant emissions and formations, and existing and adopted emissions controls. The Valley Air District then formulates a control strategy to reach attainment that includes both State and Valley Air District regulations and other local programs and measures.

Consistency with Assumptions in AQPs

A method for determining consistency with the AQP's assumptions is determining consistency with the applicable General Plan to ensure that the proposed project's population density and land use are consistent with the growth assumptions used in the AQPs for the Air Basin.

The development of emission burdens used in AQPs to demonstrate compliance with ambient air quality standards is based, in part, on land use patterns established within local general plans. Therefore, it is reasonable to conclude that if a project is consistent with the applicable general plan land use designation, and the General Plan was adopted prior to the applicable AQP, then the growth of Vehicle Miles Traveled (VMT) and/or population generated by the proposed project would be consistent with the growth in VMT and population assumed within the AQP. The applicable General Plan in this case is the Manteca General Plan.

The project site is designated as 'Commercial' by the Manteca General Plan, and the site is zoned 'General Commercial' by the Manteca Zoning Ordinance. The Commercial land use designation provides for neighborhood, community, and regional-serving retail and service uses; offices; restaurants; service stations; highway-oriented and visitor commercial and lodging; auto-serving and heavy commercial uses; wholesale; warehousing; public and quasi-public uses; commercial recreation and public gathering facilities.

The General Commercial land use designation allows for a FAR of 0.6 for nonresidential uses. The proposed shopping center would include a 50,071-square-foot grocery store, a 38,000-square-foot hardware store, 5,900 square-foot of retail shop, 13,000 square feet of fast food restaurants with drive-thru, and a 3,596-square-foot drive-thru car wash facility. The proposed project has a FAR of 0.24 and it is consistent with the designated uses, which does not require a general plan amendment or rezone for development.

Based on the General Plan land use designation of the site, emissions related to development of the proposed project would have been included in growth forecasts for the current AQPs as Commercial development. As such, it follows that the proposed project would not result in growth and associated emissions unforeseen in any local or regional plans. Therefore, the proposed project impacts would not be found significant regarding this criterion.

Control Measures

The Valley Air District AQP contains a number of control measures, which are enforceable requirements through the adoption of rules and regulations. For example, Valley Air District Regulation VIII aims to reduce particulate matter less than 10 microns in diameter (PM_{10}) (predominantly dust/dirt) generated from demolition and construction activities. Rule 4601 and Rule 4641 aim to reduce volatile organic compound (VOC) emissions as a result of project architectural coating activities. The proposed project would comply with all applicable Valley Air District rules and regulations. Therefore, the proposed project complies with this criterion and would not conflict with or obstruct implementation of the applicable air quality attainment plan for this criterion.

Summary

As addressed above, the proposed project would not adversely affect growth assumptions within the AQP; therefore, the proposed project would result in a less than significant impact based on this criterion. The proposed project would comply with the applicable AQP control measures; therefore, the proposed project would be less than significant for this criterion.

b) Air Quality Standard, Criteria Pollutants

The Manteca General Plan FEIR found that buildout of the General Plan would have a potentially significant impact on criteria pollutant emissions. The FEIR set forth MM AQ-2.1 as well as Policies AQ-P-2, AQ-P-4, AQ-P-5, AQ-P-6, AQ-P-7 and Implementation Measures AQ-I-5, AQ-I-6, AQ-I-7, AQ-I-9, and AQ-I-10 to reduce the severity of the impact. However, the FEIR concluded that the residual significance would be significant and unavoidable.

The proposed project consists of the development of a 113,167-square-foot neighborhood shopping center on the project site. The General Plan designates the project site for 'Commercial' use, and the proposed shopping center is consistent with that land use designation. To the extent that the criteria pollutant emissions that result from construction and operation of the shopping center exceed adopted thresholds, this was previously considered by the FEIR. For these reasons, the proposed project would not result in new or more severe impacts than those disclosed in the FEIR.

Regional Emissions

Air pollutant emissions have regional effects and localized effects. This analysis assesses the regional effects of the proposed project's criteria pollutant emissions in comparison to Valley Air District's thresholds of significance for short-term construction activities and long-term operation of the proposed project.

The primary pollutants of concern during project construction and operation are VOCs, oxides of nitrogen (NO_X), PM_{10}, and $PM_{2.5}$. The Valley Air District's Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI), adopted in 2015, contains thresholds for CO, NO_X, reactive organic gases (ROG), SO_X, PM_{10}, and $PM_{2.5}$.

Ozone is a secondary pollutant that can be formed miles from the source of emissions, through reactions of ROG and NO_X emissions in the presence of sunlight. Therefore, ROG and NO_X are termed ozone precursors. The Air Basin often exceeds the State and national ozone standards. Therefore, if

the proposed project emits a substantial quantity of ozone precursors, the proposed project may contribute to an exceedance of the ozone standard. The Air Basin also exceeds air quality standards for PM_{10}, and $PM_{2.5}$; therefore, substantial project emissions may contribute to an exceedance for these pollutants. The Valley Air District's annual emission significance thresholds used for the proposed project define the substantial contribution for both operational and construction emissions as follows:

- 100 tons per year CO
- 10 tons per year NO_x
- 10 tons per year ROG
- 27 tons per year SO_x
- 15 tons per year PM_{10}
- 15 tons per year $PM_{2.5}$

The proposed project does not contain sources that would produce substantial quantities of SO_2 emissions during construction and operation.[3] For example, heavy industrial uses and petroleum refineries would produce substantial amounts of SO_2. The proposed project would develop a neighborhood shopping center but would not include any heavy industrial uses. Modeling conducted for the proposed project show that SO_2 emissions are well below the Valley Air District GAMAQI thresholds, as shown in the modeling results contained in Appendix C. No further analysis of SO_2 is required.

Construction Emissions

Construction emissions associated with the proposed project are shown for the years 2022 and 2023 in Table 1. For the assumptions used in estimating these emissions, please refer to Appendix C. As shown in Table 1, the emissions are below the significance thresholds in each construction year. Therefore, the emissions are less than significant on a project basis.

Table 1: Construction Air Pollutant Emissions (Unmitigated)

Year	Emissions (tons per year)[1]					
	ROG	NO_x	CO	SO_X	PM_{10} (Total)	$PM_{2.5}$ (Total)
Year 2022						
Demolition	0.03	0.26	0.21	<0.01	0.01	0.01
Site Preparation	0.02	0.17	0.10	<0.01	0.05	0.03
Grading	0.06	0.93	0.51	<0.01	0.13	0.06
Building Construction	0.12	0.95	1.05	<0.01	0.14	0.06
Off-site Improvements	0.16	1.48	1.45	<0.01	0.16	0.10
Year 2022 Construction Subtotal	0.39	3.79	3.32	<0.01	0.49	0.26

[3] United States Environmental Protection Agency (EPA). Sulfur Dioxide Basics. Website: https://www.epa.gov/so2-pollution/sulfur-dioxide-basics. Accessed January 5, 2022.

Year	Emissions (tons per year)[1]					
	ROG	NO_x	CO	SO_X	PM_{10} (Total)	$PM_{2.5}$ (Total)
Year 2023						
Building Construction	0.23	1.90	2.25	0.01	0.29	0.13
Paving	0.02	0.10	0.15	<0.01	0.01	0.01
Architectural Coating	0.28	0.01	0.03	<0.01	<0.01	<0.01
Off-site Improvements	0.11	0.97	1.15	<0.01	0.09	0.05
Year 2023 Construction Subtotal	0.64	2.98	3.58	0.01	0.39	0.19
Entire Construction Duration (2022-2023)						
Maximum Annual Construction Emissions	**0.64**	**3.79**	**3.58**	**0.01**	**0.49**	**0.26**
Significance threshold (tons/year)	10	10	100	27	15	15
Exceed threshold—significant impact?	No	No	No	No	No	No

Notes:
CO = carbon monoxide
NO_x = nitrogen oxides
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
SO_X = sulfur oxide
[1] PM_{10} and $PM_{2.5}$ emissions are from the mitigated output to reflect compliance with Regulation VIII—Fugitive PM_{10} Prohibitions.
Source of Emissions: CalEEMod Output (Appendix C).
Source of Thresholds: San Joaquin Valley Air Pollution Control District (Valley Air District). 2015. Guidance for Assessing and Mitigating Air Quality Impacts. Website: https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF. Accessed December 17, 2021.

The modeling conducted for this project analyzed the development of the project site, as well as the proposed expansion of the detention basin at Terra Bella Park and trenching to the park location (Off-site Improvements). The tables below show the construction emissions for both the project site, and the activities proposed to occur at Terra Bella Park (shown as Off-site Improvements). Based on Table 1, the unmitigated maximum annual construction emissions of criteria pollutants would not significance for any pollutant assessed; related impacts would be less than significant.

Operational Emissions

Operational emissions occur over the lifetime of the proposed project and are from two main sources: area sources and motor vehicles, or mobile sources. To provide a conservative estimate, operations were modeled assuming complete buildout in 2023. The Valley Air District considers construction and operational emissions separately when making significance determinations.

The emissions modeling results for project operation are summarized in Table 2.

Table 2: Operational Air Pollutant Emissions (2023)

Source	Emissions (tons per year)					
	ROG	NO_x	CO	SO_x	PM_{10} (Total)	$PM_{2.5}$ (Total)
Area	0.49	<0.01	<0.01	<0.01	<0.01	<0.01
Energy	0.02	0.17	0.15	0.00	0.01	0.01
Mobile	6.20	7.06	42.98	0.08	7.31	2.00
Waste	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Water	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Total	**6.71**	**7.24**	**43.13**	**0.08**	**7.32**	**2.01**
Significance threshold (tons per year)	10	10	100	27	15	15
Exceed threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Notes:
CO = carbon monoxide
NO_x = nitrogen oxides
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
SO_X = sulfur oxide
Area source emissions include emissions from natural gas, landscape, and painting.
Source of Emissions: CalEEMod Output (Appendix C).
Source of Thresholds: San Joaquin Valley Air Pollution Control District (Valley Air District). 2015. Guidance for Assessing and Mitigating Air Quality Impacts. Website: https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF. Accessed December 17, 2021.

As shown in Table 2, regional operational emissions would not exceed Valley Air District's threshold of significance for any pollutant assessed; related impacts would be less than significant.

Localized Pollutant Analysis

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

The Valley Air District's GAMAQI includes screening thresholds for identifying projects that need detailed analysis for localized impacts. Projects with on-site emission increases from construction activities or operational activities that exceed the 100 pounds per day screening level of any criteria pollutant after compliance with Rule 9510 and implementation of all enforceable mitigation measures would require preparation of an ambient air quality analysis. The criteria pollutants of concern for localized impact in the Air Basin are PM_{10}, $PM_{2.5}$, nitrogen dioxide (NO_2), and CO. CO

violations require heavy traffic volumes and extreme traffic congestion that would not occur at or near the project site; therefore, operational CO emission hotspots are highly unlikely.

An analysis of maximum daily emissions during construction and operation was conducted to determine whether emissions would exceed the 100 pounds per day screening threshold for any pollutant of concern. The results of the analysis are presented in Table 3 and Table 4.

Table 3: Maximum On-site Daily Air Pollutant Emissions During Construction (Unmitigated)

Source	On-site Emissions (pounds per day)[1,2,3]		
	NO_x	PM_{10}	$PM_{2.5}$
Main Site Demolition	25.72	1.31	1.17
Site Preparation	33.08	10.46	6.03
Grading	38.84	5.86	3.16
Building Construction (2022)	15.62	0.81	0.76
Building Construction (2023)	14.38	0.70	0.66
Paving	10.19	0.51	0.47
Architectural Coating	1.30	0.07	0.07
Off-site Improvement Demolition	25.72	1.24	1.16
Site Preparation	33.08	10.46	6.03
Grading	20.86	4.13	2.41
Building Construction (2022)	15.62	0.81	0.76
Building Construction (2023)	14.38	0.70	0.66
Paving	8.79	0.44	0.40
Architectural Coating	1.30	0.07	0.07
Maximum Daily Emissions	**38.84**	**10.46**	**6.03**
Screening threshold	100	100	100
Exceed screening threshold?	No	No	No

Notes:
NO_x = nitrogen oxides
PM_{10} = particulate matter less than 10 microns in diameter

1 $PM_{2.5}$ = particulate matter less than 2.5 microns in diameter PM_{10} and $PM_{2.5}$ emissions are from the mitigated output to reflect compliance with Regulation VIII—Fugitive PM_{10} Prohibitions.

2 On-site emissions are specifically restricted to the on-site emissions shown in the CalEEMod output files. For construction, CalEEMod separates the off-road construction equipment and the on-road construction trips. Both the project site and the off-site improvement area include both on-site and off-site emissions. This table shows the on-site emissions from all construction areas included as part of the proposed project. Source: CalEEMod Output (Appendix C).

3 Source of Thresholds: San Joaquin Valley Air Pollution Control District (Valley Air District). 2015. Guidance for Assessing and Mitigating Air Quality Impacts. Website: https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF. Accessed December 17, 2021

As illustrated in the table above, construction emissions from the proposed project would not exceed the applicable screening thresholds recommended by the Valley Air District. It should be noted that the construction modeling incorporates mitigation required through the General Plan FEIR, including compliance with Valley Air District Regulation VIII requirements to reduce fugitive dust emissions from construction. Please see Appendix C for a full description of the modeling methodology.

Operational emissions include emissions generated on-site by area sources such as natural gas combustion and landscape maintenance, and on-site travel from motor vehicles accessing the project site. The daily on-site emissions during project operations are shown below in Table 4.

Table 4: Maximum On-site Daily Air Pollutant Emissions During Operations

Source	Emissions (lbs per day)					
	ROG	NO_x	CO	SO_X	PM_{10} (Total)	$PM_{2.5}$ (Total)
Area	2.69	<0.01	0.02	<0.01	<0.01	<0.01
Energy	0.11	0.96	0.80	0.01	0.07	0.07
Mobile	26.97	18.27	116.06	0.08	5.10	1.43
Total	**29.76**	**19.22**	**116.88**	**0.08**	**5.17**	**1.51**
Significance threshold	**100**	**100**	**100**	**100**	**100**	**100**
Exceed threshold?	**No**	**No**	**Yes**	**No**	**No**	**No**

Notes:
CO = carbon monoxide
NO_x = nitrogen oxides
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
SO_X = sulfur oxide
Area source emissions include emissions from natural gas, landscape, and painting.
Source of Emissions: CalEEMod Output (Appendix C).
Source of Thresholds: San Joaquin Valley Air Pollution Control District (Valley Air District). 2015. Guidance for Assessing and Mitigating Air Quality Impacts. Website: https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF. Accessed December 17, 2021.

Table 4 shows that the proposed project would not exceed Valley Air District's screening thresholds except the CO emissions. The Valley Air District GAMAQI and associated guidance for CEQA analysis recommends that an "Ambient Air Quality Analysis" (AAQA) be conducted if the proposed project exceeded an estimated 100 lbs./day of emissions of any one criteria pollutant to identify which, if any, State or federal air quality standards the proposed project may adversely impact. However, because the General Plan FEIR already identified that development consistent with the General Plan could violate air quality standards or contribute substantially to the current nonattainment status of the Air Basin, preparation of a AAQA would not identify any new or more severe impacts than what has already been identified in the Air Quality analysis, nor would it identify mitigation measures that would further reduce these identified impacts. The emissions projected to occur from the operation

of the proposed project are primarily due to the estimated vehicle trips associated with the drive-through operations and the car wash proposed as part of the project. There are no feasible mitigation measures beyond those already included in the General Plan FEIR that could reduce this impact to less than significant.

It should be noted that review of the proposed project and the feasibility of other mitigation measures, including off-site mitigation, is being conducted pursuant to District Rule 9510 (Indirect Source Review) as a separate effort, which may serve to reduce the potential impact of the proposed project to regional air quality.

The proposed project's localized CO emission impact is potentially significant, and the proposed project could violate air quality standards or contribute substantially to the current nonattainment status of the Air Basin. This impact is consistent with the FEIR determination that the residual significance of criteria pollutants would be significant and unavoidable.

Summary

Regional emissions generated by the proposed project would not exceed any applicable thresholds after compliance with all rules, regulations, and project design features during either construction or operations. Localized construction emissions would be less than significant after incorporation of FEIR mitigation measures. Consistent with the findings of the FEIR, the localized operational emissions of the proposed project would be significant and unavoidable. In summary, the proposed project is consistent with the development envisioned under the General Plan and the potential impacts of the development are consistent with those determined in the FEIR. The overall impact of the proposed project would be significant and unavoidable, even with the incorporation of mitigation.

c) Sensitive Receptors

Less than significant impact. The FEIR found that buildout of the General Plan would have a potentially significant impact on exposure of sensitive receptors to substantial pollutant concentrations. To mitigate potential impacts, the FEIR set forth MM AQ-4.1 to separate industrial development from residential areas and sensitive receptors to reduce the severity of the impact. The FEIR concluded that the residual significance would be less than significant after implementation of mitigation.

Sensitive Receptors

Those who are sensitive to air pollution include children, the elderly, and persons with preexisting respiratory or cardiovascular illness. The Valley Air District considers a sensitive receptor to be a location that houses or attracts children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants. Examples of sensitive receptors include hospitals, residences, convalescent facilities, and schools.

Sensitive receptors within 1,500 feet from the project site include residential homes to the west, south and east. The nearest residential home is approximately 25 feet south of the project site. There is an elementary school approximately 2,400 feet west of the project site and a park which is

20 feet to the western boundary of the project site. While the park would be developed and expanded during construction activities, it would be considered a sensitive receptor location as part of the analysis of potential operational impacts. The elementary school is included in the Health Risk Assessment (HRA) for disclosure purposes.

Construction: ROG

ROG is emitted during the application of architectural coatings (painting). The amount emitted is dependent on the amount of ROG (or VOC) in the paint. ROG emissions are typically an indoor air quality health hazard concern rather than an outdoor air quality health hazard concern. Therefore, exposure to ROG during architectural coatings is a less than significant health impact.

There are three types of asphalt that are typically used in paving: asphalt cements, cutback asphalts, and emulsified asphalts. However, Valley Air District Rule 4641 prohibits the use of the following types of asphalt: rapid cure cutback asphalt; medium cure cutback asphalt; slow cure asphalt that contains more than 0.5 percent of organic compounds that evaporate at 500°F (degrees Fahrenheit) or lower; and emulsified asphalt containing organic compounds, in excess of 3 percent by volume, that evaporate at 500°F or lower. An exception to this is medium cure asphalt when the National Weather Service official forecast of the high temperature for the 24-hour period following application is below 50°F.

The acute (short-term) health effects from worker direct exposure to asphalt fumes include irritation of the eyes, nose, and throat. Other effects include respiratory tract symptoms and pulmonary function changes. The studies were based on occupational exposure of fumes. Residents are not in the immediate vicinity of the fumes; therefore, they would not be subjected to concentrations high enough to evoke a negative response. In addition, the restrictions that are placed on asphalt in the San Joaquin Valley reduce ROG emissions from asphalt and exposure. The impact to nearby sensitive receptors from ROG during construction is less than significant.

Operation: ROG

During operation, ROG would be emitted primarily from motor vehicles. Direct exposure to ROG from project's motor vehicles would not result in health effects, because the ROG would be distributed across miles and miles of roadway and in the air. The concentrations would not be great enough to result in direct health effects.

Construction: NO_X, PM_{10}, and $PM_{2.5}$

As discussed in Impact AIR-2, localized unmitigated concentrations of NO_X, PM_{10}, and $PM_{2.5}$ generated during project construction would not exceed the ambient air quality standards. Therefore, emissions during construction would not exceed the significance thresholds after incorporation of mitigation and would not be expected to result in concentrations that would exceed ambient standards or contribute substantially to an existing exceedance of an ambient air quality standard.

Operation: NO_X, PM_{10}, and $PM_{2.5}$,

As discussed in Impact AIR-2, localized concentrations of NO_X, PM_{10}, and $PM_{2.5}$ would not exceed the ambient air quality standards. Therefore, the proposed project would not expose sensitive receptors to substantial criteria air pollutant concentrations during operation.

Toxic Air Contaminants

Proposed construction would involve the use of diesel-fueled vehicles and equipment that emit diesel particulate matter (DPM), which is considered a toxic air contaminant (TAC). The Valley Air District's latest threshold of significance for TAC emissions is an increase in cancer risk for the maximally exposed individual of 20 in a million (formerly 10 in a million). The Valley Air District's 2015 GAMAQI does not currently recommend analysis of TAC emissions from project construction activities, but instead focuses on projects with operational emissions that would expose sensitive receptors over a typical lifetime of 70 years.

Toxic Air Pollutants—On-site Workers

A variety of State and national programs protect workers from safety hazards, including high concentrations of air pollutants.[4,5]

On-site workers are not required to be addressed through this HRA process. A document published by the California Air Pollution Control Officers Association (CAPCOA), Health Risk Assessments for Proposed Land Use Projects, indicates that on-site receptors are included in risk assessments if they are persons not employed by the proposed project.[6] Persons not employed by the proposed project would not remain on-site for any significant period. Therefore, an HRA for on-site receptors is not required or recommended. No further discussion is necessary.

Health Risk Assessment

During construction, the proposed project would result in emissions of several TACs that could potentially impact nearby sensitive receptors. The Valley Air District's has defined health risk significance thresholds. These thresholds are represented as a cancer risk to the public and a non-cancer hazard from exposures to TACs. Cancer risk represents the probability (in terms of risk per million individuals) that an individual would contract cancer resulting from exposure to TACs continuously over a period of several years. The Valley Air District's latest threshold of significance for TAC emissions is an increase in cancer risk for the maximally exposed individual of 20 in a million (formerly 10 in a million). The principal TAC emission analyzed in this assessment was DPM from operation of off-road equipment and diesel-powered delivery and worker vehicles during construction and operation. DPM has been identified by the California Air Resources Board (ARB) as a carcinogenic substance. For purposes of this analysis, DPM is represented as exhaust emissions of PM_{10}. DPM represented as exhaust PM_{10} adequately addresses impacts from PM_{10} and $PM_{2.5}$

[4] Occupational Safety and Health Administration (OSHA). 2021. Safety and Health Regulations for Construction 1926.55. Website:https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.55. Accessed December 1, 2021.

[5] Centers for Disease Control and Prevention (CDC). 2013. Indoor Environmental Quality: Construction and Renovation. Website: www.cdc.gov/niosh/topics/indoorenv/constructionieq.html. Accessed December 1, 2021.

[6] California Air Pollution Control Officers Association (CAPCOA). 2009. Health Risk Assessments for Proposed Land Use Projects. Website: http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA_HRA_LU_Guidelines_8-6-09.pdf. Accessed January 25, 2022.

emissions, as $PM_{2.5}$ comprises a component of PM_{10}. Fugitive dust components of PM_{10} and $PM_{2.5}$ would be controlled through the use of required dust control practices during project construction.

Exposures to TACs can also result in both short-term (acute) or long-term (chronic) non-cancer health impacts. Such impacts could include illnesses related to reproductive effects, respiratory effects, eye sensitivity, immune effects, kidney effects, blood effects, central nervous system, birth defects, or other adverse environmental effects.

Estimation of Cancer Risks

The Valley Air District recommends the use of Hotspots Analysis and Reporting Program (HARP2) software to identify the cancer risk associated with DPM generated during project construction. Therefore, the HARP2 was applied to calculate the cancer risks and the HARP2 risk scenario inputs used to calculate cancer risk during project activities are as follows:

Residential Receptors:

- Analysis Type: Cancer Risk
- Receptor Type: Individual Resident
- Exposure Duration: User Defined (Tier 2)–2 Years, Third Trimester Start Age
- Intake Rate Percentile: California Office of Environmental Health Hazard Assessment (OEHHA) Derived Method
- Pathways to Evaluate: User Defined: Inhalation; Soil Ingestion; Dermal; Mother's Milk; and Homegrown Produce
- Deposition Rate: 0.02 m/s for controlled sources
- Fraction of Time at Home: Not selected (off)

Estimation of Chronic Non-Cancer Hazards

TACs can also cause chronic (long-term) effects related to non-cancer illnesses such as reproductive effects or birth defects, or adverse environmental effects. Potential non-cancer effects of chronic chemical exposures was also evaluated.

Non-cancer health risks are conveyed in terms of the hazard index (HI), a ratio of the predicted concentration of the facility's reported TAC emissions to a concentration considered acceptable to public health professionals. A significant risk is defined as an HI of 1 or greater. An HI of less than 1 indicates that no significant health risks are expected from the facility's TAC emissions. The relationship for the non-cancer hazards of TACs is given by the following equation:

$$HI = C_{ann}/REL$$

Where:

HI = chronic hazard index
C_{ann} = annual average concentration of TAC as derived from the air dispersion model ($\mu g/m^3$)
REL = reference exposure level above which a significant impact is assumed to occur ($\mu g/m^3$)

Annual concentrations of DPM as predicted by the air dispersion model are used to estimate chronic non-cancer hazards. The OEHHA has defined a REL for DPM of 5 microgram per cubic meter ($\mu g/m^3$).

Toxic Air Contaminant Construction Analysis

Major sources of DPM during construction include off-road construction equipment and heavy-duty delivery truck activities. The results of the HRA prepared for project construction for cancer risk and long-term chronic cancer risk are summarized below. Air dispersion modeling was utilized to assess the proposed project's potential health risks using American Meteorological Society/United States Environmental Protection Agency (EPA) Regulatory Model (AERMOD) Version 21112, which is an air dispersion model accepted by the EPA and the Valley Air District for preparing HRAs. Exhaust emissions of DPM (as PM_{10} exhaust) were estimated using California Emissions Estimator Model (CalEEMod) Version 2020.4.0. Construction emissions were estimated assuming adherence to all applicable rules, regulations, and project design features. The construction emissions were assumed to be distributed over the project area with a working schedule of 8 hours per day and 5 days per week. Emissions were adjusted by a factor of 3 to convert for use with a 24-hour-per-day, 365 day-per-year averaging period, during weekdays only. To assess impacts to off-site sensitive receptors, receptor locations within AERMOD model were placed at locations of existing residences, schools, and daycares located within a 1-kilometer radius of the project boundary.

The Valley Air District has developed a set of guidelines for estimating cancer risks utilizing the HARP2 risk assessment stand-alone tool. The table below provides the estimated health and hazard impacts from unmitigated construction emissions at the Maximally Impacted Sensitive Receptor (MIR) for each construction phase and sensitive receptor age group using HARP2. The MIRs during project construction was a single-family residence located approximately 10 feet south of the project site. For disclosure purposes, the MIR at Veritas School is also shown, approximately 2,400 feet west of the project site (the school is approximately 1,400 feet from the boundary of Terra Bella Park). Detailed parameters, a description of methodology, and complete calculations are contained in Appendix C.

The estimated health and hazard impacts at the MIR from the proposed project's construction emissions are provided in Table 5.

Table 5: Estimated Health Risks and Hazards During Project Construction (Unmitigated)

Risk Scenario	Annual Average PM_{10} Exhaust Concentration ($\mu g/m^3$)	Cancer Risk (Risk Per One Million)	Chronic Non-Cancer Hazard Index[1]
Residential MIR	0.00097	0.33	<0.01
School MIR	0.00004	0.01	<0.01
Valley Air District Thresholds		**20**	**1**
Project Construction Exceeds Thresholds?		**No**	**No**

Risk Scenario	Annual Average PM_{10} Exhaust Concentration ($\mu g/m^3$)	Cancer Risk (Risk Per One Million)	Chronic Non-Cancer Hazard Index[1]
Notes: $\mu g/m^3$ = micrograms per cubic meter DPM = diesel particulate matter MIR = Maximally Impacted Sensitive Receptor PM_{10} = particulate matter less than 10 microns in diameter [1] Chronic non-cancer hazard index was estimated by dividing the annual DPM concentration (as PM_{10} exhaust) by the reference exposure level of 5 $\mu g/m^3$. Source: California Office of Environmental Health Hazard Assessment (OEHHA). 2015. Air Toxics Hot Spots Program Risk Assessment Guidelines. February. Website: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf.			

As noted in Table 5, the proposed project's construction DPM emissions would not exceed the cancer risk significance threshold or non-cancer hazard index significance threshold at the MIR. Therefore, the proposed project would not result in a significant impact on nearby sensitive receptors from TACs during construction.

Summary

As described above, the proposed project would not expose sensitive receptors to substantial pollutant concentrations during either construction or operations after the incorporation of General Plan FEIR MM AQ-4.1. Therefore, the proposed project would not result in any peculiar effects and would not result in new or more severe impacts related to exposure of sensitive receptors to substantial pollutant concentrations than previously analyzed in the General Plan FEIR. No further mitigation is required.

d) Odors

The FEIR found that buildout of the General Plan would have a potentially significant impact in terms of objectionable odors. To mitigate potential impacts, the FEIR set forth MM AQ-5.1 to reduce the severity of the impact. The FEIR concluded that the residual significance would be less than significant after implementation of mitigation. Two situations create a potential for odor impact. The first occurs when a new odor source is located near an existing sensitive receptor. The second occurs when a new sensitive receptor locates near an existing source of odor.

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

The Valley Air District has determined the common land use types that are known to produce odors in the Air Basin. These types are shown in Table 6.

Table 6: Screening Levels for Potential Odor Sources

Odor Generator	Screening Distance
Wastewater Treatment Facilities	2 miles
Sanitary Landfill	1 mile

Odor Generator	Screening Distance
Transfer Station	1 mile
Composting Facility	1 mile
Petroleum Refinery	2 miles
Asphalt Batch Plant	1 mile
Chemical Manufacturing	1 mile
Fiberglass Manufacturing	1 mile
Painting/Coating Operations (e.g., auto body shop)	1 mile
Food Processing Facility	1 mile
Feed Lot/Dairy	1 mile
Rendering Plant	1 mile
Source: San Joaquin Valley Air Pollution Control District (Valley Air District). 2015. Guidance for Assessing and Mitigating Air Quality Impacts. Website: https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF. Accessed December 17, 2021.	

According to the Valley Air District GAMAQI, analysis of potential odor impacts should be conducted for the following two situations:

- **Odor Generators:** projects that would potentially generate odorous emissions proposed to locate near existing sensitive receptors or other land uses where people may congregate, and
- **Odor Receptors:** residential or other sensitive receptor projects or other projects built for the intent of attracting people locating near existing odor sources.

If the proposed project were to result in sensitive receptors being located closer than the recommended distances to an odor generator in the list in Table 6, a more detailed analysis including a review of Valley Air District odor complaint records is recommended. For a project located near an existing source of odors, the proposed project should be identified as having a significant odor impact if it is proposed for a site that is closer to an existing odor source than any location where there have been:

- More than one *confirmed* complaint per year averaged over a 3-year period, or
- Three *unconfirmed* complaints per year averaged over a 3-year period.

Proposed Project as an Odor Generator

Construction

During construction, the various diesel-powered vehicles and equipment in use on-site would create localized odors. These odors would be intermittent and would not likely be noticeable for extended periods of time beyond the boundaries of project site. The potential for diesel odor impacts is therefore less than significant.

Operation

Land uses that are typically identified as sources of objectionable odors include landfills, transfer stations, sewage treatment plants, wastewater pump stations, composting facilities, feed lots, coffee roasters, asphalt batch plants, and rendering plants. The proposed project would not engage in any of these activities. Specifically, the proposed project would serve as a neighborhood shopping center with fast food restaurants and a car wash center. Therefore, the proposed project would lead to odors from relevant operations such as vehicle exhaust, waste disposal, and detergent odor. However, such odors generated by project operation would be small in quantity and duration and would not pose an objectionable odor impact to future and existing receptors.

Proposed Project as an Odor Receptor

The proposed project would not include residential development or housing. Therefore, it does not constitute an odor receptor and would not be under any significant impacts from sources as shown in Table 6.

Summary

As addressed above, the proposed project would not result in any peculiar effects and would not result in new or more severe impacts related to odors during project construction than what was previously analyzed in the General Plan FEIR.

Applicable FEIR Mitigation Measures

MM AQ-1.1 The General Plan 2023 includes the following goal, policy (P) and implementation measures (I) to direct cooperation with San Joaquin Valley Air Pollution Control District's air quality plans, including air toxic plans:

> **AQ-I-2I** **I**mplementation Measure AQ-I-2 requires applicants to submit development proposals to the SJVAPCD [Valley Air District] for review and comment prior to decision.

MM AQ-2.1 The General Plan 2023 includes the following goals, policies (P), and implementation measures (I) to help meet air quality standards and reduce the net contribution to the current ozone and PM_{10} nonattainment status.

> **AQ-I-4** Construction activity plans shall include and/or provide for a dust management plan to prevent fugitive dust from leaving the property boundaries and causing a public nuisance or a violation of an ambient air standard. Project development applicants shall be responsible for ensuring that all adequate dust control measures are implemented in a timely manner during all phases of project development and construction.

MM AQ-4.1 The General Plan 2023 includes the following implementation measures (I) to help reduce exposure of sensitive receptors to pollutants:

AQ-I-8 Implementation Measure AQ-I-8 requires that the applicant provide documentation that the use is located and appropriately separated from residential areas and sensitive receptors prior to entitlement of a project that may be an air pollution point source.

AQ-I-15 Implementation Measure AQ-I-15 requires that, as part of the design review criteria, the developer of a sensitive air pollution point receptor shall submit documentation that the project design includes appropriate buffering (e.g., distance, setbacks, landscaping) to separate the use from highways, arterial streets, hazardous material locations and other sources of air pollution or odor.

MM AQ-5.1 The General Plan 2023 includes the following goal and policy (P) to help reduce the possibility of exposing people to objectionable odors:

AQ-P-3 Segregate and provide buffers between land uses that typically generate hazardous or obnoxious fumes and residential or other sensitive land uses.

Conclusion

There is no additional information identifying new significant effects, nor is there an increase in the severity of previously identified impacts related to air quality. The conclusions from the General Plan EIR remain unchanged. No further mitigation is required.

Environmental Issues	Prior FEIR Determination	CEQA Section 15183(b) Criteria			
		Effect Peculiar to Project or Site?	New Significant Effect?	New Significant Off-site, Cumulative Impact?	New Information, More Severe Adverse Impact?
4.4 Biological Resources *Would the project:*					
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 Wildlife or United States Fish and Wildlife Service?	Less than significant impact with mitigation incorporated	No	No	No	No
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or United States Fish and Wildlife Service?	Less than significant impact with mitigation incorporated	No	No	No	No
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?	Less than significant impact with mitigation incorporated	No	No	No	No
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 wildlife nursery sites?	Less than significant impact with mitigation incorporated	No	No	No	No
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	N/A	No	No	No	No
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?	Less than significant impact with mitigation incorporated	No	No	No	No

a) Special-status Species

The FEIR found that buildout of the General Plan would have a potentially significant impact on several special-status plants including Delta button celery (*Eryngium racemosum*) and Wright's

trichocoronis (*Trichocoronis wrightii* var. *wrightii*) as well as several special-status wildlife species including Swainson's hawk (*Buteo swainsoni*), California tiger salamander (*Ambystoma californiense*), tricolored blackbird (*Agelaius tricolor*), and burrowing owl (*Athene cunicularia*). The FEIR sets forth MM B-1.1 in order to reduce the severity of potential impacts to special-status species. The FEIR concluded that impacts to special-status species would be reduced to less than significant following implementation of the policies and implementation measures.

A FirstCarbon Solutions (FCS) Biologist compiled an updated list (Appendix D Tables 4.4-1 and 4.4-2) of threatened, endangered, and otherwise special-status species previously recorded within the project vicinity. The list was based on a search of the United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) database,[7] the California Natural Diversity Database (CNDDB) and the California Native Plant Society (CNPS) Electronic Inventory (CNPSEI) of Rare and Endangered Vascular Plants of California for the *Manteca, California*, USGS 7.5-minute Topographic Quadrangle Map and the eight surrounding quadrangles.[8,9] The CNDDB Biogeographic Information and Observation System (BIOS 5) was used to determine the distance between the known occurrences of special-status species and the project site.[10] The database search results can be found in Appendix D.

An FCS Biologist conducted a general biological field survey of the project site on November 10, 2021. The southeast corner of the project site is developed and consists of a single-family home, whereas the rest of the site consists of open fields. The project site shows evidence of ground disturbance in the form of disking and does not support a large variety of plant species. The vegetation present on the project site was dominated by short (less than 4 inches tall) non-native grasses such as wild oat (*Avena* sp.), brome grass (*Bromus* sp.) and crabgrass (*Digitaria* sp.). A significant portion of the vegetation present on-site consisted of ruderal plants such as telegraph weed (*Heterotheca grandiflora*), prickly Russian thistle (*Salsola tragus*) and common stork's-bill (*Erodium cicutarium*). Other ruderal plants present included common groundsel (*Senecio vulgaris*), annual sowthistle (*Sonchus oleraceus*) and pigweed (*Amaranthus* sp.). Wildlife activity was low and consisted entirely of avian species.

The project site does not provide suitable habitat for any of the special-status plant species recorded in the literature search due to the lack of suitable habitat including the lack of suitable soil conditions as well as previous anthropogenic disturbance from disking.

The project site may provide marginally suitable habitat for bird species including burrowing owl and Swainson's hawk. However, the potential for these species to occur on-site is low due to the lack of sufficient prey in the form of small mammals, evidenced by the lack of burrows observed on-site. Loggerhead shrike (*Lanius ludovicianus*) as has potential to forage on-site as this species is known to

[7] United States Fish and Wildlife Service (USFWS). 2021. Information for Planning and Consultation (IPaC). Website: https://ecos.fws.gov/ipac/. Accessed November 8, 2021.

[8] California Department of Fish and Wildlife (CDFW). 2021. California Natural Diversity Database (CNDDB) RareFind 5 California Natural Diversity Database Query for Special-Status Species. Website: https://map.dfg.ca.gov/rarefind/view/RareFind.aspx. Accessed November 8, 2021.

[9] California Native Plant Society (CNPS). 2021. California Native Plant Society Rare and Endangered Plant Inventory. Website: http://www.rareplants.cnps.org/. Accessed November 8, 2021.

[10] California Department of Fish and Wildlife (CDFW). 2021. Biogeographic Information and Observation System (BIOS 5). Website: https://map.dfg.ca.gov/bios/. Accessed November 8, 2021.

forage in open habitats for large insects, and occasionally rodents and small birds. The project site does not contain suitable nesting habitat for burrowing owl, Swainson's hawk, and loggerhead shrike in the form of vacant mammal burrows, large trees, or shrubby vegetation, respectively. However, the project site may provide suitable habitat for other nesting birds including ground nesting birds such as killdeer (*Charadrius vociferus*), which was observed on-site during the November 10, 2021, field survey.

The implementation of MM B-1.1 would reduce impacts to special-status species to less than significant levels by requiring the proposed project to comply with the requirements of the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) or to satisfy applicable federal Endangered Species Act, California Endangered Species Act (CESA), National Environmental Policy Act (NEPA), CEQA Guidelines, and other applicable local, State, and federal laws and regulation provisions through consultations with the United States Army Corps of Engineers (USACE), the Central Valley Regional Water Quality Control Board (RWQCB), the California Department of Fish and Wildlife (CDFW) as well as local planning agencies.

Implementation of MM BIO-1 would require compliance with the Fish and Game Code and the Migratory Bird Treaty Act (MBTA), including avoidance of disturbance of protected active bird nests, including ground nesting birds such as killdeer and burrowing owl. This can be accomplished by conducting nesting bird and burrowing owl surveys prior to construction and implementing avoidance buffers if active nests or overwintering owls are found on-site. Therefore, the proposed project would not result in new or more severe impacts than what was disclosed in the FEIR. No additional analysis is required.

b) Riparian Habitat and Sensitive Natural Communities

The FEIR found that buildout of the General Plan would have a potentially significant impact on sensitive natural communities through the loss of seasonal wetland and riparian vegetation communities within the Plan Area. The FEIR set forth MM B-2.1 to reduce the severity of the impact. The FEIR concluded that the residual significance would be less than significant after implementation of mitigation.

The vegetation present on the project site consists almost entirely of non-native grasses and ruderal plants and does not contain any sensitive natural communities or riparian habitat as defined by the California Department of Fish and Wildlife (CDFW).[11] Therefore, the proposed project would not result in new or more severe impacts than what was disclosed in the FEIR. No additional analysis is required.

c) Federally Protected Wetlands

The FEIR found that buildout of the General Plan would have a potentially significant impact on federally protected wetlands. The FEIR set forth MM B-3.1 to reduce the severity of the impact. The

[11] California Department of Fish and Wildlife (CDFW). 2021. Natural Communities List, Sacramento: California Department of Fish and Wildlife. Website: https://wildlife.ca.gov/Data/VegCAMP/Natural-Communities#sensitive%20natural%20communities. Accessed November 8, 2021.

FEIR concluded that the residual significance would be less than significant after implementation of mitigation.

Prior to conducting the field survey, the FCS Biologist reviewed the EPA Watershed Assessment, Tracking and Environmental Results System (WATERS), the USFWS National Wetlands Inventory (NWI) and aerial photography to identify potential drainage features and water bodies.[12,13] The field survey confirmed that the project site does not contain any potential State or federally protected wetlands or water features. The nearest known State or federally jurisdictional water feature is a potential riverine feature located within Terra Bella Park, which lies immediately to the southwest of the project site.[14] Development of the project site would not impact this potentially jurisdictional feature as it does not border the project site. Therefore, the proposed project would not result in new or more severe impacts than what was disclosed in the FEIR. No additional analysis is required.

d) Fish or Wildlife Movement

The FEIR found that buildout of the General Plan would have a potentially significant impact on fish and wildlife movement. The FEIR set forth MM B-4.1 to reduce the severity of the impact. The FEIR concluded that the residual significance would be less than significant after implementation of mitigation.

The project site is surrounded by urban areas and agricultural uses. Significant barriers including highways, residential development and active agriculture are present within the vicinity of the project site which likely inhibits the movement of wildlife to and from the site. Additionally, the project site does not contain any natural features such as waterways that may serve as potential wildlife movement corridors. The proposed project would not result in new or more severe impacts than what was disclosed in the FEIR. No additional analysis is required.

e) Conflict with Local Policies or Ordinances

The FEIR did not address conflicts with local policies or ordinances (e.g., a tree ordinance). The single-family residence located in the southeast corner of the project site contains several ornamental trees including an orange (*Citrus X sinensis*) tree and two small redwood (*Sequoia sempervirens*) trees. However, the Manteca Municipal Code does not contain any applicable ordinance regulating the removal of these trees, as they are not considered "street trees."[15] Therefore, the proposed project would not conflict the any local policies or ordinance and would have no impact.

[12] United States Environmental Protection Agency (EPA). 2021. Watershed Assessment, Tracking and Environmental Results System (WATERS). Website: https://www.epa.gov/waterdata/waters-watershed-assessment-tracking-environmental-results-system. Accessed November 8, 2021.

[13] United States Fish and Wildlife Service (USFWS). 2021. National Wetlands Inventory: Wetlands Mapper. https://www.fws.gov/wetlands/data/Mapper.html. Accessed November 8, 2021.

[14] Ibid.

[15] City of Manteca. 2016. City of Manteca Approved Street Trees. Website: https://www.ci.manteca.ca.us/parks/OnlineForms/Approved%20Street%20Tree%20List.pdf#search=street%20tree. Accessed December 28, 2021.

f) Habitat Conservation Plan/Natural Community Conservation Plan

The FEIR found that buildout of the General Plan would have a potentially significant impact as a result of conflicts with the SJMSCP. The FEIR set forth MM B-1.1 to reduce the severity of the impact. The FEIR concluded that the residual significance would be less than significant after implementation of mitigation.

Development of the project site would be required to comply with the requirements of the SJMSCP per MM BIO-1. Therefore, the proposed project would not result in new or more severe impacts than what was disclosed in the FEIR. No additional analysis is required.

Applicable General Plan FEIR Mitigation Measures

MM B-1.1 The Resource Conservation Element of the proposed City of Manteca General Plan 2023 provides the following policies (P) and implementation (I) measures to protect and maintain special-status species.

RC-P-29 Minimize impact of new development on native vegetation and wildlife.

RC-P-34 Protect special-status species and other species that are sensitive to human activities.

RC-I-32 Continue to support and comply with the requirements of the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) when reviewing proposed public and private land use changes.

RC-I-33 Project proponents who opt not to participate in the SJMSCP shall:

- Satisfy applicable federal Endangered Species Act, California Endangered Species Act (CESA), National Environmental Policy Act (NEPA), California Environmental Quality Act (CEQA), and other applicable local, State, and federal laws and regulation provisions through consultations with the Permitting Agencies and local planning agencies.
- Provide site-specific research and ground surveys for proposed development projects. This research must include a detailed inventory of all biological resources on-site, and appropriate mitigation measures for avoiding or reducing impact to these biological resources. This requirement may be waived if determined by the City that the proposed project area is already sufficiently surveyed.

Conclusion

The conclusions from the FEIR remain unchanged.

Environmental Issues	Prior FEIR Determination	CEQA Section 15183(b) Criteria			
		Effect Peculiar to Project or Site?	New Significant Effect?	New Significant Off-site, Cumulative Impact?	New Information, More Severe Adverse Impact?
4.5 Cultural and Tribal Cultural Resources *Would the project:*					
a) Cause a substantial adverse change in the significance of a historical resource as pursuant to Section 15064.5?	Less than significant impact with mitigation incorporated	No	No	No	No
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	Less than significant impact with mitigation incorporated	No	No	No	No
c) Disturb any human remains, including those interred outside of formal cemeteries?	Less than significant impact with mitigation incorporated	No	No	No	No
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:					
e) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	N/A	No	No	No	No
f) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	N/A	No	No	No	No

The analysis in this section is based upon information provided by the Native American Heritage Commission (NAHC), Central California Information Center (CCIC), and a pedestrian survey of the existing project site conducted by FCS Senior Archaeologist, Dr. Dana DePietro, on December 21, 2021. All supporting material is included as Appendix E.

Native American Heritage Commission Sacred Lands File Record Search and Tribal Consultation

On December 13, 2021, FCS staff sent a letter to the NAHC in an effort to determine whether any sacred sites are listed on its Sacred Lands File for the proposed project site. On March 7, 2022, FCS received a response from the NAHC stating that the results of the Sacred Lands File search were negative. The NAHC included a list of 12 tribal representatives available for consultation. To ensure that all Native American knowledge and concerns over potential TCRs that may be affected by the proposed project are addressed, a letter containing project information and requesting any additional information was sent to each tribal representative on March 8, 2022. A response was received from the North Valley Yokuts Tribe recommending that the proposed project be monitored by both a qualified archaeological firm and a Native American Monitor during project construction.

Central California Information Center

In order to determine the presence or absence of cultural and historical resources within the project site, a records search and literature review was conducted for the project site and a standard 0.5-mile search radius on December 15, 2021, at the CCIC, located at California State University, Stanislaus. The purpose of this review was to access existing cultural resource survey reports, archaeological site records and historic maps, and evaluate whether any previously documented prehistoric or historic archaeological sites, architectural resources, cultural landscapes, or other resources exist within or near the project site. To identify additional historic properties or resources, the current inventories of the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), the California Historical Landmarks (CHL) list, the California Points of Historical Interest (CPHI) list, and the California Built Environment Resource Directory (BERD) for San Joaquin County.

The records search results failed to identify any prehistoric or historic resources within the project site or its 0.5-mile search radius. In addition, eight area specific survey reports are on file with the CCIC for the 0.5-mile search radius. Of the eight previous surveys, two reports (SJ-01900 and SJ-04786) address the project area. These surveys indicate that the project site has been previously surveyed for cultural resources with negative results. A records search map identifying the project boundaries and 0.5-mile search radius along with a list of reports and resources from the CCIC can be found in Appendix E.

Pedestrian Survey

On December 21, 2021, Dr. Dana DePietro surveyed the project site to identify any unrecorded cultural resources within the project boundary. The survey began on the southeast corner of the rectangular project site, and moved west using north/south transects spaced at 15-meter intervals. The project site was completely clear and consists entirely of plowed agricultural land, with the exception of a small residence situated in the southeast corner of the parcel. Overall visibility of

native soils was poor, ranging from 10 to 20 percent between regular patches of foliage that have sprouted up where orchard trees have been removed across the site. Gopher holes and other bioturbation across the site afforded some indication of subsurface soil composition, which were primarily composed of light tan sandy soils (Munsel 10 YR 5/2) interspersed with small (2-5 cm) stones composed primarily of granite, quartz, and schist.

Survey conditions were documented using digital photographs and field notes. During the survey, Dr. DePietro examined all areas of the exposed ground surface for prehistoric artifacts (e.g., fire-affected rock, milling tools, flaked stone tools, tool-making debris, ceramics), soil discoloration and depressions that might indicate the presence of a cultural midden, faunal and human osteological remains, and features indicative of the former presence of structures or buildings (e.g., postholes, standing exterior walls, foundations) or historic debris (e.g., glass, metal, ceramics). Surface soils have been highly disturbed from planting and agricultural use over the years. There are no known archaeological resources within a 0.5-mile radius of the site, and no indications of prehistoric archaeological resources were encountered over the course of the pedestrian survey.

The residence situated at 1669 South Main Street in the southeast corner of the project site was noted during the pedestrian survey and is present in historic aerial photographs dating to 1968. The building therefore appears to be over 45 years old and has not previously been evaluated as a potential historic resource. Pedestrian survey photos can be found in Appendix E.

The Residence at 1669 South Main Street

The single-family home located within the Project Area at 1669 South Main Street is over 45 years old and therefore required an assessment of its potential historic significance and eligibility for listing on the CRHR. The building has not previously been evaluated for historic significance, and was not listed in the historic resources inventories for the State of California, San Joaquin County, or the City of Manteca. The building was evaluated relative to the four CRHR eligibility criteria:

- Associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States (Criterion 1).
- Associated with the lives of persons important to local, California, or national history (Criterion 2).
- Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values (Criterion 3).
- Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California or the nation (Criterion 4).

Building Description and CRHR evaluation

Dr. DePietro conducted additional archival research on the subject property including a San Joaquin County Assessor's office records search, the California Digital Newspaper Collection (CDNC), and online historical and genealogical databases. The subject property is a c. 1944, 1-story, wood framed, asymmetrical, single-family residence located in the south of the City of Manteca. The minimalist ranch style building is in moderate to poor condition, and is accessed by a single concrete step leading to a single door on the building's southern façade. The building has a concrete foundation,

light tan stucco exterior, and a low-pitched, cross-gable roof with short eaves that wrap around the entire structure. The roof is clad in brown-black composition material with exposed rafters.

A detached garage and carport projects south from the main mass of the building. All windows are currently boarded up, but appear to vary in size, shape, and placement. The property has limited landscaping in the form of a small front and side yard, with an asphalt driveway that connects the property to South Main Street. The original windows appear to have been replaced, and other modifications including aluminum shutters and a rolling aluminum garage door were noted.

CRHR and Local Listing Eligibility Evaluation

The residence at 1669 South Main Street is part of the overall development and expansion of residential areas in and around Manteca in the years leading to and immediately following the end of World War II. This period saw a high rate of new household formation as soldiers began to return from the war, and the relatively small median family income drove the demand for new forms of affordable housing, mainly minimal traditional and ranch style houses. The subject property is therefore part of that process of expansion and growth, but does not meet Criterion A: Event, as they are examples of many similar, small-scale residential buildings built during this time in the greater Manteca area.

The property has been associated with several owners over the years; however, aside from minor mentions in birth, death, and marriage announcements, no additional information was found on any of the individuals in question. The relative absence of these individuals from published accounts of California or City of Manteca history indicates that they likely did not achieve demonstrable historic importance, and thus the property does not meet Criterion B: Person.

Under Criterion C: Architecture, the house, built by an unknown architect, displays many features of the traditional minimal and ranch styles: a small and inexpensively built asymmetrical single-story home, constructed on a poured concrete foundation with minimal roof overhangs, lapped or stucco siding and a long, extended façade. The building possesses few if any ornamental details and is a standard, undistinguished example of construction design and technique from the period. Furthermore, the building appears to have been renovated in recent years with modifications made to the original design. As such, the residence does not appear to be eligible under Criteria C.

Criterion D: Information Potential, is most often used to evaluate archaeological sites or buildings that employ unusual building techniques. There is no evidence that the property in question exhibits any unusual construction features, or has the ability to contribute significant information to the overall history of the City of Manteca.

Therefore, the residence at 1669 South Main Street does not appear to meet any of the criteria for historic and/or architectural significance required for listing on the CRHR. As such, it should not be considered a significant historical resource under CEQA.

a-b) Historical and Archaeological Resources

The FEIR found that the buildout of the General Plan would have a potentially significant impact on historical and archaeological resources. The FEIR set forth MM C-1.1 to reduce the severity of the impact. The FEIR concluded that the residual significance would be less than significant after implementation of mitigation.

The assessment from the previous FEIR General Plan remains consistent with the results from the records search and the pedestrian survey. As mentioned, results from the CCIC records search indicated that there are no historic and/or archaeological resources within the project area or the 0.5-mile search radius, in addition, the pedestrian survey failed to identify any historic and/or archaeological resources. The project site is currently undeveloped and was primarily used agriculture nor does it contain any structures that may evaluated as historical. While there are no known historical and/or archaeological resources within the project sire, implementation of relevant mitigation measures and policies to ensure all impacts associated with any previously unknown historic resources remain less than significant.

Consistent with the findings in the FEIR General Plan, impacts would be less than significant regarding the inadvertent discoveries of historic and/or archaeological resources. Therefore, the proposed project would not result in any peculiar effects and would not result in a new or more severe adverse impact that was not previously identified in the FEIR General Plan.

c) Human Remains

The FEIR found that the buildout of the General Plan would have a potentially significant impact on human remains. The FEIR set forth MM C-2.1 to reduce the severity of the impact. The FEIR concluded that the residual significance would be less than significant after implementation of mitigation.

Results from the records search failed to identify any human remains or cemeteries within the project boundaries, in addition, the pedestrian survey failed to identify any human remains or cemeteries. There is always the possibility that ground-disturbing activities during construction may uncover previously unknown, buried human remains. Should this occur, Section 7050.5 of the California Health and Safety Code and Public Resources Code Section 5097.98 must be followed.

Consistent with the findings in the FEIR General Plan, impacts would be less than significant regarding the inadvertent discoveries of human remains or cemeteries. Therefore, the proposed project would not result in any peculiar effects and would not result in a new or more severe adverse impact that was not previously identified in the FEIR General Plan.

e-f) Tribal Cultural Resources

The FEIR did not address tribal cultural resources.

Results from the CCIC records search indicated that no cultural resources have been recorded within the project site or its 0.5-mile search radius, additionally, the pedestrian survey failed to locate or

identify any cultural resources. On March 7, 2022, FCS received a response from the NAHC stating that the results of the Sacred Lands File search were negative. Therefore, there are no recorded resources in the vicinity of the project site that are listed or eligible for listing in the CRHR, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k).

To ensure that all Native American knowledge and concerns over potential TCRs that may be affected by the proposed project are addressed, a letter containing project information and requesting any additional information was sent to each tribal representative identified by the NAHC on March 8, 2022. A response was received from the North Valley Yokuts Tribe recommending that the proposed project be monitored by both a qualified archaeological firm and a Native American Monitor during project construction. This recommendation is included in MM CUL-4.

While unlikely, the possibility remains that TCRs in the form of subsurface archaeological resources or human remains may be encountered during project construction. Implementation of MM RC-I-46 and MM CUL-4 would reduce impacts to a less that significant level. Therefore, impacts would be less than significant with mitigation incorporated.

Applicable General Plan FEIR Mitigation Measures

MM C-1.1 The Resource Conservation Element of the proposed City of Manteca General Plan 2023 provides the following goals, policies (P) and implementation (I) measures to protect archaeological and historical resources.

MM RC-I-38 Require a records search for any proposed development project, to determine whether the site contains known archaeological, historic, or cultural resources and/or to determine the potential for discovery of additional cultural resources. This requirement may be waived if determined by the City that the proposed project area is already sufficiently surveyed.

MM RC-I-46 If human remains are discovered, California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the county coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code Section 5097.98. If the coroner determines that no investigation of the cause of death is required and if the remains are of Native American origin, the coroner will notify the Native American Heritage Commission, which in turn will inform a most likely descendant. The descendant will then recommend to the landowner appropriate disposition of the remains and any grave goods.

MM CUL-4 An Archaeologist who meets the Secretary of the Interior's Professional Qualification Standards for archaeology and a Tribal Monitor from a culturally affiliated tribe should inspect the site once grubbing and clearing are complete, and prior to any grading or trenching into previously undisturbed soils. This may be followed by regular periodic or "spot-check" archaeological monitoring as determined by the Archaeologist and monitor. In the event a potentially significant cultural resource is encountered during subsurface earthwork activities, all construction activities within a 100-foot radius of the find shall cease and workers should avoid altering the

materials until the Archaeologist has evaluated the situation. The project applicant shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. Potentially significant cultural resources consist of but are not limited to stone, bone, glass, ceramics, fossils, wood, or shell artifacts, or features including hearths, structural remains, or historic dumpsites. The Archaeologist shall make recommendations concerning appropriate measures that shall be implemented to protect the resource, including but not limited to excavation and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines. Any previously undiscovered resources found during construction within the project site shall be recorded on appropriate California Department of Parks and Recreation (DPR) 523 forms and shall be submitted to the City of Manteca, the Northwest Information Center (NWIC), and the California Office of Historic Preservation (OHP), as required.

Conclusion

Based upon records search results from the CCIC and the pedestrian survey, conclusions remain consistent with the FEIR.

Environmental Issues	Prior FEIR Determination	CEQA Section 15183(b) Criteria			
		Effect Peculiar to Project or Site?	New Significant Effect?	New Significant Off-site, Cumulative Impact?	New Information, More Severe Adverse Impact?
4.6 Energy *Would the project:*					
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	N/A	No	No	No	No
b) Conflict with or obstruct a State or local plan for renewable energy or energy efficiency?	N/A	No	No	No	No

a) Energy Use

The FEIR found that buildout of the General Plan would have a potentially significant impact on energy consumption. In the FEIR, "Other CEQA Considerations" states that "The General Plan 2023 would require expanded energy sources and infrastructure for expanded urban development." The FEIR set forth MM PFS-6.1 to reduce the severity of the impact.

The proposed project consists of the development of a 113,167-square-foot neighborhood shopping center on the project site, which is designated as "General Commercial" in the General Plan. The General Commercial land use designation allows for a FAR of 0.6 for nonresidential uses. The proposed shopping center would include a 50,071 square-foot grocery store, a 38,000 square-foot hardware store, 5,900 square-foot of retail shop, 13,000 square feet of fast food restaurants with drive-thru, and a 3,596-square-foot of drive-thru car wash facility. The proposed project has a FAR of 0.22 and it is consistent with the designated uses. To the extent that the construction and operation of the shopping center consumes energy, this was previously considered by the FEIR. In accordance with General Plan 2023 Policy RC-I-8, the proposed project would be designed and constructed in accordance with the latest adopted edition of the Title 24 Energy Efficiency Standards. For these reasons, the proposed project would not result in new or more severe impacts than those disclosed in the FEIR.

A discussion of the proposed project's anticipated energy usage is presented below. Energy use consumed by the proposed project was estimated and includes natural gas, electricity, and fuel consumption for project construction and operation. Energy calculations are included as part of Appendix F.

Construction Impacts

The proposed project construction schedule was assumed to begin in June 2022 and conclude in December 2023. If the construction schedule moves to later years, construction emissions would

likely decrease because of improvements in technology and more stringent regulatory requirements as older, less efficient equipment is replaced by newer and cleaner equipment. The proposed project would require demolition, site preparation, grading, building construction, architectural coating, and paving. The construction phase would require energy for the manufacture and transportation of building materials, preparation of the site (e.g., demolition, site clearing, and grading), and the actual construction of the building. Petroleum-based fuels such as diesel fuel and gasoline would be the primary sources of energy for these tasks.

The types of on-site equipment used during construction of the proposed project could include gasoline- and diesel-powered construction and transportation equipment, including trucks, bulldozers, frontend loaders, forklifts, and cranes. Construction equipment is estimated to consume a total of 84,745 gallons of diesel fuel over the entire construction duration (Appendix F).

Fuel use associated with construction vehicle trips generated by the proposed project was also estimated; trips include construction worker trips, haul truck trips for material transport, and vendor trips for construction material deliveries. Fuel use from these vehicles traveling to the project site was based on (1) the projected number of trips the proposed project would generate during construction, (2) average trip distances by trip type, and (3) fuel efficiencies estimated in the ARB EMFAC mobile source emission model. The specific parameters used to estimate fuel usage are included in Appendix F. In total, the proposed project is estimated to generate 1,196,716 VMT and a combined 66,461 gallons of gasoline and diesel for vehicle travel during construction.

Other equipment could include construction lighting, field services (office trailers), and electrically driven equipment such as pumps and other tools. Manteca Municipal Code 17.58.050 defines permissible hours of construction as between the hours of 7:00 a.m. and 7:00 p.m.[16] As on-site construction activities would be restricted to these hours; it is anticipated that the use of construction lighting would be minimal. Singlewide mobile office trailers, which are commonly used in construction staging areas, generally range in size from 160 square feet to 720 square feet. A typical 720-square-foot office trailer would consume approximately 10,652 kWh during the 18-month construction phase (Appendix F).

The overall construction schedule and process is already designed to be efficient in order to avoid excess monetary costs. For example, equipment and fuel are not typically used wastefully due to the added expense associated with renting the equipment, maintaining it, and fueling it. Therefore, the opportunities for future efficiency gains during construction are limited. Therefore, it is anticipated that the construction phase of the proposed project would not result in wasteful, inefficient, and unnecessary consumption of energy. Construction-related energy impacts would be less than significant.

Operational Impacts

The proposed project would consume energy as part of building operations and transportation activities. Project energy consumption is summarized in Table 7.

[16] City of Manteca. Manteca Municipal Code 17.58.050. Website: https://qcode.us/codes/manteca/view.php?topic=17-iii-17_58-17_58_050&highlightWords=7+00+a.m. Accessed April 8, 2022.

Table 7: Estimated Annual Project Energy Consumption

Energy Consumption Activity	Annual Consumption
Electricity Consumption	2,957,197 kWh/year
Natural Gas Consumption	3,565,966 kBTU/year
Total Fuel Consumption	718,442 gallons of gasoline and diesel
Notes: kBTU = kilo-British Thermal Unit kWh = kilowatt-hour VMT = Vehicle Miles Traveled Source: Appendix F.	

Operation of the proposed project would consume an estimated 2,957,197 kWh of electricity and an estimated 3,565,966 kBTU of natural gas on an annual basis. The proposed project's building would be designed and constructed in accordance with the City's latest adopted energy efficiency standards, which are based on the State's Building Energy Efficiency Standards. These are widely regarded as the most advanced building energy efficiency standards and compliance would ensure that building energy consumption would not be wasteful, inefficient, or unnecessary.

Project-related vehicle trips would consume an estimated 718,442 gallons of gasoline and diesel annually.

Regional access to the project site is provided via Interstate 5 (I-5), SR-120, and SR-99, which are adjacent to the project site. The project site is bounded by South Main Street to the east and West Atherton Drive to the north. In addition, the bus stop of West Woodward Avenue and Laurie Avenue is located 686 feet south of the project site, which in within walking distance therefore would not discourage the use of public transit. Thus, transportation fuel consumption would not be wasteful, inefficient, or unnecessary. Impacts would be less than significant.

Summary

As addressed above, the proposed project's impact on energy consumption would be less than significant. The proposed project would not result in any peculiar effects and would not result in new or more severe impacts related to wasteful, inefficient, or unnecessary energy consumption than what was previously analyzed in the General Plan FEIR.

b) Energy Efficiency and Renewable Energy Standards Consistency

The FEIR did not address conflicts with renewable energy plans. In accordance with FEIR MM PFS-7.2 and General Plan 2023 Policy RC-I-8, the proposed project would be designed and constructed in accordance with the latest adopted edition of the Title 24 Energy Efficiency Standards. In addition, the City's Climate Action Plan (CAP)[17] set forth policies to conservate energy and will be referenced

[17] City of Manteca. Climate Action Plan. Website: https://www.ci.manteca.ca.us/CommunityDevelopment/Planning%20Division/Planning%20Division%20Documents/General%20Plan/Climate%20Action%20Plan%20CAP%20Adopted%20Oct%2015%202013.pdf. Accessed April 8, 2022.

herein. For these reasons, the proposed project would not result in new or more severe impacts disclosed in the FEIR.

The proposed project would be served with electricity provided by PG&E. In 2020, PG&E obtained 31 percent of its electricity from renewable energy sources, while the remaining electricity was sourced from nuclear (43 percent), natural gas (16 percent), and large hydroelectric (10 percent).[18] While PG&E's 2020 Renewable Portfolio Standard (RPS) reporting showed that only 31 percent of electricity sales sourced from eligible renewable sources, the RPS requirements apply to a 3-year average of utility provider electricity sourcing to allow for fluctuations in market demand and supply availability. Nonetheless, the proposed project's electricity provider is required to meet the State's 2020 objective of 33 percent and is making progress toward the State's 2024 RPS target of 44 percent. The proposed project's electricity demands would also be required to meet the State's future objective of 60 percent electricity from renewable energy sources by 2030.

The proposed buildings would be designed in accordance with California Code of Regulations Title 24, California's Energy Efficiency Standards for Nonresidential Buildings as applicable. These standards include minimum energy efficiency requirements related to building envelope, mechanical systems (e.g., heating, ventilation, and air conditioning [HVAC] and water heating systems), and indoor and outdoor lighting. In addition, Title 24 requires that no less than 6 percent of parking spaces to be "EV-Ready," including prewiring and circuit raceways, as applicable, for projects with 201 or greater total parking spaces. Title 24 also requires that no less than 8 percent of parking spaces to be dedicated for low-emitting, fuel efficient, and carpool/vanpool vehicles for projects with 201 or greater total parking spaces.[19]

Furthermore, the CAP requires development projects constructed in the City of Manteca to achieve greenhouse gas (GHG) emission reductions by taking the following actions: design and construct project buildings to exceed Title 24 Energy Efficiency Standards by at least 10 percent; implement project buildings including water conservation measures that meet or exceed the California Green Building Code standards 20 percent requirement; and install project landscaping that meets or exceeds water conservation standards of the City's adopted landscaping ordinance 20 percent reduction requirement. Therefore, the incorporation of the Title 24 standards and the CAP requirements would ensure that the proposed project would not result in the use of energy in a wasteful manner.

The Manteca General Plan includes the following policies related to energy conservation that are relevant to the proposed project.[20]

[18] Pacific Gas and Electric Company (PG&E). 2021. Delivering low-emission energy. https://www.pge.com/en_US/about-pge/environment/what-we-are-doing/clean-energy-solutions/clean-energy-solutions.page?WT.mc_id=Vanity_cleanenergy. Accessed November 10, 2021.

[19] 2019 California Green Building Standard Code, Title 24, Part 11. Nonresidential Mandatory Measures. Website: https://codes.iccsafe.org/content/CAGBSC2019/chapter-5-nonresidential-mandatory-measures. Accessed November 12, 2021.

[20] City of Manteca. 2021. Manteca General Plan Update Environmental Impact Report. Website: https://static1.squarespace.com/static/582f3c2a59cc689c8da65127/t/60538e9e427c364032f6c846/1616088792495/Manteca+GP+DEIR_Public+March+2021_Part1.pdf. Accessed November 23, 2021.

Implementing Policies

RC-5.3 Require all new public and privately constructed buildings to meet and comply with construction and design standards that promote energy conservation, including the most current "green" development standards in the California Green Building Standards Code.

RC-5.4 Support innovative and green building best practices including, but not limited to, LEED certification for all new development, and encourage public and private projects to exceed the most current "green" development standards in the California Green Building Standards Code.

RC-5a Implement development standards and best practices that promote energy conservation and the reduction in greenhouse gases, including:

- Require new development to be energy-efficient through passive design concepts (e.g., techniques for heating and cooling, building siting orientation, street and lot layout, landscape placement, and protection of solar access);
- Require construction standards which promote energy conservation including window placement, building eaves, and roof overhangs;
- Require all projects to meet minimum State and local energy conservation standards;
- Require best practices in selecting construction methods, building materials, project appliances and equipment, and project design;
- Encourage and accommodate projects that incorporate alternative energy;
- Encourage projects to incorporate enhanced energy conservation measures and other voluntary methods of reducing energy usage and greenhouse gas emissions; and
- Require large energy users to implement an energy conservation plan as part of the project review and approval process, and develop a program to monitor compliance with and effectiveness of that plan.

RC-5b Continue to review development projects to ensure that all new public and private development complies with the California Code of Regulations, Title 24 standards as well as the energy efficiency standards established by the General Plan and the Municipal Code.

RC-5g Explore alternative energy sources, including cogeneration, active solar energy, and wind generation, and identify opportunities for alternative energy to be used in public and private projects.

While several of these policies are voluntary or cannot be implemented by an individual development project, several air quality mitigation measures and compliance with Title 24 standards would ensure that the proposed project would not conflict with any of the General Plan energy conservation policies. For example, the General Plan Policy AQ-P-7 requires that new construction will be managed to minimize construction vehicle emissions, which would also reduce the fuel and

energy consumption as well. The FEIR's mitigation measures, the City's CAP requirements, and compliance with Title 24 standards would ensure that the proposed project would not conflict with any of the General Plan energy conservation policies.

Summary

The proposed project would comply with existing State energy standards and with energy conservation policies contained in the General Plan and CAP. Therefore, the proposed project would not result in any peculiar effects and would not result in new or more severe impacts related to energy efficiency and renewable energy standards consistency beyond what was previously analyzed in the General Plan FEIR.

Applicable FEIR Mitigation Measures

MM PFS-6.1 The General Plan 2023 Public Facilities and Services Element addresses electricity though the following goal, policy (P), and implementation (I) measures:

PF-I-15 The City will support energy conservation measures and innovative uses of solar energy, heat recovery, and cogeneration in all structural and industrial processes.

MM PFS-7.2 The General Plan 2023 Resource Conservation Element provides the following measures to mitigate impacts related to electricity and infrastructure expansion:

RC-I-6 The City shall implement development standards which promote energy conservation and the use of solar energy techniques for heating and cooling, including building orientation, street and lot layout, landscape placement, and protection of solar access.

RC-I-8 The City shall enforce Title 24 energy requirements (Building Code) which define construction standards that promote energy conservation.

Goal PF-10 and Policies PF-F-28, PF-I-14, PF-I-15, and PF-I-16.

Conclusion

There is no additional information identifying new significant effects, nor is there an increase in the severity of previously identified impacts related to GHG emissions and energy consumption. The conclusions from the General Plan EIR regarding energy impacts remain unchanged.

Environmental Issues	Prior FEIR Determination	CEQA Section 15183(b) Criteria			
		Effect Peculiar to Project or Site?	New Significant Effect?	New Significant Off-site, Cumulative Impact?	New Information, More Severe Adverse Impact?
4.7 Geology and Soils *Would the project:*					
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:					
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?	Less than significant impact	No	No	No	No
ii) Strong seismic ground shaking?	Less than significant impact with mitigation incorporated	No	No	No	No
iii) Seismic-related ground failure, including liquefaction?	Less than significant impact with mitigation incorporated	No	No	No	No
iv) Landslides?	Less than significant impact with mitigation incorporated	No	No	No	No
b) Result in substantial soil erosion or the loss of topsoil?	Less than significant impact with mitigation incorporated	No	No	No	No
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?	Less than significant impact with mitigation incorporated	No	No	No	No

Environmental Issues	Prior FEIR Determination	CEQA Section 15183(b) Criteria			
		Effect Peculiar to Project or Site?	New Significant Effect?	New Significant Off-site, Cumulative Impact?	New Information, More Severe Adverse Impact?
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?	Less than significant impact with mitigation incorporated	No	No	No	No
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	No impact	No	No	No	No
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Less than significant impact with mitigation incorporated	No	No	No	No

a) Earthquake Hazards

i) Fault Rupture

The FEIR found that buildout of the General Plan would not result in exposure to fault rupture hazards because no earthquake faults are within the Planning Area. The FEIR concluded that the residual significance had no impact.

A Geotechnical Engineering Investigation conducted by CTE Cal, Inc. (CTE Cal) on August 13, 2021 (Appendix G). CTE Cal found that there are no earthquake faults within the project site, the site is not within a State of California-designated Alquist-Priolo Earthquake Fault Zone, and no known active fault traces shown on published hazard mapping underlie toward the site.[21] The proposed project would not result in new or more severe impacts other than what was disclosed in the FEIR. No additional analysis is required.

ii) Ground Shaking

The FEIR found that buildout of the General Plan would result in less than significant impacts associated with ground shaking would after implementation of MM GSS-2.1.

CTE Cal concluded that geologic hazards at the project site are primarily associated with violent shaking from an earthquake that generates ground motion waves from nearby faults. Class A

[21] CTE Cal, Inc. August 13, 2021. Geotechnical Engineering Investigation. New Apartment Buildings, Pool, and Community Center South Main Street and Atherton Drive Manteca, CA 95337.

faults are identified based upon relatively well-defined activity. In contrast, Class B faults have comparatively less defined activity. The nearest known Class A fault is the Calaveras Fault located approximately 38.1 miles from the site and the nearest known Class B fault is the Great Valley 7, located approximately 13.8 miles from the site.

To the extent that the project site is susceptible to strong ground shaking, this was previously considered by the FEIR. In accordance with MM GSS-2.1, all construction activities would adhere to the applicable requirements of the latest adopted edition of the California Building Standards Code (CBC). For these reasons, the proposed project would not result in new or more severe impacts than what was disclosed in the FEIR. No additional analysis is required.

iii) Ground Failure

The FEIR found that buildout of the General Plan, would result in less than significant impacts associated with ground failure or liquefaction would be less than significant after implementation of MM GSS-2.1.

Liquefaction occurs when saturated fine-grained sands and/or silts lose their physical strength temporarily during earthquake induced shaking and behave as a liquid. CTE Cal found that there is no historical record or liquefaction occurring at the project site. Furthermore, CTE Cal found that, based on the site location, relatively low intensity of ground shaking, groundwater depth, and the consistency of the subsurface materials, the possibility of settlement and liquefaction is considered low. In accordance with General Plan EIR MM GSS-2.1, all construction activities would adhere to the applicable requirements of the latest adopted edition of the CBC. For these reasons, the proposed project would not result in new or more severe impacts than what was disclosed in the FEIR. No additional analysis is required.

iv) Landslides

The FEIR found that buildout of the General Plan would result in less than significant impacts associated with landslides after incorporation of MM GSS-2.1.

CTE Cal concluded that the project site and surrounding area are flat and therefore, not susceptible to landslides. In accordance with General Plan EIR MM GSS-2.1, all construction activities would adhere to the applicable requirements of the latest adopted edition of the CBC. For these reasons, the proposed project would not result in new or more severe impacts than what was disclosed in the FEIR. No additional analysis is required.

b) Erosion

The FEIR found that buildout of the General Plan would result in less than significant impacts associated with wind erosion after incorporation of MM GSS-3.1.

The General Plan designates the project site for ‘Commercial’ use and the proposed shopping center is consistent with that land use designation. To the extent that the proposed project is susceptible to wind erosion, this was previously considered by the FEIR. In accordance with MM GSS-3.1 and CTE Cal recommendations, erosion control measures would be implemented to prevent sedimentation in

downstream waterways. For these reasons, the proposed project would not result in new or more severe impacts than what was disclosed in the FEIR. No additional analysis is required.

c) Unstable Soils or Geologic Units

The FEIR found that buildout of the General Plan would have a potentially significant impact associated with unstable soils or geologic units and could result in erosion or liquefaction. The City is not susceptible to landslides or subsidence. The FEIR set forth MM GSS-2.1 and MM GSS-3.1 to reduce the severity of the impact to a less than significant level.

As described above, the project site is not susceptible to landslides or subsidence. Furthermore, CTE concluded that the project site is not susceptible to liquefaction hazards. Furthermore, ground surface displacements are more likely to occur within Earthquake Fault Zones, as defined by the Alquist-Priolo Earthquake Fault Zoning Act, and no known active or potentially active faults exist within the project site. The proposed project would adhere to General Plan EIR MM GSS-2.1 and General Plan EIR MM GSS-3.1. For these reasons, the proposed project would not result in new or more severe impacts than what was disclosed in the FEIR. No additional analysis is required.

d) Expansive Soils

The FEIR found that buildout of the General Plan would result in less than significant impacts associated with expansive soils after incorporation of MM GSS-4.1

Figure 8-1 in the FEIR illustrates areas within the City that were determined to have expansive soils, which does not include the project site. Furthermore, CTE Cal found that the soils encountered on the project site would not be expected to exhibit significant expansive characteristics. However, it was determined that soils on the upper two feet of the project site in most areas are loose and would require remedial grading. In accordance with MM GSS-4.1, all construction activities would adhere to the applicable requirements of the latest adopted edition of the CBC. For these reasons, the proposed project would not result in new or more severe impacts than what was disclosed in the FEIR. No additional analysis is required.

e) Septic Tanks

The FEIR found that buildout of the General Plan would have no potential to increase the use septic or alternative wastewater disposal systems because the General Plan requires new development to be served by sanitary sewer. The FEIR concluded that the residual significance was no impact.

A Phase I Environmental Site Assessment (Phase I ESA) conducted by Partner Engineering and Science, Inc. (Partner), identified that the residence on the subject property is connected to an on-site domestic well and septic system. Partner recommended that, because the septic tank is not planned for future use, it should be property abandoned/destroyed in accordance with applicable regulations (See MM GEO-5) The proposed project would be served by sanitary sewer and no septic or alternative wastewater disposal systems would be employed. For these reasons, the proposed project would not result in new or more severe impacts than what was disclosed in the FEIR. No additional analysis is required.

f) Destruction of Paleontological Resource or Unique Geologic Feature

The FEIR found that buildout of the General Plan would result in a less than significant impact on paleontological resources after incorporation of MM C-1.1.

A Paleontological Records Search of the project site and surrounding area was conducted by Kenneth L. Finger, PhD, on December 21, 2021. The surface of the entire project site consists of Holocene dune sand (Qs). Holocene deposits are too young to be fossiliferous. However, there are late Pleistocene Modesto Formation (Qm) within 0.5 mile of the project site. This would create a potentially significant impact. However, while it is likely that these deposits extend to the subsurface of the project site, no significant paleontological resources have been recorded within 8 miles of formation. Therefore, the Modesto Formation was determined have a high sensitivity, but low paleontological potential. MM GEO-6 would reduce potential impacts to less than significant. For these reasons, the proposed project would not result in new or more severe impacts than what was disclosed in the FEIR. No additional analysis is required.

Applicable General Plan FEIR Mitigation Measures

General Plan EIR MM GSS-2.1

GSS-2.1 The General Plan 2023 Safety Element (Section 7) provides the following goals, policies (P), and implementation measures (I) to lessen the possible exposure of people and structures to ground shaking or ground failure, including liquefaction:

S-P-3 The City shall require new development to mitigate the potential impacts of seismic induced settlement of uncompacted fill and liquefaction (water-saturated soil) due to the presence of a high water table.

SG-I-1 All new development shall comply with the current Uniform Building Code (UBC) requirements for Seismic Zone 3, which stipulates building structural material and reinforcement.

SG-I-2 All new development shall comply with California Health and Safety Code Section 19100 *et seq*. (Earthquake Protection Law), which requires that buildings be designed to resist stresses produced by natural forces caused earthquakes and wind.

General Plan EIR MM GSS-3.1

GSS-3.1 The Conservation and Open Space Resource Conservation Element (Section 8) of the City of Manteca General Plan 2023 provides the following implementation measures to mitigation the potential of substantial soil erosion of loss of topsoil.

RC-I-16 All new development shall comply with the Uniform Building Code (UBC) requirements for specific site development and construction standards for specific soils types.

RC-I-17 All new development shall comply with the Uniform Building Code (UBC), Chapter 70, regulating grading activities including drainage and erosion control.

RC-I-18 Require site-specific land management and development practices for proposed development projects, including appropriate mitigation measures for avoiding or reducing erosion.

General Plan EIR MM GSS-4.1

GSS-4.1 The General Plan 2023 Safety Element (Section 7) provides the following policies (P) to lessen the possible exposure to people and structure to the shrink-swell hazards of expansive soils

S-P-1 The City shall require preparation of geological reports and/or geological engineering reports for proposed new development located in areas of suspected significant geological hazards, including potential subsidence (collapsible surface soils) due to groundwater extraction.

S-P-2 The City shall require new development to mitigate the potential impacts of geologic hazards through Building Plan review.

The General Plan 2023 Resource Conservation Element (Section 8) provides the following implementation measure (I) to lessen the possible exposure of people and structures to the shrink-swell hazards of expansive soils:

RC-I-16 Comply with the Uniform Building Code (UBC) requirements for specific site development and construction standards for specific soil types.

MM HAZ-1a See Section 4.9, Hazards and Hazardous Materials.

MM GEO-6 A qualified Paleontologist shall provide the construction crew with an orientation prior to any earth-disturbing activities. Should any vertebrate remains (i.e., bones, teeth, or unusually abundant and well-preserved invertebrates or plants) be unearthed, the crew should not attempt to remove them as they could be extremely fragile and therefore prone to crumbling, as to ensure their occurrence is properly recorded. Instead, all work in the immediate vicinity of discovery should be diverted at least 15 feet until a professional Paleontologist assesses the find and, if deemed appropriate, salvages it in a timely manner. Any recovered fossils should be deposited in an appropriate repository, such as the University of California Museum of Paleontology (UCMP), where they shall be properly curated and made accessible for future study.

Conclusion

The conclusions from the FEIR remain unchanged.

Environmental Issues	CEQA Section 15183(b) Criteria				
	Prior FEIR Determination	Effect Peculiar to Project or Site?	New Significant Effect?	New Significant Off-site, Cumulative Impact?	New Information, More Severe Adverse Impact?
4.8 Greenhouse Gas Emissions *Would the project:*					
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	N/A	No	No	No	No
b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	N/A	No	No	No	No

a) Greenhouse Gas Emissions

Less than significant impact. The FEIR did not address the impact of GHG emissions; however, GHG emission sources were analyzed in the City's CAP. The City of Manteca adopted its CAP in October 2013. In order to make a determination of whether the proposed project would be consistent with local plans intended to reduce GHG emissions, the City's CAP will be referenced herein.

Construction Emissions

Total GHG emissions generated during all phases of construction were combined and are presented in Table 8. The Valley Air District does not recommend assessing the significance of construction-related emissions. However, other jurisdictions, such as the South Coast Air Quality Management District (South Coast AQMD) and the Sacramento Metro Air Quality Management District (SMAQMD), have concluded that construction emissions should be included since they may remain in the atmosphere for years after construction is complete. In order to account for the construction emissions, amortization of the total emissions generated during construction were based on the life of the development (30 years) and added to the operational emissions.

Table 8: Construction Greenhouse Gas Emissions

Emissions Source	CO_2e (Metric Tons per Year)	
	Main Project Site	Off-site Improvement
Demolition–2022	36	35
Site Preparation–2022	17	9
Grading–2022	224	11
Building Construction–2022	247	212
Building Construction–2023	539	192

Emissions Source	CO_2e (Metric Tons per Year)	
	Main Project Site	Off-site Improvement
Paving–2023	21	16
Architectural Coating–2023	5	3
Total	**1,567**	
Amortized Over 30 Years	52	
Notes: CO_2e = carbon dioxide equivalent		

Operational Emissions

Operational or long-term emissions could occur over the life of the proposed project. Sources of emissions may include motor vehicles and trucks, energy usage, water usage, waste generation, and area sources, such as landscaping activities.

Business As Usual Operational Emissions

The Valley Air District GAMAQI provides an approach to assessing a project's impacts on greenhouse gas emissions by evaluating the project's emissions to the "reduction targets" established in ARB's Assembly Bill (AB) 32 Scoping Plan. For instance, the Valley Air District's guidance recommends that projects should demonstrate that "project-specific GHG emissions would be reduced or mitigated by at least 29 percent, compared to Business As Usual (BAU), including GHG emission reductions achieved since the 2002-2004 baseline period, consistent with GHG emission reduction targets established in the ARB AB 32 Scoping Plan. Projects achieving at least a 29 percent GHG emission reduction compared to BAU would be determined to have a less than significant individual and cumulative impact for GHG."

Subsequent to the Valley Air District's approval of the 2015 GAMAQI, the California Supreme Court issued an opinion that affects the conclusions that should/should not be drawn from a GHG emissions analysis that is based on consistency with the AB 32 Scoping Plan. More specifically, in *Center for Biological Diversity v. California Department of Fish and Wildlife*, for the Newhall Ranch project, the Court ruled that showing a "project-level reduction" that meets or exceeds the Scoping Plan's overall statewide GHG reduction goal is not necessarily sufficient to show that the project's GHG impacts will be adequately mitigated: "the Scoping Plan nowhere related that statewide level of reduction effort to the percentage of reduction that would or should be required from individual projects . . . " The ruling concluded that assessing whether the project was consistent with meeting Statewide emission reduction goals is a legally permissible approach for assessing significance, but the significance finding for the project was not supported by a reasoned explanation based on substantial evidence. The Court offered potential solutions on pages 25–27 of the ruling to address this issue, as summarized below:

Specifically, the Court advised that:

- **Substantiation of Project Reductions from BAU**. A lead agency may use a BAU comparison based on the Scoping Plan's methodology if it also substantiates the reduction a particular

project must achieve to comply with Statewide goals. The Court suggested a lead agency could examine the "data behind the Scoping Plan's business-as-usual model" to determine the necessary project-level reductions from new land use development at the proposed location (p. 25).

- **Compliance with Regulatory Programs or Performance Based Standards**. A lead agency "might assess consistency with AB 32's goal in whole or part by looking to compliance with regulatory programs designed to reduce greenhouse gas emissions from particular activities. (See Final Statement of Reasons, supra, at p. 64 [greenhouse gas emissions 'may be best analyzed and mitigated at a programmatic level.'].)" To the extent a project's design features comply with or exceed the regulations outlined in the Scoping Plan and adopted by the Air Resources Board or other State agencies, a lead agency could appropriately rely on their use as showing compliance with 'performance based standards' adopted to fulfill 'a Statewide . . . plan for the reduction or mitigation of greenhouse gas emissions' (CEQA Guidelines § 15064.4(a)(2), (b)(3); see also id., § 15064(h)(3) [determination that impact is not cumulatively considerable may rest on compliance with previously adopted plans or regulations, including 'plans or regulations for the reduction of greenhouse gas emissions']) (p. 26).
- **Compliance with GHG Reduction Plans or Climate Action Plans**. A lead agency may utilize "geographically specific GHG emission reduction plans" such as climate action plans or greenhouse gas emission reduction plans to provide a basis for the tiering or streamlining of project-level CEQA analysis (p. 26).
- **Compliance with Local Air District Thresholds**. A lead agency may rely on "existing numerical thresholds of significance for greenhouse gas emissions" adopted by, for example, local air districts (p. 27).

As further discussed in Impact GHG-2, the proposed project is consistent with the City of Manteca CAP, which is specifically designed to reduce GHG emissions in accordance with the GHG emission reduction targets identified by the State of California in the ARB Scoping Plan. Additionally, a qualitative analysis of the proposed project's consistency with other relevant planning documents and relevant laws is provided in GHG-2. To ensure consistency with the current Valley Air District guidelines, a quantitative BAU analysis is also included herein.

Operational emissions under the BAU scenario were modeled using CalEEMod Version 2020.4.0. Modeling assumptions for the year 2005 were used to represent 2023 BAU conditions (without the benefit of regulations adopted to reduce GHG emissions). The Valley Air District's guidance recommends using emissions in 2002–2004 in the baseline scenario to represent conditions (as if regulations had not been adopted) to allow the effect of projected growth on achieving reduction targets to be clearly defined.

2023 and 2030 Operational Emissions

Operational emissions were modeled for the years 2023 and 2030 using CalEEMod. CalEEMod assumes compliance with some, but not all, applicable rules and regulations regarding energy efficiency, vehicle fuel efficiency, renewable energy usage, and other GHG reduction policies, as

described in the CalEEMod User's Guide.[22] The reductions obtained from each regulation and the source of the reduction amount used in the analysis are described below.

Emissions Accounting for Applicable Regulations

The following regulations are incorporated into the CalEEMod emission factors:

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

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

- Renewable Portfolio Standards
- Low Carbon Fuel Standard (LCFS)
- Green Building Code Standards (indoor water use)
- California Model WELO (Outdoor Water)

Pavley II/LEV III standards have been incorporated in the latest version of CalEEMod. The ARB estimates a 3 percent reduction in 2020 and a 19 percent reduction from the vehicle categories subject to the regulation by 2030.[23,24]

The ARB GHG Regulation for Medium and Heavy-Duty Engines and Vehicles applies to trucks that would be accessing the project site. The benefits of the regulation were incorporated into CalEEMod Version 2020.4.0. The ARB estimates that this regulation would reduce GHG emissions from the affected vehicles by 7.2 percent.[25]

The LCFS is estimated to achieve a 10 percent reduction in emissions by 2020 and an 18 percent reduction by 2030.[26] CalEEMod does not include credit for the LCFS, so the reduction is calculated off-model based on reductions required by the regulation.

Title 24 reductions for 2013, 2016, and 2019 updates are included in CalEEMod Version 2020.4.0.

RPS is not accounted for in CalEEMod Version 2020.4.0. Reductions from RPS are addressed by revising the electricity emission intensity factor in CalEEMod to account for the utility RPS rate forecast for 2022 and 2030.[27]

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[22] California Air Pollution Control Officers Association (CAPCOA). User's Guide for CalEEMod Version 2020.4.0. Website: http://www.aqmd.gov/caleemod/user's-guide. Accessed January 24, 2022.

[23] California Air Resources Board (ARB). Pavley 1 + Low Carbon Fuel Standard Postprocessor Version 1.0 User's Guide. Website: https://ww3.arb.ca.gov/cc/sb375/tools/pavleylcfs-userguide.pdf. Accessed January 25, 2022.

[24] California Air Resources Board (ARB). Clean Car Standards—Pavley, Assembly Bill 1493. Website: http://www.arb.ca.gov/cc/ccms/ccms.htm. Accessed January 25, 2022.

[25] California Air Resources Board (ARB). Greenhouse Gas Standards for Medium- and Heavy-Duty Engines and Vehicles. Website: https://ww2.arb.ca.gov/our-work/programs/ghg-std-md-hd-eng-veh Accessed January 25, 2022.

[26] California Air Resources Board (ARB). Low Carbon Fuel Standard. Website: https://ww2.arb.ca.gov/our-work/programs/low-carbon-fuel-standard. Accessed January 25, 2022.

[27] California Public Utilities Commission. (CPUC). Renewable Portfolio Standard Quarterly Report. Website: https://www.cpuc.ca.gov/RPS_Reports_Data/. Accessed January 25, 2022.

Energy savings from water conservation resulting from the Green Building Code Standards for indoor water use and California Model WELO for outdoor water use are not included in CalEEMod. The Water Conservation Act of 2009 mandates a 20 percent reduction in urban water use that is implemented with these regulations.[28]

Regulations applicable to project sources and the percent reduction anticipated from each source are shown in Table 9. The percentage reductions are only applied to the specific sources subject to the regulations. For example, the Pavley LEV Standards apply only to light duty cars and trucks.

Table 9: Summary of Appliable Greenhouse Gas Regulations

Regulation	Project Applicability
Pavley Low Emission Vehicle Standards	Light duty cars and trucks accessing the site are subject to the regulation.
Truck and Bus Regulation	Heavy-duty trucks accessing the site for deliveries and services are subject to the regulation.
Low Carbon Fuel Standard (LCFS)	Vehicles accessing the site would use fuel subject to the LCFS.
Title 24 Energy Efficiency Standards	The proposed building would be constructed to meet the latest version of Title 24 (currently 2019). The reduction applies only to energy consumption subject to the regulation.
Green Building Code Standards	The proposed project would include water conservation features required by the standard.
Water Efficient Land Use Ordinance	The proposed project landscaping would comply with the regulation.
Renewable Portfolio Standard (RPS)	Electricity purchased for use at the project site is subject to the 33 percent RPS mandate.

In addition to rules and regulations, the proposed project would incorporate design features and would obtain benefits from its infrastructure. Note that CalEEMod nominally treats these design elements and conditions as "mitigation measures," despite their inclusion in the project description. Therefore, reported operational emissions are considered to represent unmitigated project conditions. Measures that are part of the proposed project design do not require additional CEQA mitigation measures to ensure they are accomplished. Full assumptions and model outputs are provided in Appendix H and results of this analysis for 2023 are presented in Table 10. A second analysis for 2030 is presented in Table 11.

[28] California Department of Water Resources (DWR). The Water Conservation Act of 2009 (Senate Bill X7-7). Website: https://water.ca.gov/programs/water-use-and-efficiency/sb-x7-7. Accessed January 25, 2022.

Table 10: Project Operational Greenhouse Gases 2023

Source	Emissions (MT CO_2e per year)	
	Business As Usual	2023 (with Regulation and Design Features)
Area	0	0
Energy	766	467
Mobile	10,286	7,286
Waste	250	250
Water	31	22
Amortized Construction Emissions	52	52
Total	**11,384**	**8,078**
Reduction from BAU		3,481
Percent Reduction		29.1%
Significance Threshold		29%
Are emissions significant?		**No**

Notes:
BAU = Business As Usual
MT CO_2e = metric tons of carbon dioxide equivalents
The project achieves the Valley Air District 29 percent reduction from BAU threshold, and the 21.7 percent required to show consistency with AB 32 targets.
Source of BAU emissions: CalEEMod output using 2005 modeling year to represent emissions in 2023 without regulations (Appendix H).
Source of 2023 emissions: CalEEMod output (Appendix H).

As shown in Table 10, the proposed project would achieve a reduction of 29 percent from BAU by the year 2023 with regulations and design features incorporated. This is consistent with the 29 percent reduction required by the Valley Air District threshold and the 21.7 percent average reduction from all sources of GHG emissions now required to achieve AB 32 targets. The ARB originally identified a reduction of 29 percent from BAU as needed to achieve AB 32 targets. The 2008 recession and slower growth in the years since 2008 have reduced the growth forecasted for 2023, and the amount needed to be reduced to achieve 1990 levels as required by AB 32. The California Department of Finance (CDF) population forecast that the City of Manteca population growth between 2020 and 2021 was 2.9 percent.[29]

The 29 percent reduction from BAU is 7.3 percent beyond the average reduction required by the State from all sources to achieve the AB 32 2020 target, and therefore addresses the concern

[29] California Department of Finance (CDF). 2021. E-1 Population Estimates for Cities, Counties, and the State – January 1, 2020 and 2021. Website: https://dof.ca.gov/Forecasting/Demographics/Estimates/e-1/. Accessed January 24, 2022.

expressed in Newhall Ranch that projects should likely do more than the average to ensure they are providing a fair share of emission reductions.

Since the proposed project buildout would occur after 2020, additional analysis was conducted to demonstrate consistency with the Senate Bill (SB) 32 2030 target, as summarized in Table 11.

Table 11: Project Operational Greenhouse Gases 2030

Source	Emissions (MT CO_2e per year)	
	Business As Usual	2030 (with Regulation and Design Features)
Area	0	0
Energy	766	440
Mobile	10,286	5,862
Waste	250	250
Water	31	21
Amortized Construction Emissions	52	52
Total	**11,384**	**6,625**
Reduction from BAU		4,759
Percent Reduction		42%
Significance Threshold		29%
Are emissions significant?		**No**

Notes:
MT CO_2e = metric tons of carbon dioxide equivalents
The project achieves the Valley Air District 29 percent reduction from BAU threshold, and the 21.7 percent required to show consistency with AB 32 targets.
Source of BAU emissions: CalEEMod output using 2005 modeling year to represent emissions in 2030 without regulations (Appendix H).
Source of 2030 emissions: CalEEMod output (Appendix H).

As shown in Table 11, the proposed project would achieve a reduction of 42 percent from BAU by the year 2030 with regulations and design features incorporated. No new threshold has been adopted by the City of Manteca for the 2030 target, so in the interim the proposed project must make continued progress toward the 2030 goal.

In conclusion, the proposed project would achieve reductions 20.3 percent beyond the ARB 2020 21.7 percent target and 13 percent beyond the Valley Air District's 29 percent reduction from BAU requirements from adopted regulations and on-site design features in the 2030 operational year. No new threshold has been adopted by the City for the SB 32 2030 target. Based on this progress and the 2017 Scoping Plan Update, it is reasonable to conclude that the proposed project is consistent with the 2017 Scoping Plan and would contribute a reasonable fair-share contribution to achieving

the 2030 target. The fair share may very well be achieved through compliance with increasingly stringent State regulations that apply to new development, such as Title 24 and the California Green Building Standards Code (CALGreen); regulations on energy production, fuels, and motor vehicles that apply to both new and existing development; and voluntary actions to improve energy efficiency in existing development. In addition, compliance with the VMT targets adopted to comply with SB 375 and implemented through the Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS) may be considered to adequately address GHG emissions from passenger cars and light duty trucks. Furthermore, the State strategy relies on the Cap-and-Trade Program to make up any shortfalls that may occur from the other regulatory strategies. The costs of Cap-and-Trade emission reductions would ultimately be passed on to the consumers of fuels, electricity and products produced by regulated industries that include future residents of development projects and other purchasers of products and services. Therefore, this impact would be less than significant.

Summary

As addressed above, the proposed project's GHG emissions would be below the significance thresholds and would have a less than significant impact. In addition, the proposed project would be required to implement General Plan FEIR AQ-P-7, which requires all construction projects to be managed to minimize fugitive dust and construction vehicle emissions. The City's CAP requires development projects to achieve GHG reductions by exceeding several Title 24 standards and CALGreen Building Codes. Therefore, the proposed project's GHG impacts would be less than significant after incorporation of identified mitigation, and the proposed project would not result in any peculiar effects and would not result in new or more severe impacts related to GHG emissions during project operation than what was previously analyzed in the General Plan FEIR.

b) Greenhouse Gases Emissions Reduction Plan Conflict

Less than significant impact. The FEIR did not address the conflicts with GHG reduction plan. However, the emission sources were analyzed in the City's CAP. In order to make a determination of whether the proposed project would be consistent with local plans intended to reduce GHG emissions, the City's CAP and the 2017 Scoping Plan will be referenced herein.

Consistency with City of Manteca's Climate Action Plan

The General Plan includes policies and implementing actions that support and implement the goals established by the CAP, and would minimize potential impacts associated with GHG emissions in the Planning Area. The intent of the GHG Plan is to achieve compliance with State GHG reduction mandates by focusing on feasible actions the City can take to minimize the adverse impacts of growth and development on climate change. The GHG Plan does not reinvent the wheel; rather, it builds on the General Plan policies and implementation measures. Where needed, the GHG Plan provides more details to clarify and focus action and to ensure implementation.

The General Plan contains the following policies related to GHG emissions reduction that are applicable to the proposed project.[30]

Implementing Policies

RC-5.3 Require all new public and privately constructed buildings to meet and comply with construction and design standards that promote energy conservation, including the most current "green" development standards in the California Green Building Standards Code.

RC-5.4 Support innovative and green building best practices including, but not limited to, LEED™ certification for all new development, and encourage public and private projects to exceed the most current "green" development standards in the California Green Building Standards Code.

RC-6.4 Require appliances and equipment, including wood-burning devices, in development projects to meet current standards for controlling air pollution, including particulate matter and toxic air contaminants.

C-2f Ensure that bicycle and pedestrian access is provided through walls and berms to minimize travel distances and increase the viability walking and bicycling.

RC-5a Implement development standards and best practices that promote energy conservation and the reduction in greenhouse gases, including:

- Require new development to be energy-efficient through passive design concepts (e.g., techniques for heating and cooling, building siting orientation, street and lot layout, landscape placement, and protection of solar access);
- Require construction standards which promote energy conservation including window placement, building eaves, and roof overhangs;
- Require all projects to meet minimum State and local energy conservation standards;
- Require best practices in selecting construction methods, building materials, project appliances and equipment, and project design;
- Encourage and accommodate projects that incorporate alternative energy;
- Encourage projects to incorporate enhanced energy conservation measures and other voluntary methods of reducing energy usage and greenhouse gas emissions; and
- Require large energy users to implement an energy conservation plan as part of the project review and approval process, and develop a program to monitor compliance with and effectiveness of that plan.

[30] City of Manteca. 2021. Manteca General Plan Update Environmental Impact Report. Website: https://static1.squarespace.com/static/582f3c2a59cc689c8da65127/t/60538e9e427c364032f6c846/1616088792495/Manteca+GP+DEIR_Public+March+2021_Part1.pdf. Accessed November 23, 2021.

RC-5b Continue to review development projects to ensure that all new public and private development complies with the California Code of Regulations, Title 24 standards as well as the energy efficiency standards established by the General Plan and the Municipal Code.

While several of these policies are voluntary or are cannot be implemented by an individual development project, compliance with Title 24 standards would ensure that the proposed project would not conflict with any of the General Plan energy conservation policies related to the proposed project's building envelope, mechanical systems, and indoor and outdoor lighting.

Consistency with California's Post-2020 Targets

The State's executive branch adopted several Executive Orders related to GHG emissions. Executive Orders S-3-05 and B-30-15 are two examples. Executive Order S-3-05 sets goals to reduce emissions to 1990 levels by 2020 and 80 percent below 1990 levels by 2050. The goal of Executive Order S-3-05 to reduce GHG emissions to 1990 levels by 2020 was codified by AB 32. The proposed project, as analyzed above, is consistent with AB 32. Therefore, the proposed project does not conflict with this component of Executive Order S-3-05. Executive Order B-30-15 establishes an interim goal to reduce GHG emissions to 40 percent below 1990 levels by 2030.

The 2030 goal was codified under SB 32 and is now addressed by the 2017 Scoping Plan Update. The new plan provides a strategy that is capable of reaching the SB 32 target if the measures included in the plan are implemented and achieve reductions within the ranges expected. Under the Scoping Plan Update, local government plays a supporting role through its land use authority and control over local transportation infrastructure. The Plan Update includes reductions from implementation of SB 375 that applies to VMT from passenger vehicles. San Joaquin County targets for SB 375 are 5 percent reduction by 2020 and a 10 percent reduction by 2035 in terms of GHG per captia. SB 375 is implemented with the San Joaquin Council of Governments (COG) RTP/SCS.[31] The RTP/SCS outlines strategies to improve regional transportation system efficiency to encourage fewer and shorter passenger vehicle trips and more trips by transit, walking, and bicycling in amounts sufficient to achieve the SB 375 targets.

Now that the 2017 Scoping Plan has been adopted, new methodologies and threshold approaches are required to determine the fair-share contributions City development projects would need to make to achieve the 2030 target. In the meantime, however, the discussion under "Consistency with SB 32" below addresses the consistency of the proposed project with SB 32, which provides the statutory underpinning of the 2017 Scoping Plan. The SB 32 target requires GHG emissions to be reduced from 1990 levels. No consensus has been reached around the State on a new quantitative target for new development based on consistency with the SB 32 targets.

The Executive Order S-3-05 2050 target has not been codified by legislation. Studies have shown that, in order to meet the 2050 target, aggressive pursuit of technologies in the transportation and energy sectors, including electrification and the decarbonization of fuel, will be required. Because of

[31] San Joaquin Council of Government (COG). 2018. Regional Transportation Plan and Sustainable Communities Strategy. Website: https://www.sjcog.org/278/Adopted-2018-RTPSCS. Accessed May 4, 2022.

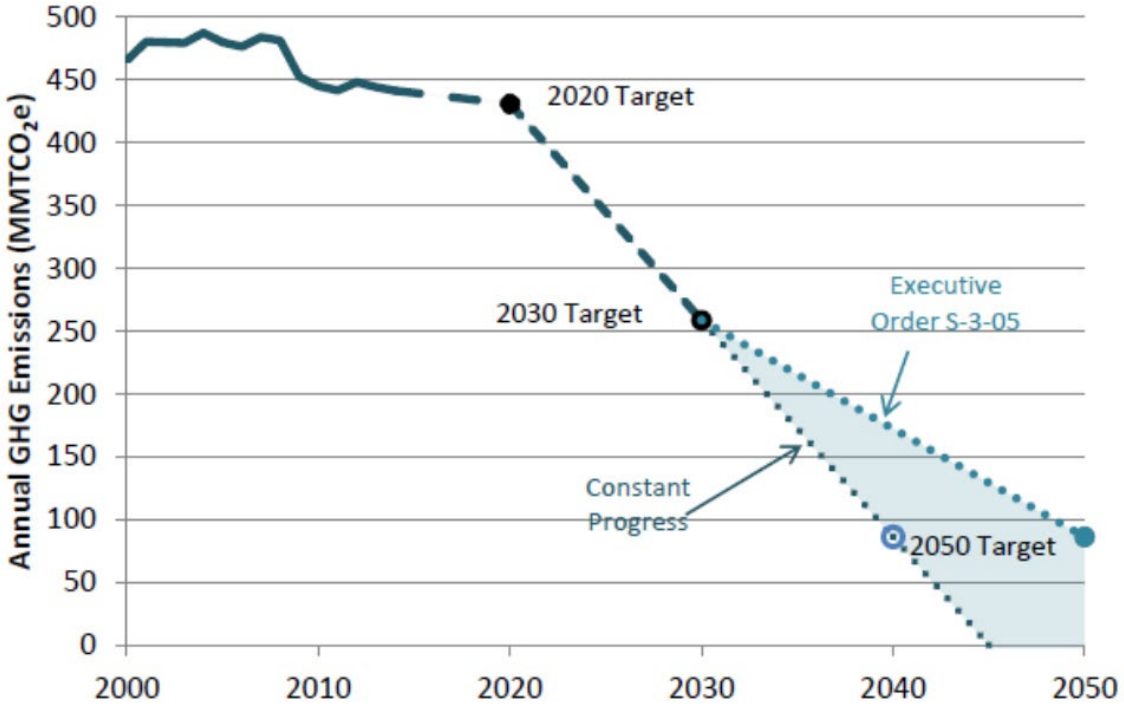
the technological shifts required and the unknown parameters of the regulatory framework in 2050, quantitatively analyzing the proposed project's impacts further relative to the 2050 goal is speculative for purposes of CEQA.[32]

The ARB recognizes that AB 32 establishes an emissions reduction trajectory that will allow California to achieve the more stringent 2050 target: "These [GHG emission reduction] measures also put the State on a path to meet the long-term 2050 goal of reducing California's GHG emissions to 80 percent below 1990 levels. This trajectory is consistent with the reductions that are needed globally to stabilize the climate." In addition, ARB's First Update "lays the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050," and many of the emission reduction strategies recommended by ARB would serve to reduce the proposed project's post-2020 emissions level to the extent applicable by law:

- **Energy Sector:** Continued improvements in California's appliance and building energy efficiency programs and initiatives, such as the State's zero net energy building goals, would serve to reduce the proposed project's emissions level. Additionally, further additions to California's renewable resource portfolio would favorably influence the proposed project's emissions level.
- **Transportation Sector:** Anticipated deployment of improved vehicle efficiency, zero emission technologies, lower carbon fuels, and improvement of existing transportation systems all will serve to reduce the proposed project's emissions level.
- **Water Sector:** The proposed project's emissions level would be reduced as a result of further desired enhancements to water conservation technologies.
- **Waste Management Sector:** Plans to further improve recycling, reuse and reduction of solid waste will beneficially reduce the project's emissions level.

For the reasons described above the proposed project's post-2020 emissions trajectory is expected to follow a declining trend, consistent with the 2030 and 2050 targets. The trajectory required to achieve the post-2020 targets is shown in Figure 1.

[32] California Air Resources Board (ARB). Final 2013 Scoping Plan Update and Appendices. Website: https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2013-scoping-plan-documents. Accessed January 25, 2022.



Source: California Air Resources Board (ARB). 2017. The 2017 Climate Change Scoping Plan Update. Website: https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf. Accessed January 25, 2022.

Figure 1: California's Path to Achieving the 2050 Target

In his January 2015 inaugural address, Governor Brown expressed a commitment to achieve "three ambitious goals" that he would like to see accomplished by 2030 to reduce the State's GHG emissions:

- Increasing the State's RPS from 33 percent in 2020 to 50 percent in 2030;
- Cutting the petroleum use in cars and trucks in half; and
- Doubling the efficiency of existing buildings and making heating fuels cleaner.

These expressions of executive branch policy may be manifested in adopted legislative or regulatory action through the State agencies and departments responsible for achieving the State's environmental policy objectives, particularly those relating to global climate change.[33]

Further, recent studies show that the State's existing and proposed regulatory framework will allow the State to reduce its GHG emissions level to 40 percent below 1990 levels by 2030, and to 80 percent below 1990 levels by 2050. Even though these studies did not provide an exact regulatory and technological roadmap to achieve the 2030 and 2050 goals, they demonstrated that various combinations of policies could allow the Statewide emissions level to remain very low through 2050,

[33] Office of Governor. 2015. California Establishes Most Ambitious Greenhouse Gas Goal in North America. Website: https://www.ca.gov/archive/gov39/2015/04/29/news18938/index.html#:~:text=SACRAMENTO%20%E2%80%93%20Governor%20Edmund%20G.,next%20decade%20and%20a%20half. Accessed January 24, 2022.

suggesting that the combination of new technologies and other regulations not analyzed in the studies could allow the State to meet the 2050 target.[34]

Given the proportional contribution of mobile source-related GHG emissions to the State's inventory, recent studies also show that relatively new trends—such as the increasing importance of web-based shopping, the emergence of different driving patterns, and the increasing effect of web-based applications on transportation choices—are beginning to substantially influence transportation choices and the energy used by transportation modes. These factors have changed the direction of transportation trends in recent years and will require the creation of new models to effectively analyze future transportation patterns and the corresponding effect on GHG emissions. For the reasons described above the proposed project's post-2020 emissions trajectory is expected to follow a declining trend, consistent with the 2030 and 2050 targets.

Consistency with SB 32

The 2017 Scoping Plan includes the strategy that the State intends to pursue to achieve the 2030 targets of Executive Order S-3-05 and SB 32. The multi-faceted approach to reducing GHG emissions is summarized as follows:

- SB 350
  - Achieve 50 percent RPS by 2030.
  - Doubling of energy efficiency savings by 2030.
- Low Carbon Fuel Standard
  - Increased stringency (reducing carbon intensity 18 percent by 2030, up from 10 percent in 2020).
- Mobile Source Strategy (Cleaner Technology and Fuels Scenario)
  - Maintaining existing GHG standards for light- and heavy-duty vehicles.
  - Put 4.2 million Zero-Emission Vehicles (ZEVs) on the roads.
  - Increase ZEV buses, delivery, and other trucks.
- Sustainable Freight Action Plan
  - Improve freight system efficiency.
  - Maximize use of near-ZEV and equipment powered by renewable energy.
  - Deploy over 100,000 zero-emission trucks and equipment by 2030.
- Short-Lived Climate Pollutant Reduction Strategy
  - Reduce emissions of methane and hydrofluorocarbons 40 percent below 2013 levels by 2030.
  - Reduce emissions of black carbon 50 percent below 2013 levels by 2030.
- SB 375 Sustainable Communities Strategies
  - Increased stringency of 2035 targets.

[34] Energy and Environmental Economics. 2015. Pathways to Deep Decarbonization in the United States. Website: https://www.eli.org/eli-press-books/legal-pathways-deep-decarbonization-united-states. Accessed January 24, 2022.

- Post-2020 Cap-and-Trade Program
  - Declining caps, continued linkage with Québec, and linkage to Ontario, Canada.
  - The ARB will look for opportunities to strengthen the program to support more air quality co-benefits, including specific program design elements. In Fall 2016, ARB staff described potential future amendments including reducing the offset usage limit, redesigning the allocation strategy to reduce free allocation to support increased technology and energy investment at covered entities and reducing allocation if the covered entity increases criteria or toxics emissions over some baseline.
- By 2018, develop Integrated Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

Table 12 provides an analysis of the proposed project's consistency with the 2017 Scoping Plan Update measures.

Table 12: Consistency with SB 32 2017 Scoping Plan Update

Scoping Plan Measure	Project Consistency
SB 350 50 percent Renewable Mandate. Utilities subject to the legislation will be required to increase their renewable energy mix from 33 percent in 2020 to 50 percent in 2030.	**Not applicable.** This measure would apply to utilities and not to individual development projects. The proposed project would purchase electricity from a utility subject to the SB 350 Renewable Mandate and the RPS requirements. SB 100 has increased the 2030 RPS standards to 60 percent by 2030, superseding the increase required by SB 350.
SB 350 Double Building Energy Efficiency by 2030. This is equivalent to a 20 percent reduction from 2014 building energy usage compared to current projected 2030 levels.	**Not applicable**. This measure applies to existing buildings. New structures are required to comply with Title 24 Energy Efficiency Standards that are expected to increase in stringency over time. The proposed project would comply with the applicable Title 24 Energy Efficiency Standards in effect at the time building permits are received.
Low Carbon Fuel Standard. This measure requires fuel providers to meet an 18 percent reduction in carbon content by 2030.	**Not applicable.** This is a Statewide measure that cannot be implemented by a project applicant or lead agency. However, vehicles accessing the project site would benefit from the standards.
Mobile Source Strategy (Cleaner Technology and Fuels Scenario). Vehicle manufacturers will be required to meet existing regulations mandated by the LEV III and Heavy-Duty Vehicle programs. The strategy includes a goal of having 4.2 million ZEVs on the road by 2030 and increasing numbers of ZEV trucks and buses.	**Not applicable**. The proposed project would develop a shopping center which is retail and commercial in nature. While the proposed project would involve goods movement activities, the fleet owners that manage the truck and freight operations on-site of the proposed project would be required to comply with this strategy.

Scoping Plan Measure	Project Consistency
Sustainable Freight Action Plan. The plan's target is to improve freight system efficiency 25 percent by increasing the value of goods and services produced from the freight sector, relative to the amount of carbon that it produces by 2030. This would be achieved by deploying over 100,000 freight vehicles and equipment capable of zero emission operation and maximize near-zero emission freight vehicles and equipment powered by renewable energy by 2030.	**Not applicable.** This measure applies to owners and operators of trucks and freight operations. While the proposed project would involve goods movement activities, the fleet owners that manage the truck and freight operations on-site of the proposed project would be required to comply with this plan.
Short-Lived Climate Pollutant (SLCP) Reduction Strategy. The strategy requires the reduction of SLCPs by 40 percent from 2013 levels by 2030 and the reduction of black carbon by 50 percent from 2013 levels by 2030.	**Consistent.** The proposed project would not include major sources of black carbon. This measure revolves around ARB's SLCP Reduction Strategy that was released in April 2016 as a result of SB 650. SB 650 required the State to develop a strategy to reduce emissions of SLCPs. DPM reductions have come from strong efforts to reduce on-road vehicle emissions. Car and truck engines used to be the largest sources of anthropogenic black carbon emissions in California, but the State's existing air quality policies would virtually eliminate black carbon emissions from on-road diesel engines within 10 years. These policies are based on existing technologies.
SB 375 Sustainable Communities Strategies. Requires Regional Transportation Plans to include a sustainable communities strategy for reduction of per capita vehicle miles traveled.	**Not applicable.** The proposed project does not include the development of a Regional Transportation Plan.
Post-2020 Cap-and-Trade Program. The Post 2020 Cap-and-Trade Program continues the existing program for another 10 years. The Cap-and-Trade Program applies to large industrial sources such as power plants, refineries, and cement manufacturers.	**Not applicable.** The proposed project is not one targeted by the cap-and-trade system regulations, and, therefore, this measure does not apply to the proposed project. However, the post-2020 Cap-and-Trade Program indirectly affects people and entities who use the products and services produced by the regulated industrial sources when increased cost of products or services (such as electricity and fuel) are transferred to the consumers.
Natural and Working Lands Action Plan. The ARB is working in coordination with several other agencies at the federal, State, and local levels, stakeholders, and with the public, to develop measures as outlined in the Scoping Plan Update and the governor's Executive Order B-30-15 to reduce GHG emissions and to cultivate net carbon sequestration potential for California's natural and working land.	**Not Applicable**. The project site is in a built-up urban area and would not be considered natural or working lands.

Scoping Plan Measure	Project Consistency

Source: California Air Resources Board (ARB). 2017. California's 2017 Climate Change Scoping Plan. November. Website: https://ww3.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf. Accessed January 25, 2022.

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

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

Summary

The proposed project is consistent with the City of Manteca's CAP and would not conflict with the provisions of SB 32. Therefore, the proposed project does not conflict with any plans to reduce GHG emissions and the impact would be less than significant. The proposed project would not result in peculiar effects and would not result in new or more severe impacts related to conflicts with applicable GHG reduction plans than previously analyzed in the General Plan FEIR.

Applicable FEIR Mitigation Measures

None.

Conclusion

There is no additional information identifying new significant effects, nor is there an increase in the severity of previously identified impacts related to GHG emissions. The conclusions from the General Plan FEIR regarding GHG emissions and energy impacts remain unchanged.

Environmental Issues	CEQA Section 15183(b) Criteria				
	Prior FEIR Determination	Effect Peculiar to Project or Site?	New Significant Effect?	New Significant Off-site, Cumulative Impact?	New Information, More Severe Adverse Impact?
4.9 Hazards and Hazardous Materials *Would the project:*					
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Less than significant impact with mitigation incorporated	No	No	No	No
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?	Less than significant impact with mitigation incorporated	No	No	No	No
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	Less than significant impact with mitigation incorporated	No	No	No	No
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?	No impact	No	No	No	No
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?	N/A	No	No	No	No
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Less than significant impact with mitigation incorporated	No	No	No	No
g) Expose people or structures, either directly or indirectly to a significant risk of loss, injury or death involving wildland fires?	N/A	No	No	No	No

a) Routine Transport, Use, or Disposal of Hazardous Materials

The FEIR found that buildout of the General Plan would have a potentially significant impact associated with the routine transport, use, or disposal of hazardous materials resulting from light industrial development and some commercial development, which may lead to more transportation of hazardous materials to and from I-5. The FEIR set forth MM HM-1.1 to reduce the severity of the impact to a less than significant level.

A Phase I ESA was conducted for the project site by Partner on August 12, 2021 (Appendix I).[35] A Recognized Environmental Condition (REC) refers to the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property, due to release to the environment; under conditions indicative of a release to the environment; or under conditions that pose a material threat of a future release to the environment. The Phase I ESA did not find evidence of the presence of any hazardous substance, past release of hazardous substances on the project site. However, it did identify two environmental considerations.

An environmental issue refers to environmental concerns identified by Partner, which do not qualify as RECs; however, the following warrant further discussion:

- The residence on the subject property is connected to an on-site domestic well and septic system. Additionally, an irrigation well is located within the southern portion of Parcel A. If the wells and septic systems are not planned for future use, they should be properly abandoned/destroyed in accordance with applicable regulations (See MM HAZ-1a).
- Because of the age of the subject property buildings, there is a potential that asbestos-containing materials (ACMs) and/or lead-based paint (LBP) are present. Readily visible suspect ACMs and painted surfaces were observed in good condition. Prior to the disturbance of any suspect ACMs or LBP at the subject property, a comprehensive survey, designed to determine whether the suspect materials are regulated, is recommended. If such materials are identified and need to be disturbed, repaired, or removed, a licensed abatement contractor should be consulted.

No further investigation at the project site was recommended.

Furthermore, proposed project components such as the hardware store would transport, use, or dispose of small quantities of hazardous materials. However, MM HM-1.1 would require that the storage, use, or transportation of hazardous materials is annually disclosed to the City. Additionally, numerous federal, State, and local laws and regulations have been enacted to regulate the management of hazardous materials. To the extent that the shopping center handles common hazardous materials, this was previously considered by the FEIR. For these reasons, the proposed project would not result in new or more severe impacts than what was disclosed in the FEIR. No additional analysis is required.

[35] Partner Engineering and Science Inc. August 12, 2021. Phase I Environmental Site Assessment Report. Proposed Retail Shopping Center 1601 and 1669 South Main Street Manteca, California 95337.

b) Risk of Upset

The FEIR found that buildout of the General Plan would have a potentially significant impact in terms of increased risk of upset from releases of hazardous materials. Risk of accident involving hazardous materials would be increased because buildout of the General Plan would involve expanded industrial and commercial uses that could involve transportation, storage, and use of hazardous materials. The FEIR sets forth MM HM-2.1 to reduce the severity of the impact to a less than significant level.

As described above, the project site contains an on-site well and a septic tank that would be removed and destroyed. Per recommendations above, the well and septic tank would be removed and destroyed in accordance with all applicable regulations, therefore limiting risk of accident. Furthermore, it is possible that ACMs and LBPs are present in the residence on the project site. However, a comprehensive survey would determine the presence of these materials before demolition. A licensed abatement contractor shall be consulted if hazardous materials are found, limiting to the risk of accident.

According to the California State Water Resources Control Board (State Water Board) Geotracker, the nearest hazardous materials cleanup site is approximately 0.15-mile southeast of the project site, along East Woodward Avenue. The cleanup status is complete, and the case was closed as of 2009.[36] Therefore, the contamination near the project site would not pose as a hazard to the public or to the environment.

While the proposed project would use some hazardous materials and create some risk of accident, the proposed project would not be a large quantity user of hazardous materials. Additionally, numerous federal, State, and local laws and regulations have been enacted to regulate the management of hazardous materials to reduce risks of accident. For these reasons, the proposed project would not result in new or more severe impacts than what was disclosed in the FEIR. No additional analysis is required.

c) Exposure of Schools to Hazardous Materials or Emissions

The FEIR found that buildout of the General Plan would have a potentially significant impact in terms of exposing schools to hazardous materials or emissions because there were plans for additional schools to be built. The FEIR set forth MM HM-3.1 to reduce the severity of the impact to a less than significant level.

The General Plan designates the project site for ‘Commercial’ use and the proposed shopping center is consistent with that land use designation. The project site is located 0.5 mile from The Veritas School, the closest school, and, therefore, would not have the potential to expose schools located within 0.25 mile of a school. For these reasons, the proposed project would not result in new or more severe impacts than what was disclosed in the FEIR. No additional analysis is required.

[36] California State Water Resources Control Board (State Water Board). 2021. Karlson Trucking, Manteca (SL185882949). Website: https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=SL185882949. Accessed December 29, 2021.

d) Hazardous Materials Sites

The FEIR found that buildout of the General Plan would have no impact on Cortese List hazardous materials sites because none are located within the Planning Area. The FEIR concluded that the residual significance would result in no impacts.

A query of the State Water Resources Control Board's GeoTracker Database[37] indicates that there are no Cortese List hazardous materials sites within 0.5 mile of the project site. As such, the proposed project would not be susceptible to hazardous materials releases from Cortese List sites. For these reasons, the proposed project would not result in new or more severe impacts than what was disclosed in the FEIR. No additional analysis is required.

e) Airports

The FEIR did not address exposure of persons to aviation hazards due to being within proximity to an airport. There are no airports within the Planning Area and the nearest one (Stockton Metropolitan Airport) is more than 1 mile north of the Planning Area. Therefore, the likelihood of exposure to aviation hazards is very low and the FEIR concluded that no impact would occur.

The project site is 7.4 miles from Stockton Metropolitan Airport. This condition precludes the possibility of exposure to aviation hazards. No impact would occur. For these reasons, the proposed project would not result in new or more severe impacts than what was disclosed in the FEIR. No additional analysis is required.

f) Emergency Response and Evacuation

The FEIR found that buildout of the General Plan would result in a less than significant impact associated with emergency response and evacuation with incorporation of MM HM-5.1.

The General Plan designates the project site for 'Commercial' use and the proposed shopping center is consistent with that land use designation. The proposed project would provide three access points along West Atherton Drive and two access points along South Main Street, consistent with California Fire Code requirements for emergency access. For these reasons, the proposed project would not result in new or more severe impacts than what was disclosed in the FEIR. No additional analysis is required.

g) Wildland Fires

The FEIR addressed wildland fires in Section 1.5, EIR Focus and Effects Found not to be Significant. The undeveloped portions of the Planning Area mostly contain agricultural land, which has an extremely low susceptibility to wildland fires because the land is actively managed. Therefore, the likelihood of the Planning Area being exposed to wildland fires is low and it was determined that no impact would occur.

[37] California State Water Resources Control Board (State Water Board). 2022. State Water Resources Control Board GeoTracker. Website: : https://geotracker.waterboards.ca.gov/. Accessed January 26, 2022.

The project site contains flat, undeveloped land that previously supported an orchard. It is bordered by urban infrastructure (e.g., Atherton Drive and South Main Street), existing developed residential uses, and a park. For these reasons, the project site is not susceptible to wildland fires. The proposed project would not result in new or more severe impacts than what was disclosed in the FEIR. No additional analysis is required.

Applicable General Plan FEIR Mitigation Measures

MM HAZ-1a The on-site domestic well, irrigation well and septic tank system shall be destroyed in accordance with San Joaquin County Environmental Health Department regulations.

General Plan EIR MM HM-1.1

HM-1.1 The General Plan 2023 Safety Element of (Subsection 7) provides the following goal, policy (P), and implementation (I) measures to mitigate the exposure of residents to hazardous materials:

S-I-9 The City shall require businesses that manufacture, store, use, or transport significant quantities of hazardous materials to identify annually such materials and their quantities.

S-I-10 The City shall require the submittal of lists of hazardous materials used in existing and proposed industrial and commercial businesses within the City of Manteca. The list shall be maintained through the Manteca Fire Department and updated through periodic review.

Conclusion

The conclusions from the FEIR remain unchanged.

Environmental Issues	CEQA Section 15183(b) Criteria				
	Prior FEIR Determination	Effect Peculiar to Project or Site?	New Significant Effect?	New Significant Off-site, Cumulative Impact?	New Information, More Severe Adverse Impact?
4.10 Hydrology and Water Quality *Would the project:*					
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	Less than significant impact with mitigation incorporated	No	No	No	No
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	Less than significant impact	No	No	No	No
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	–	–	–	–	–
(i) result in substantial erosion or siltation on- or off-site;	Less than significant impact with mitigation incorporated	No	No	No	No
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	Less than significant impact with mitigation incorporated	No	No	No	No
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	Less than significant impact with mitigation incorporated	No	No	No	No
(iv) impede or redirect flood flows?	Less than significant impact with mitigation incorporated	No	No	No	No
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	Less than significant impact	No	No	No	No

Environmental Issues	CEQA Section 15183(b) Criteria				
	Prior FEIR Determination	Effect Peculiar to Project or Site?	New Significant Effect?	New Significant Off-site, Cumulative Impact?	New Information, More Severe Adverse Impact?
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	N/A	No	No	No	No

a) Water Quality

The FEIR found that buildout of the General Plan would result in less than significant impacts associated with water quality standards after incorporation of MM HWQ-1.

The proposed project would convert an undeveloped, pervious surface to mostly impervious conditions. The proposed project would increase impervious surfaces on the project site to 81 percent. However, the proposed project's storm drainage system would consist of bioretention areas, inlets, underground piping, and basins that would capture runoff and route it to a mechanical filtration device at the southwest corner of the project site. The mechanical filtration device would be sized appropriately for treatment according to the multi-agency post-construction stormwater standards manual.[38] The proposed project would connect to a detention basin southwest of the project site in Terra Bella Park. While the detention basin does not currently have adequate capacity to serve the proposed project, a drainage plan, subject to approval by the City, would be incorporated as a condition of approval for the proposed project. The storm drainage system would be required to be designed in accordance with the requirements and specifications of the City's Public Works Department. Stormwater lines would be constructed along West Atherton Drive and South Main Street.

Furthermore, the proposed project would be required to prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) in accordance with applicable federal and State requirements. The SWPPP would identify Best Management Practices (BMPs) that are intended to prevent erosion during construction activity. These construction and operational features would ensure the proposed project would not violate water quality standards. Per MM HWQ-1.1, the proposed project would be required to comply with the Central Valley Regional Water Quality Control Board (Central Valley RWQCB) regulations and standards. For these reasons, the proposed project would not result in new or more severe impacts than what was disclosed in the FEIR. No additional analysis is required.

b) Groundwater

The FEIR found that buildout of the General Plan would have a less than significant impact on groundwater. At the time the FEIR was published, the City was expected to receive surface water

[38] City of Lathrop, Lodi, Manteca, Patterson, and Tracy, and the County of San Joaquin. 2015. Post-Construction Stormwater Standards Manual (DRAFT). Website: https://www.ci.manteca.ca.us/PublicWorks/Wastewater/Documents/Multi-Agency%20Post-Construction%20Standards%20Manual%202015-04-20%20DRAFT.pdf. Accessed January 19, 2022.

supplies from South San Joaquin Irrigation District by 2005. The availability of surface water would allow the City to diversify its water supply sources and reduce reliance on groundwater. However, Manteca continues to pump groundwater to meet the full projected demand. The FEIR concluded that the residual significance would be less than significant.

The proposed project would be served with potable water provided by the City. As of 2021, the City's water supply sources are groundwater (50 percent) and surface water (50 percent).[39] Furthermore, the General Plan designates the project site for 'Commercial' use and the proposed shopping center is consistent with that land use designation. This indicates that the proposed project would also be consistent with the City's long-term water supply planning projections. For these reasons, the proposed project would not result in new or more severe impacts than what was disclosed in the FEIR. No additional analysis is required.

c) Drainage

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

The FEIR found that buildout of the General Plan would result in less than significant impacts associated with wind erosion after incorporation of MM GSS-3.1.

Grading and site preparation for the proposed project would create new drainage patterns. However, the proposed project is subject to National Pollutant Discharge Elimination System (NPDES) requirements as delineated in the Municipal Regional Stormwater (MRP) NPDES Permit. Areas of 1 acre or more of disturbance are subject to preparing and implementing a SWPPP for the prevention of runoff during construction. The proposed project would be required to implement erosion and sedimentation control measures, such as a SWPPP, during construction and operation. To the extent that the proposed project is susceptible to wind erosion, this was previously considered by the FEIR. In accordance with MM GEO-2, erosion control measures would be implemented to prevent sedimentation in downstream waterways. For these reasons, the proposed project would not result in new or more severe impacts than what was disclosed in the FEIR. No additional analysis is required.

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

The FEIR found that buildout of the General Plan would result in less than significant impacts associated with increasing the rate of runoff after incorporation of MM HWQ-3.1.

The proposed project would convert an undeveloped, pervious surface to an impervious pavement. However, according to the Federal Emergency Management Agency (FEMA) National Flood Hazard Layer (NFHL), the project site is not located within an area with flood risks.[40] The

[39] City of Manteca. Water System. Website: https://www.ci.manteca.ca.us/Engineering/Pages/Water-System.aspx. Accessed March 4, 2022.

[40] Federal Emergency Management Agency (FEMA). 2021. FEMA's National Flood Hazard Layer (NFHL) Viewer). Website: https://hazards-fema.maps.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d4879338b5529aa9cd. Accessed December 29, 2021.

proposed project would increase impervious surfaces on the project site to 81 percent, increasing runoff. However, the proposed project's storm drainage system would consist of bioretention areas, inlets, underground piping, and basins that would capture runoff and route it to a mechanical filtration device at the southwest corner of the project site. The mechanical filtration device would be sized appropriately for treatment according to the multi-agency post-construction stormwater standards manual.[41] The proposed project would connect to a 4.37-acre detention basin southwest of the project site in Terra Bella Park. While the detention basin does not currently have adequate capacity to serve the proposed project, a drainage plan, subject to approval by the City, would be incorporated as a condition of approval for the proposed project. The storm drainage system would be required to be designed in accordance with the requirements and specifications of the City's Public Works Department. Stormwater lines would be constructed along West Atherton Drive and South Main Street. Stormwater lines would be constructed along West Atherton Drive and South Main Street. Furthermore, the proposed project would be required to comply with MM HWQ-3.1. For these reasons, the proposed project would not result in new or more severe impacts than what was disclosed in the FEIR. No additional analysis is required.

(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;

The FEIR found that buildout of the General Plan would result in less than significant impacts associated with additional sources of polluted runoff after incorporation of MM HWQ-4.1.

The proposed project would increase impervious surfaces on the project site to 81 percent, increasing runoff. However, the proposed project's storm drainage system would consist of bioretention areas, inlets, underground piping, and basins that would capture runoff and routed to a mechanical filtration device at the southwest corner of the project site. The mechanical filtration device would be sized appropriately for treatment according to the multi-agency post-construction stormwater standards manual.[42] The proposed project would connect to a detention basin southwest of the project site in Terra Bella Park. While the detention basin does not currently have adequate capacity to serve the proposed project, a drainage plan, subject to approval by the City, would be incorporated as a condition of approval for the proposed project. The storm drainage system would be required to be designed in accordance with the requirements and specifications of the City's Public Works Department. Stormwater lines would be constructed along West Atherton Drive and South Main Street. Stormwater lines would be constructed along West Atherton Drive and South Main Street. Furthermore, per MM HWQ-4.1, the proposed project would be required to prepare and implement a SWPPP in accordance with applicable federal and State requirements. The SWPPP would identify BMPs that are intended to prevent runoff during construction activity. For these reasons, the proposed project would

[41] City of Lathrop, Lodi, Manteca, Patterson, and Tracy, and the County of San Joaquin. 2015. Post-Construction Stormwater Standards Manual (DRAFT). Website: https://www.ci.manteca.ca.us/PublicWorks/Wastewater/Documents/Multi-Agency%20Post-Construction%20Standards%20Manual%202015-04-20%20DRAFT.pdf. Accessed January 19, 2022.

[42] City of Lathrop, Lodi, Manteca, Patterson, and Tracy, and the County of San Joaquin. 2015. Post-Construction Stormwater Standards Manual (DRAFT). Website: https://www.ci.manteca.ca.us/PublicWorks/Wastewater/Documents/Multi-Agency%20Post-Construction%20Standards%20Manual%202015-04-20%20DRAFT.pdf. Accessed January 19, 2022.

not result in new or more severe impacts than what was disclosed in the FEIR. No additional analysis is required.

(iv) impede or redirect flood flows?

The FEIR found that buildout of the General Plan would result in less than significant impacts associated with flooding after incorporation of MM HWQ-3.1

The proposed project would convert an undeveloped, pervious surface to an impervious pavement. However, according to the FEMA NFHL, the project site is not located within an area with flood risks.[43] The proposed project's storm drainage system would consist of bioretention areas, inlets, underground piping, and basins that would capture runoff and routed to a mechanical filtration device at the southwest corner of the project site. The mechanical filtration device would be sized appropriately for treatment according to the multi-agency post-construction stormwater standards manual.[44] The proposed project would connect to a detention basin southwest of the project site in Terra Bella Park. While the detention basin does not currently have adequate capacity to serve the proposed project, a drainage plan, subject to approval by the City, would be incorporated as a condition of approval for the proposed project. The storm drainage system would be required to be designed in accordance with the requirements and specifications of the City's Public Works Department. Stormwater lines would be constructed along West Atherton Drive and South Main Street. Stormwater lines would be constructed along West Atherton Drive and South Main Street. This drainage system would help capture any flood flows. Furthermore, the proposed project would be required to comply with MM HYD-3a. For these reasons, the proposed project would not result in new or more severe impacts than what was disclosed in the FEIR. No additional analysis is required.

d) Risk of Pollutant Release Due to Inundation

The FEIR found that buildout of the General Plan would have a less than significant impact associated with inundation. It is highly unlikely that inundation from a seiche or tsunami would affect the Planning Area because the nearest body of water is the San Joaquin River, which is protected by a levee system. Therefore, the FEIR concluded that this impact would be less than significant.

According to the FEMA NFHL, the project site is not located within an area with flood risks.[45] As described above, the City, including the project site, is unlikely to experience inundation from a seiche or tsunami. The detention basin does not currently have adequate capacity to serve the proposed project and would require modification. While the detention basin does not currently have adequate capacity to serve the proposed project, a drainage plan, subject to approval by the City,

[43] Federal Emergency Management Agency (FEMA). 2021. FEMA National Flood Hazard Layer (NFHL) Viewer. Website: https://hazards-fema.maps.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d4879338b5529aa9cd. Accessed December 29, 2021.

[44] City of Lathrop, Lodi, Manteca, Patterson, and Tracy, and the County of San Joaquin. 2015. Post-Construction Stormwater Standards Manual (DRAFT). Website: https://www.ci.manteca.ca.us/PublicWorks/Wastewater/Documents/Multi-Agency%20Post-Construction%20Standards%20Manual%202015-04-20%20DRAFT.pdf. Accessed January 19, 2022.

[45] Federal Emergency Management Agency (FEMA). 2021. FEMA's National Flood Hazard Layer (NFHL) Viewer). Website: https://hazards-fema.maps.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d4879338b5529aa9cd. Accessed December 29, 2021.

would be incorporated as a condition of approval for the proposed project. The storm drainage system would be required to be designed in accordance with the requirements and specifications of the City's Public Works Department. Stormwater lines would be constructed along West Atherton Drive and South Main Street. For these reasons, the proposed project would not result in new or more severe impacts than what was disclosed in the FEIR. No additional analysis is required.

e) Water Quality Control or Sustainable Groundwater Management Plans Consistency

The FEIR did not analyze General Plan consistency with a Water Quality Control or Sustainable Groundwater Management Plan. The Central Valley RWQCB published a revised Water Quality Control Plan (Basin Plan) in 2018. The City of Manteca published the 2015 Urban Water Management Plan (UWMP) in 2016. The San Joaquin County and Delta Water Quality Coalition published a Comprehensive Groundwater Quality Management Plan in 2017.

The proposed project would be subject to an MRP NPDES Permit and would ensure that adequate drainage would be provided through the existing water and sanitary sewer lines as well as the bioretention treatment areas. As previously mentioned, the proposed project would be required to prepare and implement a SWPPP in accordance with applicable federal and State requirements. The SWPPP would identify BMPs that are intended to prevent runoff during construction activity. Furthermore, the General Plan contains several policies intended to protect groundwater supplies. Policy RC-I-3 requires large commercial water users to submit a use and conservation plan as part of the project entitlement review and approval process and develop a program to monitor compliance with effectiveness of that plan. The General Plan designates the project site for 'Commercial' use and the proposed shopping center is consistent with that land use designation. Therefore, the proposed project is considered planned growth and would not conflict with the Basin Plan, the UWMP, and the Comprehensive Groundwater Quality Management Plan. Impacts would be less than significant.

Applicable General Plan FEIR Mitigation Measures

General Plan EIR MM HWQ-1.1

HWQ-1.1 Subsection 8.6 of the Resource Conservation Element of the proposed General Plan 2023 addresses water quality. The following implementation measure (I) should be amended (as shown below in bold) to meet water quality standards and waste discharge requirements for groundwater and surface water**:**

> **RC-I-24** Comply with the Regional Water Control Board's regulations and standards to maintain and improve groundwater **and surface water quality** in Manteca.

See MM GEO-2

General Plan EIR MM HWQ-3.1

HWQ-3.1 The Safety Element (Section 7) of the General Plan 2023 addresses the issue of impervious surfaces and flooding potential. The following implementation measures (I) are intended to reduce the amount of impervious surfaces and the subsequent flooding potential:

S-I-7 Where feasible, require the use of pervious paving materials, such as brick or stepping stones with sand joints.

S-I-8 New development shall be required to maintain natural stream courses and adjacent habitat and combine flood control, recreation, water quality, and open space functions.

General Plan EIR MM HWQ-4.1

HWQ-4.1 The Resource Conservation Element (Section 7) of the proposed General Plan 2023 provides the following policy (P) and implementation measures (I) to help reduce urban contaminants from polluting receiving water bodies:

RC-I-23 Utilize cost-effective urban runoff controls, including Best Management Practices (BMPs), to limit urban pollutants from entering the water courses.

Conclusion

The conclusions from the FEIR remain unchanged.

Environmental Issues	CEQA Section 15183(b) Criteria				
	Prior FEIR Determination	Effect Peculiar to Project or Site?	New Significant Effect?	New Significant Off-site, Cumulative Impact?	New Information, More Severe Adverse Impact?
4.11 Land Use and Planning *Would the project:*					
a) Physically divide an established community?	Less than significant impact	No	No	No	No
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?	Less than significant impact	No	No	No	No

a) Division of an Established Community

The FEIR found that buildout of the General Plan would have a less than significant impact on division of an established community because the General Plan promotes outward growth and preservation of existing neighborhoods. The FEIR concluded that the residual significance would be less than significant.

The project site contains an existing single-family dwelling unit that would be demolished as part of the proposed project. However, the removal of one dwelling unit would not constitute the division of an established community. Moreover, the General Plan designates the project site for 'Commercial' use and the proposed shopping center is consistent with that land use designation. The proposed project would be a neighborhood shopping center, where one does not exist in this residential area. Therefore, the proposed project would further establish the community. For these reasons, the proposed project would not result in new or more severe impacts than what was disclosed in the FEIR. No additional analysis is required.

b) Conflict with Applicable Land Use Plans, Policies, or Regulations

The FEIR found that buildout of the General Plan would have a less than significant impact on conflicts with applicable land use plans because the General Plan promotes the logical and orderly expansion of the City. The FEIR concluded that the residual significance would be less than significant.

The project site is located in the General Commercial Zoning District, which provides development standards for building setbacks, building heights, and FAR.

The proposed project is adjacent to a residential area at its southern boundary. The General Commercial Zoning District requires that rear setback to be 40 feet if the proposed project is

adjacent to the residential zone. The proposed project would incorporate an 50-foot rear setback where it is adjacent to residential uses, which would comply with this standard.

The maximum allowed building height for the General Commercial Zoning District is 35 feet. However, Section 17.10.100.2 of the Municipal Code allows for a 10 percent maximum waiver of height requirements if no other structures exist on the project site. Since the existing structure on-site would be demolished, a 10 percent height waiver would bring the allowable height to 38.5 feet. The peak height at the entry feature of the grocery store building would be approximately 45 feet. Per Section 17.10.100 of the Municipal Code, the project applicant would need to obtain a Minor Zone Modification from the City to allow for this building height.[46] However, the remainder of the grocery store building, the retail shops building, the drive-thru restaurant buildings, and the car wash tunnel would be below 35 feet in height and compliant with height standards for the General Commercial Zoning District.

The maximum allowable FAR for the General Commercial zoning district and land use designation is 0.6. The proposed project would have a FAR of 0.2 and would comply with this standard.

Given the City approves a Minor Zone Modification for the proposed height of the grocery store, development of the proposed project would not conflict with an applicable land use plan and the proposed project would not result in new or more severe impacts than what was disclosed in the FEIR. No additional analysis is required.

Applicable General Plan FEIR Mitigation Measures

None required.

Conclusion

The conclusions from the FEIR remain unchanged.

[46] City of Manteca. Manteca Municipal Code Section 17.10.100 Minor Zone Modification. Website: https://www.ci.manteca.ca.us/CityClerk/Pages/Municipal-Code.aspx. Accessed January 24, 2022.

Environmental Issues	CEQA Section 15183(b) Criteria				
	Prior FEIR Determination	Effect Peculiar to Project or Site?	New Significant Effect?	New Significant Off-site, Cumulative Impact?	New Information, More Severe Adverse Impact?
4.12 Mineral Resources *Would the project:*					
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?	N/A	No	No	No	No
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?	N/A	No	No	No	No

a, b) Loss of Minerals Resources of Statewide or Local Importance

The FEIR addresses impacts for mineral resources in Section 1.5, EIR Focus and Effects Found not to be Significant. There are no mineral resources of local or Statewide importance within the Planning Area. Therefore, there is no possibility of loss of mineral resources of local or Statewide importance. The FEIR concluded that no impact would occur. For these reasons, the proposed project would not result in new or more severe impacts than what was disclosed in the FEIR. No additional analysis is required.

Applicable General Plan FEIR Mitigation Measures

None required.

Conclusion

The conclusions from the FEIR remain unchanged.

Environmental Issues	CEQA Section 15183(b) Criteria				
	Prior FEIR Determination	Effect Peculiar to Project or Site?	New Significant Effect?	New Significant Off-site, Cumulative Impact?	New Information, More Severe Adverse Impact?
4.13 Noise *Would the project:*					
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?	Less than significant impact with mitigation	No	No	No	No
b) Generation of excessive groundborne vibration or groundborne noise levels?	N/A	No	No	No	No
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?	N/A	No	No	No	No

a) Noise Levels in Excess of Adopted Standards

The FEIR found that buildout of the General Plan would have a potentially significant impact associated with noise levels in excess of adopted standards. In order to mitigate potential impacts, the FEIR set forth MM N-1.1, MM N-2.1 and MM N-5.1. These policies identify the need to mitigate construction noise on a site-specific and project-specific basis and would reduce impacts related to construction noise. These policies also include mobile and stationary source operational noise thresholds that projects must meet. The FEIR concluded that the residual significance would be less than significant after implementation of mitigation.

The proposed project consists of the development of a 113,167-square-foot neighborhood shopping center on the project site. The General Plan designates the project site for 'Commercial' use and the proposed shopping center is consistent with that land use designation. In addition, potential noise impacts associated with the construction and operation of the shopping center was previously considered by the FEIR. In accordance with General Plan Policy N-I-14, the proposed project would incorporate noise attenuation measures. For these reasons, the proposed project would not result in new or more severe impacts disclosed in the FEIR.

Short-Term Construction Impacts

Construction-related Traffic Noise

Noise impacts from construction activities associated with the proposed project would be a function of the noise generated by construction equipment, equipment location, sensitivity of nearby land uses, and the timing and duration of the construction activities. One type of short-term noise impact that could occur during project construction would result from the increase in traffic flow on local streets, associated with the transport of workers, equipment, and materials to and from the project site. The transport of workers and construction equipment and materials to the project site would incrementally increase noise levels on access roads leading to the site. Because workers and construction equipment would use existing routes, noise from passing trucks would be similar to existing vehicle-generated noise on these local roadways. Proposed project-related construction trips would not be expected to double the hourly traffic volumes along any roadway segment in the project vicinity. For this reason, short-term intermittent noise from construction trips would be minor when averaged over an hour or longer time-period would not result in a perceptible increase in hourly or daily average traffic noise levels in the project vicinity, and the impact would be less than significant.

Therefore, the proposed project would not result in any peculiar effects and would not result in new or more severe impacts related to short-term construction-related noise impacts associated with the transportation of workers and equipment to the project site beyond what was previously analyzed in the General Plan FEIR.

Construction Equipment Operational Noise

The second type of short-term noise impact is related to noise generated during construction on the project site. Construction is completed in discrete steps, each of which has its own mix of equipment and, consequently, its own noise characteristics. These various sequential phases would change the character of the noise generated on the site and, therefore, the noise levels surrounding the site as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full power operation followed by 3 or 4 minutes at lower power settings. Impact equipment such as pile drivers are not expected to be used during construction of this project.

The site preparation phase, which includes excavation and grading of the site, tends to generate the highest noise levels because the noisiest construction equipment is earthmoving equipment. Earthmoving equipment includes excavating machinery and compacting equipment, such as bulldozers, draglines, backhoes, front loaders, roller compactors, scrapers, and graders. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full power operation followed by 3 or 4 minutes at lower power settings.

Construction of the project is expected to require the use of scrapers, bulldozers, water trucks, haul trucks, and pickup trucks. Based on Federal Highway Administration's Highway Construction Noise

Handbook,[47] the maximum noise level generated by each scraper is assumed to be 85 A-weighted decibel dBA maximum noise/sound level (L_{max}) at 50 feet from this equipment. Each bulldozer would also generate 85 dBA L_{max} at 50 feet. The maximum noise level generated by graders is approximately 85 dBA L_{max} at 50 feet. A characteristic of sound is that each doubling of sound sources with equal strength increases a sound level by 3 dBA. Assuming that each piece of construction equipment operates at some distance from the other equipment, a reasonable worst-case combined noise level during this phase of construction would be 90 dBA L_{max} at a distance of 50 feet from the acoustic center of a construction area. This would result in a reasonable worst-case hourly average of 86 dBA equivalent continuous sound level (L_{eq}). The acoustic center reference is used, because construction equipment must operate at some distance from one another on a project site, and the combined noise level as measured at a point equidistant from the sources would (acoustic center) be the worst-case maximum noise level. The effect on sensitive receptors is evaluated below.

The closest residential receptors to the project site are located south of the site on South Main Street and Jackie Place. The closest residences would be located approximately 50 feet from the nearest acoustic center of the construction footprint where the heaviest construction equipment would be operating. In addition, these closest receptors also have an existing 8-foot-high sound wall along the project property line bordering these properties. At this distance and with the shielding provided by the sound wall, these residential land uses may be exposed to relative worst-case hourly average noise levels of 59 dBA L_{eq} when construction activities occur at the portion of the project site nearest these homes. The calculation spreadsheet with the detailed modeling assumptions is included in Appendix J.

These noise levels would not exceed the City's noise performance standard of 60 dBA L_{eq} for mobile noise sources as measured at a residential receptor. In addition, the proposed project would comply with MM N-2.1 of the General Plan FEIR which requires compliance with the City's noise performance standard for stationary noise sources. Therefore, the proposed project would have to ensure all stationary construction equipment, such as generators, would have to be located over 75-feet from any off-site residential receptor. Therefore, construction mobile equipment operations would not result in a significant impact, and construction stationary equipment operations would be reduced to less than significant with implementation of MM N-2.1 of the General Plan FEIR.

Therefore, the proposed project would not result in any peculiar effects and would not result in new or more severe impacts related to temporary construction operational noise impacts for the proposed project beyond what was previously analyzed in the General Plan FEIR.

Mobile Source Operational Noise Impacts

A significant impact would occur if project-generated traffic would result in a substantial permanent increase in ambient noise levels in excess of standards established in the local general plan or noise ordinance. The City's General Plan Noise Element establishes maximum allowable noise exposure thresholds for mobile noise sources according to types of receiving land uses. However, the City has not established any such threshold for commercial land uses, such as this proposed project. Therefore, for purposes of this analysis, a significant impact would occur where existing traffic noise

[47] Federal Highway Administration (FHWA). 2006. Highway Construction Noise Handbook. August.

levels are less than 60 dBA L_{dn} and project-related traffic would result in a +5 dBA increase in the roadway noise levels. Also, where existing traffic noise levels range between 60 dBA and 65 dBA day/night average sound level (L_{dn}), a +3 dBA increase in roadway noise levels would be considered significant. Finally, where existing traffic noise levels are greater than 65 dBA L_{dn}, a +1.5 dBA increase in roadway noise levels would be considered significant.

The Federal Highway Administration (FHWA) highway traffic noise prediction model (FHWA RD-77-108) was used to evaluate existing and future traffic noise conditions in the vicinity of the project site. The projected traffic noise levels along roadways adjacent to the project site were analyzed to determine compliance with the City's land use compatibility standards. The daily traffic volumes were obtained from the traffic analysis prepared for the proposed project by Kittelson & Associates.[48] The resultant noise levels were weighed and summed over a 24-hour period in order to determine the L_{dn} values. The traffic noise modeling input and output files are included in Appendix J of this document. Table 13 shows a summary of the traffic noise levels for Existing, Existing Plus Project, Cumulative, and Cumulative Plus Project conditions as measured at 50 feet from the centerline of the outermost travel lane.

Table 13: Traffic Noise Model Results Summary

Roadway Segment	L_{dn} (dBA) 50 feet from Centerline of Outermost Lane					
	Existing (dBA) L_{dn}	Existing Plus Project (dBA) L_{dn}	Increase Over Existing (dBA)	Cumulative (dBA) L_{dn}	Cumulative Plus Project (dBA) L_{dn}	Increase Over Cumulative (dBA)
Main Street–I-120 to Atherton Drive	65.1	66.2	1.1	66.3	67.2	0.9
Main Street–Atherton Drive to Woodward Avenue	63.6	64.0	0.4	65.9	66.1	0.2
Atherton Drive–west of Main Street	63.3	65.1	1.8	66.3	67.3	1.0

Notes:
dBA = A-weighted decibel
L_{dn} = day/night average sound level
[1] Modeling results do not take into account mitigating features such as topography, vegetative screening, fencing, building design, or structure screening. Rather it assumes a worst-case of having a direct line of sight on flat terrain.
Source: FirstCarbon Solutions (FCS) 2022.

As shown in Table 6, above, the highest traffic noise level increase with implementation of the proposed project would occur along Atherton Drive, west of Main Street, under Existing Plus Project conditions. The modeling results show that traffic noise levels without the proposed project would range up to 63.3 dBA L_{dn} as measured at 50 feet from the centerline of the outermost travel lane along this roadway segment. between 60 dBA and 65 dBA L_{dn} adjacent to this roadway segment, a +3 dBA increase in roadway noise levels would be considered significant. As shown in Table 6, the

[48] Kittelson & Associates, 2022. Marketplace @ Main Transportation Impact Analysis. March 16.

project traffic along this roadway segment would result in up to a 1.8 dBA in traffic noise levels compared to traffic noise levels without the proposed project. Therefore, this increase would be less than significant. Therefore, project-related traffic would not result in a substantial permanent increase in noise levels, and the impact would be less than significant.

Therefore, the proposed project would not result in any peculiar effects and would not result in new or more severe impacts related to mechanical equipment operation noise impacts beyond what was previously analyzed in the General Plan FEIR.

Stationary Source Operational Noise Impacts

A significant impact would occur if operational noise levels generated by stationary noise sources at the project site would result in a substantial permanent increase in ambient noise levels in excess of any of the noise performance thresholds established in the City's Noise Element. The City's General Plan Noise Element establishes an exterior noise limit for stationary noise sources of 50 dBA L_{eq} and 70 dBA L_{max} between the hours of 7:00 a.m. and 10 p.m. and 45 dBA L_{eq} and 65 dBA L_{max} between the hours of 10:00 p.m. and 7:00 a.m. as measured at receiving noise-sensitive land uses.

Mechanical Equipment Operations

At the time of this analysis, details were not available pertaining to proposed rooftop mechanical ventilation systems for the proposed project; therefore, a reference noise level for typical mechanical ventilation systems was used. Noise levels from typical commercial mechanical ventilation equipment range from 50 dBA to 60 dBA L_{eq} at a distance of approximately 25 feet.

The nearest sensitive receptors to proposed rooftop mechanical ventilation systems are the single-family residences located south of the project site on Jackie Place. Proposed rooftop mechanical ventilation systems could be located as close as 90 feet from these nearest sensitive receptors. At this distance, and assuming minimal shielding provided by the rooftop parapet, noise generated by proposed mechanical ventilation equipment would attenuate to below 43 dBA L_{eq}. The calculation spreadsheet with the detailed modeling assumptions is included in Appendix J. These operational noise levels would not exceed the City's most restrictive nighttime noise performance threshold of 45 dBA L_{eq} as measured at the nearest sensitive receptor. Therefore, proposed mechanical ventilation system operational noise levels would not result in a substantial permanent increase in noise levels in excess of established standards. The impact of mechanical ventilation equipment operational noise levels on off-site sensitive receptors would be less than significant.

Therefore, the proposed project would not result in any peculiar effects and would not result in new or more severe impacts related to mechanical equipment operation noise impacts beyond what was previously analyzed in the General Plan FEIR.

Parking Lot Activities

Typical parking lot activities include people conversing, doors shutting, and vehicles idling which generate noise levels ranging from approximately 60 dBA to 70 dBA L_{max} at 25 feet. These activities are expected to occur sporadically throughout the day, as visitors and staff arrive and leave parking lot areas at the project site.

The nearest sensitive receptor to proposed rooftop mechanical ventilation systems are the single-family residences located south of the project site on Jackie Place. These receptors would be located approximately 45 feet from the nearest acoustic center of parking lot activities at the project site. In addition, the project proposes to construct an 8-foot high sound wall along the proposed project's southern property line adjoining these residential land uses. At this distance and with shielding reduction of the sound wall, noise levels associated with daily parking lot activities would attenuate to below 55 dBA L_{max} at these nearest sensitive receptors. When averaged over an hour, reasonable worst-case hourly average noise levels from these parking lot activity would range up to 41 dBA L_{eq}. The calculation spreadsheet with the detailed modeling assumptions is included in Appendix J. These operational noise levels would not exceed the City's most restrictive nighttime noise performance threshold of 45 dBA L_{eq} as measured at the nearest sensitive receptors. Therefore, proposed parking lot activity noise levels would not result in a substantial permanent increase in noise levels in excess of established standards, and the impact on off-site sensitive receptors would be less than significant.

Therefore, the proposed project would not result in any peculiar effects and would not result in new impacts related to stationary operation noise impacts beyond what was previously analyzed in the General Plan FEIR.

Truck Loading/Unloading Activities

Noise would also be generated by truck delivery, loading, and unloading activities at the loading dock areas of the project site. Typical noise levels from this type of loading and unloading activity can range from 70 dBA to 80 dBA L_{max} as measured at 50 feet.

Commercial loading and unloading activities at the proposed project site could be located approximately 90 feet from the nearest off-site residential receptors, which are the single-family residences located south of the project site on Jackie Place. In addition, the project proposes to construct an 8-foot-high sound wall along the project's southern property line adjoining these residential land uses. At this distance and with shielding reduction of the sound wall, activities at loading and unloading areas could result in intermittent noise levels ranging up to approximately 65 dBA L_{max}. These activities are expected to occur at most a couple of times throughout a typical day as deliveries are made at the proposed facility with maximum noise levels generated for a cumulative minute within any hour. As a result, reasonable worst-case hourly average noise levels would be 42 dBA L_{eq} as measured at the nearest sensitive receptor. The calculation spreadsheet with the detailed modeling assumptions is included in Appendix J. These operational noise levels would not exceed the City's most restrictive nighttime noise performance threshold of 45 dBA L_{eq} as measured at these nearest sensitive receptors. Therefore, proposed truck loading/unloading activity noise levels would not result in a substantial permanent increase in noise levels in excess of established standards, and the impact on off-site sensitive receptors would be less than significant.

Therefore, the proposed project would not result in any peculiar effects and would not result in new impacts related to stationary operation noise impacts beyond what was previously analyzed in the General Plan FEIR.

b) Groundborne Vibration

The FEIR did not address exposure of persons to groundborne vibration from either construction or operational activities. Groundborne vibration is a highly localized phenomenon and conventional construction building practices serve to mitigate any adverse impacts. Impacts would be less than significant. Because the FEIR did not evaluate impacts at the project level, the following analysis provides an evaluation of potential project-level impacts with respect to groundborne vibration.

Short-Term Vibration Impacts

A significant impact would occur if the proposed project would generate groundborne vibration or groundborne noise levels in excess of established standards. The City has adopted a municipal code section, 17.58.070, in order to limit vibration impacts to sensitive receptors. However, as described in subsection D, construction equipment and vehicles are exempt from this ordinance limiting vibration. However, for the purposes of this analysis and to present a conservative analysis, the Federal Transit Administration (FTA) vibration impact criteria are utilized. The FTA has established industry accepted standards for vibration impact criteria and impact assessment. These guidelines are published in its Transit Noise and Vibration Impact Assessment Manual.[49]

Of the variety of equipment used during construction, the small vibratory rollers that are anticipated to be used in the site preparation phase of construction would produce the greatest groundborne vibration levels. Small vibratory rollers produce groundborne vibration levels ranging up to 0.101 inch per second (in/sec) peak particle velocity (PPV) at 25 feet from the operating equipment.

The nearest off-site receptors to the proposed project construction footprint where the heaviest construction equipment would operate are the single-family residences located south of the project site on Jackie Place. The façade of these buildings would be located approximately 20 feet from the nearest construction footprint where the heaviest construction equipment would potentially operate. At this distance, groundborne vibration levels would range up to 0.14 in/sec PPV from operation of the types of equipment that would produce the highest vibration levels. This is below the FTA Construction Vibration Impact Criteria of 0.2 in/sec PPV for buildings of engineered wood-framed construction. Therefore, the proposed project construction activities would not generate groundborne vibration levels in excess of established standards.

Therefore, the proposed project would not result in any peculiar effects and would not result in new or severe impacts related to short-term groundborne vibration associated with construction to off-site receptors disclosed in the FEIR.

Operational Vibration Impacts

Implementation of the proposed project would not include any permanent sources of vibration that would expose persons in the project vicinity to groundborne vibration levels that could be perceptible without instruments at any existing sensitive land use in the project vicinity. Additionally, there are no active sources of groundborne vibration in the project vicinity that would produce vibration levels that would be perceptible without instruments within the project site. Therefore, the

[49] Federal Transit Administration (FTA). 2018. Transit Noise and Vibration Impact Assessment Manual. September.

proposed project would not generate groundborne vibration or groundborne noise levels in excess of established standards and there would be no impact related to operational groundborne vibration.

Therefore, the proposed project would not result in any peculiar effects and would not result in new or more severe impacts related to short-term groundborne vibration or operational groundborne vibration disclosed in the FEIR.

c) Airport or Private Airstrip Noise

The FEIR did not address exposure of persons to aviation noise, but the General Plan Planning Area does fall within the Stockton Metropolitan Airport Influence Area.

The Stockton Metropolitan Airport is approximately 7.25 miles north of the project site. At this distance, the project site is located outside of the 55 dBA CNEL airport noise contours. The project site is not located within the vicinity of a private airstrip. Therefore, implementation of the proposed project would not expose persons residing or working in the project vicinity to noise levels from airport activity that would be in excess of normally acceptable standards for the proposed land use development, and no impact would occur.

Therefore, the proposed project would not result in any peculiar effects and would not result in new or more severe impacts disclosed in the FEIR.

Applicable FEIR Mitigation Measures

MM N-1.1 **Impact from exposure from noise exceeding established standards.** The General Plan 2023 Noise Element (Section 9) provides the following policy (P) to mitigate exposure from noise exceeding established standards on sensitive receptors throughout the General Plan Study Area.

> **N-P-4** The City shall require stationary noise sources proposed adjacent to noise-sensitive uses to be mitigated so as to not exceed the noise level performance standards in Table 9-2. (Table 12-3 in the Draft EIR)

MM N-2.1 **Impact from construction noise.** The General Plan 2023 Noise Element (Section 9) provides the following policy (P) to mitigate the levels of construction noise on ambient noise levels throughout the General Plan Study Area.

> **N-P-5:** In accord with Table 9-2 (Table 12-3 in the Draft EIR) standards from the General Plan, the City shall regulate construction-related noise impacts on adjacent uses.

MM N-5.1 **Impacts from future industrial, commercial, emergency and outdoor activity noise.** The Noise Element of the General Plan 2023 provides the following policies (P) and implementation measures (I) to mitigate the noise levels from industrial/commercial, emergency, and outdoor activities throughout the General Plan 2023 Study Area:

N-P-4 The City shall require stationary noise sources proposed adjacent to noise-sensitive uses to be mitigated so as to not exceed the noise level performance standards in Table 9-2 in the General Plan. (Table 12-3 in the Draft EIR)

N-P-7 Noise level criteria applied to land uses other than residential or other noise-sensitive uses shall be consistent with noise performance levels of Table 9-1 and Table 9-2 in the General Plan. (Table 12-2 and Table 12-3 in the Draft EIR)

N-I-1 New development in residential areas with an actual or projected exterior noise level of greater than 60 dB L_{dn} will be conditioned to use mitigation measures to reduce exterior noise levels to less than or equal to 60 dB L_{dn}.

N-I-14 Control noise at the source through use of insulation, berms, building design and orientation, buffer space, staggered operating hours and other techniques. Use insulation, berms, building design and orientation, buffer space, noise barriers, and other techniques to attenuate noise to acceptable levels.

Additional Implementation Mitigation Measures

MM- NOI-1 In compliance with MM N-2.1 and policy N-P-5, the project contractor shall ensure that all stationary construction equipment shall be located a minimum of 75-feet from the project boundary of any neighboring residential property, or shall provide shielding to ensure compliance with the noise performance standards of Table 9-2 of the General Plan.

Conclusion

There is no additional information identifying new significant effects, nor is there an increase in the severity of previously identified impacts related to noise. The conclusions from the General Plan EIR regarding noise impacts remain unchanged. No further analysis is required.

Environmental Issues	CEQA Section 15183(b) Criteria				
	Prior FEIR Determination	Effect Peculiar to Project or Site?	New Significant Effect?	New Significant Off-site, Cumulative Impact?	New Information, More Severe Adverse Impact?
4.14 Population and Housing *Would the project:*					
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)?	Significant unavoidable impact	No	No	No	No
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	Less than significant impact with mitigation incorporated	No	No	No	No

a) Growth Inducement

The FEIR found that buildout of the General Plan would have a potentially significant impact related to substantial population growth in the City. The FEIR determined that no feasible mitigation was available to reduce the severity of the impact. Thus, the FEIR concluded that the residual significance would be significant and unavoidable.

The General Plan designates the project site for 'Commercial' use and the proposed shopping center is consistent with that land use designation. Because the proposed project does not contain housing and is intended to provide a neighborhood shopping center for an existing community, the proposed project is not likely to lead to any significant population growth. To the extent that the proposed project induces indirect population growth through its new employment opportunities, this was previously considered by the FEIR. For these reasons, the proposed project would not result in new or more severe impacts than what was disclosed in the FEIR. No additional analysis is required.

b) Displacement of Persons or Housing

The FEIR did not analyze displacement of existing people or housing. The project site contains an existing single-family dwelling unit that would be demolished as part of the proposed project. The removal of one dwelling unit would not constitute a significant impact in terms of displacement of persons or housing. Moreover, the General Plan designates the project site for 'Commercial' use and the proposed shopping center is consistent with that land use designation. For these reasons, the proposed project would not result in new or more severe impacts than what was disclosed in the FEIR. No additional analysis is required.

Applicable General Plan FEIR Mitigation Measures

None required.

Conclusion

The conclusions from the FEIR remain unchanged.

Environmental Issues	CEQA Section 15183(b) Criteria				
	Prior FEIR Determination	Effect Peculiar to Project or Site?	New Significant Effect?	New Significant Off-site, Cumulative Impact?	New Information, More Severe Adverse Impact?
4.15 Public Services *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:*					
a) Fire protection?	Less than significant impact with mitigation incorporated	No	No	No	No
b) Police protection?	Less than significant impact with mitigation incorporated	No	No	No	No
c) Schools?	Less than significant impact with mitigation incorporated	No	No	No	No
d) Parks?	Less than significant impact with mitigation incorporated	No	No	No	No
e) Other public facilities?	Less than significant impact with mitigation incorporated	No	No	No	No

a) Fire Protection

The FEIR found that buildout of the General Plan would have a potentially significant impact associated with fire protection, because growth resulting from the plan would result in the need for expanded fire protection services. The FEIR set forth MM PFS-6.1 to reduce the severity of the impact. The FEIR concluded that residual impacts would be less than significant after implementation of mitigation.

The General Plan designates the project site for 'Commercial' use and the proposed shopping center is consistent with that land use designation. Therefore, to the extent that the development of the

shopping center increases demand for fire protection such that new facilities would be required, this was previously considered by the FEIR. For these reasons, the proposed project would not result in new or more severe impacts than what was disclosed in the FEIR. No additional analysis is required.

b) Police Protection

The FEIR found that buildout of the General Plan would have a potentially significant impact associated with police protection. The FEIR set forth MM PFS-6.1 to reduce the severity of the impact. The FEIR concluded that residual impacts would be less than significant after implementation of mitigation.

The General Plan designates the project site for 'Commercial' use and the proposed shopping center is consistent with that land use designation. Therefore, to the extent that the development of the shopping center increases demand for police protection such that new facilities would be required, this was previously considered by the FEIR. For these reasons, the proposed project would not result in new or more severe impacts than what was disclosed in the FEIR. No additional analysis is required.

c) Schools

The FEIR found that buildout of the General Plan would have a potentially significant impact associated with schools. The FEIR set forth MM PFS-6.1 to reduce the severity of the impact. The FEIR concluded that residual impacts would be less than significant after implementation of mitigation.

The General Plan designates the project site for 'Commercial' use and the proposed shopping center is consistent with that land use designation. As described in Section 4.14, Population and Housing, the proposed project shopping center would not directly facilitate population growth and, therefore, would not increase enrollment in local schools such that new facilities would be required. For these reasons, the proposed project would not result in new or more severe impacts than what was disclosed in the FEIR. No additional analysis is required.

d, e) Parks and Other Public Services?

The FEIR found that buildout of the General Plan would have a potentially significant impact associated with parks and other public facilities. The FEIR set forth MM PFS-6.1 to reduce the severity of the impact. The FEIR concluded that residual impacts would be less than significant after implementation of mitigation.

The General Plan designates the project site for 'Commercial' use and the proposed shopping center is consistent with that land use designation. As described in Section 4.14, Population and Housing, the proposed project shopping center would not directly facilitate population growth and, therefore, would not increase use of parks or other public facilities such that new facilities would be required. However, as described above, the drainage basin in Terra Bella Park may need to be modified in order to provide adequate storm drainage capacity for the proposed project. This may have a limited

effect in order to properly size the existing basin. The proposed project is not anticipated to result in new or more severe impacts than what was disclosed in the FEIR. No additional analysis is required.

Applicable General Plan FEIR Mitigation Measures

None required.

Conclusion

The conclusions from the FEIR remain unchanged.

Environmental Issues	CEQA Section 15183(b) Criteria				
	Prior FEIR Determination	Effect Peculiar to Project or Site?	New Significant Effect?	New Significant Off-site, Cumulative Impact?	New Information, More Severe Adverse Impact?
4.16 Recreation *Would the project:*					
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?	Less than significant impact with mitigation incorporated	No	No	No	No
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?	Less than significant impact with mitigation incorporated	No	No	No	No

a, b) Existing Neighborhood and Regional Parks and Recreational Facilities

The FEIR found that buildout of the General Plan would have a potentially significant impact associated with parks and recreational facilities. The FEIR set forth MM PFS-6.1 to reduce the severity of the impact. The FEIR concluded that residual impacts would be less than significant after implementation of mitigation.

The General Plan designates the project site for 'Commercial' use and the proposed shopping center is consistent with that land use designation. As described in Section 4.14, Population and Housing, the proposed project shopping center would not directly facilitate population growth and, therefore, would not increase use of parks and recreational facilities such that new facilities would be required. Furthermore, the proposed project would not construct any recreational facilities. However, as described above, the drainage basin in Terra Bella Park may need to be modified in order to provide adequate storm drainage capacity for the proposed project. This may have a limited effect in order to properly size the existing basin. The proposed project is not anticipated to result in new or more severe impacts disclosed in the FEIR. No additional analysis is required.

Applicable General Plan FEIR Mitigation Measures

None required.

Conclusion

The conclusions from the FEIR remain unchanged.

Environmental Issues	CEQA Section 15183(b) Criteria				
	Prior FEIR Determination	Effect Peculiar to Project or Site?	New Significant Effect?	New Significant Off-site, Cumulative Impact?	New Information, More Severe Adverse Impact?
4.17 Transportation *Would the project:*					
a) Conflict with a program plan, ordinance or policy of the circulation system, including transit, roadway, bicycle and pedestrian facilities?	Less than significant impact.	No	No	No	No
b) Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	N/A	No	No	No	No
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	N/A	No	No	No	No
d) Result in inadequate emergency access?	N/A	No	No	No	No

The following analysis is based on a Transportation Impact Analysis (TIA) Report prepared by Kittelson & Associates on April 13, 2022 (Appendix K).

a) Conflict with a program plan, ordinance, or policy of the circulation system, including transit, roadway, bicycle and pedestrian facilities?

The FEIR found that buildout of the General Plan would have a less than significant impact related to regionally adopted transportation goals and policies because it concluded that the General Plan was consistent with the four major policies in the San Joaquin COG RTP. It was concluded that the General Plan would add minimal roadways, improve existing roadways and bicycle pedestrian facilities, outline safe and efficient transportation, and would be implemented by the City's Public Facilities Implementation Plan (PFIP).

The FEIR also found that buildout of the General Plan would have a less than significant impact related to operations of alternate travel modes including transit, bicycles, and pedestrians. The General Plan goals and policies encourage the use of a variety of transit systems and encourages bike and pedestrian facilities on new arterial streets. The FEIR concluded that impacts would be less than significant.

The General Plan contains several policies relevant to transportation effects of the proposed project. General Plan Policy C-1.1 states that the impact of new development and land use proposals for all modes of transportation should be considered in the review process. General Plan Policy C-2.15 requires that development projects provide pedestrian and bicycle connectivity to adjacent neighborhoods and areas. Pedestrian access would be provided at the north project site entrance,

along South Main Street, and at the west entrance along West Atherton Drive. Pedestrian pathways would be 5 feet wide. Pedestrian pathways and driveway crossings would provide for circulation throughout the project site. The sidewalks along South Main Street and West Atherton Drive would be 10 feet wide. Furthermore, the proposed project would provide 28 bicycle parking spaces throughout the project site, as well as bike lanes along both street frontages.

The TIA found that that the proposed project is anticipated to be consistent with the General Plan and the PFIP in terms of provisions for roadways, bicycle, and pedestrian facilities given the following conditions of approval:

- The project frontage improvements along the west of South Main Street should be designed to be consistent with City plans to provide three southbound through lanes, a bicycle lane, and an ADA compliant sidewalk.
- The improvements along the south side of Atherton Drive should provide ADA compliant sidewalk.

Therefore, the proposed project would not result in new or more severe impacts than what was disclosed in the FEIR. No additional analysis is required. No additional analysis is required.

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

The FEIR did not address consistency with CEQA Guidelines Section 15064.3 subdivision (b).

This checklist evaluates consistency with the certified 2023 General Plan EIR and is based on the exemption in Section 15183 of the CEQA Guidelines. This exemption mandates that projects consistent with the development density established by the existing zoning and general plan policies evaluated in a certified EIR are not required to conduct additional environmental review, except as might be necessary to examine whether there are site-specific potentially significant effects peculiar to a project or site. If an impact is not peculiar to the parcel or project, has been addressed as significant in the prior EIR, or can be substantially mitigated by the imposition of uniformly applied development policies or standards, an additional EIR is not required solely on the basis of that impact. Based on the proposal's consistency with the provisions and conclusions of the General Plan EIR, [discussed in Section 15, Traffic and Circulation] no further review of VMT matters has been determined to be warranted.

Section 15064.3 of the CEQA Guidelines provides specific considerations for evaluating a project's transportation impacts. Other relevant considerations may include the effects of the proposed project on transit and non-motorized travel. Except as provided in Section 15064.3(b)(2) regarding roadway capacity, a project's effect on automobile delay does not constitute a significant environmental impact under CEQA Guidelines.

Screening Thresholds

Screening thresholds can be used to identify when a proposed land use project is anticipated to result in a less than significant impact without conducting a more detailed analysis. The three types

of screening thresholds include Transit Priority Area (TPA), Low VMT Area, and Project Type, as discussed below. A project need only to meet one of the screening thresholds to result in a less than significant impact.

TPA Screening

Projects located within a TPA (i.e., within 0.5 mile of an existing major transit stop or an existing stop along a high-quality transit corridor) may be presumed to have a less than significant impact absent substantial evidence to the contrary. Projects that are located within 0.5 mile of an existing major transit stop or along a high-quality transit corridor meet the TPA screening threshold.

Low VMT Area Screening

Residential and office projects that are located in areas with low VMT and that incorporate similar features (density, mix of uses, and transit accessibility) would tend to exhibit similarly low VMT.[50] A project meets this screening threshold if the project site is located within a low VMT-generating zone.

Project Type Screening

Retail and service development projects typically redistribute shopping and service trips rather than creating new trips. By adding retail opportunities and thereby improving retail and service destination proximity, these types of projects tend to shorten trips and reduce VMT. Thus, projects that serve the local community almost exclusively would meet the intent of the Project Type screening criteria.

The proposed project would construct a 113,167-square-foot neighborhood shopping center containing a grocery store, a car wash service, and retail uses. According to the International Council of Shopping Centers (ICSC) U.S. Shopping Center Classification and Characteristics, a Neighborhood Shopping Center has 30,000 to 125,000 square feet of gross leasable area that is convenience oriented and is typically anchored by a supermarket and/or a large drugstore with a trade area of 3 miles or less.[51] By having a trade area of 3 miles or less, the ICSC neighborhood center definition with a limit of 125,000 square feet gross floor area or less, is considered a local serving retail center. Such a center could reduce VMT by design by placing special emphasis with the City of Manteca's General Plan Goal CD-10 to establish a pedestrian and bicycle friendly environment in neighborhoods and commercial and office land use areas.[52]

This definition is applicable to the proposed project. Thus, the proposed project would meet the intent of the Project Type screening criteria. Impacts would be less than significant.

[50] Governor's Office of Planning and Research (OPR). 2018. Technical Advisory on Evaluating Transportation Impacts in CEQA. December. Website: https://www.opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf. Accessed April 26, 2022.

[51] International Council of Shopping Centers (ICSC). U.S. Shopping-Center Classification of Typical Characteristics. Website: https://www.icsc.com/uploads/t07-subpage/US-Shopping-Center-Definition-Standard.pdf. Accessed May 2, 2022.

[52] City of Manteca. 2011. City of Manteca General Plan 2023. Website: https://www.ci.manteca.ca.us/CommunityDevelopment/Documents/City%20of%20Manteca%20General%20Plan.pdf. Accessed May 2, 2022.

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

The FEIR did not address increased hazards due to geometric design features or incompatible uses. The proposed project would have an impact if it would substantially increase hazards due to a geometric design feature or incompatible uses.

According to the TIA, the easternmost and proposed right-in, right-out driveway along Atherton Drive could create weaving issues and conflicts with traffic along Atherton Drive. However, it is recommended as a condition of approval that the easternmost driveway along Atherton Drive only allow for right-in travel to limit weaving. Furthermore, the center right-in, right-out driveway along Atherton Drive could also result in weaving issues. Thus, gore striping with raised pavement markings, delineators, or a traversable concrete separator along the east bound left turn pocket at Main Street and Atherton Drive is recommended as a condition of approval.

Furthermore, the TIA concludes that the proposed driveway along Main Street at the southeast corner of the site could cause deficient operations and potential safety concerns for motorists under future conditions. As such, it is recommended as a condition of approval that this driveway restrict left-turns out of the site.

Project driveways should be designed to be consistent with accepted design guidelines for safety. Because Atherton Drive and South Main Street provide relatively straight alignments, driveway site distance issues are not a concern. However, sight triangles and corner clearance should be reviewed prior to approval of the site plan to confirm that no trees, signs, or any other design features would be introduced that would result in insufficient sight distance. Furthermore, the internal project streets should be designed to meet geometric design standards and not create hazardous driving conditions. Turning templates should be checked for trash pickups, as well as semitruck deliveries and pickups. ADA compliant sidewalk and ramps should be provided so pedestrians can be separated from vehicle traffic. These recommendations are included as conditions of approval. Impacts would be less than significant.

d) Result in inadequate emergency access?

The FEIR addressed emergency responses in Section 9 Hazardous Materials. The FEIR found that building out the General plan would have a potentially significant impact related to emergency response. The FEIR set forth MM HM-5.1 to reduce the severity of the impact. The FEIR concluded that the residual significance would be less than significant after implementation of mitigation.

The TIA concluded that the proposed project would provide emergency access to all parcels via three driveways along Atherton Drive, two driveways along Main Street, and an interior network, and that all streets would be designed to accommodate emergency vehicles. Therefore, the proposed project would not result in new or more severe impacts than what was disclosed in the FEIR. No additional analysis is required. No additional analysis is required.

Applicable General Plan FEIR Mitigation Measures

None required.

Conclusion

The conclusions from the FEIR remain unchanged.

Environmental Issues	CEQA Section 15183(b) Criteria				
	Prior FEIR Determination	Effect Peculiar to Project or Site?	New Significant Effect?	New Significant Off-site, Cumulative Impact?	New Information, More Severe Adverse Impact?
4.18 Utilities and Service Systems *Would the project:*					
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	Less than significant impact with mitigation incorporated	No	No	No	No
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	Less than significant impact with mitigation incorporated	No	No	No	No
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?	Less than significant impact with mitigation incorporated	No	No	No	No
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?	Less than significant impact with mitigation incorporated	No	No	No	No
e) Comply with federal, State, and local management and reduction statutes and regulations related to solid waste?	Less than significant impact with mitigation incorporated	No	No	No	No

a) Relocation or Construction of New or Expanded Facilities

The FEIR found that buildout of the General Plan would have a potentially significant impact related to expanded water facilities, stormwater facilities, wastewater treatment facilities, and electrical and natural gas facilities. The FEIR set forth MM PFS-1.1, MM PFS-1.2 MM PFS-2.1, MM PFS-3.1, MM PFS-3.2, MM PFS-7.1, and MM PFS-7.2 to reduce the severity of the impact. The FEIR concluded that, for the expansion of water, stormwater, and wastewater facilities, the residual significance would be less than significant after implementation of mitigation. However, for the expansion of electrical and natural gas facilities, there would be a significant and unavoidable impact.

The proposed project consists of the development of a 113,167-square-foot neighborhood shopping center on the project site. The General Plan designates the project site for 'Commercial' use and the proposed shopping center is consistent with that land use designation. Therefore, the proposed project is considered planned growth and is to the extent that the proposed project would require new or expanded water, wastewater, stormwater, electrical and natural gas facilities, this was previously considered by the FEIR.

The project site is mostly undeveloped land. Therefore, the construction of a neighborhood shopping center would increase water demand on-site. The 2015 UWMP projects that the City can meet all water demands through the year 2035 given planned growth.[53] Furthermore, the proposed project would construct a waterline along South Main Street and along West Atherton Drive to deliver water to the project site.

At the time the FEIR was published, the City had planned for the expansion of the WQCF to accommodate growth for buildout of the General Plan. A portion of this planned expansion occurred in 2007 and the expansion to full buildout is currently being planned by the Department of Public Works as part of the Wastewater Master Plan Update. The proposed project would participate in funding programs for the expansion of infrastructure or facilities, including the City's WQCF, identified in the Wastewater Master Plan Update. The proposed project would construct a sanitary sewer line along West Atherton Drive to connect to existing wastewater infrastructure. Impacts related to construction of this sanitary sewer line are analyzed as part of the proposed project. Otherwise, expansion of wastewater facilities needed to accommodate the proposed project have already occurred or are currently being planned by the Department of Public Works. Furthermore, the applicant would be required to pay a nonresidential sewer collection system fee as outlined in the Development Fee Schedules in the Municipal Code and the PFIP.[54,55]

The proposed project's storm drainage system would consist of bioretention areas, inlets, underground piping, and basins that would capture runoff and routed to a mechanical filtration device at the southwest corner of the project site. The mechanical filtration device would be sized appropriately for treatment according to the multi-agency post-construction stormwater standards manual.[56] The proposed project would connect to a 4.37-acre detention basin southwest of the project site in Terra Bella Park. Stormwater lines would be constructed along West Atherton Drive and South Main Street. Impacts related to construction of this storm drainage system are analyzed as part of the proposed project. However, as described above, the drainage basin in Terra Bella Park may need to be modified in order to provide adequate storm drainage capacity for the proposed project. This may have a limited effect in order to properly size the existing basin. The proposed

[53] City of Manteca. 2016. City of Manteca 2015 Urban Water Management Plan. Table 7-2: Normal Year Supply and Demand Comparison. Website: https://www.ci.manteca.ca.us/engineering/Documents/Manteca_2015_UWMP-FinalDraft.pdf. Accessed January 3, 2022.

[54] City of Manteca. 2021. Manteca Municipal Code/Fee Schedules. VI. Development Fees. Website: https://qcode.us/codes/manteca/view.php?topic=fee_schedules-vi&frames=on. Access May 3, 2022.

[55] City of Manteca. 2013. 2013 Public Facilities Implementation Plan Update. Website: https://www.ci.manteca.ca.us/Engineering/Documents/PFIP%20Water%20Sewer%20Storm%20adopted%202013-Mar-5.pdf. Accessed May 3, 2022.

[56] City of Lathrop, Lodi, Manteca, Patterson, and Tracy, and the County of San Joaquin. 2015. Post-Construction Stormwater Standards Manual (DRAFT). Website: https://www.ci.manteca.ca.us/PublicWorks/Wastewater/Documents/Multi-Agency%20Post-Construction%20Standards%20Manual%202015-04-20%20DRAFT.pdf. Accessed January 19, 2022.

project is not anticipated to result in new or more severe impacts disclosed in the FEIR. No additional analysis is required.

Electricity and Natural gas

The proposed project would connect to existing power lines on South Main Street. Furthermore, the proposed project would be required to comply with General Plan EIR MM PFS-1.1, General Plan EIR MM PFS-2.1, and General Plan EIR MM PFS-3.1. For these reasons, the proposed project would not result in new or more severe impacts than what was disclosed in the FEIR. No additional analysis is required.

b) Water Supply

The FEIR found that buildout of the General Plan would have a potentially significant impact associated with water supply. However, the FEIR set forth MM PFS-1.1 and MM PFS 1.2 to reduce the severity of the impact. The FEIR concluded that the residual impacts would be less than significant after implementation of mitigation.

The project site contains mostly undeveloped land. The proposed project consists of the development of a 113,167-square-foot neighborhood shopping center on the project site, including a car wash facility. Therefore, the construction of a neighborhood shopping center would increase water demand on-site. However, the proposed car wash would recycle 98 percent of its water. The proposed project would comply with all water conservation laws. Furthermore, landscaping throughout the project site would comply with requirements of the Model Water Efficient Landscape Ordinance (MWELO).[57] The proposed project would be required to pay a fair share fee for potable water capacity improvements prior to issuance of a building permit as required by the PFIP. The fee schedule is outlined in the PFIP.[58] Furthermore, the General Plan designates the project site for 'Commercial' use and the proposed shopping center is consistent with that land use designation. Furthermore, the 2015 UWMP projects that the City can meet all water demands through the year 2035 given planned growth.[59] The proposed project is considered planned growth and is to the extent that the proposed project would require additional water supply, this was previously considered by the FEIR. In addition, the proposed project would be required to implement MM PFS-1.1 and MM PFS-1,2 Therefore, the proposed project would not result in new or more severe impacts than what was disclosed in the FEIR. No additional analysis is required. No additional analysis is required.

[57] California Department of Water Resources. Model Water Efficient Landscape Ordinance. Website: https://water.ca.gov/Programs/Water-Use-And-Efficiency/Urban-Water-Use-Efficiency/Model-Water-Efficient-Landscape-Ordinance. Accessed May 3, 2022.

[58] City of Manteca. 2013. 2013 Public Facilities Implementation Plan Update. Website: https://www.ci.manteca.ca.us/Engineering/Documents/PFIP%20Water%20Sewer%20Storm%20adopted%202013-Mar-5.pdf. Accessed May 3, 2022.

[59] City of Manteca. 2016. City of Manteca 2015 Urban Water Management Plan. Table 7-2: Normal Year Supply and Demand Comparison. Website: https://www.ci.manteca.ca.us/engineering/Documents/Manteca_2015_UWMP-FinalDraft.pdf. Accessed January 3, 2022.

c) Wastewater Treatment

The FEIR found that buildout of the General Plan would have a potentially significant impact associated with wastewater treatment. The FEIR set forth MM PFS-2.1 to reduce the severity of the impact. The FEIR concluded that the residual significance would be less than significant after implementation of mitigation.

The General Plan designates the project site for 'Commercial' use and the proposed shopping center is consistent with that land use designation. Therefore, the proposed project can be considered planned growth. In 2006, the City published the WQCF Master Plan Update, which led to the expansion of the WQCF.[60] At the time the FEIR was published, the City had planned for this expansion to accommodate growth for buildout of the General Plan, including commercial development on the project site. A portion of this planned expansion occurred in 2007 and the expansion to full buildout is currently being planned by the Department of Public Works as part of the Wastewater Master Plan Update. The proposed project would participate in funding programs for the expansion of infrastructure or facilities, including at the City's WQCF, identified in the Wastewater Master Plan Update. Furthermore, the proposed project would be subject to MM UTIL-1b. Therefore, to the extent that the proposed project would generate additional effluent that would require treatment, this was previously considered by the FEIR. For these reasons, the proposed project would not result in new or more severe impacts than what was disclosed in the FEIR. No additional analysis is required.

d, e) Solid Waste

The FEIR found that buildout of the General Plan would have a potentially significant impact associated with solid waste. The FEIR set forth MM PFS-4.1 and MM PFS-5.1 to reduce the severity of the impact. The FEIR concluded that residual impacts would be less than significant after implementation of mitigation.

The proposed project would utilize the Lovelace Solid Waste Transfer Station, which sorted recyclable materials for the City.[61] This transfer station has a maximum permitted throughput of 1,300 tons per day. Green waste is delivered to the Austin Road/Forward Landfill. This landfill has a closure date of 2053. It has a maximum permitted throughput of 8,668 tons per day. As of 2020, the remaining capacity was 24,720,669 cubic yards. According to the California Department of Resources Recycling and Recovery (CalRecycle), shopping centers tend to produce approximately 2.5 pounds/100 square feet per day.[62] Therefore, it can be estimated that the proposed project would produce approximately 2,800 pounds (1.4 tons) of solid waste per day. This is approximately .01 percent of the permitted throughput.

[60] City of Manteca. 2006. Wastewater Quality Control Facility Master Plan Update. Website: https://www.ci.manteca.ca.us/engineering/Documents/Sewer%20Treatment%20System%20Master%20Plan.pdf. Accessed January 3, 2022.

[61] City of Manteca. 2003. Manteca General Plan 2023 Draft Environmental Impact Report. Website: https://www.ci.manteca.ca.us/CommunityDevelopment/Planning%20Division/Planning%20Division%20Documents/Environmental/General%20Plan%202023%20Draft%20EIR.pdf. Accessed March 4, 2022.

[62] California Department of Resources Recycling and Recovery (CalRecycle). 1995, 2019. Estimated Solid Waste Generation Rates. Website: https://www2.calrecycle.ca.gov/wastecharacterization/general/rates. Accessed January 19, 2022.

Additionally, the proposed project would be required to comply with all federal, State, and local regulations regarding solid waste. To the extent that the proposed project would generate both construction and operational solid waste, this was previously considered by the FEIR. For these reasons, the proposed project would not result in new or more severe impacts than what was disclosed in the FEIR. No additional analysis is required.

Applicable General Plan FEIR Mitigation Measures

General Plan EIR MM PFS-1.1

PFS-1.1 The Public Facilities and Services Element (Section 6) of the General Plan 2023 addresses domestic water supply through the following goal, policies (P), and implementation measures (I):

PF-I-3 The City shall require, as a condition of project approval, dedication of land and easements, or payment of appropriate fees and exactions, to help offset municipal costs of expansion of water treatment facilities and delivery systems.

General Plan EIR MM PFS-2.1

PFS-2.1 The Public Facilities and Services Element (Section 6) of the General Plan 2023 addresses wastewater (sewer) treatment through the following goal, policies (P), and implementation measures (I).

PF-I-12 The City will promote reduced wastewater system demand through efficient water use by:

- requiring water conserving design and equipment in new construction;
- encouraging retrofitting with water conserving devices;
- designing wastewater systems to minimize inflow and infiltration to the extent economically feasible; and
- maintaining a Citywide map of all sewer collection system components and monitoring the condition of the system on a regular basis.

General Plan EIR MM PFS-3.1

PFS-3.1 The Public Facilities and Services Element (Section 6) of the General Plan 2023 addresses stormwater drainage through the following goal, policies (P), and implementation measure (I):

PF-P-27 The City shall require the dedication and improvement of drainage detention basins as a condition of development approval according to the standards of the Drainage Master Plan. The responsibility for the dedication and improvement of detention basins shall be based on the prorated share of stormwater runoff resulting from each development.

PF-P-26 Storm drainage systems within new development areas shall include open drainage corridors where feasible to supplement or replace an underground piped drainage system. The drainage systems would provide for short-term stormwater detention, stormwater conveyance for stormwaters exceeding a 10-year event, stormwater quality treatment, bike and pedestrian paths, and visual open space within neighborhoods.

Conclusion

The conclusions from the FEIR remain unchanged.

Environmental Issues	CEQA Section 15183(b) Criteria				
	Prior FEIR Determination	Effect Peculiar to Project or Site?	New Significant Effect?	New Significant Off-site, Cumulative Impact?	New Information, More Severe Adverse Impact?
4.19 Wildfire *If located in or near State Responsibility Areas or lands classified as very high fire hazard severity zones, would the project:*					
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	N/A	No	No	No	No
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?	N/A	No	No	No	No
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	N/A	No	No	No	No
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?	N/A	No	No	No	No

a, b, c, d) Wildfire Emergency Response/Human Exposure/New Facilities/Post-Fire Flooding

The FEIR addressed wildland fires in Section 1.5, EIR Focus and Effects Found not to be Significant. The FEIR found that buildout of the General Plan would have a potentially significant impact associated with emergency response and evacuation. The FEIR sets forth MM HM-5.1 to reduce the severity of impacts. The undeveloped portions of the Planning Area mostly contain agricultural land, which has an extremely low susceptibility to wildland fires because the land is actively managed. Therefore, the likelihood of the Planning Area being exposed to wildland fires is low. No impact would occur.

The project site contains flat, undeveloped land that previously supported an orchard. It is bordered by urban infrastructure (e.g., Atherton Drive and South Main Street), existing developed residential uses, and a park. For these reasons, the project site is not susceptible to wildland fires. In case of a fire, the proposed project would provide three access points along West Atherton Drive and two access points along South Main Street, consistent with California Fire Code requirements for emergency access. The proposed project would not result in new or more severe impacts than what was disclosed in the FEIR. No additional analysis is required.

Applicable General Plan FEIR Mitigation Measures

None required.

Conclusion

The conclusions from the FEIR remain unchanged.

Environmental Issues	CEQA Section 15183(b) Criteria				
	Prior FEIR Determination	Effect Peculiar to Project or Site?	New Significant Effect?	New Significant Off-site, Cumulative Impact?	New Information, More Severe Adverse Impact?
4.20 Mandatory Findings of Significance					
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	Less than significant impact with mitigation incorporated	No	No	No	No
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	Less than significant impact with mitigation incorporated	No	No	No	No
c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	Less than significant impact with mitigation incorporated	No	No	No	No

a) Potential Degradation to Environment and Examples of California History or Prehistory

The FEIR found that General Plan buildout would have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a wildlife species, or eliminate important examples of the major periods of California history or prehistory. The FEIR set forth MM B-1.1 to reduce the severity of potential impacts. It was determined that impacts would be less than significant with mitigation incorporated.

The General Plan designates the project site for 'Commercial' use and the proposed shopping center is consistent with that land use designation. An FCS Biologist conducted a general biological field survey of the project site an found that the project site does not provide suitable habitat for any of the special-status plant species recorded in a literature search due to the lack of suitable habitat including the lack of suitable soil conditions as well as previous anthropogenic disturbance from disking. However, the project site may provide suitable habitat for some nesting birds. However, implementation of MM BIO-1 would reduce impacts to a less than significant level.

Furthermore, the vegetation present on the project site consists almost entirely of non-native grasses and ruderal plants and does not contain any sensitive natural communities or riparian habitat as defined by the CDFW.[63] Additionally, the field survey confirmed that project site does not contain any potential State or federally protected wetlands or water features. The project site is surrounded by urban and agricultural features and does not contain any natural features such as waterways, so the proposed project would not inhibit the movement of fish or other wildlife. Lastly, the project site has the potential to disturb cultural or tribal cultural resources through inadvertent discovery. However, implementation of MM RC-I-38, MM RC-I-46, and MM CUL-4, would reduce impacts to a less than significant level. For these reasons, the proposed project would not result in new or more severe impacts than what was disclosed in the FEIR. No additional analysis is required.

b) Cumulatively Considerable Impacts

The FEIR found that General Plan buildout would have impacts that are individually limited, but cumulatively considerable because of the location of the proposed project, its characteristics, and its less than significant impacts. The FEIR concluded that cumulative impacts related to visual resources, agricultural resources, air quality, biological resources, and traffic and circulation would be significant and unavoidable

The General Plan designates the project site for 'Commercial' use and the proposed shopping center is consistent with that land use designation. Furthermore, the proposed project's impacts on visual resources, agricultural resources, air quality, biological resources, cultural resources, energy resources, geology and soils, hazards and hazardous materials, hydrology and water quality, and noise would be reduced through implementation of MM-AQ-I-2, MM AQ-I-8, MM AQ-I-15, MM AQ-I-4, MM AV-1.1, MM AV-3.1, MM B-1.1, MM RC-I-38, MM RC-I-46, MM CUL-4, MM PF-I-15, MM RC-I-6, MM RC-I-8, MM GSS-2.1, MM GSS-3.1, MM GSS-4.1, MM GEO-6, MM HAZ-1a, MM HM-1.1, MM HWQ-1.1, MM HWQ-3.1, MM HWQ-4.1, MM N-1, MM N-2, MM N-5, and MM NOI-1. For these reasons, the proposed project would not result in new or more severe impacts than what was disclosed in the FEIR. No additional analysis is required.

c) Adverse Effects on Human Beings?

The FEIR found that General Plan buildout would have environmental effects, which could cause substantial adverse effects on human beings. Impacts related to air quality were found to be significant and unavoidable.

The Manteca General Plan 2023 designates the project site for 'Commercial' use and the proposed shopping center is consistent with that land use designation. The proposed project would be required to implement MM GSS-2.1, MM GSS-3.1, MM GSS-4.1, MM GEO-6, MM HAZ-1a, MM HWQ-1.1, MM MWQ-3.1, and MM HWQ-4.1. For these reasons, the proposed project would not result in new or more severe impacts disclosed in the FEIR.

[63] California Department of Fish and Wildlife (CDFW). 2021. Natural Communities List, Sacramento: California Department of Fish and Wildlife. Website: https://wildlife.ca.gov/Data/VegCAMP/Natural-Communities#sensitive%20natural%20communities. Accessed November 8, 2021.

FEIR Mitigation Measures

MM B-1.1, MM AV-1.1, MM AV-3.1, MM GSS-2.1, MM GSS-3.1, MM GSS-4.1, MM GEO-5, MM GEO-6 MM HAZ-1a, MM HWQ-1.1, MM HWQ-3.1, and MM HWQ-4.1.

Conclusion

The conclusions from the FEIR remain unchanged.

SECTION 5: LIST OF PREPARERS

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Appendix A: Marketplace @ Main Modified Project and Statement of Consistency with General Plan FEIR

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Memorandum

Date: May 15, 2023

Subject: Marketplace @ Main Modified Project and Statement of Consistency with General Plan Final EIR

On May 4, 2022, FCS submitted a draft California Environmental Quality Act (CEQA) Checklist for the proposed Marketplace @ Main Project (Original Project). The Checklist was prepared pursuant to CEQA Guidelines Section 15183, which provides for streamlining based on consistency with a previously certified Environmental Impact Report (EIR), in this case the General Plan Final EIR, which was certified by the City on October 6, 2003. The 15183 Checklist prepared for the Original Project was never approved by the City of Manteca (City).

The Original Project included a grocery store, a hardware store, a retail shop, additional retail space, three drive-through restaurants, a drive-through car wash, and an associated parking lot (Exhibit 1). The Modified Project includes a reorientation of the proposed buildings with an increased rear setback, an increase in the size of the anchor building but a reduction in the overall square footage, and parking changes (Exhibit 1). Table 1 outlines the changes to the project.

Table 1: Site Plan Updates

Changed Feature	Original Project	Modified Project	Increase or (reduction)
Building Coverage	113,167 square feet	103,761 square feet	(9,406 square feet)
Anchor Building Retail	5,900 square feet	9,800 square feet	3,900 square feet
Junior Anchor	38,000 square feet	37,285 square feet	(715 square feet)
Grocery Store	50,071 square feet	40,000 square feet	(10,071 square feet)
Retail Shops	9,000 square feet	4,080 square feet	(4,920 square feet)
Rear Setback	50 feet	55 feet	5 feet
Number of Drive-through Facilities	Four (three restaurants and one car wash)	Three (two restaurants and one car wash)	(1)
Drive-through with one Car-Stacking Count	11 Cars	15 Cars	4 Cars
Drive-through with two Car-Stacking Count	10 Cars	8 Cars	(2)
Retail Shops and Drive-through two Orientation	Attached	Detached	–
Total Parking Spaces	**537**	**534**	**(3)**

Changed Feature	Original Project	Modified Project	Increase or (reduction)
Standard Parking Spaces	462	517	55
Accessible Parking Spaces	14 (7 Van/7 Standard)	17 (8 Van/9 Standard)	3
Future Electric Vehicle (EV) Parking Spaces	61	18	(43)
South Main Street Left Turn	Northbound left turn lane onto West Atherton Drive	No northbound left turn lane onto West Atherton Drive	–
South Main Street Median	Median next to south bound right turn lane into project site	No median, but only right turn allowed form north right turn lane to project site	–
South Main Street Exit	No right turn onto South Main Street	Right turn onto S. Main Street	–

The analysis contained in this memorandum confirms that the Modified Project would not change the conclusions in the May 4, 2022, 15183 Checklist and that the Modified Project remains consistent with the development density and general plan policies evaluated in the Manteca General Plan 2023 Final EIR. No further environmental review is required.

ANALYSIS

Aesthetics

Aesthetic impacts related to implementation of the Modified Project would be altered if it would create further impacts to scenic vistas, State Scenic Highways, the visual character of the area, or lighting and glare. Because the overall building square footage in the Modified Project is less than what was originally proposed, the Modified Project would have similar if not fewer aesthetic impacts. Therefore, the Modified Project would be consistent with the findings in the Checklist related to aesthetics. No further environmental review is required.

Agriculture and Forestry Resources, Biological Resources, and Mineral Resources

The Modified Project would change the level of impact related to agriculture and forestry resources, biological resources, and mineral resources if it would affect a larger or different area that contained agriculture or forestry land, mineral resources, special-status species, wetlands, trees, etc. The Modified Project is located on the same parcel and includes the same property area as the Original Project. Therefore, the Modified Project would not affect a larger or different areas than previously analyzed. The Modified Project would result in no change to the findings in the Checklist related to agriculture and forestry resources, biological resources, or mineral resources. No further environmental review is required.

Air Quality, Energy, and Greenhouse Gases

The Modified Project would alter impacts to air quality, energy, and greenhouse gas (GHG) emissions if it would increase the construction footprint, increase the building square footage, or result in different land uses or additional vehicle trips generated. The Modified Project contains the same construction footprint, decreased building square footage, and contains the same land uses. The Modified Project contains one less drive-through and, therefore, would result in potentially lower hot spot emissions compared to the Original Project. In addition, the vehicle trip generation would not increase, but is expected to remain about the same, or potentially lower. Therefore, the Modified Project would result in no change to the findings in the Checklist related to air quality, energy, and GHGs. No further environmental review is required.

Cultural and Tribal Cultural Resources and Geology and Soils

The Modified Project would alter impacts to cultural resources, tribal cultural resources, and geology and soils if it would result in additional ground disturbance. The Modified Project contains the same construction footprint and would not increase ground disturbance. As such, it does not have the potential to disturb additional cultural or tribal cultural resources, paleontological resources, or be subject to additional seismic risks or soil instability risks. Therefore, the Modified Project would result in no change to the findings in the Checklist related to cultural and tribal cultural resources and geology and soils. No further environmental review is required.

Hazards and Hazardous Materials

The Modified Project would alter impacts related to hazards and hazardous materials if it would involve new land uses or be located in closer proximity to hazards and hazardous materials. The proposed land uses would not change and the construction footprint would remain the same. As such the Modified Project would not use additional hazardous materials or be exposed to additional hazardous materials compared to the Original Project and what is analyzed in the Checklist. Therefore, the Modified Project would result in no change to the findings in the Checklist related to hazards and hazardous materials. No further environmental review is required.

Hydrology and Water Quality

The Modified Project would alter impacts related to hydrology and water quality if it would result in increased water runoff or degrade water quality to a greater extent than what is considered in a Checklist. The project applicant would still be required to submit a drainage plan designed in accordance with the requirements and specifications of the City's Public Works Department. The Modified Project would not result in additional pervious surfaces than what is analyzed in the Checklist. Therefore, there would not be increased runoff that could degrade water quality. The Modified Project would result in no change to the findings in the Checklist related to Hydrology and Water Quality. No further environmental review is required.

Land Use and Planning

The Modified Project would alter impacts related to land use and planning if it would result in additional conflicts with applicable land use plans and policies. The Modified Project includes the same land uses as the Original Project. The Checklist analyzed the Original Project's compliance with setback, height, and floor area ratio (FAR). The Modified Project would have an increased setback, the same height, and a decreased FAR. Therefore, the Modified Project would result in no change to the Checklist related to Land Use and Planning. No further environmental review is required.

Noise

The Modified Project would alter impacts related to noise if it would increase the construction footprint, increase building square footage, result in additional trip generation, or change land uses to higher noise generating land uses. The Modified Project would have the same construction footprint, trip generation, and land uses as well as a decreased building square footage. Accordingly, noise impacts associated with the Modified Project would be the same as, or similar to, the Original Project. Therefore, the Modified Project would result in no change to the findings in the Checklist related to Noise. No further environmental review is required.

Population and Housing, Public Services, and Recreation

The Modified Project would alter impacts related to population and housing, public services, and recreation, it would result in an increase in population, employment, or use of the project site that would increase demand on public facilities. The Modified Project contains the same land uses as well as a decreased building square footage. Additionally, the Modified Project anticipates the same increase in population and the same generation of employment opportunities as evaluated in the Checklist. Therefore, the Modified Project is not expected to result in an increase in population or to create an increased demand for public facilities and services in the surrounding area. The Modified Project would result in no change to the findings in the Checklist related to population and housing, public services, and recreation. No further environmental review is required.

Transportation

The Modified Project would alter impacts related to transportation if it would result in an increase trip generation, remove improvements for alternate transportation routes, create a traffic hazard, or limit emergency access. The Modified Project would have the same land uses, one fewer drive-through, and a reduced building square footage. Additionally, as described above, the Modified Project anticipates the same increase in population and the same generation of employment opportunities as evaluated in the Checklist. Therefore, it can be assumed that the Modified Project would not increase trip generation. The Checklist identifies that, pursuant to Section 15064.3 of CEQA Guidelines, the Modified Project can be assumed to have a less than significant transportation impact because it proposes land uses that typically do not increase trip generation, in this case, a locally serving retail and service development. Because the proposed land uses are the same, the Modified Project maintains this screening criteria.

Furthermore, the hazards analyzed in the Checklist include the easternmost and center right-in, right-out driveway along Atherton Drive as well as the driveway along Main Street at the southeast corner of the project site. The project features analyzed in the Checklist are the same in the both the Original Project and the Modified Project. Therefore, the Modified Project would result in no change to the findings in the Checklist related to transportation. No further environmental review is required.

Utilities and Service Systems

The Modified Project would alter impacts related to utilities and service systems if it would result in an increased demand for water, wastewater, stormwater drainage, electric power, natural gas, telecommunications facilities, or solid waste pickup services. The Modified Project would have the same construction footprint and a decreased building square footage. Additionally, as described above, the Modified Project anticipates the same increase in population and the same generation of employment opportunities as evaluated in the Checklist. As such, there Modified Project would not increase a demand for any utilities and the Modified Project would result in no change to the findings in the Checklist related to Utilities and Service Systems. No further environmental review is required.

Wildfire

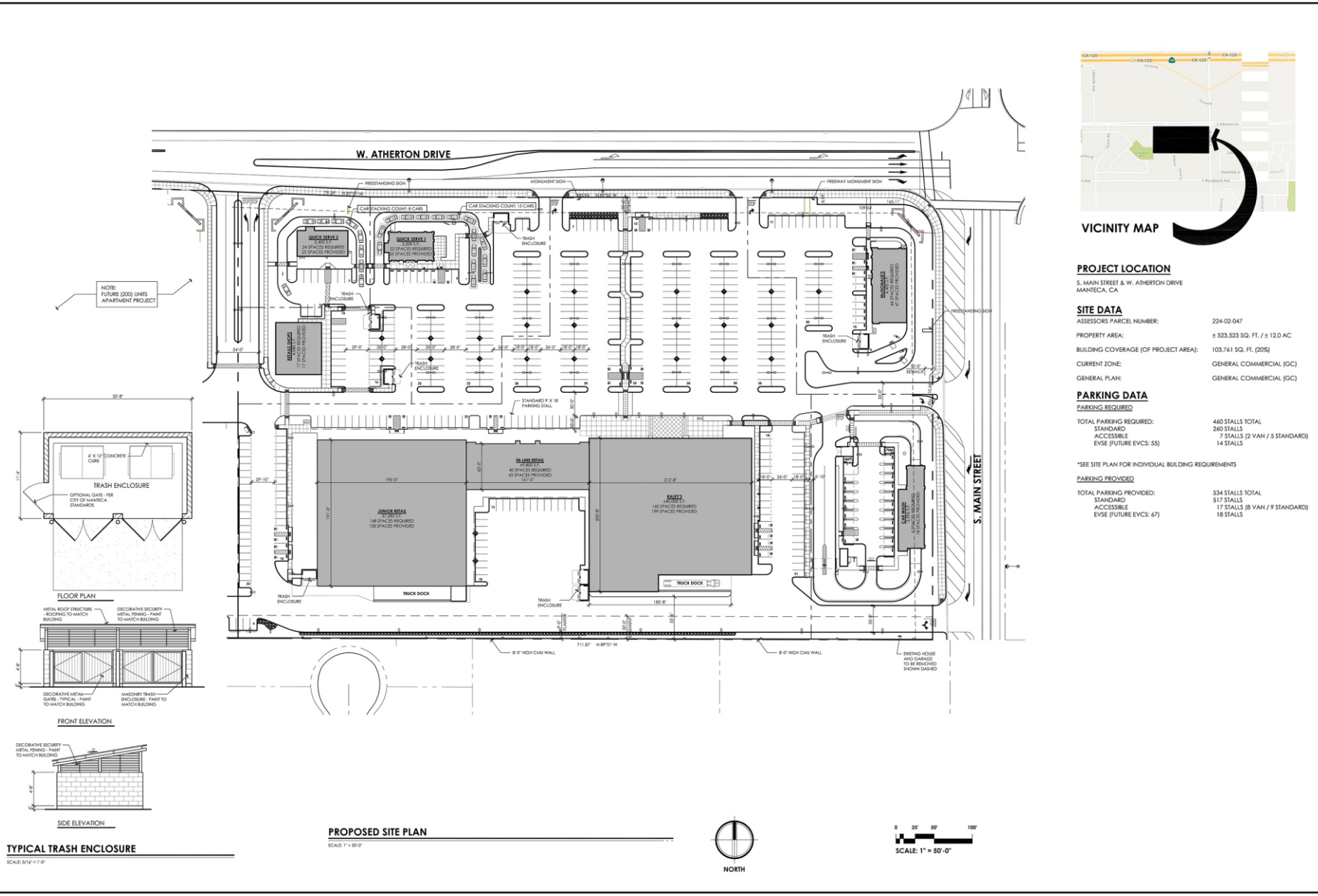
The Modified Project would alter impacts related to wildfire if it would result in a different construction footprint in an area that would have higher fire risks, would construct higher fire risk land uses, require the installation or maintenance of additional infrastructure that would exacerbate fire risk, or reduce emergency access. The Modified Project has the same construction footprint in the same place, and would provide the same number of access points. The Modified Project would not require any additional or different infrastructure than evaluated for the Original Project. The Modified Project would result in no changes to the findings in the Checklist related to Wildfire. No further environmental review is required.

Mandatory Findings

The Modified Project would alter impacts related to the mandatory findings of significance if it had the potential to substantially degrade the quality of the environment, resulted in cumulative impacts or caused substantial adverse effects on humans that were not addressed in the Checklist. As discussed above, consideration of the Modified Project would not require any substantial revisions to the Checklist prepared for the Original Project and would be consistent with all findings and conclusions in the Checklist. The Modified Project does not have any new or more severe impacts or result in any substantial changes compared to the evaluation in the Checklist. Therefore, the Modified Project would result in no change to the findings in the Checklist concerning the Mandatory Findings of Significance. No further environmental review is required.

CONCLUSION

The Modified Project is thoroughly and adequately evaluated in the Checklist. No further environmental review is required.



Source: API Architecture Plus Inc, 05/01/2023.

FIRSTCARBON SOLUTIONS™

Exhibit 1
Modified Project Site Plan

Appendix B:
Manteca General Plan 2023 Environmental Impact Report

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Manteca General Plan 2023
Draft Environmental Impact Report

(SCH# 2002042088)

Prepared for the
City of Manteca

Prepared by
Wade Associates

Certified
October 6, 2003

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1. SUMMARY

1.1 INTRODUCTION

This document is an Environmental Impact Report (EIR) for the City of Manteca General Plan 2023. An EIR provides information to the public and to decision-makers regarding the significant or potentially significant environmental impacts of a proposed project. The Guidelines for the California Environmental Quality Act (CEQA), Section 15002(f) define an EIR as:

> *"…the public document used by the governmental agency to analyze the significant environmental effects of a proposed project, to identify alternatives, and to disclose possible ways to reduce or avoid the possible environmental damage."*

The State Legislature has found that:

> *"Decisions involving the future growth of the state, most of which are made and will continue to be made at the local level, should be guided by an effective planning process, including the local general plan, and should proceed within the framework of officially approved statewide goals and policies directed to land use, population growth and distribution, development, open space, resource preservation and utilization, air and water quality, and other related physical, social and economic development factors."* (California Government Code Section 65030.1)

The City of Manteca, Lead Agency, has commenced a comprehensive planning and environmental review process for the purpose of updating the following documents: (1) the existing 1988 Manteca General Plan; (2) the Housing Element; (3) any associated revisions to the City of Manteca Municipal Code; and (4) any associated revisions to the Redevelopment Plans for Manteca's redevelopment project areas resulting from General Plan activities.

The 1988 General Plan constitutes the current policy document relating to the City's long-term vision for its physical development. The Municipal Code contains the City's regulations for the implementation of those policies. The Redevelopment Plans present the strategies of the Manteca Redevelopment Agency for the elimination of those blighting conditions within the City that adversely affect the attainment of those policies. Specific plans provide for the systematic implementation of the General Plan, containing standards and criteria by which development can proceed within those areas governed by the specific plans.

The General Plan Steering Committee, in conjunction with the City's Community Development Department and Consultant, have prepared a set of draft revisions to the 1988 General Plan. The General Plan 2023 identifies those revisions required to describe the current conditions and represent the current policies of the community.

The proposed revisions to the 1988 General Plan and any subsequent amendments to the Municipal Code and/or Redevelopment Plans, as may be required to ensure internal consistency among those documents, constitute a "project" as defined under the California Environmental Quality Act (CEQA) and the Guidelines. A "project" means the whole of an action, which has a potential for resulting in either a direct physical change in the environment or a reasonable foreseeable indirect physical change in the environment and includes:

> *"...an activity directly undertaken by any public agency including but not limited to public works construction and related activities, clearing or grading of land, improvements to existing public structures, enactment and amendment of local general plans or elements thereof."* (Government Code Sections 65000-66499)

Projects that are so defined are subject to compliance with both CEQA and the Guidelines, notwithstanding whether those activities are sponsored by public agencies or by private parties. Since it is the policy of the State that public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects, CEQA imposes an obligation on the City to analyze and disclose the potential environmental impacts that may result either directly or ultimately from its actions.

1.1.1 Program EIR and Tiering

This EIR for the City of Manteca General Plan 2023 is a "Program EIR."

At the community-wide level, when no site-specific development or redevelopment projects and no project-specific capital improvement projects are presented in sufficient detail to allow a site-specific analysis, it may not be possible to fully assess the direct effects associated with the intensification of any individual parcel or parcels within the City. In the absence of a list of pending projects, the description of the physical changes that are assumed to occur within the community are derived from a more generalized assessment of existing land use patterns and proposed land use policies. As indicated in Section 15146 of the Guidelines:

> *"The degree of specificity required in an EIR will correspond to the degree of specificity involved in the underlying activity which is described in the EIR.*
>
> *(a) An EIR on a construction project will necessarily be more detailed in the specific effects of the project than will be an EIR on the adoption of a local general plan or comprehensive zoning ordinance because the effects of the construction can be predicted with greater accuracy.*
>
> *(b) An EIR on a project such as the adoption of an amendment of a comprehensive zoning ordinance or a local general plan should focus on the secondary effects that can be expected to follow from the adoption or amendment, but the EIR need not be as detailed as an EIR on the specific construction projects that might follow."*

Although the build-out assumptions presented in this EIR were derived from a detailed assessment of existing conditions and proposed policies, it is not possible at the community-wide level to conduct individual parcel-by-parcel assessments of the direct impacts associated with that development. Under such circumstances, CEQA authorizes public agencies to prepare a "Program EIR" as the environmental basis for the adoption of a new or revised general plan (Section 15168). Although individual development, redevelopment, and capital improvement projects may not be examined at a site-specific and project-specific level of detail, a Program EIR allows agencies to focus on the secondary and cumulative impacts of those activities authorized under the proposed general plan "program" that may otherwise be slighted in a case-by-case analysis of each future project as it comes to fruition.

Throughout this Program EIR, except as otherwise noted, the terms "project" and "program" are assumed to be interchangeable. Although all development and redevelopment activities authorized under the General Plan 2023 constitute a "program" within the meaning of CEQA, those activities collectively constitute the "project" analyzed in this EIR. Similarly, the term "project" may be used in the context of later development or redevelopment activities that may occur within the City and its Sphere of Influence following adoption of the General Plan 2023.

Section 15183 of the Guidelines minimizes the need for future environmental review of residential projects determined to be consistent with the community's general plan and where an EIR has been certified by the lead agency for that general plan. Should further environmental review for later site-specific activities be required, the Lead Agency is authorized to "tier" those subsequent or supplemental reviews based on the information, analysis, and conclusions presented in the general plan EIR. Section 15152 of the Guidelines explains:

> *"(a) Tiering" refers to using the analysis of general matters contained in a broad EIR (such as one prepared for a general plan or policy statement) with later EIRs and negative declarations on narrower projects; incorporating by reference the general discussions from the broader EIR; and concentrating the later EIR or negative declaration solely on the issues specific to the later project.*
>
> *(b) Agencies are encouraged to tier the environmental analyses which they prepare for separate but related project including general plans, zoning changes, and development projects. This approach can eliminate repetitive discussions of the same issues and focus the later EIR or negative declaration on the actual issues ripe for decision at each level of environmental review.*
>
> *(c) Where a lead agency is using the tiering process in connection with an EIR for a large-scale planning approval, such as a general plan or component thereof (e.g. an area plan or community plan), the development of detailed, site-specific information may not be feasible but can be deferred, in many instances, until such time as the lead agency prepares a future environmental document in connection with a project of a more limited*

geographical scale, as long as deferral does not prevent adequate identification of significant effects of the planning approval at hand."

In accordance with the provisions of CEQA and the Guidelines, later site-specific and project-specific activities consistent with the General Plan 2023 or subject to rezoning of the pending project to achieve or maintain consistency, may be tiered from this program-level assessment, pursuant to Section 15152(e) of the Guidelines.

1.2 INTENDED USE OF THIS EIR

This EIR is intended to inform the public and decision-makers of the potential significant environmental impacts of the proposed City of Manteca General Plan 2023, to indicate mitigation measures which may reduce or avoid these potential significant environmental impacts, and to identify reasonable alternatives to the proposed project.

1.3 GENERAL PLAN REQUIREMENTS

As required under Section 65300 of the California Government Code:

"Each planning agency shall prepare and the legislative body of each county and city shall adopt a comprehensive, long-term general plan for the physical development of the county or city, and of any land outside its boundaries which in the planning agency's judgement bears relation to its planning."

The State General Plan Guidelines further discuss the general plan:

"The general plan expresses the community's development goals and embodies public policies relative to the distribution of future public and private land uses. The general plan serves to bridge the gap between a community's values, visions, and objectives, and physical decisions, such as subdivisions and public works projects." (Office of Planning and Research, State of California General Plan Guidelines, page 10)

Preparing, adopting, implementing, and maintaining the general plan serves to:

Identify the community's land use, circulation, environmental, economic, and social goals and policies as they relate to land use and development;

Provide a basis for local government decision making, including decisions on development approvals and exactions;

Provide citizens the opportunity to participate in the planning and decision making processes of their community;

Inform citizens, developers, decision-makers, and other cities and counties of the ground rules that guide development and redevelopment within the community.

As required under Section 65302 of the California Government Code (CGC), a general plan must include seven "mandatory" elements (i.e., land use, circulation, housing, conservation, open space, noise, and safety) and may include such other "optional" elements as may, in the sole judgement of the agency, be deemed appropriate to address the full range of issues affecting the community. The general plan shall address each of the required elements "to the extent that the subject of the element exists in the planning area. The degree of specificity and level of detail of the discussion of each such element shall reflect local conditions and circumstances." (CGC Section 65302)

In compliance with that requirement, the City previously adopted, and has periodically revised, a comprehensive General Plan as the primary policy document for the community. Section 65350 et seq. of the CGC authorizes local agencies to amend their general plans in accordance with the policies and procedures outlined therein. This "project" has been initiated in accordance with that authority, and is undertaken to ensure that the adopted plans and policies of the City reflect the current conditions within the community, and the current policy direction of the City of Manteca Planning Commission and City Council, and that they present an implementation program designed to guide the City's future actions and assist in the Planning Commission's and City Council's future deliberations.

The elements of the general plan may, at the discretion of the city or county in whose jurisdiction the general plan applies, be combined in such manner as deemed appropriate by that agency. The format must, however, comply with all applicable requirements regarding the content and adoption of each mandatory general element. As indicated in the 1988 General Plan, it has been the historic policy of the City to combine both mandatory and optional general plan elements in a manner deemed to the best suited to the needs of the City. In accordance with that authority, the 1988 General Plan and this General Plan 2023 have been formatted in a manner that combined individual mandatory and optional elements.

1.4 CEQA PROCESS

1.4.1 Initial Study and Notice of Preparation

During a preliminary review (Initial Study) of the General Plan 2023, the City of Manteca, as Lead Agency, identified potential impacts that might result from implementation of the project, providing cause for the preparation of an EIR. A Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) and Initial Study/Environmental Checklist was distributed to responsible and interested agencies, and other interested parties, on April 17, 2002, for a 30-day review. Copies were also available for public review at Manteca City Hall. A copy of the NOP with the Initial Study/Environmental Checklist and comment letters received are included as Appendix A in the Technical Appendix to this EIR (Volume 2). The distribution list for the NOP and this Draft EIR is included as Appendix B in Volume 2. Comments on the NOP were received from:

Central Valley Regional Water Quality Control Board (May 9, 2002)

Malma M. Nicholson (May 17, 2002)

California Department of Food and Agriculture (May 20, 2002)

Kjeldsen, Sinnock, and Neudeck, Inc., on behalf of Reclamation District No. 17 (May 20, 2002)

San Joaquin County Department of Public Works (May 20, 2002)

City of Stockton, Community Development Department (May 22, 2002)

San Joaquin Valley Air Pollution Control District (May 30, 2002)

U.S. Army Corps of Engineers (July 29, 2002)

1.4.2 Public Comment Period on the Draft EIR

This Draft EIR (DEIR) will be available for public review at the City of Manteca Community Development Department, 1001 W. Center Street, Manteca, and at the Manteca City Library, 320 W. Center Street, Manteca, for a 45-day review period. All documents referenced in the DEIR will also be available for public review at the City of Manteca Community Development Department. The Manteca Planning Commission will hold a public meeting on the DEIR during this comment period to receive comments. The distribution list for the DEIR is included as Appendix B in the Technical Appendix to this EIR (Volume 2). In addition, the public may submit comments in writing to the City of Manteca. All comments should be sent to:

Mr. Kyle Kollar, Community Development Director
City of Manteca
1001 W. Center Street
Manteca, CA 95337

1.4.3 Final EIR

Comments received during the comment period and public hearing will be addressed in the Final Environmental Impact Report (FEIR). The Manteca Planning Commission and City Council will consider the FEIR, with these comments and written responses prior to certification of the EIR.

1.4.4 "Findings" and Certification of the Final EIR

Prior to considering the approval of the General Plan 2023, the City of Manteca must certify that the EIR has been completed in compliance with CEQA, and must make one or more of the following "findings" for each significant impact identified (CEQA Guidelines Section 15091(a)(1-3)):

1. Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

2. Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding.

3. Specific economic, legal, social, technological or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the Final EIR.

Substantial evidence in the record must support these findings.

1.4.5 "Statement of Overriding Considerations" and Approval of a Project

> *"CEQA requires the decision-making agency to balance the economic, legal, social, technological, or other benefits of a proposed project against its unavoidable environmental risks when determining whether to approve the project. If specific economic, legal, social, technological, or other benefits of the proposed project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered "acceptable."* (CEQA Guidelines Section 15093(a))

The Lead Agency must state in writing the specific reasons to support approval of a project that will result in significant environmental effects identified as not avoided or substantially avoided in the certified Final EIR. Substantial evidence in the public record is required to support such a "statement of overriding considerations." (CEQA Guidelines Section 15093(b))

1.5 EIR FOCUS AND EFFECTS FOUND NOT TO BE SIGNIFICANT

The preliminary environmental assessment concluded that potentially significant impacts could result in the areas of aesthetics, agricultural resources, air quality, biological resources, hazardous materials, ground water resources, land use issues, noise, traffic, population and housing, and public facilities and services.

Although not identified in the preliminary environmental assessment as potentially resulting in significant impacts, this EIR also evaluates issues of cultural resources, geology and soils.

Mineral resources and wildland fire were found not to be significant issues requiring further environmental analysis.

The California Division of Mines and Geology has identified one location within the General Plan Study Area as a Zone MRZ-2, Significant Mineral Resource Zone **(1)**. The designation in this location near the San Joaquin River refers to sand deposits that are considered to be of regional significance. Brown Sand and Gravel, Incorporated, has produced processed sand at

Oakwood Lake Pit, located within the Study Area. These mining operations have ceased. Oakwood Lake Resort has been created from these reclaimed mined lands. A residential project has been approved by San Joaquin County on the site of this former quarry. A second Brown Sand and Gravel, Incorporated, operation (Mossdale Ranch) is located outside the Study Area in the unincorporated County area. Therefore, mineral resources are not further analyzed in this EIR.

The threat to Manteca from wildland fires is extremely low due to the agricultural lands surrounding the City. Therefore, wildland fire is not further analyzed in this EIR.

1.6 LEVELS OF SIGNIFICANCE

CEQA (Section 21068) defines a significant effect on the environment as that which has:

> *"...a substantial, or potentially substantial, adverse change in the environment."*

CEQA Guidelines (Section 15360) defines "environment" as:

> *"…the physical conditions which exist within the area which will be affected by a proposed project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historical or aesthetic significance. The area involved shall be the area in which significant effects would occur either directly or indirectly as a result of the project. The "environment" includes both natural and man-made conditions."*

Level of significance varies for each project, depending upon the change in the existing physical conditions of the setting. For each proposed project:

> *"The lead agency shall determine whether a project may have a significant effect on the environment based on substantial evidence in light of the whole record."* (CEQA, Section 21082.2(a))

Based upon CEQA's definition of significant effect on the environment, the following levels of significance have been defined for evaluating the impacts that may result from the General Plan 2023:

No Impact: No change from existing environmental conditions.

Less than Significant Impact: No substantial adverse change in existing environmental conditions. Mitigation is not required, although mitigation measures may be applied to further reduce an adverse impact.

Significant Impact: A substantial adverse change in existing environmental conditions that should be mitigated, if feasible.

Significant and Unavoidable Impact: A substantial adverse change in existing environmental conditions that would not be mitigated to a less-than-significant level.

Beneficial Impact: A positive change in the existing environmental conditions.

1.7 POTENTIAL AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED

Five (5) potential areas of controversy are expected during the review of this General Plan and General Plan EIR:

land use and agricultural resource conversion

population increase

air quality

domestic water

open space

traffic

Land Use and Agricultural Resource Conversion

The General Plan 2023 proposes changes in land use designations. As these changes may result in increased urban development, including areas that are currently adjacent to or designated agricultural land, controversy over development projects and agricultural resource conversion may arise.

Population Increase

The build-out of the proposed General Plan will substantially increase the population of the City of Manteca. Controversy over a perceived loss of Manteca's "small town atmosphere" may arise.

Air Quality

The City of Manteca is under the jurisdiction of the San Joaquin Valley Air Pollution Control District (SJVAPCD). The San Joaquin Valley suffers from serious air pollution, due to long, warm summers and surrounding mountains that trap smog in the valley, not allowing the smog to dissipate. In addition to smog, dry weather conditions and topography allow small particles of man-made compounds, as well as soot, ash, and dust to become suspended in the air, creating particulate matter. While these weather conditions benefit the agricultural uses in the area, they do not promote healthful air quality.

Domestic Water

Water facilities in the City of Manteca consist primarily of water wells and transmission mains. Past development has generally occurred concentrically out from the center of the community. Water distribution facilities in the portion of the City that is generally developed (i.e., from Airport Way to State Route 99, and from Lathrop Road to State Route 120) have the capacity to serve the existing development plus the future infill development. The outlying areas will need water transmission pipelines extended from the existing grid before development can occur.

Open Space

Protection of open space and areas for recreation is fundamental to maintain the quality of life enjoyed by current and future residents. New development will inherently change some aspects of the open space resource through conversion of agricultural land.

Traffic

There has been a significant increase in both population and development in Manteca in recent years. These increases have translated into more intensified use of automobiles and commuting to out-of-area jobs. Manteca's circulation system is addressed in the General Plan as a means of improving traffic conditions in and around the City.

1.8 SCOPING AND CONSULTATION

In the preparation of this EIR, the City has undertaken outreach efforts to solicit comments, suggestions, and recommendations for consideration. In addition to the active participation by the General Plan Steering Committee, the City has consulted with a broad range of public agencies, individuals, and organizations. Formal consultation occurred with those parties potentially affected by the project, those parties possessing information concerning the project site or the resources located on the project site, and those entities from which later discretionary actions may be required.

Pre-circulation consultation included, but was not limited to:

1) the preparation and dissemination of environmental notices (as required under Public Resources Code Section 21092(f));

2) consultation with other public agencies (as required under Public Resources Code Section 21153 and Section 15086 of the CEQA Guidelines);

3) consultation with transportation planning organizations and public agencies with transportation planning facilities within their jurisdictions (as required under Public Resources Code Section 21092.4); and

4) consultation with affected water agencies (as required under Public Resources Code Section 21151.9 and Section 15083.5 of the CEQA Guidelines).

Written comments received by the City in response to the NOP are included as Appendix A in the Technical Appendix to this EIR (Volume 2).

1.9 AGENCIES AND ORGANIZATIONS THAT MAY USE THIS EIR IN THEIR DECISION-MAKING

In addition to the City's use of this document as the environmental basis for the adoption of the General Plan 2023, revisions to the City's Municipal Code and Redevelopment Plans, and for the approval or conditional approval of any later actions, other local, regional, State, and/or federal agencies may elect to utilize the information presented as the environmental basis for the later discretionary actions of those agencies. Other agencies and organizations which may use this document in their capacity as responsible agencies or in permitting procedures include, but are not limited to:

Community Development Department, San Joaquin County

Department of Public Works, San Joaquin County

San Joaquin Local Agency Formation Commission (LAFCo)

San Joaquin Council of Governments (SJCOG)

San Joaquin Valley Unified Air Pollution Control District

So. San Joaquin Irrigation District

San Joaquin County Agricultural Commission

California State Department of Food and Agriculture

Central Valley Water Quality Control Board

California Department of Fish and Game

U.S. Fish and Wildlife Service

U.S. Army Corps of Engineers

1.10 INCORPORATED BY REFERENCE

Pursuant to Section 15150 (CEQA Guidelines), the Lead Agency is authorized to "incorporate by reference" all or portions of other documents that are a matter of public record and that contain information applicable to the pending project or the impacts associated with the project. The following documents are hereby incorporated by reference:

"City of Manteca General Plan 2023" as adopted by the City of Manteca, 2003.

"Air Quality Guidelines for General Plans." San Joaquin Valley Unified Air Pollution Control District, 1994.

"San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP)." San Joaquin County Council of Governments et al, November 14, 2000.

"Draft Joint EIR/EIS for the Approval and Implementation of the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP)." San Joaquin County Council of Governments et al, September 23, 1999.

"Final Joint EIR/EIS for the Approval and Implementation of the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP)." San Joaquin County Council of Governments et al, November 5, 2000.

These documents are available for review at the City of Manteca Community Development Department during the regular business hours of the Department. The Department is the custodian of records for the General Plan 2023 and its accompanying CEQA documentation.

1.11 INDEPENDENT JUDGMENT

The preliminary findings presented in this EIR reflect the independent judgment of the City of Manteca relative to the nature and magnitude of the potential impacts resulting from the adoption of the General Plan 2023, and the subsequent build-out of the City and its Sphere of Influence in accordance with the plans, policies, and programs contained within the General Plan. Additionally, this document presents the independent judgment of the City of Manteca relative to each of the alternatives examined in this EIR, and the efficacy of the recommended actions now proposed by the Lead Agency to reduce or avoid the significant or potentially significant environmental effects as identified.

1.12 ORGANIZATION OF THIS DRAFT EIR DOCUMENT

This Draft EIR for the City of Manteca General Plan 2023 is organized into the following eighteen (18) sections:

SECTION 1 SUMMARY

Summary of the Draft General Plan 2023 EIR and the CEQA Process.

SECTION 2 PROJECT AND ALTERNATIVES DESCRIPTION

Description of the Draft General Plan 2023 and overview of the analyzed alternatives.

SECTIONS 3–15 IMPACT ANALYSIS

Discussion and analysis of potential impacts of the Draft General Plan 2023 upon the following:

Aesthetics and Visual Resources (Section 3)

Agricultural Resources (Section 4)

Air Quality (Section 5)

Biological Resources (Section 6)

Cultural Resources (Section 7)

Geology, Soils, and Seismicity (Section 8)

Hazardous Materials (Section 9)

Hydrology and Water Quality (Section 10)

Land Use and Planning (Section 11)

Noise (Section 12)

Population and Housing (Section 13)

Public Facilities and Services (Section 14)

Traffic and Circulation (Section 15)

SECTION 16 ALTERNATIVES ANALYSIS

Discussion of the alternatives analyzed and the Environmentally Preferred Alternative.

SECTION 17 OTHER CEQA-REQUIRED IMPACT ANALYSIS

Analysis of Growth-Inducing Impacts, Significant Environmental Effects Which Cannot be Avoided, Cumulative Impacts, and Significant Irreversible Environmental Changes.

SECTION 18 REPORT PREPARATION

Listing of Agencies and Organizations that contributed to the preparation of this Draft EIR for the General Plan 2023.

1.13 SUMMARY OF IMPACTS AND MITIGATION MEASURES

The potential impacts, mitigation measures, and the residual level of significance resulting from implementation of the General Plan 2023 and recommended mitigation measures are summarized in Table 1-1. A discussion of each of these impacts can be found in the corresponding Sections of this EIR.

Table 1-1

Summary of Impacts and Mitigation Measures

AESTHETICS AND VISUAL RESOURCES

POTENTIAL IMPACT AV-1: **Buildout of the proposed General Plan 2023 would degrade the existing scenic vistas found in the General Plan Study Area.**

Level of Significance: **Significant and Unavoidable**

Buildout of the General Plan Study Area will occur as development at the edge of Manteca, primarily in current agricultural areas. New development will be visible from locations within the community, from the highway overpasses, and from the nearby unincorporated agricultural areas beyond the Study Area boundaries. New development will impact the current views of open space, which are primarily vistas of agricultural fields and orchards.

AV-1.1 The Resource Conservation Element of the proposed City of Manteca General Plan 2023 provides the following policy (P) regarding existing scenic vistas:

RC-P-17 Maximize the potential for open space and visual experiences.

Residual Level of Significance: **Significant and Unavoidable**

POTENTIAL IMPACT AV-2: **The existing visual character or quality of the area will be degraded.**

Level of Significance: **Potentially Significant**

Mitigation Measures:

AV-2.1 The proposed City of Manteca General Plan 2023 provides the following goal, policies (P) and implementation (I) measure to maintain existing visual character:

Resource Conservation Element

RC-P-15 Promote the provision of public and private open space within urbanized parts of Manteca, in order to provide visual contrast

with the built environment and to provide for the recreational needs of residents.

Community Design Element

Goal CD-11 Retain visual reminders of the agricultural heritage of the community.

CD-P-47 Allow pockets of agricultural activity to remain within the urban areas of the city where such uses are compatible with the surrounding urban use.

CD-P-48 Encourage use of small under-utilized parcels of new agricultural activity, such as truck farms, strawberries, and small orchards.

CD-P-49 In order to establish a visual character that retains the agricultural heritage, the city will permit the use of orchard trees (or similar non-fruiting species) in landscape corridors along major streets adjacent to residential neighborhoods, in-lieu of formalized landscape. In such landscapes, the groundcover may be limited to bare earth and weed control and/or groundcovers compatible with the orchard characteristics.

CD-I-14: Establish design guidelines for non-residential uses within 200 feet of SR 99 and SR 120. The guidelines should address the following concepts…The landscape along SR 120 and SR 99 will reflect the natural character of the region in the selection of trees and groundcover.

Residual Level of Significance: Significant and Unavoidable

Although conformance with the goal, policies, and implementation measure identified above will lessen the impact to some extent, the impact of development on the existing visual character of the City of Manteca will remain significant. There is no way to fully mitigate the impact of development of agricultural open space.

POTENTIAL IMPACT AV-3: There will be an increased impact of light or glare from buildout of the General Plan 2023.

Level of Significance: Potentially Significant

Mitigation Measures:

The impact of light and glare can be minimized by incorporating design features and operating requirements into new development that limit light and glare on-site.

AV-3.1: The Community Design Element of the Manteca General Plan 2023 provides the following policies which may assist in the mitigation of the degradation of the existing night sky amenity in the City of Manteca:

CD-P-44: Provide minimal street lighting to meet safety standards and provide direction.

CD-P-45 Provide directional shielding for street and parking lot lighting.

CD-P-46 Provide automatic shutoff or motion sensors for lighting features in newly developed areas.

Residual Level of Significance: Less Than Significant With Mitigation

AGRICULTURAL RESOURCES

POTENTIAL IMPACT AG-1: Implementation of the City of Manteca General Plan 2023 (Project) will result in conversion of Prime Farmland, Farmland of Statewide Importance, and Farmland of Local Importance to non-agricultural use.

Level of Significance: Potentially Significant

Mitigation Measures:

AG-1.1: The Land Use Element of the proposed General Plan 2023 provides the following policy (P) and implementation measure (I) intended to protect important farmland within the Study Area:

LU-P-41 The City shall encourage the continuation of agricultural uses on lands within the Primary and Secondary Urban Services

Boundary lines pending their development as urban uses consistent with the General Plan.

LU-I-1: The City shall maintain a growth management system that provides a mechanism for the annual allocation of the amount of residential, commercial, and industrial development that may occur. The growth management system shall have the following objectives:

Conserve viable agricultural and open space lands.

The Resource Conservation Element of the proposed General Plan 2023 provides the following goal and policies (P) intended to conserve agricultural resources within the Study Area:

Goal RC-9 To promote the continuation of agricultural uses in the Manteca area and to discourage the premature conversion of agricultural land to nonagricultural uses, while providing for the urban development needs of Manteca.

RC-P-18 The City shall support the continuation of agricultural uses on lands designated for urban use, until urban development is imminent.

RC-P-19 The City shall provide an orderly and phased development pattern so that farmland is not subjected to premature development pressure.

AG-1.2: The Land Use Element of the proposed General Plan 2023 directs the major growth area, as defined by the Primary Urban Service boundary, in a manner that avoids Prime Farmlands where feasible. Some areas of Prime Farmlands are within existing urban areas.

Residual Level of Significance: Significant and Unavoidable

Although conformance with the goal, policies, and implementation measures identified above will lessen the conversion of the agricultural resources to some extent, the impact will remain significant.

POTENTIAL IMPACT AG-2: Implementation of the General Plan 2023 will cause a conflict with existing zoning for agricultural use, or a Williamson Act contract.

Level of Significance: Potentially Significant

Mitigation Measures:

AG-2.1: The Resource Conservation Element of the proposed General Plan 2023 provides the following policies (P) and implementation measure (I) intended to conserve agricultural zoning within the Study Area:

RC-P-22 Protect designated agricultural lands, without placing an undue burden on agricultural landowners.

RC-P-26 The City shall discourage the cancellation of Williamson Act contracts outside the Primary Urban Service Boundary line.

RC-I-31 Work with San Joaquin County on the following issues:

Support the continuation of County agricultural zoning in areas designated for agricultural land use in the Area Plan.

Residual Level of Significance: Significant and Unavoidable

Although conformance with the policies and implementation measure identified above will lessen the conflicts with existing agricultural zoning within the Primary Urban Service Boundary, the impact will remain significant within the Study Area.

POTENTIAL IMPACT AG-3: The location or nature of some proposed General Plan 2023 changes could result in the conversion of farmland to non-agricultural use.

Level of Significance: Potentially Significant

Mitigation Measures:

AG-3.1: The Resource Conservation Element of the proposed General Plan 2023 provides the following policies (P) and implementation measure (I) intended to maintain agricultural use within the Study Area:

RC-P-20 In approving urban development near existing agricultural lands, the City shall act so that such development will not unnecessarily constrain agricultural practices or adversely affect the viability of nearby agricultural operations.

RC-P-23 Provide buffers at the interface of urban development and farmland in order to minimize conflicts between these uses.

RC-P-24 The City shall endeavor to ensure, in approving urban development near existing agricultural lands, that such development will not unnecessarily constrain agricultural practices or adversely affect the economic viability of nearby agricultural operations.

RC-P-25 The City shall restrict the fragmentation of agricultural land parcels into small rural residential parcels except in areas designated for estate type development in the General Plan Land Use Diagram.

RC-P-27 The City shall not extend water and sewer lines to premature urban development that would adversely affect agricultural operations.

RC-I-30 Apply the following conditions of approval where urban development occurs next to farmland:

- Require notifications in urban property deeds that agricultural operations are in the vicinity, in keeping with the City's right-to-farm ordinance.
- Require adequate and secure fencing at the interface of urban and agricultural use.
- Require phasing of new residential subdivisions so as to include an interim buffer between residential and agricultural use.

Residual Level of Significance: Less Than Significant With Mitigation

AIR QUALITY

POTENTIAL IMPACT AQ-1: Implementation of the General Plan 2023 could conflict with or obstruct implementation of the applicable air quality plan.

Level of Significance: Potentially Significant

Mitigation Measures:

AQ-1.1: The General Plan 2023 includes the following goal, policy (P) and implementation measures (I) to direct cooperation with San Joaquin Valley Air Pollution Control District's air quality plans, including air toxic plans:

Goal AQ-1 Improve Manteca's air quality by:

Minimizing public exposure to toxic or hazardous air pollutants.

AQ-P-1 Cooperate with other agencies to develop a consistent and coordinated approach to reduction of air pollution and management of hazardous air pollutants.

AQ-I-1 Work with the San Joaquin Valley Air Pollution Control District (SJVAPCD) to implement the Air Quality Management Plan (AQMP).

Cooperate with the APCD to develop consistent and accurate procedures for evaluating project-specific and cumulative air quality impacts.

Cooperate with the APCD and the California Air Resources Board to develop a local airshed model.

Cooperate with the APCD in their efforts to develop a cost/benefits analysis of possible control strategies (mitigation measures to minimize short and long-term stationary and area source emissions as part of the development review process, and monitoring measures to ensure that mitigation measures are implemented.

AQ-I-2 In accordance with CEQA, submit development proposals to the APCD for review and comment prior to decision.

Residual Level of Significance: Less Than Significant with Mitigation

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POTENTIAL IMPACT AQ-2: Implementation of the General Plan 2023 could violate air quality standards or contribute substantially to the current nonattainment status for ozone and PM10.

Level of Significance: Significant and Unavoidable

The San Joaquin Valley is currently designated as "severe nonattainment" for the state ozone 1-hour standard, and "serious nonattainment" for the federal 1-hour ozone and 24-hour fine particulate matter (PM10) standards. Any additional sources of these pollutants will contribute to this nonattainment status. Therefore, there are no mitigation measures which will reduce the increase of these air pollutants to a less-then-significant level.

AQ-2.1: The General Plan 2023 includes the following goals, policies (P), and implementation measures (I) to help meet air quality standards and reduce the net contribution to the current ozone and PM10 nonattainment status.

Goal AQ-1	Improve Manteca's air quality by: Achieving and maintaining ambient air quality standards established by the U.S. Environmental Protection Agency, the California Air Resources Board, and the San Joaquin Valley Air Pollution Control District.
Goal AQ-2	Integrate air quality planning with land use and transportation planning processes in order to reduce vehicle miles traveled in the City and by commuters.
Goal AQ-3	Increase opportunities for alternatives to internal combustion automobiles including, but not limited to, public transportation, bicycles, walking and alternative fuel vehicles including hybrid gas-electric, electric and compressed natural gas.
Goal AQ-4	Reduce air emissions through energy conservation.
AQ-P-8	Woodburning devices shall meet current standards for controlling particulate air pollution.
AQ-P-9	Burning of any combustible material within the City will be controlled to minimize particulate air pollution.
AQ-I-13	All residences built in a new subdivision or housing development shall be equipped with conventional heating devices with sufficient capacity to heat all areas of the building without reliance on woodburning heating devices.
AQ-I-14	All woodburning-heating devices installed shall meet EPA standards applicable at the time of project approval.

Air quality issues relating to construction activities are also addressed in the Air Quality Section of the General Plan 2023:

AQ-P-7 New construction will be managed to minimize fugitive dust and construction vehicle emissions.

AQ-I-4. Construction activity plans shall include and/or provide for a dust management plan to prevent fugitive dust from leaving the property boundaries and causing a public nuisance or a violation of an ambient air standard.

Project development applicants shall be responsible for ensuring that all adequate dust control measures are implemented in a timely manner during all phases of project development and construction.

Residual Level of Significance: Significant and Unavoidable

POTENTIAL IMPACT AQ-3: Implementation of the General Plan 2023 would result in a cumulatively considerable net increase in ozone and PM10 air pollutants.

Level of Significance: Significant and Unavoidable

Given that the Valley is nonattainment for ozone and PM10, there are no mitigation measures to reduce the cumulative increase of these air pollutants when proposing additional urban development. There are no mitigation measures which will reduce this impact to a less-than-significant level. However, the following policies (P) and implementation measures (I)are intended to reduce the net increase to the region's cumulative air pollution from the General Plan 2023:

Air Quality and Land Use

AQ-P-2 Develop a land use plan that will help to reduce the need for trips and will facilitate the common use of public transportation, walking, bicycles, and alternative fuel vehicles.

AQ-I-4 Encourage mixed-use development that is conveniently accessible by pedestrians and public transit.

AQ-I-5	Locate employment, school, and daily shopping destinations near residential areas.
AQ-I-6	Locate higher density development such as multi-family housing, institutional uses, services, employment centers and retail along existing and proposed transit corridors.
AQ-I-7	Locate public facilities in areas easily served by current and planned public transportation.

Air Quality and Transportation

AQ-P-4	Develop and maintain street systems that provide for efficient traffic flow and thereby minimize air pollution from automobile emissions.
AQ-P-5	Develop and maintain circulation systems that provide alternatives to the automobile for transportation, including bicycles routes, pedestrian paths, bus transit, and carpooling.
AQ-P-6	Coordinate public transportation networks, including trains, local bus service, regional bus service and rideshare facilities to provide efficient public transit service.
AQ-I-9	Maintain acceptable traffic levels of service (LOC) as specified in the Circulation Element.
AQ-I-10	In new subdivisions, require internal street design to include the installation of dedicated pedestrian/bicycle pathways connecting to adjacent residential and commercial areas as well as schools, parks and recreational areas.

Residual Level of Significance: **Significant and Unavoidable**

POTENTIAL IMPACT AQ-4: **Implementation of the General Plan 2023 could expose sensitive receptors to substantial pollutant concentrations.**

Level of Significance: **Potentially Significant**

Mitigation Measures:

AQ-4.1: The General Plan 2023 includes the following implementation measures (I) to help reduce exposure of sensitive receptors to pollutants:

AQ-I-8 Locate air pollution point sources, such as manufacturing and extracting facilities, in areas designated for industrial development and separated from residential areas and sensitive receptors (e.g., homes, schools, and hospitals).

AQ-I-15 Design review criteria shall include the following considerations, at a minimum:

Establish buffer zones (e.g., setbacks, landscaping) within residential and other sensitive receptor site plans to separate those uses from highways, arterial streets, hazardous material locations and other sources of air pollution or odor.

Residual Level of Significance: Less Than Significant With Mitigation

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POTENTIAL IMPACT AQ-5: Implementation of the General Plan 2023 could create objectionable odors affecting a substantial number of people.

Level of Significance: Potentially Significant

Mitigation Measures:

AQ-5.1: The General Plan 2023 includes the following goal and policy (P) to help reduce the possibility of exposing people to objectionable odors:

Goal AQ-1: Improve Manteca's air quality by:

Minimizing public exposure to pollutants that create a public nuisance, such as unpleasant odors.

AQ-P-3 Segregate and provide buffers between land uses that typically generate hazardous or obnoxious fumes and residential or other sensitive land uses.

Residual Level of Significance: Less Than Significant with Mitigation

BIOLOGICAL RESOURCES

POTENTIAL IMPACT B-1: **Implementation of the General Plan 2023 (proposed project) could result in the loss of identified special status species.**

Level of Significance: **Potentially Significant**

Mitigation Measures:

B-1.1 The Resource Conservation Element of the proposed City of Manteca General Plan 2023 provides the following policies (P) and implementation (I) measures to protect and maintain special status species.

RC-P-32 Protect special status species and other species that are sensitive to human activities.

RC-I-32 Continue to support and comply with the requirements of the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) when reviewing proposed public and private land use changes.

RC-I-34 Project proponents who opt not to participate in the SJMSCP shall satisfy applicable U.S. Endangered Species Act (ESA), California Endangered Species Act (CESA), National Environmental Policy Act (NEPA), California Environmental Quality Act (CEQA), and other applicable local, state, and federal laws and regulation provisions through consultations with the Permitting Agencies and local planning agencies.

Residual Level of Significance: **Less Than Significant With Mitigation**

POTENTIAL IMPACT B-2: **Implementation of the City of Manteca General Plan 2023 could result in the loss of riparian habitat or other sensitive natural communities.**

Level of Significance: **Potentially Significant**

Mitigation Measures:

B-2.1: The Resource Conservation Element of the proposed City of Manteca General Plan 2023 provides the following goal, policies (P), and implementation (I) measures to protect and maintain riparian and other sensitive habitats.

Goal RC-10 Protect sensitive native vegetation and wildlife communities and habitat in Manteca.

BR-P-30 Condition new development in the vicinity of the San Joaquin River and Walthall Slough to promote and protect riparian habitat, wetlands, and other native vegetation and wildlife community.

BR-P-34 Consider the development of new drainage channels planted with native vegetation, which would provide habitat as well as drainage.

RC-I-32 Continue to support and comply with the requirements of the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) when reviewing proposed public and private land use changes.

RC-I-33 For project proponents who opt against participation in the SJMSCP, require site-specific research, and ground surveys for proposed development projects. This research must include a detailed inventory of all biological resources onsite, and appropriate mitigation measures for avoiding or reducing impact to these biological resources. This requirement may be waived if determined by the City that the proposed project area is already sufficiently surveyed.

RC-I-34 Project proponents who opt not to participate in the SJMSCP shall satisfy applicable U.S. Endangered Species Act (ESA), California Endangered Species Act (CESA), National Environmental Policy Act (NEPA), California Environmental Quality Act (CEQA), and other applicable local, state, and federal laws and regulation provisions through consultations with the Permitting Agencies and local planning agencies.

BR-I-36 Limit the access of pedestrians and cyclists to wetland areas so that access is compatible with long-term protection of these natural resources.

Residual Level of Significance: Less Than Significant With Mitigation

POTENTIAL IMPACT B-3: **The General Plan 2023 may have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act through direct removal, filling, or hydrological interruption.**

Level of Significance: **Potentially Significant**

Mitigation Measures:

B-3.1: The Resource Conservation Element of the proposed City of Manteca General Plan 2023 provides the following implementation (I) measure to protect federally protected wetlands.

BR-I-38 Until such time that a Clean Water Act regional general permit or its equivalent is issued for coverage under the SJMSCP, acquisition of a Section 404 permit by project proponents will continue to occur as required by existing regulations. Project proponents shall comply with all requirements for protecting federally protected wetlands.

Residual Level of Significance: **Less Than Significant With Mitigation**

POTENTIAL IMPACT B-4: **Implementation of the General Plan 2023 could substantially interfere with the movement of wildlife species or with established native or migratory wildlife corridors.**

Level of Significance: **Potentially Significant**

Mitigation Measures:

B-4.1: The Resource Conservation Element of the proposed City of Manteca General Plan 2023 provides the following implementation (I) measures to reduce the impact of loss of agricultural lands to foraging migratory birds.

RC-I-32 Continue to support and comply with the requirements of the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP).

RC-I-34 Project proponents who opt not to participate in the SJMSCP shall satisfy applicable U.S. Endangered Species Act (ESA), California Endangered Species Act (CESA), National Environmental Policy Act (NEPA), California Environmental Quality Act (CEQA), and other applicable local, state, and federal laws and regulation provisions through consultations with the Permitting Agencies and local planning agencies.

Residual Level of Significance: Less Than Significant With Mitigation

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POTENTIAL IMPACT B-5: Impacts on biological resources from the buildout of the General Plan 2023 may be cumulatively significant.

Level of Significance: Potentially Significant

Mitigation Measures:

B-5.1: The Resource Conservation Element of the proposed City of Manteca General Plan 2023 provides the following implementation (I) measure to reduce the impact of expanding urban development on biological resources.

RC-I-32 Continue to support and comply with the requirements of the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) when reviewing proposed public and private land use changes.

Residual Level of Significance: Significant

Given the voluntary nature of participation in the SJMSCP, the level of significance cannot be mitigated to less than significant. The SJMSCP is, in effect, a plan to mitigate both the site specific and the cumulative impacts of individual projects on biological resources within San Joaquin County. If all project proponents opted to participate in the SJMSCP, cumulative effects of the buildout of the General Plan 2023 could be mitigated to a less than significant level. However, it cannot be assumed that all project proponents will opt to participate in the SJMSCP. Any project proponent who opts against participating in the Plan will be proceeding under the "project-by-project" evaluation and mitigation process with each permitting agency. Since project-by-project evaluation cannot reasonably foresee the overall effects on biological resources of individual projects under multiple agency control, cumulative impacts may result.

CULTURAL RESOURCES

POTENTIAL IMPACT C-1: **Implementation of the General Plan 2023 (proposed project) may cause a substantial adverse change in the significance of known and unknown archaeological or historical resources, or a unique paleontological resource or geologic feature.**

Level of Significance: **Potentially Significant**

Mitigation Measures:

C-1.1 The Resource Conservation Element of the proposed City of Manteca General Plan 2023 provides the following Goals, policies (P) and implementation (I) measures to protect archaeological and historical resources.

Goal RC-11 Preserve and enhance Manteca's archaeological and historic resources for their aesthetic, educational and cultural values.

Goal RC-12 Protect Manteca's Native American heritage.

RC-P-35 The City shall not knowingly approve any public or private project that may adversely affect an archaeological site without consulting the California Archaeological Inventory at Stanislaus State University, conducting a site evaluation as may be indicated, and attempting to mitigate any adverse impacts according to the recommendation of a qualified archaeologist. City implementation of this policy shall be guided by the California Environmental Quality Act (CEQA) and the National Historic Preservation Act (NHPA).

RC-P-36 The City shall refer development proposals that may adversely impact archaeological sites to the California Archaeological Inventory, Stanislaus State University.

RC-P-37 The City shall set as a high priority the protections and enhancement of Manteca's historically and architecturally significant buildings.

RC-P-38 The City shall work with property owners in seeking registration of historical structures as State Historic Landmarks or listing on the Federal Register of Historic Sites.

RC-P-39 The City shall prepare and adopt a Historical Preservation Ordinance.

RC-P-40 The City and Redevelopment Agency shall support the efforts of property owners to preserve and renovate historic and architecturally significant structures. Where such buildings cannot be preserved in tact, the City shall seek to preserve the building facades.

RC-I-38 Require a records search for any proposed development project, to determine whether the site contains known archaeological, historic, or cultural resources and/or to determine the potential for discovery of additional cultural resources. This requirement may be waived if determined by the City that the proposed project area is already sufficiently surveyed.

RC-I-39 Require that sponsors of proposed development projects on sites where probable cause for discovery of archaeological resources (as indicated by records search and where resources have been discovered in the vicinity of the project) retain a consulting archaeologist to survey the project site. If unique resources, as defined by California State law, are found, a qualified archaeologist or historian shall be called to evaluate the find and to recommend proper action. Require a monitoring plan for the project to ensure that mitigation measures are implemented.

RC-I-40 When feasible, incorporate significant archaeological sites into open space areas.

RC-I-41 The City should continue its inventory of all historic sites throughout the City. The inventory should contain a narrative of the significant facts regarding the historic events or persons associated with the site, and pictures of the site.

RC-I-42 The City should maintain an archive of historic information, including photographs, publications, oral histories and other materials.

RC-I-43 The historic archives will be compiled according to location in the City, and will be maintained in a safe environment to protect it over time.

RC-I-44 The City should develop policies and the means to make the information available to the public for viewing and research.

RC-I-45 All City permits for reconstruction, modification of existing buildings will require submittal of a photograph of the existing structure or site. The intent is to create a record of the buildings in the City over time. A photograph will also be required for vacant sites that will be modified with new construction of new buildings or other above ground improvements.

RC-I-46 Encourage the placement of monuments or plaques that recognize and celebrate historic sites, structures, and events.

RC-I-47 The City shall adopt and implement a historic building code, as authorized by state law.

Residual Level of Significance: Less Than Significant With Mitigation

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POTENTIAL IMPACT C-2: Implementation of the General Plan 2023 could disturb human remains, including those interred outside of formal cemeteries.

Level of Significance: Potentially Significant

Mitigation Measures:

C-2.1: The Resource Conservation Element of the proposed City of Manteca General Plan 2023 provides the following implementation (I) measure to reduce disturbance to discovered human remains.

RC-I-48 If human remains are discovered, California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the county coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code Section 5097.98. If the coroner determines that no investigation of the cause of death is required and if the remains are of Native American origin, the coroner will notify the Native American Heritage Commission, which in turn will inform a most likely descendant. The descendant will then recommend to the landowner appropriate disposition of the remains and any grave goods.

Residual Level of Significance: Less Than Significant With Mitigation

GEOLOGY, SOILS, AND SEISMICITY

POTENTIAL IMPACT GSS-1: **Implementation of the General Plan 2023 may expose people and structures to rupture of a known earthquake, as delineated on the Alquist-Priolo Earthquake Fault Zoning Map.**

Level of Significance: **Less Than Significant Impact**

Manteca is not located within an Alquist-Priolo Fault-Rupture Hazard Zone. There are no known active surface fault ruptures located within or adjacent to the Study Area.

POTENTIAL IMPACT GSS-2: **Implementation of the General Plan 2023 may expose people and structures to ground shaking, ground failure (including liquefaction) or landslides.**

Level of Significance: **Potentially Significant**

Mitigation Measures:

GSS-2.1: The General Plan 2023 Safety Element (Section 7) provides the following goals, policies (P), and implementation measures (I) to lessen the possible exposure of people and structures to ground shaking or ground failure, including liquefaction:

Goal S-1: Prevent loss of lives, injury, and property damage due to seismic activity and geological hazards.

Goal S-2: Prevent loss of lives, injury, and property damage due to the collapse of buildings and critical facilities and to prevent disruption of essential services in the event of an earthquake.

S-P-1 The City shall require preparation of geological reports and/or geological engineering reports for proposed new development located in areas of suspected significant geological hazards, including potential subsidence (collapsible surface soils) due to groundwater extraction.

S-P-2 The City shall require new development to mitigate the potential impacts of geologic hazards through Building Plan review.

S-P-3 The City shall avoid potential seismic induced settlement of uncompacted fill and liquefaction (water-saturated soil) due to the presence of a high water table.

S-P-4 The City shall maintain an inventory of pre-1940 unreinforced masonry buildings within the city. No change in use to a higher occupancy or more intensive use shall be approved in such structures until an engineering evaluation of the structure has been conducted and any structural deficiencies corrected. The Redevelopment Agency shall be encouraged to assist property owners in reinforcing buildings.

S-P-5 The City should ensure that all public facilities, such as buildings, water tanks, and reservoirs, are structurally sound and able to withstand seismic shaking and the effects of seismically induced ground failure.

S-P-6 The City shall comply with the California State seismic and building standards in the design and siting of critical facilities, including police and fire stations, school facilities, hospitals, hazardous materials manufacturing and storage facilities, and large public assembly halls.

SG-I-1 Comply with the current Uniform Building Code (UBC) requirements for Seismic Zone 3, which stipulates building structural material and reinforcement.

SG-I-2 Comply with California Health and Safety Code Section 19100 et seq. (Earthquake Protection Law), which requires that buildings be designed to resist stresses produced by natural forces caused earthquakes and wind.

SG-I-3 The City shall inventory potentially hazardous buildings within the City and adopt a mitigation program, including requirements for strengthening buildings, changing the use of the buildings to an acceptable occupancy level, or demolishing the buildings.

Residual Level of Significance: Less Than Significant With Mitigation

POTENTIAL IMPACT GSS-3: **Implementation of the General Plan 2023 may result in substantial soil erosion or loss of topsoil.**

Level of Significance: **Potentially Significant**

Mitigation Measures:

GSS-3.1: The Conservation and Open Space Resource Conservation Element (Section 8) of the City of Manteca General Plan 2023 provides the following goal, policy (P), and implementation measures (I) to mitigate the potential of substantial soil erosion or loss of topsoil.

Goal RC-6 Preserve and maintain Manteca's soils to avoid pollution of surface waters, decreased air quality, and loss of soil.

RC-P-9 Minimize soil erosion and loss of topsoil from land development activities, wind, and water flow.

RC-I-16 Comply with the Uniform Building Code (UBC) requirements for specific site development and construction standards for specific soils types.

RC-I-17 Comply with the Uniform Building Code (UBC), Chapter 70, regulating grading activities including drainage and erosion control.

RC-I-18 Require site-specific survey and research for proposed development projects, including appropriate mitigation measures for avoiding or reducing erosion, if needed. This requirement may be waived if the City determines that the proposed project area is already sufficiently surveyed.

Residual Level of Significance: **Less Than Significant With Mitigation**

POTENTIAL IMPACT GSS-4: **Implementation of the General Plan 2023 may expose people and structures to the hazards of expansive soils.**

Level of Significance: **Potentially Significant**

Mitigation Measures:

GSS-4.1: The General Plan 2023 Safety Element (Section 7) provides the following policies (P) to lessen the possible exposure of people and structures to the shrink-swell hazards of expansive soils:

S-P-1 The City shall require preparation of geological reports and/or geological engineering reports for proposed new development located in areas of suspected significant geological hazards, including potential subsidence (collapsible surface soils) due to groundwater extraction.

S-P-2 The City shall require new development to mitigate the potential impacts of geologic hazards through Building Plan review.

The General Plan 2023 Resource Conservation Element (Section 8) provides the following policies implementation measure (I) to lessen the possible exposure of people and structures to the shrink-swell hazards of expansive soils:

RC-I-16 Comply with the Uniform Building Code (UBC) requirements for specific site development and construction standards for specific soil types.

Residual Level of Significance: Less Than Significant With Mitigation

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POTENTIAL IMPACT GSS-5: Septic tanks or alternative waste water systems could be placed in soils incapable of supporting their use.

Level of Significance: No Impact

All proposed development within the Study Area will be served by the City's municipal sewer system. No septic tanks or alternative waste water systems will be used.

HAZARDOUS MATERIALS

POTENTIAL IMPACT HM-1: The existing and future residents of the City of Manteca could be exposed to increased risk resulting from the routine use, transport, or disposal of hazardous materials.

Level of Significance: **Potentially Significant**

Mitigation Measures:

HM-1.1 The Safety Element of the City of Manteca General Plan (Subsection 7.3) provides the following goal, policy (P), and implementation measures (I) to mitigate the exposure of residents to hazardous materials:

Goal S-5	Protect the health, safety, natural resources, and property through regulation of use, storage, transport, and disposal of hazardous materials.
S-P-15	The City shall maintain an awareness of hazardous materials throughout the Manteca region.
S-I-9	Require businesses that manufacture, store, use, or transport significant quantities of hazardous materials to identify annually such materials and their quantities.
S-I-10	Require the submittal of lists of hazardous materials used in existing and proposed industrial and commercial businesses within the City of Manteca. The list shall be maintained through the Manteca Fire Department and updated through periodic review.

Residual Level of Significance: **Less Than Significant With Mitigation**

POTENTIAL IMPACT HM-2: **The existing and future residents of the City of Manteca could be exposed to increased risk of accidental release of hazardous materials.**

Level of Significance: **Potentially Significant**

Mitigation Measures:

HM-2.1 The Safety Element of the City of Manteca General Plan (Subsection 7.3) provides the following policies (P) and implementation measure (I) to reduce the risk of accidental release of hazardous materials:

S-P-17	Within its authority, the City shall regulate the production, use, storage, and transport of hazardous materials to protect the health of Manteca residents.
S-I-11	Work with San Joaquin County and other public agencies to inform consumers about household use and disposal of hazardous materials.
S-I-12	Cooperate fully with Union Pacific Railroad and other public agencies, such as the CHP, in the event of a hazardous material emergency.

HM-2.2 The General Plan Air Quality Element (Section 10) provides the following implementation measure (I) to help reduce the exposure to hazardous materials:

AQ-I-3 Cooperate with San Joaquin County Environmental Health Department in identifying hazardous material users and in developing a hazardous materials management plan.

Residual Level of Significance: Less Than Significant With Mitigation

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POTENTIAL IMPACT HM-3: Use and possible emission of hazardous materials within one-quarter mile of an existing or proposed school could occur.

Level of Significance: Potentially Significant

Mitigation Measures:

HM-3.1 The Safety Element of the City of Manteca General Plan (Subsection 7.3) provides the following policy (P) to mitigate the possible exposure of schools to hazardous materials:

SP-P-16 City approvals of all new development shall consider the potential for the production, use, storage, and transport of hazardous materials and provide for reasonable controls on such hazardous materials.

Residual Level of Significance: Less Than Significant With Mitigation

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POTENTIAL IMPACT HM-4: Placing development on a site which included on the Cortese list of hazardous materials would create a significant impact.

Level of Significance: No Impact

The City of Manteca does not contain sites that are identified on the Cortese List.

POTENTIAL IMPACT HM-5: **The City of Manteca General Plan 2023 could interfere with emergency response or evacuation procedures.**

Level of Significance: **Potentially Significant**

Mitigation Measures:

HM-5.1 The Safety Element of the City of Manteca General Plan (Subsection 7.4) provides the following goal, policy (P), and implementation measures to facilitate emergency procedures.

Goal S-6 Ensure that City emergency procedures are adequate in the event of potential natural or man-made disasters.

S-P-18 The City shall maintain and periodically update the City's Emergency Plan.

S-I-14 The City shall conduct periodic emergency response exercises to test the effectiveness of City emergency response procedures.

S-I-15 The City shall review County and state emergency response procedures that must be coordinated with City procedures.

Residual Level of Significance: **Less Than Significant With Mitigation**

HYDROLOGY AND WATER QUALITY

POTENTIAL IMPACT HWQ-1: **Planned development in the General Plan 2023 could violate water quality standards or waste discharge requirements.**

Level of Significance: **Potentially Significant**

Mitigation Measures:

HWQ-1.1: Subsection 8.6 of the Resource Conservation Element of the proposed General Plan 2023 addresses water quality. The following implementation measure (I) should be **amended (as shown below in bold)** to meet water quality standards and waste discharge requirements for groundwater and surface water:

RC-I-24 Comply with the Regional Water Control Board's regulations and standards to maintain and improve groundwater **and surface water** quality in Manteca.

Residual Level of Significance: Less Than Significant With Mitigation

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POTENTIAL IMPACT HWQ-2: Planned development in the General Plan 2023 could substantially deplete groundwater supplies or interfere with groundwater recharge.

Level of Significance: Less Than Significant

Continued use of groundwater as the City's primary source of domestic water would be a significant impact. However, the level of significance will be reduced when surface water supplies are available through the SSJID Surface Water Project. Delivery of this water is planned for 2005, well before major new development would occur under the General Plan 2023. Therefore, the impact is less than significant.

In addition, the General Plan 2023 provides the following goals, policies (P), and implementation measures (I) from the Resource Conservation Element (Section 8) will help to lessen the impacts to groundwater supplies:

Goal RC-1 Minimize the consumption of water to reasonable levels consistent with a high level of amenities and quality of life for City residents and visitors.

Goal RC-2 Maximize the beneficial uses of water by recycling water for irrigation and other non-potable uses.

Goal RC-7 To protect water quality in the San Joaquin River and in the area's groundwater basin.

RC-P-1 The City shall continue to implement water conservation standards for all commercial and industrial development, and for all existing and new residential development.

RC-P-2 The City shall explore potential uses of treated wastewater when such opportunities become available.

RC-P-4	The City shall promote water conservation in both City operations and private development to minimize the need for the development of new water sources.
RC-I-1	Continue to implement standards for water conserving landscape practices, including the use of drought tolerant plants, for both public and private projects.
RC-I-2	Continue efforts to increase public participation in water conservation.
RC-I-3	Require large commercial and industrial water users to submit a use and conservation plan as part of the project entitlement review and approval process, and develop a program to monitor compliance with and effectiveness of that plan.
RC-I-4	Cooperate with other agencies and jurisdictions to expand water conservation programs, and to develop methods of water reuse.
RC-I-5	Actively pursue the use of treated wastewater in irrigation and industrial applications, including development of appropriate infrastructure.
RC-P-12	Protect the quality of Manteca's groundwater.
RC-P-13	Encourage participation of the County and surrounding communities in a basin-wide groundwater management study.
RC-I-19	The City shall work with the County and surrounding communities to develop an action plan and/or to create an agency to manage and protect local and regional groundwater resources.
RC-I-20	The City shall not approve new industrial or commercial development that has a significant potential for adversely affecting water quality in the San Joaquin River or in the area's groundwater basin.

POTENTIAL IMPACT HWQ-3: **Implementation of the General Plan 2023 could alter the existing drainage pattern, or increase the rate of runoff that could result in flooding.**

Level of Significance: **Potentially Significant**

Mitigation Measures:

HWQ-3.1: The Safety Element (Section 7) of the General Plan 2023 addresses the issue of impervious surfaces and flooding potential. The following implementation measures (I) are intended to reduce the amount of impervious surfaces and the subsequent flooding potential:

S-I-6 Discourage large continuous paved areas.

S-I-7 Encourage the use of pervious paving materials, such as brick or stepping stones with sand joints.

S-I-8 Where feasible, maintain natural stream courses and adjacent habitat and combine flood control, recreation, water quality, and open space functions.

Residual Level of Significance: Less Than Significant With Mitigation

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POTENTIAL IMPACT HWQ-4: Runoff from new development and impervious surfaces would contain urban contaminants that could affect receiving water quality.

Level of Significance: Potentially Significant

Mitigation Measures:

HWQ-4.1: The Resource Conservation Element (Section 7) of the proposed General Plan 2023 provides the following policy (P) and implementation measures (I) to help reduce urban contaminants from polluting receiving water bodies:

RC-P-11 Minimize pollution of waterways and other surface water bodies from urban runoff.

RC-I-22 Maintain a buffer areas between waterways and urban development to protect water quality and riparian areas.

RC-I-23 Utilize cost-effective urban runoff controls, including Best Management Practices (BMPs), to limit urban pollutants from entering the water courses.

Residual Level of Significance: Less Than Significant With Mitigation

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POTENTIAL IMPACT HWQ-5: Implementation of the City of Manteca General Plan 2023 may expose people and structures to the flood hazards of the San Joaquin River 100-year floodplain.

Level of Significance: Potentially Significant

Mitigation Measures:

HWQ-5.1: The Safety Element (Section 7) of the City of Manteca General Plan 2023 provides the following goals, policies (P), and implementation measures (I) to mitigate potential exposure of people and structures to a significant loss of property and life involving flooding from the designated San Joaquin River 100-year floodplain:

Goal S-3 Prevent loss of lives, injury, and property damage due to flooding.

Goal S-4 Pursue flood control solutions that minimize environmental impacts.

S-P-7 Regulate all uses and development in areas subject to potential flooding through zoning and other land use regulations.

S-P-8 Pursue a regional approach to flood issues.

S-P-9 Combine flood control, recreation, water quality, and open space functions where feasible.

S-P-10 Ensure that any existing structures subject to the 100-year flood provide adequate protection from flood hazards.

S-P-11 Ensure that the impacts of flooding are adequately analyzed when considering areas for future urban expansion.

S-P-12	New residential development, including mobile homes, shall be constructed so that the lowest floor is at least one foot above the 100-year flood level.
S-P-13	Non-residential development shall be anchored and flood-proofed to prevent damage from the 100-year flood or, alternatively, elevated to at least one foot above the 100-year flood level.
S-I-4	The City shall continue to participate in the National Flood Insurance Program. To this end, the City shall ensure that local regulations are in full compliance with standards adopted by the Federal Emergency Management Agency (FEMA).
S-I-5	Provide flood warning and forecasting information to City residents.

Residual Level of Significance: Less Than Significant With Mitigation

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POTENTIAL IMPACT HWQ-6: Implementation of the proposed General Plan 2023 could expose people of structures to inundation by seiche, tsunami, or mudflow.

Level of Significance: Less Than Significant

It is highly unlikely that inundation from a seiche (earthquake-induced, tsunami-like flows of water from an inland body of water) will affect the Study Area. The nearest body of inland water is the San Joaquin River, and the Study Area is protected by a levee system.

Given that the Study Area is nearly level in topography (Geology, Soils, and Seismicity, Section 8), it is highly unlikely that the Study Area would be inundated by mudflows. The nearest source of possible mudflow is the San Joaquin River located four miles outside the Study Area boundary, and the Study Area is protected by a levee system.

LAND USE AND PLANNING

POTENTIAL IMPACT LU-1: Proposed land use would divide an existing community.

Level of Significance: Less Than Significant

Manteca has grown outward from the historic core of the City. Continued urbanization as planned would continue this expansion and would seek to reinforce the historic concentric

growth pattern focused on the geographic center of the City. Such expansion would not interfere with any adjacent community. However, the planned urbanization of Manteca would overlap the Ripon Unified School District boundary near Austin Road and Sedan Avenue. This area is currently undeveloped, but is contiguous to the Ripon community.

The Land Use Element (Section 2) of General Plan 2023 establishes specific policies (P) for addressing the potential annexation of an adjacent area.

LU-P-9 The City will consider applications for annexations that:

- are contiguous with city boundaries and provide for a logical expansion of the city;
- create clear and reasonable boundaries;
- ensure the provision of adequate municipal services;
- reflect a long-term fiscal balance to the city and its residents, when reviewed cumulatively with other annexations;
- are consistent with State law and San Joaquin County Local Agency Formation Commission standards; and
- are consistent with the General Plan.

LU-P-10 The City will consider expanding its sphere of influence to incorporate areas that logically should be planned and serviced by Manteca. The City shall consider the following factors when making determinations involving sphere of influence boundaries:

- Present and planned land uses in the area;
- Present and probable need for public facilities and services in the area;
- Present capacity of public facilities and adequacy of public services; and
- Existence of any social or economic communities of interest in the area.

POTENTIAL IMPACT LU-2: **The proposed General Plan 2023 would conflict with any applicable land use plan, policy, or regulation of any agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect.**

Level of Significance: **Less Than Significant**

The General Plan 2023 proposes urbanization of land that is currently unincorporated territory of San Joaquin County and is subject to the San Joaquin County General Plan and Zoning Ordinance. The County General Plan designates much of the area surrounding Manteca as Agriculture. Approximately 15,700 acres, or 60 percent of the General Plan Study Area, is in the unincorporated area of San Joaquin County. However, the General Plan 2023 does not propose to urbanize the entire Study Area. The Primary Urban Service Area would affect 4,221 acres outside of the existing City of Manteca Boundary.

The area planned for urbanization is substantially within or contiguous to the Manteca Sphere of Influence and is therefore designated for urban use. The procedures and standards for annexation of unincorporated areas are established by the San Joaquin County Local Agency Formation Commission. The General Plan 2023 policies LU-P-5, LU-P-6, LU-P-7, and LU-P-9 establish the City policies for proceeding with annexations that would convert the current County land use designations to City of Manteca land use designations.

The General Plan 2023 proposes land uses that differ from the 1988 General Plan and the Manteca South Area Plan. It is the purpose of the General Plan 2023 to update the 1988 General Plan and the South Area Plan. Therefore, although different land use policies and a new land use map will apply, the General Plan 2023 does not conflict with existing plans.

POTENTIAL IMPACT LU-3: **The proposed General Plan 2023 would conflict with any applicable habitat conservation plan or natural community conservation plan.**

Level of Significance: **Less Than Significant**

The San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) identifies the location of sensitive species habitat within the General Plan Study Area, and establishes the procedures for compensating for the loss of such habitat. Through the compensation methods described in Section 6 of this EIR, the development of such habitat is allowed.

NOISE

POTENTIAL IMPACT N-1: **Planned development in the General Plan 2023 could result in exposure of persons to noise levels in excess of established standards.**

Level of Significance: **Potentially Significant**

Mitigation Measures:

N-1.1: The Noise Element (Section 9) of the General Plan 2023 provides the following policies (P) to mitigate the effects of increased noise levels in excess of established standards:

N-P-2: New development of residential or other noise-sensitive land uses will not be permitted in noise-impacted areas unless effective mitigation measures are incorporated into the project design to satisfy the performance standards in Table 9-1.

N-P-3 The City may permit the development of new noise-sensitive uses only where the noise level due to fixed (non-transportation) noise sources satisfies the noise level standards of Table 9-2. Noise mitigation may be required to meet Table 9-2 performance standards.

N-P-4 The City shall require stationary noise sources proposed adjacent to noise sensitive uses to be mitigated so as to not exceed the noise level performance standards in Table 9-2.

N-P-6 Where the development of residential or other noise-sensitive land use is proposed for a noise-impacted area, an acoustical analysis is required as part of the environmental review process so that noise mitigation may be considered in the project design. The acoustical analysis shall:

- Be the responsibility of the applicant.
- Be prepared by a qualified acoustical consultant experienced in the fields of environmental noise assessment and architectural acoustics.
- Include representative noise level measurements with sufficient sampling periods and locations to adequately describe local conditions and the predominant noise sources.
- Estimate existing and projected (20 years) noise levels in terms of the standards of Table 9-1or Table 9-2, and compare those levels to the adopted policies of the Noise Element.
- Recommend appropriate mitigation measures to achieve compliance with the adopted policies and standards of the Noise Element.
- Estimate noise exposure after the prescribed mitigation measures have been implemented.

Describe a post-project assessment program that could be used to monitor the effectiveness of the proposed mitigation measures.

N-P-8 The City shall enforce the Sound Transmission Control Standards of the California Building Code concerning the construction of new multiple occupancy dwellings such as hotels, apartments, and condominiums.

N-P-10 The Manteca Police Department shall actively enforce requirements of the California Vehicle Code relating to vehicle mufflers and modified exhaust systems.

Residual Level of Significance: Less Than Significant With Mitigation

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POTENTIAL IMPACT N-2: Implementation of the General Plan 2023 could expose people to the impacts of construction noise.

Level of Significance: Potentially Significant

Mitigation Measures:

N-2.1: The Noise Element of the General Plan 2023 (Section 9) provides the following policy (P) to mitigate the levels of construction noise on ambient noise levels throughout the General Plan Study Area.

N-P-5 The City shall regulate construction-related noise to reduce impacts on adjacent uses.

Residual Level of Significance: Less Than Significant With Mitigation

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POTENTIAL IMPACT N-3: Implementation of the General Plan 2023 could expose residents to the impact of future roadway traffic noise.

Level of Significance: Potentially Significant

Mitigation Measures:

N-3.1 The Noise Element of the General Plan 2023 (Section 9) provides the following policies (P) to mitigate the levels of roadway traffic noise levels throughout the General Plan Study Area:

N-P-11 In residential subdivisions backing on to a freeway or railroad right-of-way, the developer shall be required to build a sound barrier wall, and provide for other appropriate mitigation measures, in accordance with City development standards.

N-P-12 The City shall require new roadways to be mitigated so as to not exceed the noise levels specified in Table 9-1. Widening or other improvement projects of existing roadways shall be mitigated to the most practical extent.

Residual Level of Significance: Less Than Significant With Mitigation

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POTENTIAL IMPACT N-4: Implementation of the General Plan 2023 could expose residents to the impact of railroad noise.

Level of Significance: Potentially Significant

Mitigation Measures:

N-4.1 The Noise Element of the General Plan 2023 (Section 9) provides the following implementation measure (I) to mitigate the levels of railroad noise within the Study Area:

N-I-8 Work in cooperation with Caltrans and the Union Pacific Railroad to maintain noise level standards for both new and existing projects in compliance with Table 9-1.

Residual Level of Significance: Less Than Significant With Mitigation

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Potential Impact N-5: Implementation of the General Plan 2023 could expose residents to the impacts of future industrial/commercial, emergency, and outdoor activity noise.

Level of Significance: Potentially Significant

Mitigation Measures:

N-5.1 The Noise Element of the General Plan 2023 (Section 9) provides the following policies (P) and implementation measures (I) to mitigate the noise levels from industrial/commercial, emergency, and outdoor activities throughout the General Plan 2023 Study Area:

N-P-2: New development of residential or other noise-sensitive land uses will not be permitted in noise-impacted areas unless effective mitigation measures are incorporated into the project design to satisfy the performance standards in Table 9-1.

N-P-4 The City shall require stationary noise sources proposed adjacent to noise sensitive uses to be mitigated so as to not exceed the noise level performance standards in Table 9-2.

N-P-7 Noise level criteria applied to land uses other than residential or other noise-sensitive uses shall be consistent with recommendations of the *Guidelines for the Preparation and Content of Noise Element of the General Plan.*

N-P-13 The City shall carefully review and shall give potentially affected residents an opportunity to fully review any proposals for the establishment of helipads or heliports.

N-I-1 New development in residential areas with an actual or projected exterior noise level of greater than 60 dB Ldn will be conditioned to use mitigation measures to reduce exterior noise levels to less than or equal to 60 dB Ldn.

N-I-14 Control noise at the source through use of insulation, berms, building design and orientation, buffer space, staggered operating hours and other techniques. Use noise barriers to attenuate noise to acceptable levels.

Residual Level of Significance: Less Than Significant With Mitigation

POPULATION AND HOUSING

POTENTIAL IMPACT H-1: Implementation of the General Plan 2023 would increase the City's population over existing conditions.

Level of Significance: Significant and Unavoidable

There are no specific mitigation measures that will reduce or eliminate the impact of increased population on Manteca and the surrounding area. However, monitoring and regulating growth to a responsible level will maintain the integrity of the community.

POTENTIAL IMPACT H-2: The number and type of dwellings will exacerbate the existing jobs and housing imbalance in the Study Area.

Level of Significance: Potentially Significant

Mitigation Measures:

The General Plan Land Use Element establishes the mix of land uses designed to sustain a balance of jobs and housing over a period of twenty years. Implementation of goals, policies, and implementation measures as identified in the General Plan 2023 would lessen the significance of the impact.

H-2.1: The General Plan 2023 provides the following policies (P) and implementation measures (I) to assist in the mitigation of a jobs/housing imbalance by encouraging employment development in the City.

LU-P-1: The City shall promote, cooperate in, and assist in the maintenance and expansion of Manteca's industrial sector employment development within the City of Manteca and in the south San Joaquin County area that will help reduce the home-to-work commute distance for Manteca residents.

LU-P-2: New employment centers that may include office, business-professional, research and development, and light industrial or industrial development and shall be located in areas served by full City services or served by suitable facilities approved by the City. Employment centers should be located along major arterials with easy freeway access and with access from public transit, and accessible to bicyclists and pedestrians.

LU-P-3: The City shall continue to support full development of its existing industrial park.

LU-P-4: The City shall promote the development of "clean" industries that do not create problems or pose health risks associated with water and air pollution or potential leaks or spills. However, the City will designate appropriate locations that accommodate light industrial and heavy industrial uses.

LU-P-5: Redevelopment incentives shall be used judiciously to promote industrial employment development in approved Project Areas and for projects benefiting approved Project Areas.

LU-P-6: The City shall monitor employment development to maintain the balance of residential, commercial, and industrial development.

LU-P-7: The City shall promote and plan for at least one Primary Employment Center to accommodate a variety of employment opportunities compatible with the employment skills of the Manteca resident labor force.

LU-I-1 The City shall maintain a growth management system that provides a mechanism for the annual allocation of the amount of residential, commercial, and industrial development that may occur.

LU-I-7 The City will continue to cooperate with planning efforts among local jurisdictions to minimize the impacts of growth to Manteca and in the south San Joaquin County area.

H-2.2: The General Plan 2023 Land Use designations provide an expanded range of housing densities to encourage development of a diverse mix of housing types and prices.

Residual Level of Significance: Less Than Significant With Mitigation

PUBLIC FACILITIES AND SERVICES

POTENTIAL IMPACT PFS-1: The General Plan 2023 would create a demand for domestic water beyond current entitlements, resulting in significant adverse effects upon the environment.

Level of Significance: Potentially Significant

Mitigation Measures:

PFS-1.1: The Public Facilities and Services Element (Section 6) of the General Plan 2023 addresses domestic water supply through the following goal, policies (P), and implementation measures (I):

Goal PF-7 Maintain an adequate level of service in the City's water system to meet the needs of existing and project development.

PF-P-4 Secure sufficient sources of water to meet the needs of the existing community and planned residential and commercial growth.

PF-P-5 The City will continue to rely principally on groundwater resources for its municipal water in the near term, but will participate in the regional improvements to deliver surface water to augment the City's groundwater supply.

PF-P-6 The City shall develop new water sources as necessary to serve new development.

PF-P-7 The City shall develop new water storage and major distribution lines as necessary to serve new development.

PF-P-9 City water services shall not be extended to unincorporated areas except in extraordinary circumstances. Existing commitments for City water service outside the City limits shall continue to be honored.

PF-P-11 The City will develop and implement water conservation measures as necessary elements of the water system.

PF-I-2 The City shall update the Public Facilities Implementation Plan regarding water supply and distribution, every five years. The update shall be reviewed annually for adequacy and consistency with the General Plan.

PF-I-3 The City shall require, as a condition of project approval, dedication of land and easements, or payment of appropriate

fees and exactions, to help offset municipal costs of expansion of water treatment facilities and delivery systems.

PF-I-7 The City will encourage the use of recycled water for landscape irrigation where feasible, within the parameters of State and County Health Code and standards.

PFS-1.2: The City of Manteca Water Service Master Plan (1998) defines the future water supply, storage and delivery system for the City. The Master Plan recommends a conjunctive use of surface water from the South San Joaquin Irrigation District (SSJID) Surface Water Project to meet the future water needs of the City. SSJID plans to commence surface water supply deliveries to the City in 2005. Based on limiting average groundwater supplies to the safe yield of 1.0 acre-foot per acre per year, it is estimated that under a conjunctive use program groundwater could meet 48 percent of the City's annual water needs and surface water would meet the remaining 52 percent.

Residual Level of Significance: Less Than Significant With Mitigation

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POTENTIAL IMPACT PFS-2: The General Plan 2023 would create a demand for wastewater (sewer) treatment beyond capacity of current facilities, resulting in significant adverse effects upon the environment.

Level of Significance: Potentially Significant

Mitigation Measures:

PFS-2.1: The Public Facilities and Services Element (Section 6) of the General Plan 2023 addresses wastewater (sewer) treatment through the following goal, policies (P), and implementation measures (I):

Goal PF-8 Maintain an adequate level of service in the City's sewage collection and disposal system to meet the needs of existing and projected development.

PF-P-16 Ensure wastewater collection and treatment for all development in the City and the safe disposal of wastes.

PF-P-17 The City will maintain capacity to process combined residential, commercial, and industrial flow.

PF-P-18 The City shall develop new sewage treatment and trunk line capacity as necessary to serve new development.

PF-P-19 City sewer services will not be extended to unincorporated areas, except in extraordinary circumstances. Existing commitments for sewer service outside the City limits shall continue to be honored.

PF-P-23 The City will maintain the ability to handle peak discharge flow while meeting State Regional Water Quality Control Board Standards as established in the current NPDES Permit.

PF-I-8 The City shall update the Public Facilities Implementation Plan regarding wastewater collection and treatment. The update shall be reviewed annually for adequacy and consistency with the General Plan.

PF-I-10 The City will encourage and permit an industrial pretreatment program for business parks and other industrial uses in accordance with state and federal requirements.

PF-I-12 The City will promote reduced wastewater system demand through efficient water use by:

requiring water conserving design and equipment in new construction,

encouraging retrofitting with water conserving devices;

designing wastewater systems to minimize inflow and infiltration to the extent economically feasible; and

maintaining a Citywide map of all sewer collection system components and monitoring the condition of the system on a regular basis.

Residual Level of Significance: Less Than Significant With Mitigation

POTENTIAL IMPACT PFS-3: The General Plan 2023 would create a demand for stormwater drainage beyond capacity of current facilities, resulting in significant adverse effects upon the environment.

Level of Significance: Potentially Significant

Mitigation Measures:

PFS-3.1: The Public Facilities and Services Element (Section 6) of the General Plan 2023 addresses stormwater drainage through the following goal, policies (P), and implementation measure (I):

Goal PF-9 Maintain an adequate level of service in the City's drainage system to accommodate runoff from existing and projected development and to prevent property damage due to flooding.

PF-P-24 The City shall continue to complete gaps in the drainage system in areas of existing development.

PF-P-25 The City shall require the dedication and improvement of drainage detention basins as a condition of development approval according to the standards of the Drainage Master Plan. The responsibility for the dedication and improvement of detention basins shall be based on the prorated share of stormwater runoff resulting from each development.

PF-P-26 Storm drainage systems within new development areas shall include open drainage corridors where feasible to supplement or replace an underground piped drainage system. The drainage systems would provide for short-term stormwater detention, stormwater conveyance for stormwaters exceeding a 10-year event, stormwater quality treatment, bike and pedestrian paths, and visual open space within neighborhoods.

PF-I-13 The City shall update the Storm Drainage Master Plan and Public Facilities Implementation Plan, regarding stormwater drainage, every five years. The update shall

be reviewed annually for adequacy and consistency with the General Plan.

PFS-3.2: The Public Facilities Implementation Plan (PFIP) 1993 addresses additional drainage capacity made necessary by development occurring through June 30, 2020.

Residual Level of Significance: **Less Than Significant With Mitigation**

POTENTIAL IMPACT PFS-4: **The General Plan 2023 would create a demand for solid waste services beyond the capacity of current landfill facilities, resulting in significant adverse effects upon the environment.**

Level of Significance: **Potentially Significant**

Mitigation Measures:

PFS-4.1: The Public Facilities and Services Element (Section 6) of the General Plan 2023 addresses solid waste handling and disposal through the following goals, and policies (P):

Goal PF-11 Provide for the implementation and enforcement of the provisions for the Source Reduction and Recycling Element, as mandated by the State.

Goal PF-12 Maintain efficient, effective and economical solid waste services for the residents, businesses and visitors to Manteca.

PF-P-30 The City shall support the continued use of the Lovelace Transfer Station on Lovelace Road, between Union Road and Airport Way, for the processing and shipping of solid waste materials.

Residual Level of Significance: **Less Than Significant With Mitigation**

POTENTIAL IMPACT PFS-5: **The General Plan 2023 would not comply with statutes and regulations related to solid waste.**

Level of Significance: **Potentially Significant**

Mitigation Measures:

PFS-5.1: The Public Facilities and Services Element (Section 6) of the General Plan 2023 addresses compliance with statutes and regulations related to solid waste through the following goal and policy (P):

Goal PF-11 Provide for the implementation and enforcement of the provisions for the Source Reduction and Recycling Element, as mandated by the State.

PF-P-29 The City will implement and enforce the provisions of its Source Reduction and Recycling Element.

Residual Level of Significance: Less Than Significant With Mitigation

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POTENTIAL IMPACT PFS-6: Implementation of the General Plan 2023 would require additional facilities and LOS for police protection, fire protection, schools, and parks.

Level of Significance: Potentially Significant

Mitigation Measures:

PFS-6.1: The Public Facilities and Services Element (Section 6) of the General Plan 2023 addresses police protection, fire protection, schools, and parks and recreation through the following goals, policies (P), and implementation measures (I):

Police Protection

PF-P-39 The City shall endeavor through adequate staffing and patrol arrangements to maintain the minimum feasible police response times for police calls.

PF-P-40 The City shall provide police services to serve the existing and projected population.

PF-P-41 The City will establish the criteria for determining the circumstances under which police service will be enhanced.

PF-I-22 The Police Department shall continuously monitor response times and report annually on the results of the monitoring.

PF-I-23 The Planning Commission and City Engineer will review proposed residential street patterns to evaluate the accessibility for police patrols and emergency response.

Fire Protection

PF-P-42 The City shall endeavor to maintain an overall fire insurance (ISO) rating of 4 or better.

PF-P-43 The City shall endeavor through adequate staffing and station locations to maintain the minimum feasible response time for fire and emergency calls.

PF-P-45 The City shall establish the criteria for determining the circumstances under which fire service will be enhanced.

PF-I-24 The Fire Department shall continuously monitor response times and report annually on the results of the monitoring.

PF-I-25 The Planning Commission and City Engineer will review proposed residential street patterns to evaluate the accessibility for fire engines and emergency response.

Education (Schools)

Goal PF-13 Provide for the educational needs of the Manteca residents.

PF-P-33 The City shall cooperate with the Manteca Unified School District and others in locating and reserving appropriate sites for new schools. Adequate facilities shall be planned to accommodate new residential development.

PF-P-34 The City shall cooperate with the Manteca Unified School District in their collection of school facility development fees from new development.

PF-P-35 Financing of new school facilities will be planned concurrent with new development.

PF-P-36 The City and Manteca Unified School District will work together to develop criteria for the designation of school sites and consider opportunities for reducing the cost of land for school facilities. The City will encourage the school district to

comply with City standards in the design and landscaping of school facilities.

PF-P-37 The City will consider opportunities for joint-use of facilities the school district. When feasible, a joint-use agreement will be pursued to maximize public use of facilities, minimizing duplication of services provided, and facilitate shared financial and operational responsibilities.

PF-P-38 When feasible, schools will be located away from hazards of sensitive resource conservation areas, except where the proximity of resources may be of educational value and the protection of resources is reasonably assured.

PF-I-18 The City will maintain an inventory of all public lands to identify opportunities for joint-use facilities.

PF-I-19 The City shall cooperate with the Manteca Unified School District to select a suitable location for a high school south of SR-120.

PF-I-20 The City will request an annual meeting with the Administrator and the Board of Trustees of the Manteca Unifi9ed School District to review development issues and opportunities for cooperation between the school district and the City.

PF-I-21 The City will encourage the expansion of higher education program offerings and opportunities in Manteca.

Parks and Recreation

Goal PF-14 Establish and maintain a park system and recreation facilities that support economic development and residential growth in the City.

Goal PF-15 Establish and maintain a park system and recreation facilities that are suited to the needs of Manteca residents and visitors.

Goal PF-16 Promote the provision of private recreational facilities and opportunities.

Goal PF-17 Establish a recreation program that is suited to the needs and interests of all Manteca residents.

Goal PF-18 Provide a network of pedestrian and bicycle routes connecting Manteca's major open space areas and destination points.

PF-P-46 The City shall expand the community and neighborhood park system with the goal of providing neighborhood park facilities within reasonable walking distance of all City residential areas.

PF-P-47 The City shall use joint development of park and drainage detention basins in the development of neighborhood parks.

PF-P-48 The City shall cooperate with the Manteca Unified School District in opportunities for joint-use of school and park and recreation facilities.

PF-P-49 City park acquisition efforts shall be based on a goal of 5 acres of developed neighborhood and community parkland per 1,000 residents within the City limits.

PF-P-50 Neighborhood parks shall conform to the following general guidelines (specific detail and standards to be determined within the Parks and Recreation Master Plan):

- The typical minimum size shall be set to support active and passive recreation activities.
- The typical service areas for a neighborhood park is approximately ¼ mile walking distance.
- Neighborhood parks shall include a turf area above the basin flood line of sufficient area to be used for playgrounds, sports, picnic areas, and other recreational facilities.

PF-P-51 The City shall aggressively pursue State and County funding to supplement City revenues to the extent such funding is available.

PF-P-52 The City shall endeavor to identify, acquire, and develop one or more community parks as defined in the Parks and Recreation Master Plan.

PF-P-53 All new residential development will be required to pay a park acquisition and improvement fee, based on providing 5 acres per 1,000 residents, to fund system-wide improvements.

PF-P-54 The City shall promote the provision of private open space and recreational facilities as part of new residential developments.

PF-P-55 The City shall not discourage the expansion of private commercial recreational facilities.

PF-P-56 The City shall consider cooperative agreements with the Manteca Unified School District for the use of school facilities for City-sponsored recreation programs on a case-by-case basis.

PF-P-57 The City should develop a convenient system of pedestrian sidewalks and pathways linking City parks, major open space areas, and the downtown core.

PF-P-58 The City shall develop a bicycle route system linking open space areas, schools, public facilities, the downtown core, and neighborhoods. Bicycle lanes shall be included in new street widenings where the street falls within the adopted Bicycle Route Master Plan.

PF-I-26 The City shall update the Parks and Recreation Master Plan, setting out goals, policies, and standards for the location, size, and level of development of all existing and proposed parks. The Plan will establish specific development criteria for the use of neighborhood and community parks. The master plan shall cover at least the succeeding 10-year period, with greater detail devoted to improvements planned for the first five-year period.

PF-I-27 The City shall periodically review projected park development needs and plans, update cost estimates for park acquisition and development, and remaining development potential based on the General Plan.

PF-I-28 The City will coordinate with the school district and other public agencies to seek joint-use of public use facilities.

Residual Level of Significance: Less Than Significant With Mitigation

POTENTIAL IMPACT PFS-7: **The General Plan 2023 would require expanded energy sources and infrastructure for expanded urban development.**

Level of Significance: **Potentially Significant**

Mitigation Measures:

PFS-7.1: The Public Facilities and Services Element (Section 6) of the General Plan 2023 addresses electricity though the following goal, policy (P), and implementation measures (I):

Goal PF-10 Ensure adequate, reliable electric service is available to all users in the City.

PF-P-28 Cooperate with and encourage efforts to expand the opportunities for electric power service in the City.

PF-I-14 The City will consider participating on generating and/or distributing electric service within the City.

FP-I-15 The City will encourage energy conservation measures and innovative uses of solar energy, heat recovery, and co-generation in all structural and industrial processes.

PF-I-16 The City will communicate its major development plans with utility companies and coordinate planning extension of these utilities.

Residual Level of Significance: **Significant and Unavoidable**

The need for expanded energy sources and infrastructure is a significant impact with expanded urban development. Implementation of the above goal, policy and implementation measures will help reduce the amount of energy and infrastructure needed to serve new urban development in the City of Manteca, but not to a less-than-significant level.

TRAFFIC AND CIRCULATION

POTENTIAL IMPACT TC-1: **Planned development in the General Plan 2023 may not meet City of Manteca LOS standards for local roadways.**

Level of Significance: **Potentially Significant**

Mitigation Measures:

TC-1.1: The Circulation Element (Section 4) of the General Plan 2023 includes, among others, the following policies (P) to meet the standards for local roadways:

C-P-1: The City shall strive to attain the highest possible traffic levels of service (LOS) consistent with the financial resources available and the limits of technical feasibility. The impact of new development and land use proposals on LOS should be considered in the review process.

C-P-2 Manteca's target for transportation LOS is to provide **("citywide average" removed)** LOS of C or better, and a minimum of LOS D at any individual location. LOS C, LOS D and the other Level of Service ratings as defined in current traffic engineering standards. This "LOS C average, LOS D minimum" shall be accomplished by attempting to provide LOS C at all locations, but accepting LOS D under the following circumstances:

- Where constructing facilities with enough capacity to provide LOS C is found to be unreasonably expensive. This applies to facilities, for example, on which it would cost significantly more per dwelling unit equivalent (DUE) to provide LOS C than to provide LOS D.
- Where it is difficult or impossible to maintain LOS C because surrounding facilities in other jurisdictions operate at LOS D or worse.
- Where free-flowing roadways or interchange ramps would discourage use of alternate travel modes.
- Where maintaining LOS C will be a disincentive to use of existing alternative modes or to the implementation of new transportation modes that would reduce vehicle travel.

Residual Level of Significance: **Less Than Significant With Mitigation**

POTENTIAL IMPACT TC-2: **Planned development in the General Plan 2023 may not meet City of Manteca LOS standards for local intersections.**

Level of Significance: **Potentially Significant**

Mitigation Measures:

TC-2.1: The Circulation Element policies (P) listed above in Potential Impact TC-1 address LOC standards, which also apply to local intersections.

TC-2.2: Improvements to the impacted intersections can allow LOS D operations or better.

Residual Level of Significance: **Less Than Significant With Mitigation**

POTENTIAL IMPACT TC-3: **Planned development in the General Plan 2023 may not meet SJCOG LOS standards for regional roadways.**

Level of Significance: **Potentially Significant**

Mitigation Measures:

TC-3.1: **Travel Demand Management:** The Circulation Element includes several policies (P) and implementation measures (I) aimed at encouraging alternate modes. These include:

C-I-15 The City shall establish a requirement for a transportation demand management program in any business park, industrial or commercial land use that employs more than 50 full time equivalent employees.

Transit Use: The Circulation Element encourages transit use, including the following policies (P):

C-P-49 The City shall encourage the use of local transportation services, such as jitneys, local shuttles and commuter buses.

C-P-52 The City shall promote the development of park-and-ride facilities near I-5, SR 120, and SR 99.

Bicycle/Pedestrian Use- The Circulation Element encourages bicycle/pedestrian use, including the following policy (P):

C-P-33 The City should establish a safe and convenient network of identified bicycle routes connecting residential areas with recreation, shopping, and employment areas within the city". By establishing this network, the City of Manteca is encouraging bicycle use in the City. This policy is currently being implemented through the update of the City's Bicycle Master Plan.

Participation Regional Cost-Sharing Program: SJCOG is conducting a study regarding the implementation of a region wide traffic fee. The City of Manteca has supported this effort by participating in the study regarding this fee. The City should continue to support similar efforts to develop a mechanism to share the cost of regional transportation improvements when such an effort fairly allocates the costs and benefits of projects through an appropriate nexus-based study. These cost-sharing efforts could be addressed through both region-wide efforts and sub-regional efforts. A sub-regional cost sharing approach could consist of a program to allocate improvement costs to only a limited number of adjacent cities (Tracy, Lathrop, Manteca only) or cities utilizing a particular corridor (I-205).

Residual Level of Significance: Less Than Significant With Mitigation

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POTENTIAL IMPACT TC-4: Planned development in the General Plan 2023 could conflict with regionally adopted transportation goals and policies.

Level of Significance: Less Than Significant

As judged by the four major policies contained in the SJCOG RTP, the proposed General Plan 2023 does not conflict with the regional transportation goals and policies.

POTENTIAL IMPACT TC-5: **Planned development in the General Plan 2023 could impede the operations of alternate travel modes including transit, bicycles, and pedestrians.**

Level of Significance: **Less Than Significant**

A review of the goals, policies, and implementation measures indicates that the General Plan 2023 promotes the use of bicycles and walking to the extent possible; therefore there is no significant impact.

References:

(1) Mines and Mineral Producers Active in California (1997-1998). Special Publication 103. California Department of Conservation, Division of Mines and Geology. Revised 1999.

2. PROJECT AND ALTERNATIVES DESCRIPTION

The General Plan 2023 is a comprehensive update to the General Plan adopted by the City of Manteca in 1988. In 2001, the City Council recognized the need for a new General Plan that anticipates new development in the City and surrounding areas. The City Council established a General Plan Steering Committee to serve as the advisory committee for development of the Plan concepts and principles. A consultant team was selected in mid-2001, and preparation of the General Plan 2023 commenced with the Steering Committee and the City's Community Development Department.

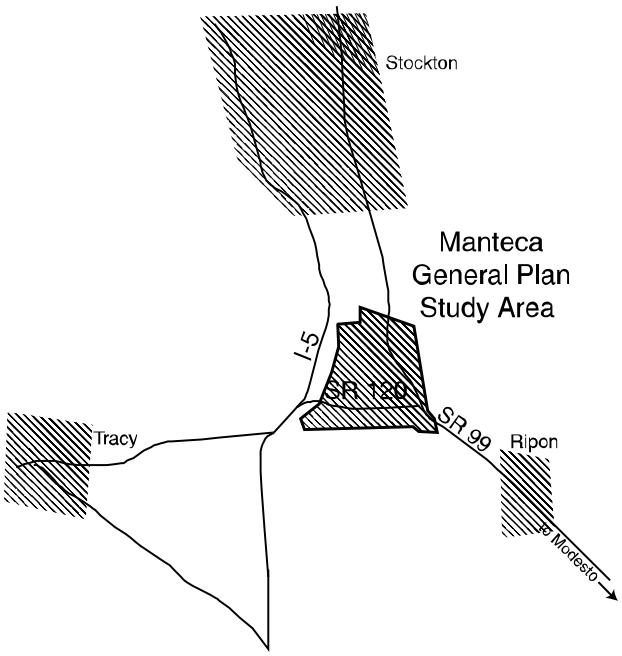
2.1 PLAN AREA CONTEXT

2.1.1 Regional Setting

The City of Manteca, incorporated May 28, 1918, is located in the "heartland" of California's Great Central Valley, with historical roots as an important agricultural center. Due to excellent soil, great climate, and access to clean water, Manteca was predominantly an agricultural area for much of the early 20th century. However, the community has transformed from an agricultural base to an urbanized base. The economic growth in south San Joaquin County has been powered by the area's advanced transportation infrastructure.

Figure 2-1

Regional Location Map



Manteca is located near the northern end of the San Joaquin Valley of central California at the junction of State Route 99 and State Route 120, approximately 75 miles east of San Francisco and 55 miles south of Sacramento. The area between Manteca and Stockton brings State Route 99 and Interstate 5 to their closest point in California, with State Route 120 connecting them through Manteca. Manteca is located approximately 12 miles south of downtown Stockton, and 14 miles northwest of the City of Modesto.

2.1.2 General Plan Study Area

The General Plan must cover all territory within the General Plan boundaries as well as "any land outside its boundaries, which in the planning agency's judgement bears relation to its planning" (Government Code Section 65300). A local government can formally communicate its concerns for the future of lands under its neighbors' jurisdiction by this means:

"Cooperative 'extraterritorial' planning can be used to guide the orderly and efficient extension of services and utilities, ensure the preservation of open space, agriculture, and resource conservation lands, and establish consistent standards for development in the plans of adjoining jurisdictions."

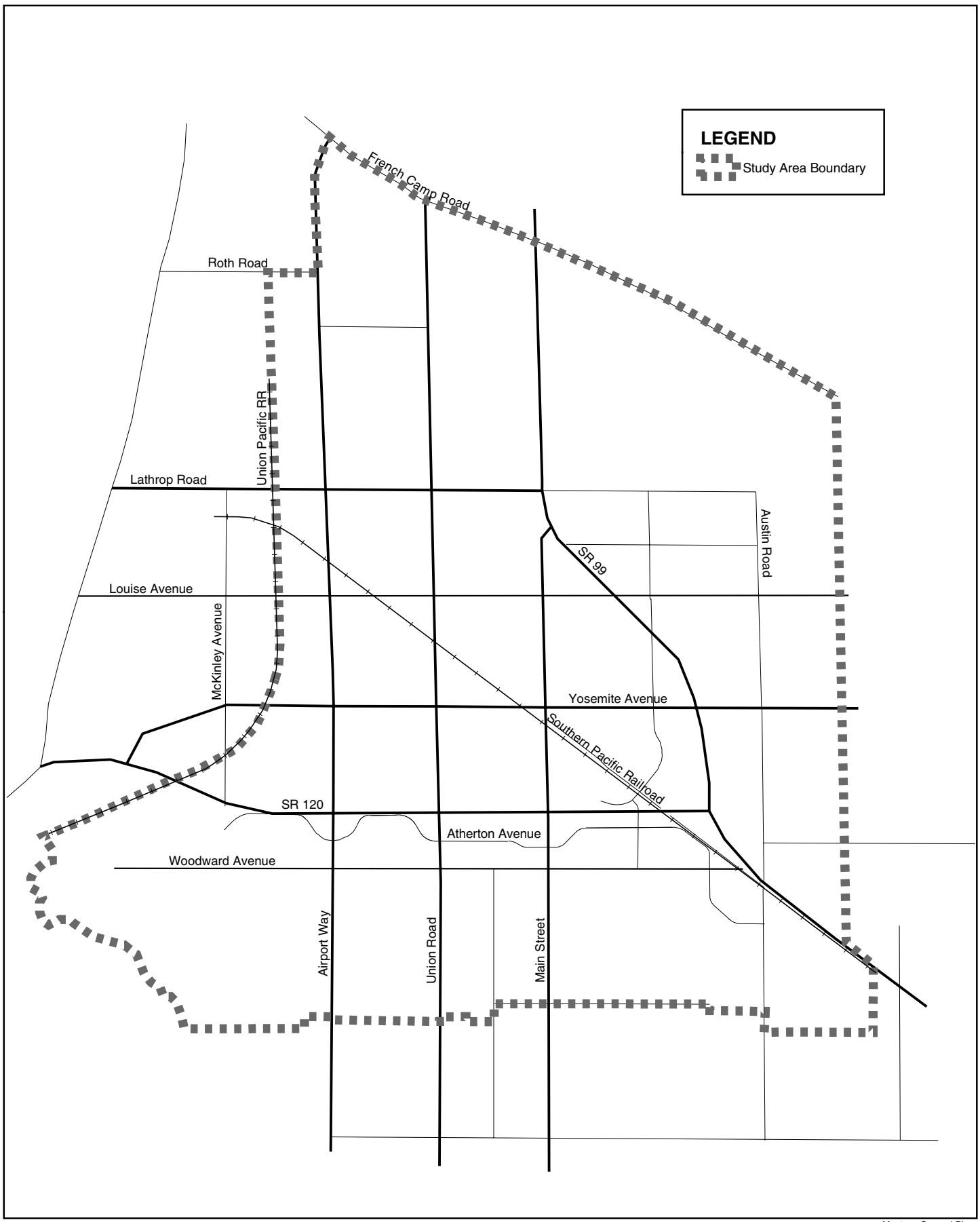
In order to consider the Sphere of Influence of adjacent jurisdictions and the potential impacts of development in the surrounding area, the General Plan Study Area boundary encompasses more land than is required to accommodate the projected growth of the City. Land use is not allocated to all land within the General Plan Study Area. The areas not addressed in the Study Area are within the unincorporated area of San Joaquin County and the land use in these areas will continue to be regulated by San Joaquin County. The City may include in its General Plan any land outside its boundaries which relates to its planning. The General Plan Study Area encompasses approximately 25,975 acres within and outside of the existing City limits. The purpose in establishing the Study Area boundary larger than the existing City is to identify and evaluate the areas surrounding the City that may affect the future economic viability, traffic, services, and aesthetic quality of the City.

In addition, since many issues such as air quality, traffic and economic development, extend beyond political boundaries, the law provides for planning outside of the jurisdiction's territory.

The Study Area boundary follows French Camp Road on the north, the Union Pacific Railroad on the west, Walthall Slough and a line contiguous to Sedan Avenue on the south, and a line approximately one-half mile east of Austin Road on the east. The General Plan Study Area is shown in Figure 2-2.

Figure 2-3 illustrates the location of the Study Area boundary relative to the current municipal boundaries and Spheres of Influence of the adjacent municipalities: the City of Stockton to the north, the City of Lathrop to the west, and the City of Ripon to the southeast.

The General Plan Study Area boundary is generally within the boundaries of the Manteca Unified School District, but overlaps the Ripon Unified School District boundary in the area of Austin Road and Sedan Avenue as shown in Figure 2-4.

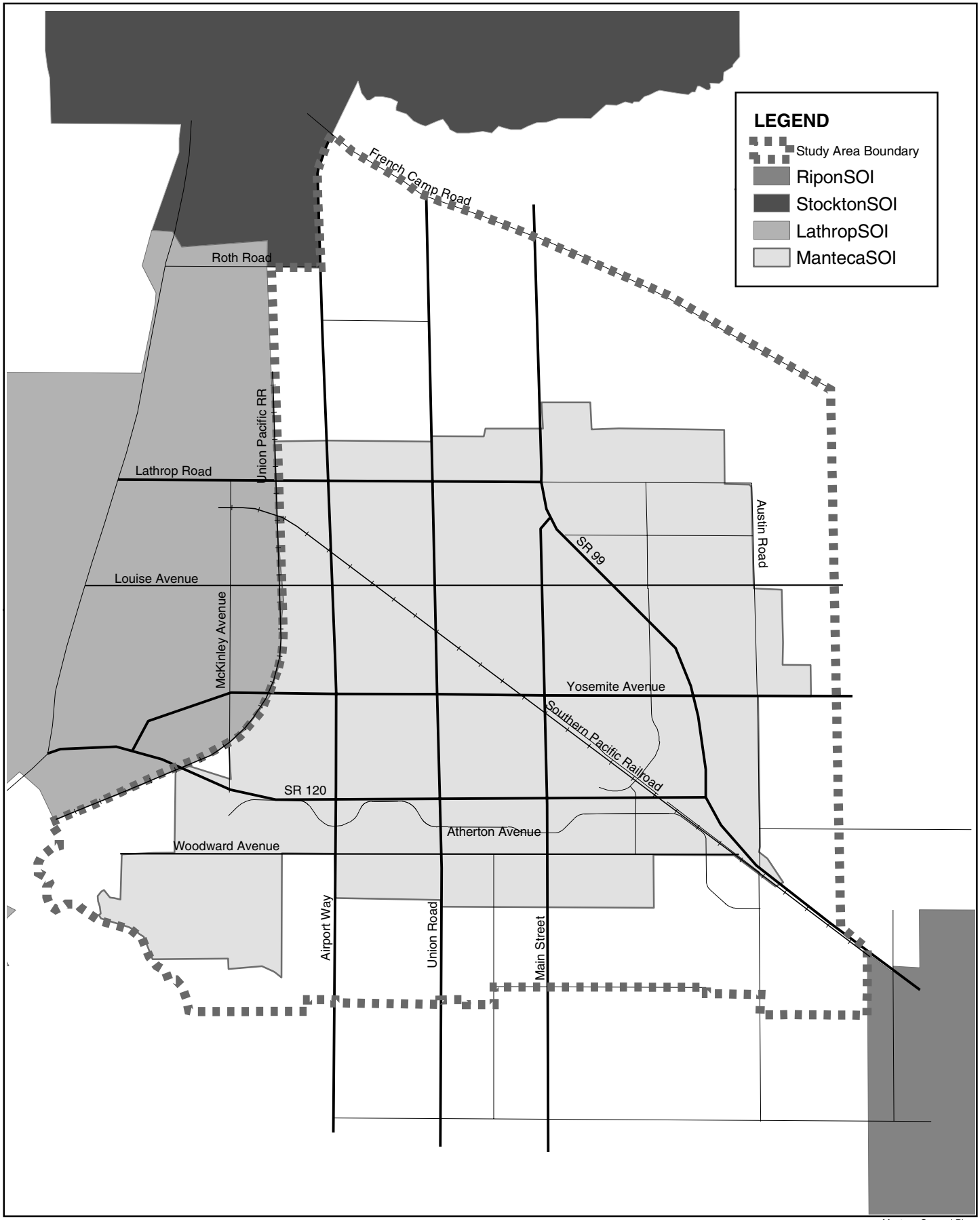


Manteca General Plan

WADE ASSOCIATES
urban planning & design
environmental planning

May 2003

GENERAL PLAN STUDY AREA
FIGURE 2-2



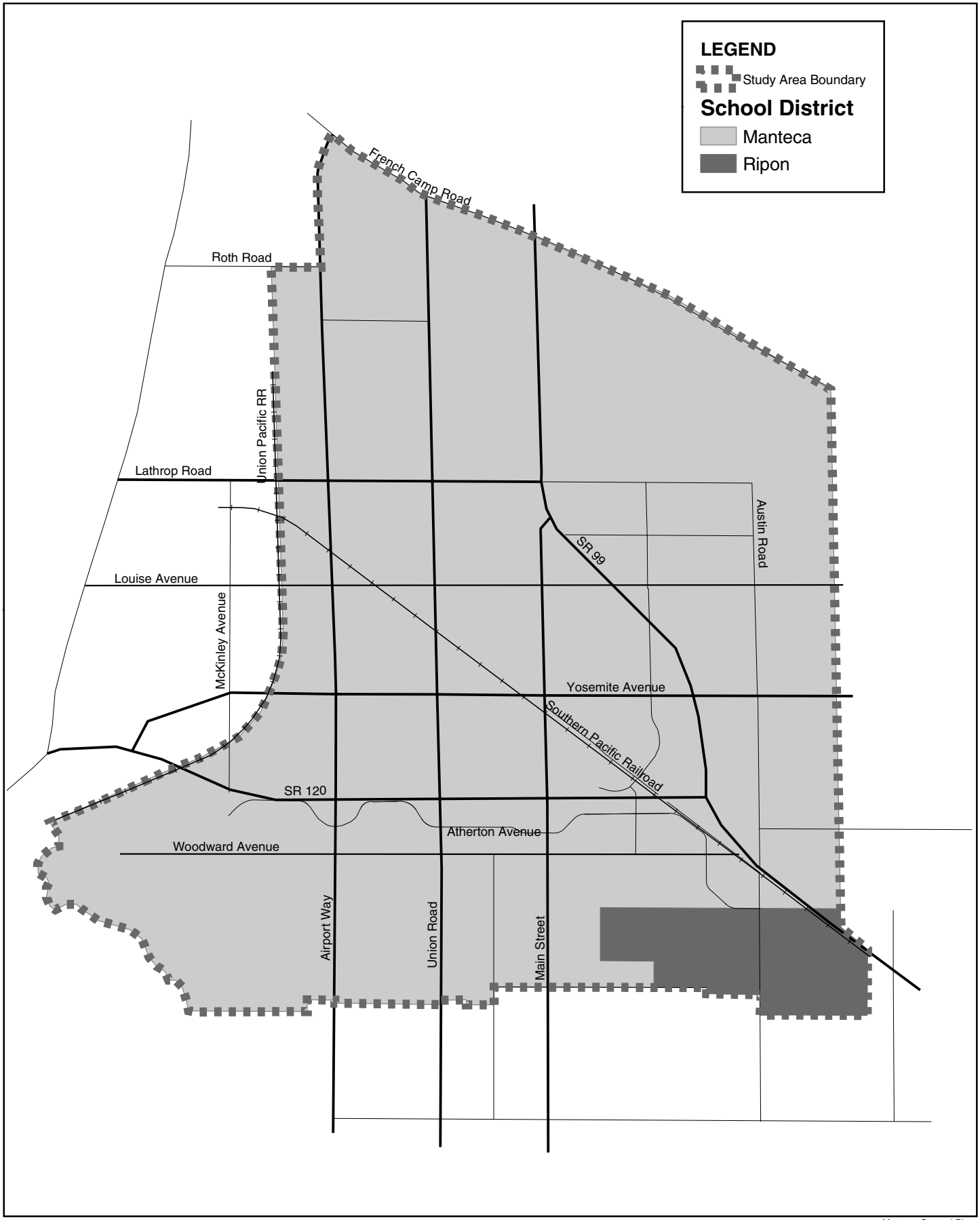
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GENERAL PLAN STUDY AREA AND ADJACENT MUNICIPALITIES

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FIGURE 2-3



Manteca General Plan

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SCHOOL DISTRICTS WITHIN THE GENERAL PLAN STUDY AREA

May 2003

FIGURE 2-4

2.2 GENERAL PLAN DESCRIPTION

The General Plan includes a policy document and a background report, supplemented by technical reports on cultural resources, traffic, and noise. The Draft background report and technical reports are available for review at the City of Manteca Community Development Department, 1001 W. Center Street, Manteca.

The Manteca General Plan includes the seven state-mandated elements and four optional elements. The eleven total elements that comprise the General Plan are as follows:

- Land Use- establishes land use designations with types and intensities of use and sets policies and programs regarding future development of the City.
- Community Design- establishes urban design guidelines to ensure that new development is attractive and contributes to the sense of Manteca as a location.
- Circulation- contains policies for the City's roadway system, transit, pedestrian and bicycle circulation, and methods of managing transportation demand, accounting for the relationship between land use and circulation.
- Economic Development- addresses the need for Manteca to broaden its employment base to maintain the high quality of life currently enjoyed, and to implement an economic development strategy.
- Housing- includes policies and programs to increase the variety and types of housing in the City, emphasizing infill sites, increased density, and mixed uses downtown, and also includes a discussion of housing needs and programs to provide additional housing for special needs populations.
- Public Facilities and Services- discusses public facilities including domestic water, sewer, storm drainage, electricity services, solid waste, education, police protection, fire protection, and parks and recreation.
- Safety- contains policies and programs to protect the community from injury, loss of life, and property damage resulting from natural disasters and hazardous conditions.
- Resource Conservation- emphasizes the accommodation of population growth while conserving and protecting the area's natural resources and quality of life.
- Noise- identifies policies that will protect the community from noise hazards.

- Air Quality- addresses the community's need to cooperate regionally so that increased development does not further degrade the air quality.
- Administration

2.3 KEY LAND USE ISSUES AND DEVELOPMENT CONCEPTS

The General Plan reflects community vision and values, and the conditions that influence development of the community.

2.3.1 Logical Growth of the City

Manteca has generally grown in a compact pattern around the historic center of the City at the crossroads of Yosemite Avenue and Main Street. Residential neighborhoods have developed within boundaries established by the major streets spaced one mile apart. This General Plan directs land use to continue the historic pattern of compact urbanization. The developed portion of the City should retain its distinct, compact form with clear, well-defined edges.

The expansion of the urbanized area is enabled by the extension of basic public services, notably sewer, drainage and streets. The City plans the extension of these services through periodic preparation of various public facility master plans, such as water, sewer and drainage. These master plans are coordinated through a Public Facilities Implementation Plan (PFIP) that identifies and establishes the funding mechanism for specific capital improvements. The PFIP is a key to implementing the land use goals (Land Use Element) and public facilities goals (Public Services and Facilities Element) of the General Plan.

2.3.2 Community Form, Scale and Identity

The community identity is established by important visual characteristics that provide cues for travelers, as well as residents. Among these are:

- the scale or size of the City
- well-defined edges and gateways
- an identifiable pattern of streets and land uses
- attractive streetscapes and public places
- notable landmarks, both natural and man-made

Attractive new land uses along the major highways, new landmarks visible from several vantage points throughout the City, and new gateway features along the highways and other major roads at City boundaries can contribute significantly to establishing a strong positive identity for Manteca.

The existing commercial core area should be retained and reinforced as the functional and social center of the City for residents. Urbanization should generally extend outward from this center.

In the future, population increases and a growing regional role for Manteca may generate the need for a second commercial, office, residential, institutional and entertainment core area east of the existing downtown. The Land Use Map identifies such a site designated as Commercial Mixed Use along Austin Road between Yosemite Avenue and the future extension of SR 120. This site would provide a new town center complex that would include employment, high-density residential use, entertainment, and regional retail use under a comprehensive master plan.

2.3.3 Attractive, Sustainable Neighborhoods

Neighborhoods are the fundamental organizing concept for residential land use. The neighborhoods are typically not more than one mile in any dimension to provide a reasonable walking distance from any part of the neighborhood to the schools, parks, and commercial centers.

The land use in each neighborhood is predominantly residential, but will typically include a neighborhood school, parks, and a mixed-use commercial area that includes retail or commercial goods or service facilities.

Preservation of the existing housing and enhancement of existing neighborhoods is important to maintaining the quality of life in the City.

2.3.4 Support of Public Transit and Bicycle and Pedestrian Circulation

High activity areas should be located to facilitate the use of public transit.

The organization of land use and circulation networks should permit and encourage walking and bicycling to major activity centers such as shopping, recreation facilities, and schools. Commercial, employment, recreational and institutional land uses should be conveniently located near the residential neighborhoods.

2.3.5 Housing Opportunity

The General Plan responds to the need for diversity in housing opportunity and changes in market demand for housing types in two primary ways. First, the residential density (dwelling units per acre) categories are broadened to provide more flexibility and diversity in the types of dwelling units in each neighborhood. Second, the Land Use Map identifies more sites distributed throughout the community for specific residential categories in order to ensure more diversity in the housing supply. The Land Use Map is available at the Community Development Department, City of Manteca.

2.3.6 Employment and Economic Development

During the twenty-year horizon of this General Plan, Manteca will experience economic development that will add to and diversify the local economy. This will consist of additional growth in warehousing and distribution, but should also include significant new components, such as office and service sectors, research and development, and manufacturing.

Increases in population have the potential to drive a demand for new retail establishments and local-serving professional office uses. The range of commercial and professional services will expand as Manteca reaches threshold populations.

The General Plan responds to the needs of economic development by designating locations for:

- warehouse, distribution and manufacturing;
- business park;
- research and development and light manufacturing, and
- a major mixed-use regional retail and service center.

The General Plan also provides two new land use categories not previously used in the General Plan. The newly-established Commercial Mixed Use (CMU) and Business Industrial Park (BIP) categories are intended to expand the opportunities for economic development by providing opportunities to integrate high density residential, office and retail/service uses on a single site.

2.3.7 Live/Work Housing

It is anticipated that the percentage of individuals working at home will increase over the next twenty years. At home workers may include telecommuters, professional services, small service businesses, mail order, and any number of other entrepreneurial endeavors. It is the intent of this General Plan to support such activities. The residential design policies provide the flexibility to include most types of small business within the premises, and the mixed use commercial sites are intended to include services and facilities that would support workers in the neighborhood. Such support services include technical services, such as copy and secretarial services, teleconferencing centers and day care. The commercial sites will also typically contain coffee shops and plazas that provide a social setting for people who work at home.

2.3.8 Public Services and Fiscal Stability

Growth will provide additional revenue sources, but will also place additional service burdens on the City of Manteca. The challenge is to balance growth with funds for required new services. The Land Use Element provides a mix of land use categories and implementation measures to ensure that the overall balance of land use is sustained over time.

The City will monitor the mix of land use in order to gauge future decisions on land use, public service levels and capital investments.

2.3.9 Access to Open Space

Existing open space is found in the neighborhood parks, a few agricultural areas within and on the perimeter of the urban area, and the utility corridors.

The City is surrounded by agricultural land that provides visual open space on the north, east and south. Agricultural activity has significantly altered most of the natural features that predated the urban development of the area. Consequently, there are no natural drainage ways, significant stands of trees, or other natural features that would guide or provide the core of an open space network within the City.

In the absence of natural features that could define an open space network, the General Plan encourages the creation of a network of open spaces in the storm drainage channels, and naturalized landscaping along major thoroughfares and bike paths. The open drainage systems would provide a pedestrian connection between parks and access to open space from residential neighborhoods. The neighborhoods would be designed with homes oriented to, rather than backing on the open space corridor.

2.3.10 Agricultural Productivity

Agricultural productivity will remain a significant element of the economy in San Joaquin County. The General Plan supports the existing level of agricultural production by directing development in a compact, concentric form in order to reduce the demand for new development areas. Existing agricultural activities will be retained within the City where practical.

2.4 LAND USE SUMMARY

The General Plan 2023 provides a range of residential, commercial, industrial, business-professional and public land uses, as summarized in Table 2-1.

Table 2-1

General Plan 2023 Land Use

	Proposed Developable Land Use	**Existing Urbanized Land Use**	**Total 2023 Land Use**
LAND USE	Acres	Acres	Acres
AG Agriculture	3960.0		3960.0
GC General Commercial	518.0	154	672.0
NCC Neighborhood Commercial	111.8	380	491.8
CMU Commercial Mixed Use	255.0		255.0
HI Heavy Industrial	715.0	194.9	909.9
LI Light Industrial	798.1	226	1024.1
BIP Business Industrial Park	258.0		258.0
BP Business Professional	133.0		133.0
HDR High Density Residential (15.1 to 25 du/ac)	251.0	191	442.0
MDR Medium Density Residential (8.1to 15 du/ac)	359.0	187.6	546.6
LDR Low Density Residential (2.1 to 8 du/ac)	3685.9	2741.7	6427.6
VLDR Very Low Density Residential (0.5 to 2 du/ac)	248.0	109.8	357.8
P/QP/ Public/Quasi-public Schools/Utilities	317.6	788.3	1105.9
OS Open Space	516.0	27	543.0
P Park	175.7	342.4	518.1
Total	12302.1	5342.7	17644.8

Source: Wade Associates May 2003

2.5 ASSUMPTIONS REGARDING POPULATION GROWTH AS A BASIS FOR ENVIRONMENTAL IMPACT EVALUATION

Many environmental impacts are related directly or indirectly to population increase. Notably, traffic, public service demands, and land required for urban uses can be directly correlated to increases in population.

The General Plan land use is designed to achieve an adequate supply of land to accommodate the projected population through the General Plan horizon, within the City's Growth Management Ordinance.

The projected population is derived from the General Plan land use through assumptions relating to residential density, the average density, the efficiency of the land use, vacancy factors, and a market reserve for each residential land use type. The General Plan Steering Committee reviewed and affirmed these assumptions for use in the General Plan process.

Residential Density

Residential density is the number of dwelling units per developed acre allowed in each residential land use category in the General Plan. The General Plan provides for a wide range of residential densities in each category, and the General Plan 2023 provides for higher densities in the residential land use category compared to the 1988 General Plan, in order to allow for diversity in residential development.

Average Density

Average density is the estimate of actual residential density in each residential land use category. The actual land use will vary from one development to another. For planning purposes an average density is assumed that reflects the cumulative development of all residential land use within a land use category.

Efficiency

The General Plan land use categories in new growth areas apply to undeveloped or "raw" ground. The land area in each category does not account fully for land required for streets, parks, schools and other uses. Consequently, the actual area available for use depends on the efficiency of the land use development. For planning purposes average land use efficiency is assumed for each residential development category.

Vacancy Factor

Even at full development a small percentage of residential units will be vacant. A vacancy factor is assumed for each residential land use category.

Market Reserve

The market reserve allows for a surplus of residential land use to account for the varying demand for housing supply. If the residential land available for development were limited to only the amount required at any time, the resulting price pressure would increase the cost of housing. The market reserve factor provides an excess supply to ensure that there will be competitive land prices and more affordable housing.

Each of these factors has the effect of translating the gross land area designated in the General Plan to the net land area actually available to accommodate increases in population.

Table 2-2 identifies the assumptions that affect the actual land area available for urban use.

Table 2-2

Residential Land Use Assumptions

Land Use Category	Dwelling Units per Acre	Average Dwellings per Acre	% Efficiency	% Vacancy	Market Reserve
Very Low Density Residential	0 to 2	1	80%	0.04	120%
Low Density Residential	2.1 to 8	5	80%	0.04	120%
Medium Density Residential	8.1 to 15	8	80%	0.04	120%
High Density Residential	15.1 to 25	20	90%	0.04	120%
Commercial Mixed Use	15.1 to 25	20	90%	0.04	120%

Source: Wade Associates, May 2003

Average Household Population

The level of population accommodated by a given number of dwelling units also depends on the average number of residents in each dwelling. The 2000 Census indicates that the average household size in Manteca is 2.98 persons per household. This is a slight decrease from the 1990 Census. For planning purposes it is assumed that the household size will remain constant through the time horizon of the General Plan. However, the average household population will vary depending on the dwelling unit type. Generally, single family dwellings will have a slightly larger average household population than an apartment.

Table 2-3 provides the assumed household size and the estimate of total population based on the land use summarized in Table 2-1 and the land use assumptions summarized in Table 2-2.

Table 2-3

Estimate of Population at Full Development of the 2023 General Plan

	Net Acres Available	Average Housing Units per Acre	Dwellings	% of Dwelling Units by Type	Average Household Size	Total Estimated Population
Very Low Density Residential	825.6	1	826	2.6%	3.06	2,526
Low Density Residential	4,129.3	5	20,646	65.0%	3.06	63,178
Medium Density Residential	358.4	8	2,867	9.0%	3.00	8,602
High Density Residential	324.0	20	6,480	20.4%	2.70	17,496
Commercial Mixed Use	47.7	20	954	3.0%	2.70	2,576
Total	5,685.0		31,773	100%	2.97	94,378
Average Residential Net Density	5.59					

Source: Wade Associates, May 2003

2.6 ASSUMPTIONS REGARDING NON-RESIDENTIAL AND CUMULATIVE LAND USES

In addition to providing residential land use to accommodate the projected population, the General Plan seeks to enhance the opportunities for increasing employment opportunities within the City. Therefore, the land area requirements for development of the City also include the non-residential land uses, as well as public facilities. The General Plan also must provide adequate land area for public services, and should maintain a balance of uses so that there is adequate revenue to sustain public services over time.

2.6.1 Land Area Required for Jobs/Housing Balance

Employment and economic development is identified as one of the Key Land Use Issues and Development Concepts in the General Plan. The General Plan includes policies designed to significantly increase the opportunity for residents to find local employment by providing substantial land area for employment land uses. The land area required for commercial, industrial, and business-professional land uses can be estimated on the basis of the number of resident workers per dwelling unit, or an average jobs/housing ratio. The jobs/housing ratio depends on:

- the number of resident workers,

- the mix of employment types likely to comprise the local economy,
- the average commercial or industrial space required per employee, and
- the average number of employees per dwelling.

The assumptions include a jobs/housing surplus factor that corresponds to the objective of providing employment opportunities for the resident work force. The surplus factor would ensure that there is adequate land area available to provide a surplus of job opportunities, that is, Manteca would become a net importer of workers. The allocation of land does not alone, of course, ensure any growth in employment opportunities. However, suitably located and served land is necessary to accommodate any growth in employment, and the General Plan emphasizes the goals of economic development and new job creation in the City.

Table 2-4 summarizes the employment assumptions used in estimating the total land area required to accommodate the full, local employment of the population estimated in Table 2-3.

Table 2-4

Employment Assumptions

	Average Employees per Dwelling	**Total Employees**	**Job/Housing Surplus % Factor**
	1.35	42,894	120%
	% of Employment	Employees by Industry	Employees plus Surplus by Industry
Agriculture and Mining	0.1%	47	57
Manufacture/ Wholesale	1.1%	471	566
Retail	22.0%	9,427	11,313
Services	30.8%	13,198	15,838
Other (Trans. & Utilities, FIRE)	46.2%	19,797	23,757
	100.1%	42,941	51,529

Source: Wade Associates 2003

2.6.2 Land Area Required for Institutional Uses and Public Services

In addition to residential and employment land uses, the City will require land designated for public facilities, including schools, parks, hospitals, civic centers and fire stations, among other

public uses. The assumptions used to estimate the facilities and land area required for each public service are provided in Section 14, Public Facilities and Services.

2.7 PERMITS AND OTHER APPROVALS REQUIRED TO IMPLEMENT THE GENERAL PLAN 2023

The permits and approvals required in order to implement the proposed General Plan 2023 include the following:

Approval of the General Plan 2023

Possible amendments to the City of Manteca Municipal Code, including the Zoning and Subdivision Ordinances

Possible rezoning for consistency with the General Plan 2023

Revisions in the City of Manteca Redevelopment Plans for consistency with the General Plan 2023.

Certification of environmental review documentation under the California Environmental Quality Act (CEQA).

2.8 PROJECT ALTERNATIVES

CEQA Guidelines require EIRs to analyze alternatives to a proposed project, in this case the General Plan 2023 (CEQA Guidelines Section 15126.6(f)). The range of alternatives is governed by a "rule of reason," requiring the EIR to evaluate only those alternatives necessary to permit a reasoned choice. Furthermore, the EIR need examine only those alternatives that the lead agency determines could feasibly attain most of the basic objectives of the project. Among the factors that may be taken into account when addressing the feasibility of alternatives are (CEQA Guidelines Section 15126.6(f)(1)):

Site suitability

Economic viability

Availability of infrastructure

General plan consistency

Other plans or regulatory limitations

Jurisdictional boundaries

Whether the project proponent can reasonably acquire, control or otherwise have access to alternative site.

Defining a range of reasonable alternatives is guided by the "feasibility" of those alternatives. CEQA defines feasible as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors." (CEQA Guidelines, Section 15364)

The alternatives to the General Plan 2023 include:

No Project Alternative No. 1: No Development

Under this scenario, no additional dwelling units are constructed, and no additional square footage of non-residential uses is added to the City. The City would not develop beyond the current urban area.

No Project Alternative No. 2: Build-Out of 1988 General Plan

Under this second "no project" scenario, build-out of the Study Area occurs in accordance with the land use map and policies contained in the 1988 City of Manteca General Plan.

Higher Density Alternative

This alternative allows the same population projection as the proposed project, but allocates less land area to residential land use. This alternative would result in higher density residential development.

Reduced Development Alternative

This alternative allocates the land use types and policies in the General Plan 2023 to the land area defined as the Primary Urban Service Area in the 1988 General Plan. These new policies would result in reduced development of the Study Area.

Section 16, Alternatives Analysis, provides a description and comparative analysis of these alternatives to the General Plan 2023.

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3. AESTHETICS AND VISUAL RESOURCES

3.1 EXISTING CONDITIONS

Manteca is located at the center of California's Central Valley and near the north end of the San Joaquin Valley. Typical of the Central Valley, the Manteca area is virtually flat, a quality that determines how the city is perceived. With the exception of views from highway overpasses that provide brief panoramic views, the entire cityscape and surrounding landscape are viewed from the ground level perspective.

On particularly clear days, however, there are distant views of the Sierra Nevada Mountains to the east and the Coast Range ~~Mt. Diablo Range~~ 25 miles to the west and southwest. Mount Boardman and Eagle Mountain ~~located~~ to the southwest are the most prominent of these background features.

Manteca is surrounded by agricultural uses, primarily orchards and field crops. Although no major watercourse lies within or contiguous to Manteca, the San Joaquin River flows ~~approximately four miles to~~ along the west side of the Study Area and Walthall Slough is located along the southwest boundary of the Study Area.

Figure 3-1

Agriculture in the Study Area



The residential neighborhoods are typically composed of single family dwellings in a mix of one and two story structures. Many neighborhoods include a small park and detention basin (approximately 5 acres or larger) that serves the local neighborhood.

Figure 3-1

Existing Neighborhood



Although the distance between northern Manteca and southern Stockton is only four miles, the rural agricultural character of these four miles is critically important to the scenic and open space qualities that define the city. Only the southern two miles of this buffer area is located in

the Study Area.

3.1.1 Downtown

Figure 3-2

Downtown Street Scene



The Manteca Downtown area has undergone revitalization efforts in recent years. Projects have included the addition of packing facilities, benches and other pedestrian amenities, vehicular and pedestrian lighting, and signage. The City and the Redevelopment Agency have also established programs to enhance the economic viability of downtown, in an effort to encourage both visitors and residents to use the area.

The City's goal is to foster an authentic downtown. Factors that contribute to the authenticity of downtown include rehabilitation activities to restore the character of older buildings that have architectural details not ordinarily found in contemporary buildings. Pedestrian traffic has been encouraged by designing areas that are protected from winter and summer weather, and that have landscaping to the rear of stores. Pedestrian-scale parking lots, thoughtful signage, and street lighting also enhance this ambience.

3.1.2 Tidewater Bikeway and Pedestrian Path

Figure 3-3

Tidewater Bike Path



A prominent visual feature of the city is the Tidewater Bike Path. It is a 3½ mile Class I bikeway and pedestrian path. The trail runs from the south end of the city along Moffat Boulevard to the north end at Lathrop Road. The path passes through Downtown, Library Park, and many residential neighborhoods.

3.1.3 Railroad

The Union Pacific Railroad running generally north-south through Manteca is another prominent visual feature.

3.2 REGULATORY SETTING

3.2.1 Applicable Federal Regulation

A number of federal, state, and local agencies establish policies and programs relative to visual resources and impacts on those resources as follows:

National Environmental Policy Act (NEPA*).* Provides information on potential impacts to the environment, including aesthetic resources (Section 101 [b]). NEPA is implemented by regulations included in the Code of Federal Regulations (40CFR6), which require careful consideration of the environmental effects of federal actions or plans, including projects that receive federal funds, if they may have a significant adverse affect on the environment. Impacts on scenic resources (40CFR6, Section 6.108 [f]) and conflicts with state, regional, or local plans and policies (40CFR6, Section 6.108 [b]) are among the considerations included in the regulations. The regulations also require that projects requiring NEPA review seek to avoid or minimize adverse effects of proposed actions, and restore and enhance environmental quality as much as possible.

Transportation Equity Act for the 21st Century (TEA-21). The reauthorization legislation that closely follows the intent of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), which had earlier made major changes in federal transportation policy and programs. TEA-21 includes numerous provisions for improvements and changes to the implementation of transportation enhancement activities, which are funded by a ten percent set aside of Surface Transportation Program funds that is earmarked for transportation enhancement projects. TEA-21 includes a list of qualifying transportation enhancement activities which include several items supportive of visual quality enhancement such as acquisition of scenic easements and scenic or historic sites, scenic or historic highway programs, landscaping or other scenic beautification, and control and removal of outdoor advertising, among others.

Transportation enhancement activities are no longer required to have a direct link to surface transportation, and they are sufficiently qualified if they merely relate to surface transportation.

Federal Highway Administration (FHWA) – National Scenic Byways Program. Designates selected highways as an "All American Road" (a roadway that is a destination unto itself) or "National Scenic Byway" (a roadway that possesses outstanding qualities that exemplify regional characteristics). However, no roadway within the SJCOG region currently has either of these designations.

3.2.2 Applicable State Regulations

California Environmental Quality Act (CEQA). Similar to the NEPA, CEQA affords protection for the environment, including aesthetic resources. The CEQA Guidelines provide four criteria that may be used to evaluate the significance of visual quality impacts: negative effects on a scenic vista, damage to scenic resources within a state scenic highway, degradation of the visual character or quality of a site and its surroundings, and creation of a new source of substantial light or glare affecting views.

California Department of Transportation (Caltrans) – California Scenic Highways Program. Created by the State legislature in 1963 to preserve and protect scenic highway

corridors from change that would reduce the aesthetic value of lands adjacent to highways. To be included in the State program, the highways proposed for designation must meet Caltrans' eligibility requirements and have visual merit.

3.2.3 Applicable Local Regulations

County and City Controls. Most local planning guidelines to preserve and enhance the visual quality and aesthetic resources of urban and natural areas are established in the jurisdiction's General Plan. The value attributed to a visual resource generally is based on the characteristics and distinctiveness of the resource and the number of persons who view it. Vistas of undisturbed natural areas, unique or unusual features forming an important or dominant portion of a viewshed, and distant vistas offering relief from less attractive nearby features are frequently considered to be scenic resources. In some instances, a case-by-case determination of scenic value may be needed, but often there is agreement within the relevant community about which features are valued as scenic resources.

In addition to federal and State designations, counties and cities have their own scenic highway designations, which are intended to preserve and enhance existing scenic resources. Criteria for designation are commonly included in the conservation/open space element of the city or County General Plan.

Cities and counties can use open space easements as a mechanism to preserve scenic resources, if they have adopted open-space plans, as provided by the Open Space Easement Act of 1974 and codified in California Government Code (Section 51070 et seq.) According to the Act, a city or County may acquire or approve an open-space easement through a variety of means, including use of public money.

3.3 IMPACT EVALUATION CRITERIA

In accordance with CEQA Guidelines, Appendix G, the proposed project would have a significant adverse impact on the environment if the project would:

1. have a substantial adverse effect on a scenic vista;

2. substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway;

3. substantially degrade the existing visual character or quality of the site and its surroundings;

4. create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

3.4 IMPACTS AND MITIGATION

POTENTIAL IMPACT AV-1: Buildout of the proposed General Plan 2023 would degrade the existing scenic vistas found in the General Plan Study Area.

Buildout of the General Plan Study Area will occur as development at the edge of Manteca, primarily in current agricultural areas. New development will be visible from locations within the community, from the highway overpasses, and from the nearby unincorporated agricultural areas beyond the Study Area boundaries. New development will impact the current views of open space, which are primarily vistas of agricultural fields and orchards.

Level of Significance: Significant and Unavoidable

Mitigation Measures:

AV-1.1 The Resource Conservation Element of the proposed City of Manteca General Plan 2023 provides the following policy (P) regarding existing scenic vistas:

RC-P-17 New development shall m~~M~~aximize the potential for open space and visual experiences.

Residual Level of Significance: Significant and Unavoidable

The level of significance will remain significant and unavoidable, even after implementation of the above policy.

POTENTIAL IMPACT AV-2: The existing visual character or quality of the area will be degraded.

The visual character and quality of agricultural open space will be impacted if the proposed development occurs. Residential development will be similar in character to any existing residences in the immediate vicinity. However, commercial uses and higher-density residential will be different in character from any existing nearby residential, and therefore may be considered a degradation of the existing visual character and quality of the area.

Level of Significance: Potentially Significant

Mitigation Measures:

AV-2.1 The proposed City of Manteca General Plan 2023 provides the following goal, policies (P) and implementation (I) measures to minimize effects to ~~maintain~~ existing visual character:

Resource Conservation Element

RC-P-15 Provide ~~Promote the provision of~~ public and private open space within urbanized parts of Manteca, in order to provide visual contrast with the built environment and to provide for the recreational needs of residents.

Community Design Element

Goal CD-11 To the extent possible, new development shall retain or incorporate ~~Retain~~ visual reminders of the agricultural heritage of the community.

CD-P-47 Allow pockets of agricultural activity to remain within the urban areas of the city where such uses are compatible with the surrounding urban use.

CD-P-48 Allow ~~Encourage~~ use of small under-utilized or undeveloped portions of parcels for temporary, seasonal ~~of new~~ agricultural activity, such as truck farms, strawberries, and small orchards.

CD-P-49 In order to establish a visual character that retains the agricultural heritage, the city will permit the use of orchard trees (or similar non-fruiting species) in landscape corridors along major streets adjacent to residential neighborhoods, in-lieu of formalized landscape. In such landscapes, the groundcover may be limited to bare earth and weed control and/or groundcovers compatible with the orchard characteristics.

CD-I-14: Establish design guidelines for non-residential uses within 200 feet of SR 99 and SR 120. The guidelines should address the following concepts…The landscape along SR 120 and SR 99 will reflect the natural character of the region in the selection of trees and groundcover.

Residual Level of Significance: Significant and Unavoidable

Although conformance with the goal, policies, and implementation measure identified above will lessen the impact to some extent, the impact of development on the existing visual character of the City of Manteca will remain significant. There is no way to fully mitigate the impact of development of agricultural open space.

POTENTIAL IMPACT AV-3: There will be an increased impact of light or glare from buildout of the General Plan 2023.

Proposed development in the current agricultural open space areas will constitute new sources of light and glare. Impacts associated with nighttime light and glare are directly related to the level of development.

Level of Significance: Potentially Significant

Mitigation Measures:

The impact of light and glare can be minimized by incorporating design features and operating requirements into new development that limit light and glare on-site.

AV-3.1: The Community Design Element of the Manteca General Plan 2023 provides the following policies ~~which may assist in the mitigation of~~ to mitigate the degradation of the existing night sky amenity in the City of Manteca:

CD-P-44: Provide minimal levels of street, parking, building, site, and public area lighting to meet safety standards and provide direction.

CD-P-45 Provide directional shielding for ~~street and parking lot~~ all exterior lighting to minimize the annoyance of direct or indirect glare.

CD-P-46 Provide automatic shutoff or motion sensors for lighting features in newly developed areas. The City shall adopt light and glare standards that minimize the creation of new light source and the annoyance of direct and indirect glare.

Residual Level of Significance: Less Than Significant With Mitigation

The level of significance will be mitigated to less than significant if the above listed policies and are implemented. Given that the areas proposed for new development are contiguous with existing development, some nighttime light and glare already exist in the area.

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4. AGRICULTURE RESOURCES

The City of Manteca is located in an area of rich agricultural resources, including orchards, dairies, vineyards, row crops, and pasture land. Due to excellent soil, great climate, and access to clean water, Manteca was predominantly an agricultural area for much of the early 20th century.

4.1 EXISTING CONDITIONS

4.1.1 Soils Suitable for Agriculture

San Joaquin County includes some of the best agriculture resources in the world.

Suitability for agricultural use is evaluated using the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation. The model considers six factors in determining the level of significance of potential impacts of converting agriculture use to urban use. These include:

- Natural Resources Conservation Service (NRCS) Land Capability Classification
- Storie Index
- Project Size Rating
- Water Resources Availability Rating
- Surrounding Agriculture Rating
- Surrounding Protected Resources Rating

The General Plan encompasses such a large area of similar land uses that the project size, water resources availability, surrounding agriculture and surrounding protected resources would be comparable for all areas of the Study Area. The significant factors are the Land Capability Classification and the Storie Index. Both the Storie Index and the Land Capability Classification are provided in the Soil Survey of San Joaquin County, California, USDA Soil Conservation Service (now Natural Resources Conservation Service). **(1)**

The Storie Index expresses numerically the relative degree of suitability of a soil for general intensive agricultural uses. Four general factors are used in determining the index rating, which ranges from 1-100: (A) permeability, available water capacity, and depth of the soil; (B) texture of surface soil; (C) dominant slope of soils body; and (X) other conditions more readily subject to management or modification by land user. The Storie Index is incorporated into the farmland category systems discussed below under Important Farmland Inventory, and Farmland Mapping and Monitoring Program.

Land Capability Classification Systems

The U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS) is a primary source of information concerning the suitability of soils for agricultural use. The NRCS Land Capability Classification System organizes soils into eight categories designated by Roman numerals (Class I-VIII). Generally, soils receiving a Class I or II rating are designated Prime Farmland. The eight categories are defined as:

Class I	Soils have few limitations that restrict their use.
Class II	Soils have moderate limitations that reduce the choice of plants or that require moderate conservation practices.
Class III	Soils have severe limitations that reduce the choice of plants or that require special conservation practices, or both.
Class IV	Soils have very severe limitations that reduce the choice of plants or that require very careful management, or both.
Class V	Soils are not likely to erode but have other limitations, impractical to remove, that limit their use.
Class VI	Soils have severe limitations that make them generally unsuitable for cultivation.
Class VII	Soils have very severe limitations that make them unsuitable for cultivation.

Table 4-1 shows the Study Area soils Land Capability Classifications. One (1) Study Area soil series, the Honcut series, is a Class I soil (few limitations), and is considered prime farmland where irrigated. Nine (9) of the Study Area Soil Series are Class II soils (moderate limitations), and are considered prime farmland where irrigated. The remainder of the soils in the Study Area are Class III soils where irrigated (severe limitations, and are not considered prime farmland).

Table 4-1
Study Area Soils

Soil (Map Symbol & Series)	Prime Farmland	Land Capability Classification	Expansive (Shrink Swell Potential)
108 Arents	No	III irrigated; IV non-irrigated	Information not available.
109 Bisgani	No	III irrigated; IV non-irrigated	low
130 Columbia	Yes (where irrigated)	II irrigated; IV non-irrigated	low
131 Columbia	Yes (where irrigated)	II irrigated; IV non-irrigated	low
141 Delhi	No	III irrigated; IV non-irrigated	low
142 Delhi	No	III irrigated; IV non-irrigated	low
143 Delhi-Urban	No	III irrigated; IV non-irrigated	low
144 Dello	No	III irrigated; IV non-irrigated	low
145 Dello	No	III irrigated; IV non-irrigated	low
152 Egbert	Yes (where irrigated)	II irrigated; IV non-irrigated	moderate-high
153 Egbert	Yes (where irrigated)	II irrigated; IV non-irrigated	moderate-high
160 Galt	No	III irrigated; IV non-irrigated	high
166 Grangeville	Yes (where irrigated)	II irrigated; IV non-irrigated	low
169 Guard	Yes (where irrigated)	II irrigated; IV non-irrigated	moderate
175 Honcut	Yes (where irrigated)	I irrigated; IV non-irrigated	low
196 Manteca	No	III irrigated; IV non-irrigated	low
197 Merritt	Yes (where irrigated)	II irrigated; IV non-irrigated	low
254 Timor	No	III irrigated; IV non-irrigated	low
255 Tinnin	No	III irrigated; IV non-irrigated	low
260 Urban Land	-	-	-
265 Veritas	Yes (where irrigated)	II irrigated; IV non-irrigated	low
266 Veritas	Yes (where irrigated)	II irrigated; IV non-irrigated	low

Source: Extracted from Soil Survey of San Joaquin County, California. October 1992. U.S. Department of Agriculture, Soil Conservation Service.

Important Farmland Inventory

The NRCS also implements another soils classification system: the "Important Farmland Inventory" (IFI). The program provides a source of information for state and local agencies concerned with agricultural land conversion. The IFI identifies four farmland categories: Prime Land, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance.

Farmland Mapping and Monitoring Program

The California Department of Conservation, Office of Land Conservation, utilizing NRCS data discussed above, has developed a Farmland Mapping and Monitoring Program (FMMP). The FMMP maps agricultural products, as well as acreage statistics from the Farmland Conversion Report. These maps are used for many projects associated with assessment of agricultural land resources. Prime Farmland qualifications include a requirement that the area must have been in production of irrigated crops at some time during the four years prior to the Important Farmland Map date. In addition, the soil must meet the physical and chemical criteria for Prime Farmland or Farmland of Statewide Importance as determined by the NRCS. As discussed above, the NRCS compiles lists of which soils in each survey area meet the quality criteria.

Table 4-2 defines the farmland categories applied in the Farmland Mapping and Monitoring Program.

Table 4-2

Important Farmland Inventory Definitions

Category	Definition
Prime Farmland (P)	Farmland with the best combination of physical and chemical features able to sustain long term production of agricultural crops. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for production of irrigated crops at some time during the four years prior to the mapping date.
Farmland of Statewide Importance (S)	Farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for production of irrigated crops at some time during the four years prior to the mapping date.
Unique Farmland (U)	Farmland of lesser quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date.
Farmland of Local Importance (L)	Land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee.
Grazing Land (G)	Land on which the existing vegetation is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen's Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities. The minimum mapping unit for Grazing Land is 40 acres.
Urban and Built-up Land (D)	Land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. This land is used for residential, industrial, commercial, construction, institutional, public administration, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.
Other Land (X)	Land not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; vacant and nonagricultural land surrounded on all sides by urban development; confined livestock, poultry or aquaculture facilities; strip mines, borrow pits; and water bodies smaller than forty acres.
Water (W)	Perennial water bodies with an extent of at least 40 acres.

Source: California Department of Conservation, Office of Land Conservation. Farmland Mapping and Monitoring Program. www.conservation.ca.gov. April 2003.

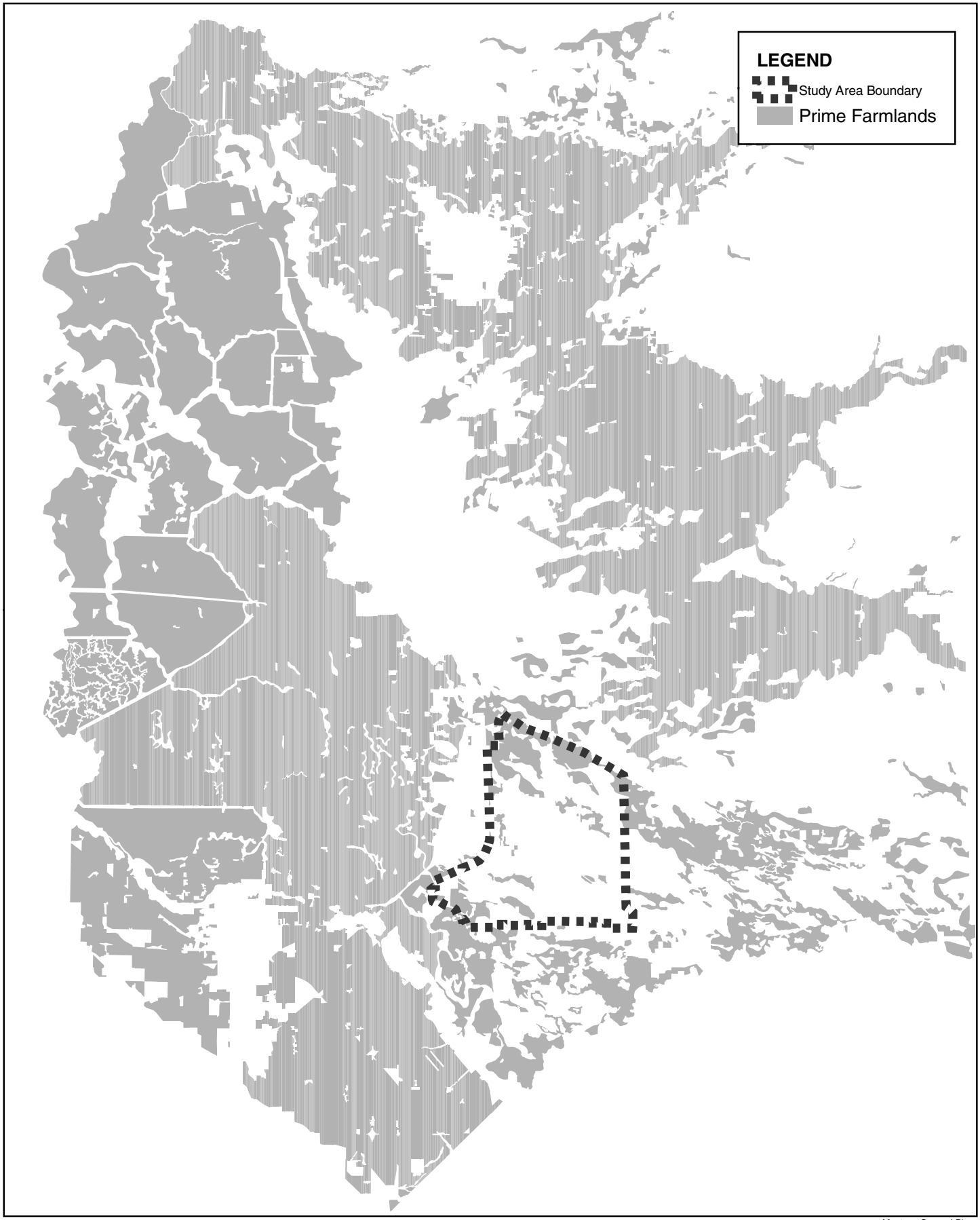
Table 4-3 summarizes the prime farmlands in San Joaquin County and in the General Plan Study Area. Figure 4-1 shows the distribution of these farmland categories within the County, and Figure 4-2 shows the distribution of these farmland categories within the Manteca General Plan 2023 Study Area. Table 4-4 summarizes the conversion of important farmlands to urban uses in San Joaquin County from 1992 to 2000.

Table 4-3

Summary of Prime Farmlands in San Joaquin County and the Study Area

	Land Use Category	San Joaquin County	Percent of San Joaquin County as of 2002	Total Study Area As of 2002	Percent of Total Study Area as of 2002
		Acres	Percent	Acres	Percent
D	Developed	74,148.7	8.1%	7,556.3	29.1%
G	Grazing	150,332.1	16.5%	0.0	0.0%
L	Farmland of Local Importance	56,008.8	6.1%	273.5	1.1%
P	Prime Farmland	423,158.4	46.4%	5,265.1	20.2%
S	Farmland of Statewide Importance	93,846.2	10.3%	11,863.2	45.6%
U	Unique Farmland	57,977.4	6.4%	0.0	0.0%
W	Water	11,648.2	1.3%	51.8	0.2%
X	Other Land	45,479.9	5.0%	998.9	3.8%
	Total	912,599.8	100.0%	26,008.8	100.0%

Source: California Department of Conservation, Office of Land Conservation. Farmland Mapping and Monitoring Program. www.conservation.ca.gov. April 2003.

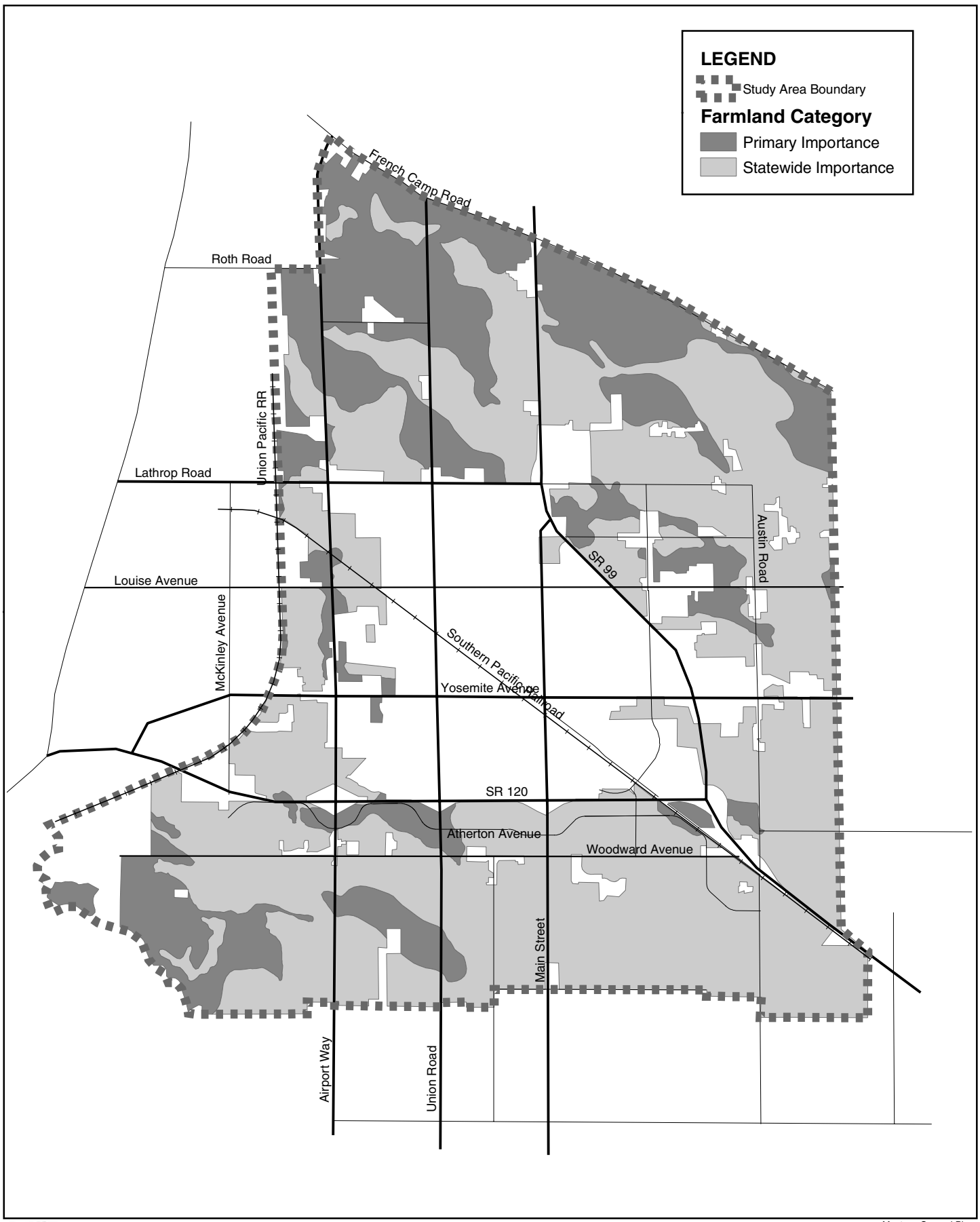


Manteca General Plan

WADE ASSOCIATES
urban planning & design
environmental planning

PRIME FARMLAND IN SAN JOAQUIN COUNTY
FIGURE 4-1

May 2003



Manteca General Plan

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PRIME FARMLANDS AND FARMLANDS OF STATEWIDE IMPORTANCE IN THE STUDY AREA

May 2003

FIGURE 4-2

Table 4-4

San Joaquin County Land Use Conversion

Land Use Category	*1992*	*1994*	*1996*	*1998*	*2000*	*Net Change*
Prime Farmland	436,003	434,328	433,134	429,168	429,179	-6,824
Farmland of Statewide Importance	99,548	33,132	98,163	96,795	96,800	-2,748
Unique Farmland	47,084	47,202	48,759	52,715	52,719	+5,635
Farmland of Local Importance	53,020	54,252	53,479	53,682	53,677	+657
IMP. FARMLAND SUBTOTAL	635,655	634,914	633,535	632,360	632,369	-3,286
Grazing Land	157,708	157,391	156,185	152,699	152,699	-5,009
AG. LAND SUBTOTAL	793,363	792,305	789,720	785,059	785,068	-8,295
Urban and Built-up Land	66,297	67,621	69,739	71,596	71,595	+5,298
Other Land	42,509	42,243	42,905	44,297	44,289	+1,780
Water Area	10,159	10,159	10,236	11,648	11,648	+1,489
TOTAL AREA INVENTORIED	912,328	912,328	912,600	912,600	912,600	+272

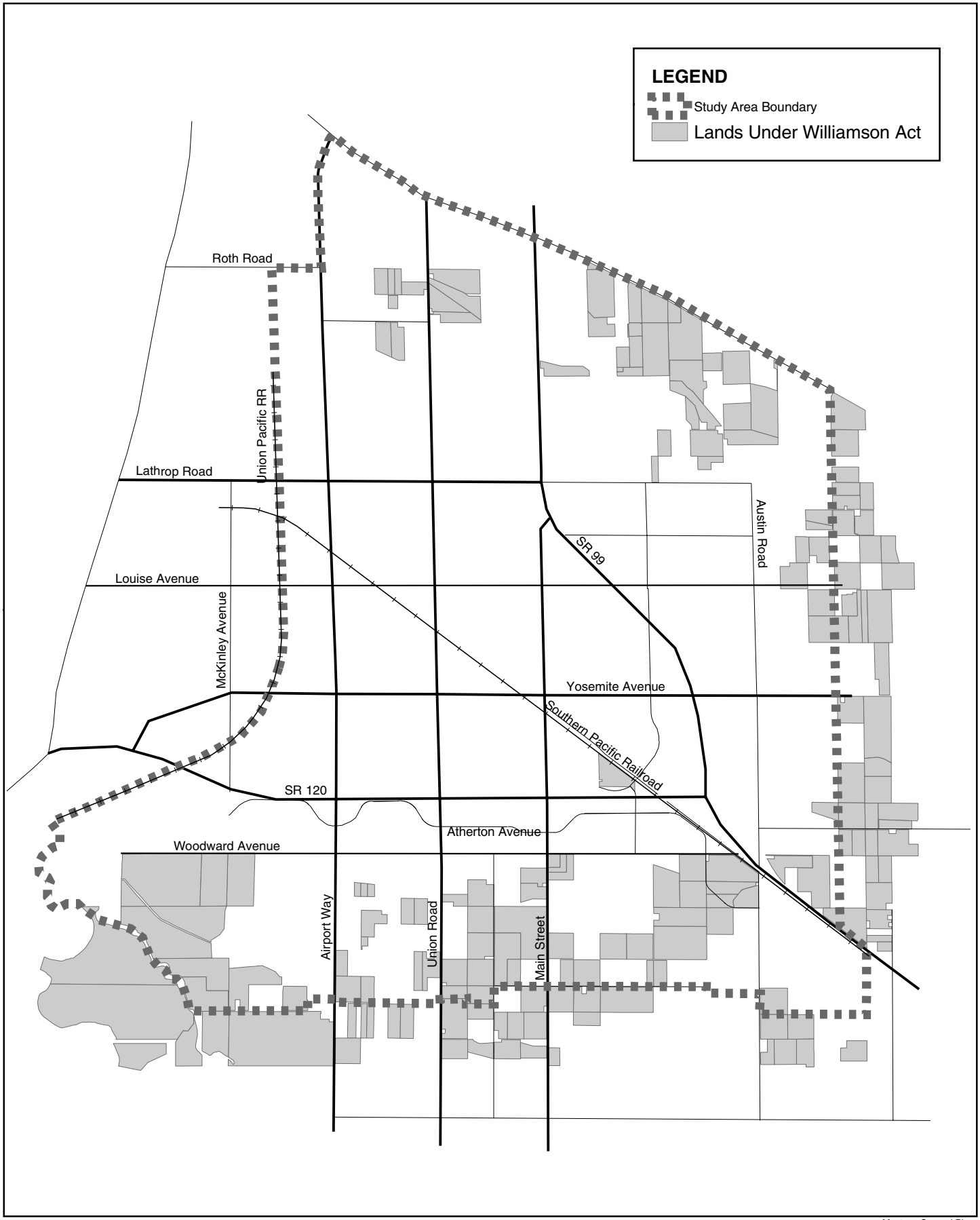
Source: California Department of Conservation, Office of Land Conservation. Farmland Conversion Reports. www.conservation.ca.gov. April 2003.

4.1.2 Land Conservation Act (Williamson Act)

More than 16 million of the State's 30 million acres of farm and ranch land are currently protected under the Williamson Act.

Under a Williamson Act contract, the property owner is guaranteed that the property will be taxed according to its potential agricultural income, as opposed to the maximum valued use of the property. Contracts have a 10-year term that is renewed annually. Contracts can be terminated by cancellation or nonrenewal.

A local government, or landowner, can initiate the non-renewal process to terminate the Williamson Act contract. A "notice of non-renewal" starts the nine-year non-renewal period. During the non-renewal process, the annual tax assessment gradually increases and the property continues to be limited to Williamson Act allowed uses. At the end of the nine-year non-renewal period, the contract is terminated.



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LANDS UNDER WILLIAMSON ACT CONTRACTS WITHIN THE GENERAL PLAN STUDY AREA

May 2003

FIGURE 4-3

The precise number of acres subject to a Williamson Act varies from year-to-year as individual contracts are added or removed through the non-renewal process. As of the end of 2002, there were approximately 3,861 acres subject to Williamson Act contracts within the Study Area. An undetermined number of the contracts had filed for non-renewal. Figure 4-3 illustrates the location of the lands under contract in 2002.

4.2 REGULATORY SETTING

4.2.1 Applicable Federal Regulation

U.S. Land Evaluation and Site Assessment (LESA) System

The Land Evaluation and Site Assessment (LESA) system ranks lands for suitability and inclusion in the U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS) Farmland Protection Program (FPP). The FPP is a voluntary program aimed at keeping productive farmland in agricultural uses. LESA evaluates several factors that are used to numerically rank the suitability of parcels based on local resource evaluation and site considerations. These factors include soils potential for agricultural use, location, market access, and adjacent land use.

4.2.2 Applicable State Regulation

California Land Evaluation and Site Assessment (LESA)

The California Land Evaluation and Site Assessment (LESA) model was based on the U.S. LESA system, and can be used to rank the relative importance of farmland, including the potential significance of its conversion on a site-by-site basis. The evaluation factors are discussed above in Subsection 4.1.1.

Farmland Mapping and Monitoring Program (FMMP)

The California Department of Conservation began the Farmland Mapping and Monitoring Program (FMMP) in 1980 to document how much agricultural land in the State was being converted to nonagricultural land or transferred into Williamson Act contracts. The requirements to be shown on the FMMP Important Farmland Maps as Prime Farmland or Farmland of Statewide Importance are discussed above in Subsection 4.1.1.

California Land Conservation Act (Williamson Act)

The California Land Conservation Act (Williamson Act), California Government Code Sections 51290 et seq., encourages the conservation of agricultural lands by providing tax incentives to

land owners who contract with the County to restrict land uses to agriculture and compatible uses. Although most Williamson Act contracts protect land in agricultural production, the Act also provides for contracts to preserve open space areas (recreational, scenic, and natural resources).

The vehicle for Williamson Act agreements is a rolling term ten-year contract (i.e., unless either party files a "notice of non-renewal," the contract is automatically renewed for an additional year). In return, restricted parcels are assessed for property tax purposes at a rate consistent with their actual use, rather then their potential market value. An agricultural preserve, consisting of no less than 100 acres, defines the boundary of an area within which a city or county will enter into contracts with landowners. Only land located within an agricultural preserve is eligible for a Williamson Act contract. Preserves are regulated by rules and restrictions designated in the resolution to ensure that the land within the preserve is maintained for agricultural or open space use.

Although the State Department of Conservation coordinates and monitors implementation of the Williamson Act, each county regulates the criteria for participation and administers the program.

4.2.3 San Joaquin County

San Joaquin County Zoning

The General Plan Study Area surrounding the City of Manteca to the north, east and south is within the unincorporated area of San Joaquin County, and is subject to the County General Plan and zoning. Agriculture 40-acre minimum parcel area (AG-40) is the predominant County zone in the Study Area, and accounts for 11,667 acres. Agriculture Urban (AU-20), 20-acre minimum, accounts for 2,930 acres. The AU-20 zone designation is found adjacent to the existing City boundary east of SR 99, north of Lathrop Road, and along the south side of SR 120.

4.2.4 City of Manteca Right to Farm Ordinance

Chapter 8.24 of the Manteca Municipal Code is a “Right to Farm” Ordinance intended to protect agricultural productivity in the City. The Ordinance states:

> *“It is the policy of this City to preserve, protect and encourage the use of viable agricultural lands for the production of food and other agricultural products. When nonagricultural land-uses extend into or approach agricultural areas, conflicts often arise between such land-uses and agricultural operations. Such conflicts often result in the involuntary curtailment or cessation of agricultural operations, and discourage investment in such operations. This chapter is intended to reduce the occurrence of conflicts between nonagricultural and agricultural land uses within the City.”*

4.2.5 City of Manteca 1988 General Plan

The Natural Resources Element (Section VI) of the existing 1988 General Plan includes the following goal, policies, and implementation measure to protect agricultural resources in the City of Manteca:

Goal B To promote the continuation of agricultural uses in the Manteca area and to discourage the premature conversion of agricultural land to nonagricultural uses, while providing for the urban development needs of Manteca.

Policy B-1 The City shall support the continuation of agricultural uses on lands designated for urban uses until urban development is imminent.

Policy B-2 The City shall discourage the cancellation of Williamson Act contracts within the Primary Urban Service Boundary line until it is demonstrated that the lands with such contracts will be needed for urban development in the immediate future.

Policy B-3 The City shall endeavor to ensure, in approving urban development near existing agricultural lands, that such development will not unnecessarily constrain agricultural practices or adversely affect the economic viability of nearby agricultural operations.

4.3 IMPACT EVALUATION CRITERIA

In accordance with CEQA Guidelines, Appendix G, the proposed project would have a significant adverse impact on the environment if the project would:

1. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.

2. Conflict with existing zoning for agricultural use, or a Williamson Act contract.

3. Involve other changes in the existing environmental which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use.

4.4 IMPACTS AND MITIGATION

POTENTIAL IMPACT AG-1: Implementation of the City of Manteca General Plan 2023 (Project) will result in conversion of Prime Farmland, Farmland of Statewide Importance, and

Farmland of Local Importance to non-agricultural use.

Table 4-5 summarizes the potential conversion of important farmland to urban use at full development of the land uses within the Primary Urban Services Area boundary.

Table 4-5

Summary of Farmland Conversion in the Primary Service Area

	Land Use Category	Agricultural Lands in the Study Area as of 2002	Agricultural Lands as a Percent of Study Area (26,008.8 ac) as of 2002	Acres Converted in the General Plan Proposed Growth Area	Agricultural Lands Remaining at Full Development of the General Plan
		Acres	Percent	Acres	Acres
L	Farmland of Local Importance	273.5	1.1%	79.7	193.8
P	Prime Farmland	5,265.1	20.2%	1,052.2	4,212.9
S	Farmland of Statewide Importance	11,863.2	45.6%	4,780.9	7,082.3
U	Unique Farmland	0.0	0.0%	0.0	0.0
	TOTAL	17,401.8	66.9%	5,912.8	11,489.0

Source: Wade Associates, May 2003

As shown in Table 4-5, a total of 5,912.8 acres (34%) of the total 17,401.8 acres of important farmland existing in 2002 would be converted to nonagricultural uses at full buildout of the General Plan 2023. A total of 11,489.0 acres (66%) of existing important farmland would remain in agricultural use.

Level of Significance: **Potentially Significant**

Mitigation Measures:

AG-1.1: The Land Use Element of the proposed General Plan 2023 provides the following policy (P) and implementation measure (I) intended to protect important farmland within the Study Area:

LU-P-41 The City shall encourage the continuation of agricultural uses on lands within the Primary and Secondary Urban Services Boundary lines pending their development as urban uses consistent with the General Plan.

LU-I-1: The City shall maintain a growth management system that provides a mechanism for the annual allocation of the amount of residential, commercial, and industrial development that may occur. The growth management system shall have the following objectives:

- Conserve viable agricultural and open space lands.

The Resource Conservation Element of the proposed General Plan 2023 provides the following goal and policies (P) intended to conserve agricultural resources within the Study Area:

Goal RC-9 To promote the continuation of agricultural uses in the Manteca area and to discourage the premature conversion of agricultural land to nonagricultural uses, while providing for the urban development needs of Manteca.

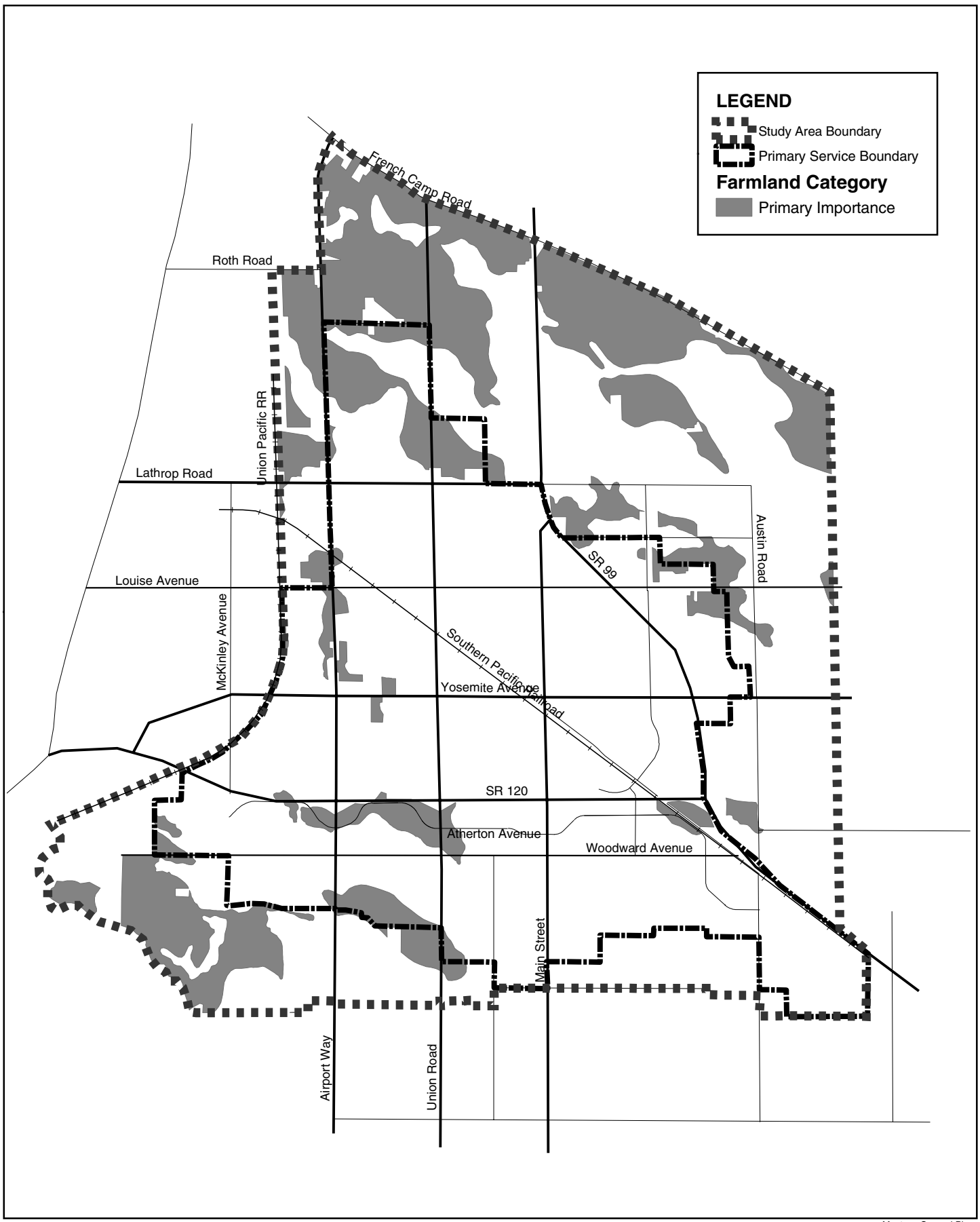
RC-P-18 The City shall support the continuation of agricultural uses on lands designated for urban use, until urban development is imminent.

RC-P-19 The City shall provide an orderly and phased development pattern so that farmland is not subjected to premature development pressure.

AG-1.2: The Land Use Element of the proposed General Plan 2023 directs the major growth area, as defined by the Primary Urban Service boundary, in a manner that avoids Prime Farmlands where feasible. Some areas of Prime Farmlands are within existing urban areas. Figure 4-4 illustrates the location of Prime Farmlands relative to the Primary Urban Service boundary.

Residual Level of Significance: Significant and Unavoidable

Although conformance with the goal, policies, and implementation measures identified above will lessen the conversion of the agricultural resources to some extent, the impact will remain significant.



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PRIMARY URBAN SERVICE BOUNDARY AND PRIME FARMLANDS

May 2003

FIGURE 4-4

POTENTIAL IMPACT AG-2: **Implementation of the General Plan 2023 will cause a conflict with existing zoning for agricultural use, or a Williamson Act contract.**

The precise number of acres subject to a Williamson Act varies from year-to-year as individual contracts are added or removed through the non-renewal process. As of the end of 2002, there were approximately 3,861 acres subject to Williamson Act contracts within the Study Area. An undetermined number of the contracts had filed for non-renewal.

Level of Significance: **Potentially Significant**

Mitigation Measures:

AG-2.1: The Resource Conservation Element of the proposed General Plan 2023 provides the following policies (P) and implementation (I) measures intended to conserve agricultural zoning within the Study Area:

RC-P-22 Protect designated agricultural lands, without placing an undue burden on agricultural landowners.

RC-P-26 The City shall discourage the cancellation of Williamson Act contracts outside the Primary Urban Service Boundary line. The City will not accept for processing any application for annexation of land under Williamson Act contract when there is more than two years remaining on the contract term.

RC-I-31 Work with San Joaquin County on the following issues:

Support the continuation of County agricultural zoning in areas designated for agricultural land use in the Area Plan.

Residual Level of Significance: **Significant and Unavoidable**

Although conformance with the policies and implementation measure identified above will lessen the conflicts with existing agricultural zoning within the Primary Urban Service Boundary, the impact will remain significant within the Study Area.

POTENTIAL IMPACT AG-3: **The location or nature of some proposed General Plan 2023 changes could result in the conversion of farmland to non-agricultural use.**

Level of Significance: Potentially Significant

Mitigation Measures:

AG-3.1: The Resource Conservation Element of the proposed General Plan 2023 provides the following policies (P) and implementation measures (I) intended to maintain agricultural use within the Study Area:

RC-P-20 In approving urban development near existing agricultural lands, the City shall act so that such development will not unnecessarily constrain agricultural practices or adversely affect the viability of nearby agricultural operations.

RC-P-23 Provide buffers at the interface of urban development and farmland in order to minimize conflicts between these uses.

RC-P-24 The City shall ~~endeavor to~~ ensure, in approving urban development near existing agricultural lands, that such development will not unnecessarily constrain agricultural practices or adversely affect the economic viability of nearby agricultural operations.

RC-P-25 The City shall restrict the fragmentation of agricultural land parcels into small rural residential parcels except in areas designated for estate type development in the General Plan Land Use Diagram.

RC-P-27 The City shall not extend water and sewer lines to premature urban development that would adversely affect agricultural operations.

RC-I-30 Apply the following conditions of approval where urban development occurs next to farmland:

- Require notifications in urban property deeds that agricultural operations are in the vicinity, in keeping with the City's right-to-farm ordinance.
- Require adequate and secure fencing at the interface of urban and agricultural use.

- Require phasing of new residential subdivisions so as to include an interim buffer between residential and agricultural use.

Residual Level of Significance: Less than Significant With Mitigation

The level of significance will be mitigated to less than significant if the above policies and implementation measures are implemented to maintain agricultural use adjacent to nonagricultural uses.

References:

(1) U.S. Department of Agriculture, Soil Conservation Service. Soil Survey of San Joaquin County, California, October 1992.

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5. AIR QUALITY

The Air Quality Section of this EIR evaluates potential impacts on air quality resulting from the implementation of the proposed General Plan 2023. This Section incorporates guidance and air quality data from the San Joaquin Valley Air Pollution Control District (SJVAPCD). **(1)**

5.1 EXISTING CONDITIONS

5.1.1 San Joaquin Air Quality Designation

The San Joaquin Valley is currently designated as "severe nonattainment" for the state ozone 1-hour standard, and "serious nonattainment" for the federal 1-hour ozone and 24-hour fine particulate matter (PM10) standards, as shown in Table 5-1. **(1)**

Table 5-1

Attainment Status for San Joaquin County

	Designation	
Pollutant	***National Standards***	***State Standards***
Ozone- One hour	Nonattainment/Serious	Nonattainment/Severe
Ozone- Eight hour	Designation to be Determined	No State Standard
PM10	Nonattainment/Serious	Nonattainment
PM2.5	Designation to be Determined	No State Standard
CO (San Joaquin County)	Unclassified/Attainment	Attainment
Nitrogen Dioxide	Unclassified/Attainment	Attainment
Sulfur Dioxide	Unclassified/Attainment	Attainment
Lead (Particulate)	No designation	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Sulfates	No Federal Standard	Attainment
Visibility Reducing Particles	No Federal Standard	Unclassified

Source: San Joaquin Valley Air Pollution Control District (SJVAPCD)

5.1.2 Setting

Ironically, the long, warm summers that make the area especially suited for agriculture are the same conditions that contribute to the Valley's air quality problems. Heat and sunlight transform volatile organic compounds and nitrogen oxides from vehicle exhaust, industrial processes, and other operations into ground-level ozone, also known as smog. The surrounding mountain ranges pose an additional challenge, as they trap smog in the Valley, not allowing it to dissipate.

In addition to smog, dry weather conditions and topography allow small particles of man-made compounds, as well as soot, ash and dust to become suspended in the air, creating another harmful pollutant -- particulate matter.

The Valley does not currently meet health-based standards set by the United States Environmental Protection Agency (EPA) for ozone and particulate matter, nor the state standards for ozone. These health standards have been established to protect public health, as both smog and particulate matter can cause or aggravate respiratory and cardiac conditions. Research indicates that long-term exposure to either pollutant can contribute to the premature death of people and animals.

In addition to grave health concerns, these pollutants also have a significant impact on other quality of life issues. Ozone damages crops, ornamental vegetation, and man-made materials, affecting the Valley's economy. Particulates obscure visibility, notably distant views, and diminish the natural beauty of the area.

Topography

Air quality in the northern San Joaquin Valley is significantly influenced by topography. The City of Manteca lies within the northern portion of the San Joaquin Valley Air Basin, which in turn occupies the southern half of the Great Central Valley of California. The San Joaquin Valley is bounded by the coastal mountain ranges on the west, rising to an average elevation of 3,000 feet, and the Sierra Nevada mountain range on the east. The Carquinez Strait is 55 miles northwest of the Study Area and the intervening terrain is flat. The Strait is a sea level gap in the coastal range where the San Joaquin-Sacramento Delta empties into San Francisco Bay. Prevailing winds from the ocean blow through the Carquinez Strait, carrying pollutants from the more populous Bay Area.

Climate

The winters in the San Joaquin Valley are usually mild and fairly humid, and the summers are hot, dry, and nearly cloudless. This climate is the result of both the topography and the mean position of the seasonal mid-latitude storm track.

Temperature

In winter, the storm systems moving in from the Pacific Ocean bring a decidedly maritime influence to the San Joaquin Valley. The Sierra Nevada mountain range on the east prevents the cold, continental air masses from influencing the Valley. Temperatures below freezing are unusual. Average high temperatures in the winter are in the 50's (F), but highs in the 30's and 40's can occur with persistent fog and low cloudiness.

In summer, high temperatures often exceed 100 degrees, with averages in the low 90's in the northern valley and the high 90's in the southern valley. Summer low temperatures average in the high 50's in the northern valley and the upper 60's in the southern valley.

Precipitation

Precipitation in the San Joaquin Valley is strongly influenced by the position of the semi-permanent subtropical high pressure belt located off the Pacific coast (referred to as the Pacific High). In the winter, this high pressure system moves southward, allowing Pacific storms to move through the Valley. The majority of the precipitation in the Valley is winter rain produced by these storms. Snowstorms, hailstorms, and icestorms occur infrequently in the Valley, and severe occurrences are very rare. Precipitation during the summer is in the form of convective rain showers, and is rare.

Precipitation on the Valley floor and in the Sierra Nevada decreases from north-to-south. This is primarily because the Pacific storm track often passes through the northern part of the state, while the southern part of the state remains protected by the Pacific High.

The northern end of the Valley (Manteca and Stockton area) receives approximately 20 inches of rain per year. The central portion of the Valley (Fresno area) receives approximately 10 inches of rain per year. The southern end of the Valley (Bakersfield area) receives less than 6 inches of rain per year.

Wind Patterns

The topography of the San Joaquin Valley has a dominating effect on wind patterns. Winds tend to blow somewhat parallel to the Valley and mountain range orientation. In spring and early summer, thermal low-pressure systems develop over the interior basins east of the Sierra Nevada mountain range, and the Pacific High moves northward. These developments and the topography produce the high incidence of relatively strong northwesterly winds in the spring and early summer.

The San Joaquin Valley receives a combination of sea breeze-land breeze and mountain-valley regimes. The sea breeze-land breeze regime has a sea breeze flowing into the Valley from the north during the day, and a land breeze flowing out of the Valley at night.

The prevailing wind direction in the City of Manteca is from the northwest, resulting from marine breezes through the Carquinez Strait. During the winter, the sea breeze diminishes.

Tule Fog

Between winter storms, high pressure and light winds allow cold moist air to pool on the Valley floor. This creates strong low-level temperature inversions and very stable air conditions. The Valley's well-known Tule Fog is the result of these conditions.

5.1.3 Sensitive Receptors

Sensitive receptors located in or near the vicinity of known air emissions sources, including freeways and intersections, are of particular concern. Sensitive receptors are located throughout the City of Manteca, and typically include the following: residences, athletic facilities, schools, health care facilities, playgrounds, convalescent centers, child care centers, and rehabilitation centers.

Land use compatibility issues relative to siting of pollution-emitting sources or siting of sensitive receptors must also be considered. In the case of schools, state law requires that siting decisions consider potential for toxic or harmful air emissions in the surrounding area.

5.2 REGULATORY SETTING AND STANDARDS

5.2.1 Applicable Federal Regulation

U. S. Environmental Protection Agency National Ambient Air Quality Standards

Pursuant to the Federal Clean Air Act of 1970 and subsequent amendments, the Environmental Protection Agency (EPA) has established ambient air pollutant concentration standards and maximum allowable emission rates (National Ambient Air Quality Standards (NAAQS)), for certain individual sources of air pollutants. Air quality is managed through the attainment and maintenance of these ambient standards and enforcement of the emission limits.

There are six Primary NAAQS "criteria" air pollutants (so called because they were established on the basis of health criteria):

- Ozone (O3)
- Carbon Monoxide (CO)
- Nitrogen Dioxide (NO2)
- Sulfur Dioxide (SO2)
- Fine Particulate Matter (PM10)
- Lead (Pb)

The U.S. Environmental Protection Agency (EPA) also recently adopted standards for fine particulate matter (PM2.5).

These air pollutants are further discussed below in Subsection 5.2.3

5.2.2 Applicable State Regulation

California Air Resources Board

The California Air Resources Board (CARB) coordinates and oversees the air pollution control activities performed in California by the local air districts. One of their tasks is to compile data from the numerous air quality monitoring stations throughout the state. Data collected at those stations are used to classify areas and air basins as attainment or nonattainment for each criteria air pollutant based on whether the federal ambient air quality standards have been achieved. CARB has established state ambient air quality standards, many of which are more stringent than the corresponding federal standard. State standards attempt to protect "sensitive" people. Children, the elderly, athletes, and people with existing respiratory ailments (e.g. asthma, emphysema), and heart disease are much more sensitive to air pollution than the average citizen.

***Central California Air Quality Studies (CCAQS)* (2)**

CARB's Central California Air Quality Studies (CCAQS) comprise two (2) studies: the California Regional Particulate Air Quality Study (CRPAQS), and the Central California Ozone Study (CCOS).

The CCAQS is a multi-year effort of meteorological and PM10/PM2.5 air quality monitoring, emission inventory development, data analysis, and air quality simulation modeling. The objectives of the study are to: 1) provide an improved understanding of emissions, PM10 and PM2.5 composition, and dynamic atmospheric processes; 2) establish a strong scientific foundation for informed decisions making; and 3) develop methods to identify the most efficient and cost-effective emission control strategies to achieve the PM10 and PM2.5 standards in Central California. The concept for the plan was initiated in 1991 by the agricultural community when they approached the U.S. EPA for funding. Government entities and industries endorsed the study, and full-scale planning began in 1992. Large-scale field monitoring programs were begun in 1999.

The CCOS consists of a field program, data analysis, emission inventory development, and modeling. The field program of the CCOS was conducted during the summer of 2000. Emission inventory development, data analysis and modeling are on-going projects. The entire effort is expected to be completed by 2005. The CARD and Air Pollution Control Districts plan to use the results of the CCOS to prepare the demonstration of attainment for the ozone standard for non-attainment areas in central California.

5.2.3 Ambient Air Quality Standards

The federal (national) and California State ambient air quality standards are shown below in Table 5-2.

Ozone (O3)

As shown in Table 5-2, the one-hour California Ambient Air Quality Standard for ozone is 0.09 part per million (PPM), and is not to be exceeded. The one-hour National (Federal) Ambient Air Quality Standard for ozone is 0.12 ppm (measured at the highest hour during the day), and is not to be exceeded more than three (3) times in any three-year period.

Ground-level ozone (the primary constituent of smog) is the most complex, difficult to control, and pervasive in the six principal pollutants. Unlike other pollutants, ozone is not emitted directly into the air by specific sources. Ozone is a “photochemical” pollutant, created by a complex series of chemical reactions between reactive organic gases (ROG), nitrogen oxides (NOx), and sunlight.

Scientific evidence indicates that ground-level ozone not only affects people with impaired respiratory systems (such as asthmatics), but healthy adults and children as well. Exposure to ozone for six to seven hours, even at relatively low concentrations, significantly reduces lung function and induces respiratory inflammation in normal, healthy people during periods of moderate exercise. It can be accompanied by symptoms such as chest pain, coughing, nausea, and pulmonary congestion. Recent studies provide evidence of an association between elevated ozone levels and increases in hospital admissions for respiratory problems in several U.S. cities. Ozone is also responsible for several billion dollars of agricultural crop yield loss in the U.S. each year. Ozone damages natural ecosystems such as forests and foothill communities, as well as some man-made materials such as rubber, paint, and plastics.

The Valley’s long, hot summers, stagnant weather conditions, frequent inversions, and bowl shape with surrounding mountain barriers, create the perfect conditions to form and trap ground-level ozone. A fast growing population driving approximately 90 million miles per day compounds the problem.

There are literally thousands of sources of the reactive organic gases (ROG) and nitrogen oxides (NOx) which react with sunlight to form ozone. ROG and NOx are emitted from fuel combustion, and agricultural and industrial processes. Some of the more common sources include gasoline vapors, chemical solvents, combustion products of various fuels, and consumer products. They can originate from large industrial facilities, gas stations, and small businesses such as bakeries and dry cleaners. Often these "precursor" gases are emitted in one area, but the actual chemical reactions, stimulated by sunlight and temperature, take place in another.

Table 5-2

Ambient Air Quality Standards

Pollutant	Averaging Time	Concentration	
		National Standards	California Standards
Ozone (O3)	8-hour	0.08 ppm	N/A
	1-hour	0.12 ppm	0.09 ppm
Carbon Monoxide (CO)	8-hour	9 ppm	9 ppm
	1-hour	35 ppm	20 ppm
Nitrogen Dioxide (NO2)	Annual Avg.	0.053 ppm	N/A
	1-hour	N/A	20 ppm
Sulfur Dioxide (SO2)	Annual Avg.	0.03 ppm	N/A
	24-hour	0.14 ppm	0.04 ppm
	1-hour	N/A	0.25 ppm
Particulate Matter (PM10)	24-hour	150 micrograms/ cubic meter	50 micrograms/ cubic meter
Lead (Pb)	30-day average	N/A	1.5 micrograms/ cubic meter
	Calendar Quarter	1.5 micrograms/ cubic meter	N/A
Particulate Matter (PM2.5)	24-hour	65 micrograms/ cubic meter	N/A

Source: CARB and San Joaquin Valley Unified Air Pollution Control District

Combined emissions from motor vehicles and stationary sources can be transported and spread by wind hundreds of miles from their origins, forming high ozone concentrations over very large regions.

Approximately 60 percent of the Valley's smog problems come from cars, diesel trucks, and other internal combustion engines such as lawnmowers and boats. These are collectively called "mobile sources." The other 40 percent comes from business and industrial sources.

Carbon Monoxide (CO)

State and federal CO standards have been set for both 1-hour and 8-hour averaging periods. The state 1-hour CO standard is 20 parts per million (ppm) by volume, while federal 1-hour standards are 35 ppm. Both state and federal standards are 9 ppm for the 8-hour averaging period. State CO standards are phrased as values not to be exceeded; federal CO standards are phrased as values not to be exceeded more than once per year.

Nitrogen Dioxide (NO2)

Nitrogen dioxide belongs to a family of highly reactive gases called nitrogen oxides (NOx). These gases form when fuel is burned at high temperatures, and come principally from motor vehicle exhaust and stationary sources such as electric utilities and industrial boilers. A suffocating, brownish gas, nitrogen dioxide is a strong oxidizing agent that reacts in the air to form corrosive nitric acid, as well as toxic organic nitrates. It also plays a major role in the atmospheric reactions that produce ground-level ozone (or smog).

Nitrogen dioxide can irritate the lungs and lower resistance to respiratory infections such as influenza. The effects of short-term exposure are still unclear, but continued or frequent exposure to concentrations that are typically much higher than those normally found in the ambient air may cause increased incidence of acute respiratory illness in children. EPA's health-based national air quality standard for NO2 is 0.053 ppm (measured as an annual average). Nitrogen oxides are important in forming ozone and may affect both terrestrial and aquatic ecosystems.

Sulfur Dioxide (SO2)

Sulfur dioxide belongs to the family of sulfur oxide gases (SOx). These gases are formed when fuel containing sulfur (mainly coal and oil) is burned, and during metal smelting and other industrial processes.

The major health concerns associated with exposure to high concentrations of SO2 include effects on breathing, respiratory illness, alterations in pulmonary defenses, and aggravation of existing cardiovascular disease. Major subgroups of the population that are most sensitive to SO2 include asthmatics and individuals with cardiovascular disease or chronic lung disease (such

as bronchitis or emphysema) as well as children and the elderly. EPA's health-based national air quality standard for SO2 is 0.03 ppm (measured on an annual average) and 0.14 ppm (measured over 24 hours). Emissions of SO2 also can damage the foliage of trees and agricultural crops. Together, SO2 and NOX are the major precursors to acid rain, which is associated with the acidification of lakes and streams, accelerated corrosion of buildings and monuments, and reduced visibility.

Particulate Matter (PM10)

Particulate matter is the term for solid or liquid particles found in the air. Some particles are large or dark enough to be seen as soot or smoke. Others are so small they can be detected only with an electron microscope. Because particles originate from a variety of mobile and stationary sources (diesel trucks, wood stoves, power plants, etc.), their chemical and physical compositions vary widely.

Also shown in Table 5-2, the 24-hour California Ambient Air Quality Standard for PM10 is 50 micrograms per cubic meter, and is not to be exceeded. The 24-hour National Ambient Air Quality Standard for PM10 is 150 micrograms per cubic meter, and is not to be exceeded more than once per year.

In 1987, EPA replaced the earlier Total Suspended Particulate (TSP) air quality standard with a PM10 standard. The newer standard focuses on smaller particles that are likely to result in adverse health effects because of their ability to reach the lower regions of the respiratory tract. The PM10 standard includes particles with a diameter of 10 micrometers or less (0.0004 inches or one-seventh the width of a human hair).

Major concerns for human health from exposure to PM10 are effects on breathing and respiratory systems, damage to lung tissue, cancer, and premature death. The elderly, children, and people with chronic lung disease, influenza, or asthma, tend to be especially sensitive to the effects of particulate matter. Acidic PM10 can also damage manmade materials and is a major cause of reduced visibility in many parts of the U.S.

Primary man-made sources of PM10 in the San Joaquin Valley are agricultural operations, agricultural burning, demolition and construction activities, entrainment of dust by motor vehicles on paved and unpaved roads, and residential wood burning. Wind erosion of agricultural land also represents a significant source of airborne dust in the Valley.

Approximately 58% of the Valley’s PM10 pollution comes from man-made sources and activities. Approximately 38% comes from natural causes, and approximately 4% can be attributable to unplanned fires.

Lead (Pb)

Smelters and battery plants are the major sources of the pollutant "lead" in the air. The highest concentrations of lead are found in the vicinity of nonferrous smelters and other stationary sources of lead emissions.

Exposure to lead mainly occurs through inhalation of air and ingestion of lead in food, paint, water, soil, or dust. Lead accumulates in the body in blood, bone, and soft tissue. Because it is not readily excreted, lead can also affect the kidneys, liver, nervous system, and other organs. Excessive exposure to lead may cause anemia, kidney disease, reproductive disorders, and neurological impairments such as seizures, mental retardation, and/or behavioral disorders. Even at low doses, lead exposure is associated with changes in fundamental enzymatic, energy transfer, and other processes in the body. Fetuses and children are especially susceptible to low doses of lead, often suffering central nervous system damage or slowed growth. Recent studies show that lead may be a factor in high blood pressure and subsequent heart disease in middle-aged white males. Lead may also contribute to osteoporosis in postmenopausal women. EPA's health-based national air quality standard for lead is 1.5 micrograms per cubic meter (measured as a quarterly average).

Particulate Matter (PM2.5)

The recently adopted 24-hour National Ambient Air Quality Standard for PM2.5 (particles 2.5 micrometers or less in size) is 65 micrograms per cubic meter within a 24-hour period. California has not yet set a standard for PM2.5. However, the California Air Resources Board (CARB) has developed a PM2.5 monitoring network to implement the national standard. The San Joaquin Valley Air Pollution Control District (SJVAPCD) is participating in collection of the PM2.5 data as required by the EPA.

Toxic Air Pollutants

Toxic air pollutants, such as asbestos, can be emitted during demolition of buildings containing toxic contaminants, and during operation of industries that utilize toxic substances. The Federal and State governments have implemented a number of programs to control toxic air emissions.

The Federal Clean Air Act provides a program for the control of hazardous air pollutants. The California legislature has enacted programs including the Tanner Toxics Act (AB1807), the Air Toxics Hot Spot Assessment Program (AB2588), the Toxics Emissions Near Schools Program (AB3205), and the Disposal Site Air Monitoring Program (AB3374).

The San Joaquin Valley Air Pollution Control District (SJVAPCD) has developed an Integrated Air Toxic Program. This program integrates both state and federal requirements and is aimed at protecting public health. The District is implementing rules to control emissions from specific

sources of toxic air pollutants. As part of the District's Risk Management Policy, certain businesses are required to obtain a permit to emit toxic air pollutants.

In 1998, the California Air Resources Board (CARB), in conjunction with the California EPA, classified diesel particulate as a toxic air contaminant. Particulate matter and other gases including nitrogen oxides (NOx) are air pollutants emitted by diesel engines. Heavy-duty trucks, buses, and heavy off-road engines are key sources of nitrogen oxides (NOx) emissions within the Valley. In addition to nitrogen oxides, particulate matter, and other gases from diesel exhaust contain potential cancer-causing substances such as arsenic, benzene, formaldehyde, nickel, and polycyclic aromatic hydrocarbons.

In order to reduce the particulate matter, nitrogen oxide (NOx), and sulfur oxide (SOx) emissions from diesel engines, the CARB has adopted many important regulations. These include:

- Low sulfur/low diesel fuel requirement that reduces particulate matter, NOx, and SOx emissions.
- Emission standards that restrict the amount of particulate matter emitted by new diesel trucks, buses, cars, and heavy-duty trucks.
- Emission standards for NOx emissions from diesel cars, trucks and buses.
- Roadside testing of heavy-duty on-road vehicles for excessive particulate emissions.
- Fleet inspection and maintenance of heavy-duty vehicles.
- Emission standards that restrict the amount of particulate matter and that can be emitted from many diesel utility engines built after 1995.
- Provision of funds for Carl Moyer Memorial Air Quality Standards Attainment Program, which provides grants for the incremental cost of lower-emission diesel engines for heavy-duty vehicles.

5.2.4 San Joaquin Valley Air Pollution Control District (SJVAPCD)

Manteca falls under the jurisdiction of the San Joaquin Valley Air Pollution Control District (SJVAPCD). The District was formed in 1991, and maintains its headquarters in Fresno.

The SJVAPCD is responsible for regulating stationary, indirect, and area sources of air pollution in the Valley. The eight counties that comprise the District are divided into three regions. These include the Northern Region, (Merced, San Joaquin, and Stanislaus Counties), the Central Region (Madera, Fresno, and Kings Counties), and the Southern Region (Tulare County and the Valley portion of Kern County).

Air districts have the primary responsibility for control of air pollution from all sources other than emissions directly from motor vehicles, which are the responsibility of the California Air Resources Board (ARB) and the U.S. Environmental Protection Agency (EPA). Air districts

adopt and enforce rules and regulations to achieve state and federal ambient air quality standards, and enforce applicable state and federal law.

Air districts are charged with controlling stationary sources of pollution, including industrial processes and equipment. Air districts are also required to implement transportation control measures.

Nearly all pollution control programs developed to date have relied on development and application of cleaner technology and add-on emission control devices to clean up vehicular and industrial sources, such as catalytic converters for automobiles. Only recently have efforts been directed at better use of existing emission sources (e.g. through inspection and maintenance programs, heavy-duty engine emission reduction programs, High Occupancy Vehicle or HOV Lanes, and maintenance procedures on industrial sources).

The SJVAPCD has entered into a Memorandum of Understanding (MOU) with the transportation planning agencies of the eight counties in the San Joaquin Valley Air Basin. This MOU will ensure a coordinated approach in the development and implementation of transportation plans throughout the Valley. This action will help the Regional Transportation Planning Agencies comply with pertinent provisions of the federal and State Clean Air Acts, as well as related transportation legislation.

The SJVAPCD has adopted two Attainment Plans in an attempt to achieve state and federal air quality standards:

1. 1991 California Clean Air Act Air Quality Attainment Plan (AQAP) for ozone and carbon monoxide.

2. 1991 and 1992 PM10 Nonattainment Area Plan

After the area was re-designated as “serious nonattainment” for PM10 by the EPA, the SJVAPCD submitted a Serious Area PM10 Nonattainment Plan in September 1994.

However, the SJVAPCD is considering voluntarily seeking the federal government's worst air quality designation for ground-level ozone. There has been a 45 percent reduction since 1980 in the number of days the Valley’s air violates health-based levels for ground-level ozone. However, improvements have not come quickly enough to meet clean air deadlines, prompting the EPA’s serious nonattainment designation. This means that the Valley must now meet the ozone standard by 2005 by reducing total emissions inventory by an additional 30- percent or 300 tons per day.

The SJVAPCD has not been able to submit an implementation plan demonstrating such drastic reductions. The District is exploring an option of requesting an “extreme” non-attainment

designation. With this designation, the new attainment date for the Valley would be 2010, instead of 2005.

5.3 IMPACT EVALUATION CRITERIA

In accordance with CEQA Guidelines, Appendix G, the proposed project would have a significant adverse impact on the environment if the project would:

1) conflict with or obstruct implementation of the applicable air quality plan;
2) violate any air quality standard or substantially contribute to an existing or projected air quality violation;
3) result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);
4) expose sensitive receptors to substantial pollutant concentrations; or
5) create objectionable odors affecting a substantial number of people.

URBEMIS Emissions Model

The California Air Resources Board (CARB) URBEMIS 2001 for Windows, Version 6.2.2, Emissions Estimation for Land Use Development Project Modeling Program, was used to derive emissions from construction, area sources, and operational (vehicle) emissions. The estimate of air quality impact is based on the land use assumptions established in Section 2 and Section 11of this EIR, shown in Table 5-3 below.

The effects of development anticipated in the General Plan will occur incrementally over twenty years or more. Therefore, the methods of analysis typically applied to evaluate new development proposals provide only broad, generic indicators of future impacts. The cumulative effect of each increment of new development over a twenty year horizon creates significant impacts that can only be approximated. The actual mix of land use that will occur over time are very difficult to predict. Commercial, business professional and industrial uses, in particular, provide a broad range of development opportunities and characteristics.

Table 5-3

Projected Land Use Mix at Full Development of the

Primary Urban Service Area in the General Plan 2023

LAND USE	Proposed New Land Use	Existing Urbanized Land Use	Total 2023 Land Use
	Acres	Acres	Acres
AG Agriculture	3960.0		3960.0
GC General Commercial	518.0	154	672.0
NCC Neighborhood Commercial	111.8	380	491.8
CMU Commercial Mixed Use	255.0		255.0
HI Heavy Industrial	715.0	194.9	909.9
LI Light Industrial	798.1	226	1024.1
BIP Business Industrial Park	258.0		258.0
BP Business Professional	133.0		133.0
HDR High Density Residential (15.1 to 25 du/ac)	251.0	191	442.0
MDR Medium Density Residential (8.1 to 15 du/ac)	359.0	187.6	546.6
LDR Low Density Residential (2.1 to 8 du/ac)	3685.9	2741.7	6427.6
VLDR Very Low Density Residential (0.5 to 2 du/ac)	1181.0	109.8	1290.8
P/QP/ Public/Quasi-public Schools/Utilities	317.6	788.3	1105.9
OS Open Space	516.0	27	543.0
P Park	175.7	342.4	518.1
Subtotal	12302.1	5342.7	18577.8

Source: DRAFT Manteca General Plan 2023, Table 2-1.

Construction Emissions

Emissions caused during construction would be due to site preparation and construction of the proposed uses. During construction, emissions would be generated by tailpipe emissions of particulate, carbon monoxide and nitrous oxide from diesel-powered earth moving equipment, particulate emissions from vehicular traffic on unpaved roads, and particulates emissions from soil disturbance (actual amount depends on total acreage disturbed). These impacts will not be sustained over time, but rather will occur sporadically over a period of years as the project is developed. Grading and other earth disturbance will occur in discrete periods as new phases of the project are developed.

Area Source Emissions

Area source emissions were estimated for wood stoves, fireplaces, landscaping and consumer products. Landscape maintenance includes emissions from fuel-powered maintenance equipment. Consumer products include reactive organic compound emissions released through the use of products such as hair sprays and deodorants.

Vehicle Source Emissions

The precursor emissions for vehicle sources is evaluated by the URBEMIS 2001 program based on the target year, trip characteristics, temperature data, variable starts, vehicle fleet percentages, road dust, and pass-by trips. The URBEMIS 2001 default settings for vehicle mix, variable starts and other factors are used in the evaluation. Both summer and winter conditions were evaluated. Summer conditions create the worst case scenario for precursor emissions.

Table 5-4

Summary of Winter Emissions (Pounds/Day)

Construction Emission Estimates	**ROG**	**NOx**	**CO**	**PM10**
Totals (lbs/day, unmitigated)	173,438.78	381.04	722.14	73.05
Totals (lbs/day, mitigated)	173,438.78	381.04	722.14	73.05
Area Source Emission Estimates	**ROG**	**NOx**	**CO**	**PM10**
Totals (lbs/day, unmitigated)	2430.32	582.64	246.2	1.11
Totals (lbs/day, mitigated)	2430.14	580.23	245.24	1.10
Operational (Vehicle) Emission Estimates	**ROG**	**NOx**	**CO**	**PM10**
Totals (lbs/day, unmitigated)	4338.05	4520.73	50887.04	347.84
Totals (lbs/day, mitigated)	3690.92	3839.92	43238.72	295.40

Source: URBEMIS 2001 for Windows v. 6.2.2 (Detailed Report Included in DRAFT EIR FOR GENERAL PLAN 2023, *Volume 2, Technical Appendix.)*

Table 5-5

Summary of Summer Emissions (Pounds/Day)

Construction Emission Estimates	**ROG**	**NOx**	**CO**	**PM10**
Totals (lbs/day, unmitigated)	173,438.78	381.04	722.14	73.05
Totals (lbs/day, mitigated)	173,438.78	381.04	722.14	73.05
Area Source Emission Estimates	**ROG**	**NOx**	**CO**	**PM10**
Totals (lbs/day, unmitigated)	2448.76	587.31	440.74	1.28
Totals (lbs/day, mitigated)	2448.59	584.89	439.77	1.28
Operational (Vehicle) Emission Estimates	**ROG**	**NOx**	**CO**	**PM10**
Totals (lbs/day, unmitigated)	4838.42	2986.06	52559.58	347.84
Totals (lbs/day, mitigated)	4301.01	2536.54	44652.11	295.40

Source: URBEMIS 2001 for Windows v. 6.2.2 (Detailed Report Included in DRAFT EIR FOR GENERAL PLAN 2023, Volume 2, Technical Appendix)

5.4 IMPACTS AND MITIGATION

POTENTIAL IMPACT AQ-1: **Implementation of the General Plan 2023 could conflict with or obstruct implementation of the applicable air quality plan.**

Level of Significance: **Potentially Significant**

The San Joaquin Valley Air Pollution Control District (SJVAPCD) has adopted an Air Quality Management Plan and an Integrated Air Toxic Program. The SJVAPCD has also adopted two Attainment Plans and a Serious Area PM10 Nonattainment Plan.

Mitigation Measures:

AQ-1.1: The General Plan 2023 includes the following goal, policy (P) and implementation measures (I) to direct cooperation with San Joaquin Valley Air Pollution Control District's air quality plans, including air toxic plans:

Goal AQ-1 Improve Manteca's air quality by:

Minimizing public exposure to toxic or hazardous air pollutants.

AQ-P-1 Cooperate with other agencies to develop a consistent and coordinated approach to reduction of air pollution and management of hazardous air pollutants.

AQ-I-1 Work with the San Joaquin Valley Air Pollution Control District (SJVAPCD) to implement the Air Quality Management Plan (AQMP).

- Cooperate with the APCD to develop consistent and accurate procedures for evaluating project-specific and cumulative air quality impacts.
- Cooperate with the APCD and the California Air Resources Board to develop a local airshed model.
- Cooperate with the APCD in their efforts to develop a cost/benefits analysis of possible control strategies (mitigation measures to minimize short and long-term stationary and area source emissions as part of the development review process, and monitoring measures to ensure that mitigation measures are implemented.

AQ-I-2 In accordance with CEQA, submit development proposals to the APCD for review and comment prior to decision.

Residual Level of Significance: Less Than Significant with Mitigation

The above goal, policy and implementation measures are intended to reduce conflicts between the proposed General Plan 2023 and applicable air quality plans. The cooperation required in the above goal, policy and implementation measures will help achieve the SJVAPCD's Air Quality Management Plan, Integrated Air Toxic Program, Attainment Plans, as well as any future air quality plans.

POTENTIAL IMPACT AQ-2: Implementation of the General Plan 2023 could violate air quality standards or contribute substantially to the current nonattainment status for ozone and PM10.

Level of Significance: Significant and Unavoidable

The San Joaquin Valley is currently designated as "severe nonattainment" for the state ozone 1-hour standard, and "serious nonattainment" for the federal 1-hour ozone and 24-hour fine particulate matter (PM10) standards. Table 5-6 shows the ozone trends summary from 1993 –

2002 for the San Joaquin Valley Air Basin. Table 5-7 gives the PM10 trends summary for the same period.

Any additional sources of these pollutants will contribute to this nonattainment status. Therefore, there are no mitigation measures which will reduce the increase of these air pollutants to a less-then-significant level. However, the policies (P) and implementation measures (I) listed below are intended to reduce the net increase from implementation of the General Plan 2023.

Table 5-6
Ozone Trends Study
San Joaquin Valley Air Basin

	DAYS > STANDARDS FOR OZONE			**1-HOUR MAX**	**8-HOUR MAX**
YEAR	1-Hour State	1-Hour National	8-Hour National	(ppm)	AVG (ppm)
2002	127	31	125	0.164	0.132
2001	123	32	109	0.149	0.120
2000	114	30	103	0.165	0.131
1999	123	28	117	0.155	0.123
1998	90	39	84	0.169	0.136
1997	110	16	95	0.147	0.127
1996	120	56	114	0.165	0.137
1995	124	44	109	0.173	0.134
1994	118	43	108	0.175	0.129
1993	125	43	104	0.160	0.125

Source: Extracted from California Air Resources Board (CARB), Air Quality and Emissions/Air Quality Data, www.arb.ca.gov.

Table 5-7

PM10 Trends Study

San Joaquin Valley Air Basin

	DAYS > STANDARDS FOR PM10		Annual Average	Maximum
YEAR	State	National	(micrograms/m3)	(micrograms/m3)
2002	267	8	59.2	189
2001	236	12	57.4	205
2000	237	0	53.1	145
1999	216	12	59.5	183
1998	185	6	39.9	160
1997	188	3	48.2	199
1996	225	0	54.1	153
1995	246	8	58.2	279
1994	253	8	50.1	190
1993	233	11	56.3	239

Source: Extracted from California Air Resources Board (CARB), Air Quality and Emissions/Air Quality Data,www.arb.ca.gov.

AQ-2.1: The General Plan 2023 includes the following goals, policies (P), and implementation measures (I) to help meet air quality standards and reduce the net contribution to the current ozone and PM10 nonattainment status.

Goal AQ-1 Improve Manteca's air quality by:

Achieving and maintaining ambient air quality standards established by the U.S. Environmental Protection Agency, the California Air Resources Board, and the San Joaquin Valley Air Pollution Control District.

Goal AQ-2 Integrate air quality planning with land use and transportation planning processes in order to reduce vehicle miles traveled in the City and by commuters.

Goal AQ-3 Increase opportunities for alternatives to internal combustion automobiles including, but not limited to, public transportation, bicycles, walking and alternative fuel vehicles including hybrid gas-electric, electric and compressed natural gas.

Goal AQ-4 Reduce air emissions through energy conservation.

AQ-P-8 Woodburning devices shall meet current standards for controlling particulate air pollution.

AQ-P-9 Burning of any combustible material within the City will be controlled to minimize particulate air pollution.

AQ-I-13 All residences built in a new subdivision or housing development shall be equipped with conventional heating devices with sufficient capacity to heat all areas of the building without reliance on woodburning heating devices.

AQ-I-14 All woodburning-heating devices installed shall meet EPA standards applicable at the time of project approval.

Air quality issues relating to construction activities are also addressed in the Air Quality Section of the General Plan 2023:

AQ-P-7 New construction will be managed to minimize fugitive dust and construction vehicle emissions.

AQ-I-4. Construction activity plans shall include and/or provide for a dust management plan to prevent fugitive dust from leaving the property boundaries and causing a public nuisance or a violation of an ambient air standard.

- Project development applicants shall be responsible for ensuring that all adequate dust control measures are implemented in a timely manner during all phases of project development and construction.

POTENTIAL IMPACT AQ-3: Implementation of the General Plan 2023 would result in a cumulatively considerable net increase in ozone and PM10 air pollutants.

Given that the Valley is nonattainment for ozone and PM10, there are no mitigation measures to reduce the cumulative increase of these air pollutants when proposing additional urban development. However, the following policies (P) and implementation measures (I) are intended to reduce the net increase to the region's cumulative air pollution from the proposed General Plan 2023. The Air Quality Element works with the Circulation Element and the Land Use Element to provide measures to reduce air pollution.

Air Quality and Land Use

AQ-P-2	Develop a land use plan that will help to reduce the need for trips and will facilitate the common use of public transportation, walking, bicycles, and alternative fuel vehicles.
AQ-I-4	Encourage mixed-use development that is conveniently accessible by pedestrians and public transit.
AQ-I-5	Locate employment, school, and daily shopping destinations near residential areas.
AQ-I-6	Locate higher density development such as multi-family housing, institutional uses, services, employment centers and retail along existing and proposed transit corridors.
AQ-I-7	Locate public facilities in areas easily served by current and planned public transportation.

Air Quality and Transportation

AQ-P-4	Develop and maintain street systems that provide for efficient traffic flow and thereby minimize air pollution from automobile emissions.
AQ-P-5	Develop and maintain circulation systems that provide alternatives to the automobile for transportation, including bicycles routes, pedestrian paths, bus transit, and carpooling.
AQ-P-6	Coordinate public transportation networks, including trains, local bus service, regional bus service and rideshare facilities to provide efficient public transit service.
AQ-I-9	Maintain acceptable traffic levels of service (LOS~~C~~) as specified in the Circulation Element.
AQ-I-10	In new subdivisions, require the internal street system ~~design~~ to include the installation of dedicated pedestrian/bicycle pathways connecting to adjacent residential and commercial areas as well as schools, parks and recreational areas.

POTENTIAL IMPACT AQ-4: **Implementation of the General Plan 2023 could expose sensitive receptors to substantial pollutant concentrations.**

Level of Significance: **Potentially Significant**

Sensitive receptors located in or near the vicinity of known air emissions sources, including freeways and intersections, are of particular concern. Sensitive receptors are located throughout the City of Manteca, and typically include the following: residences, athletic facilities, schools, health care facilities, playgrounds, convalescent centers, child care centers, and rehabilitation centers. In the case of schools, state law requires that siting decisions consider potential for toxic or harmful air emissions in the surrounding area.

Mitigation Measures:

AQ-4.1: The General Plan 2023 includes the following implementation measures (I) to help reduce exposure of sensitive receptors to pollutants:

AQ-I-8 Prior to entitlement of a project that may be an air pollution point source, such as a manufacturing and extracting facility, the developer shall provide documentation that the use is located and appropriately separated from residential areas and sensitive receptors ~~Locate air pollution point sources, such as manufacturing and extracting facilities, in areas designated for industrial development and separated from residential areas and sensitive receptors~~ (e.g., homes, schools, and hospitals).

AQ-I-15 Design review criteria shall include the following considerations, at a minimum:

The developer of a sensitive air pollution point receptor shall submit documentation that the project design includes appropriate buffering ~~Establish buffer zones~~ (e.g., distance, setbacks, landscaping) ~~within residential and other sensitive receptor site plans~~ to separate the use ~~those uses~~ from highways, arterial streets, hazardous material locations and other sources of air pollution or odor.

Residual Level of Significance: **Less Than Significant With Mitigation**

Implementation of the above implementation measures will help protect sensitive receptors from exposure to air pollutants. These measures require land use siting and separation, and the use of buffers to protect sensitive receptors.

POTENTIAL IMPACT AQ-5: **Implementation of the General Plan 2023 could create objectionable odors affecting a substantial number of people.**

Level of Significance: **Potentially Significant**

There are no proposed land uses in the General Plan 2023 which are expected to create objectionable odors that would affect a substantial number of people. However, it may be a possibility that odors could be produced by the proposed heavy industrial land uses.

Mitigation Measures:

AQ-5.1: The General Plan 2023 includes the following goal and policy (P) to help reduce the possibility of exposing people to objectionable odors:

Goal AQ-1: Improve Manteca's air quality by:

Minimizing public exposure to pollutants that create a public nuisance, such as unpleasant odors.

AQ-P-3 Segregate and provide buffers between land uses that typically generate hazardous or obnoxious fumes and residential or other sensitive land uses.

Residual Level of Significance: **Less Than Significant with Mitigation**

Implementation of the above goal will help reduce the possibility of exposing people to objectionable odors. ~~If odors do result from the proposed heavy industrial land uses, it is required that these odors be minimized.~~ While exposure to objectionable odor pollutants can be minimized through design and separation to a less than significant level, there is no way to fully mitigate the impact due to prevailing winds, atmospheric conditions, and peripheral pollutant point sources.

References:

(1) San Joaquin Valley Air Pollution Control District. Air Quality Guidelines for General Plans. 1994.

(2) California Air Resources Board. Air Quality and Emissions/Air Quality Data, www.arb.ca.gov.

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6. BIOLOGICAL RESOURCES

This biological resources section discusses impacts to wildlife and habitat in the area within and adjacent to the General Plan Study Area boundary. Existing habitat types are identified, as well as an inventory of special status plant and animal species that are known to occur, or may potentially occur, in the area.

6.1 EXISTING CONDITIONS

The Study Area outside the urbanized center and surrounding residential areas is predominantly farmland, including alfalfa, orchards, row crops, and pasture. Agriculture lands have become important foraging resources for a number of species, including Swainson's Hawk, which is a California State and federally protected species.

Although no major watercourse lies within the Study Area, the San Joaquin River flows ~~approximately four (4) miles to~~ along the west side of the Study Area boundary. Walthall Slough is a tributary to the river. The Slough's northern boundary is contiguous with the southwestern boundary of the Study Area.

Riparian woodland is found mainly along the San Joaquin River and Walthall Slough. Wetlands have also been identified along ~~Highway I-20~~ State Route 120 in the western portion of the Study Area. These are irrigation runoff impoundments which function as seasonal wetlands. Some of the numerous Study Area irrigation and drainage ditches and canals also support riparian vegetation.

6.1.1 Special Status Biological Resources

Special status biological resources include California State or federal listed, candidate, or proposed rare, threatened, and endangered, and sensitive animals, plants, and natural communities that have been afforded special status by public agencies or major conservation organizations.

California Department of Fish and Game

A computerized search of the California Department of Fish and Game (CDFG) California Natural Diversity Database (CNDDB) was requested for the Manteca area 7.5 minute USGS topographic quadrangles **(1)**. This search was conducted to determine if there are any known occurrences, or potential occurrences, of special status federal, California State, and California Native Plant Society (CNPS) listings. The database included a total of six (6) species (four wildlife and two plant species) that have been identified as occurring, or potentially occurring, within or adjacent to the Study Area, shown in Table 6-1. The general locations of these Special

Status Species are shown on Figure 6-1. The results of this search are included as Appendix D in the Technical Appendix to this EIR (Volume 2).

Table 6-1

Special Status Species Potentially Occurring Within or Adjacent to the Study Area

1.	**Swainson's Hawk (Buteo swainsoni)**
	State "Threatened Species"[a]; Federal "Species of Concern" [b];
	MBTA [c]
2.	**California Tiger Salamander (Ambystoma californiense)**
	State "Species of Special Concern"[d]; Federal "Candidate Species" [e]
3.	**Tricolored Blackbird (Agelaius tricolor)**
	State "Species of Special Concern"; Federal "Species of Concern"; MBTA
4.	**Burrowing Owl (Athene cunicularia)**
	State "Species of Special Concern"; No Federal Status; MBTA
5.	**Delta Button-Celery (Eryngium racemosum)**
	State "Endangered Species"[f]; Federal "Species of Concern"
6.	**Wright's Trichocoronis (Trichocoronis wrightii var wrightii)**
	CNPS 2[g]; No State or Federal Status

Notes:

State Threatened Species: Likely to become Endangered within the foreseeable future throughout all or a significant portion of its range.

b) Federal Species of Concern: (Former Category 2) Informal term that refers to those species which might be in need of concentrated conservation actions, which may range from periodic monitoring to listing as Federal Threatened or Endangered. Species of Concern receive no legal protection, and the use of the term does not necessarily mean that the species will eventually be proposed for listing.

c) MBTA: Birds protected under the Migratory Bird Treaty Act (16 U.S.C. 703 et seq.), which implements treaties with Great Britain (for Canada), Mexico, Japan and Russia for protection of migratory birds whose welfare is a federal responsibility.

d) State Species of Special Concern: Considered to be indicators of regional habitat changes, or are considered to be potential future protected species.

e) Federal Candidate Species: (Former Category 1) Expected proposal for listing based on available scientific information and USFWS Study of biological vulnerability.

f) State Endangered Species: Survival and reproduction in the wild is in immediate jeopardy. In danger of extinction within the foreseeable future throughout all or a significant portion of its range.

g) CNPS (California Native Plant Society) 2: Plants rare, threatened or endangered in California, but more common elsewhere.

(Listing: Classified as Endangered or Threatened under the State and/or Federal Endangered Species Acts)

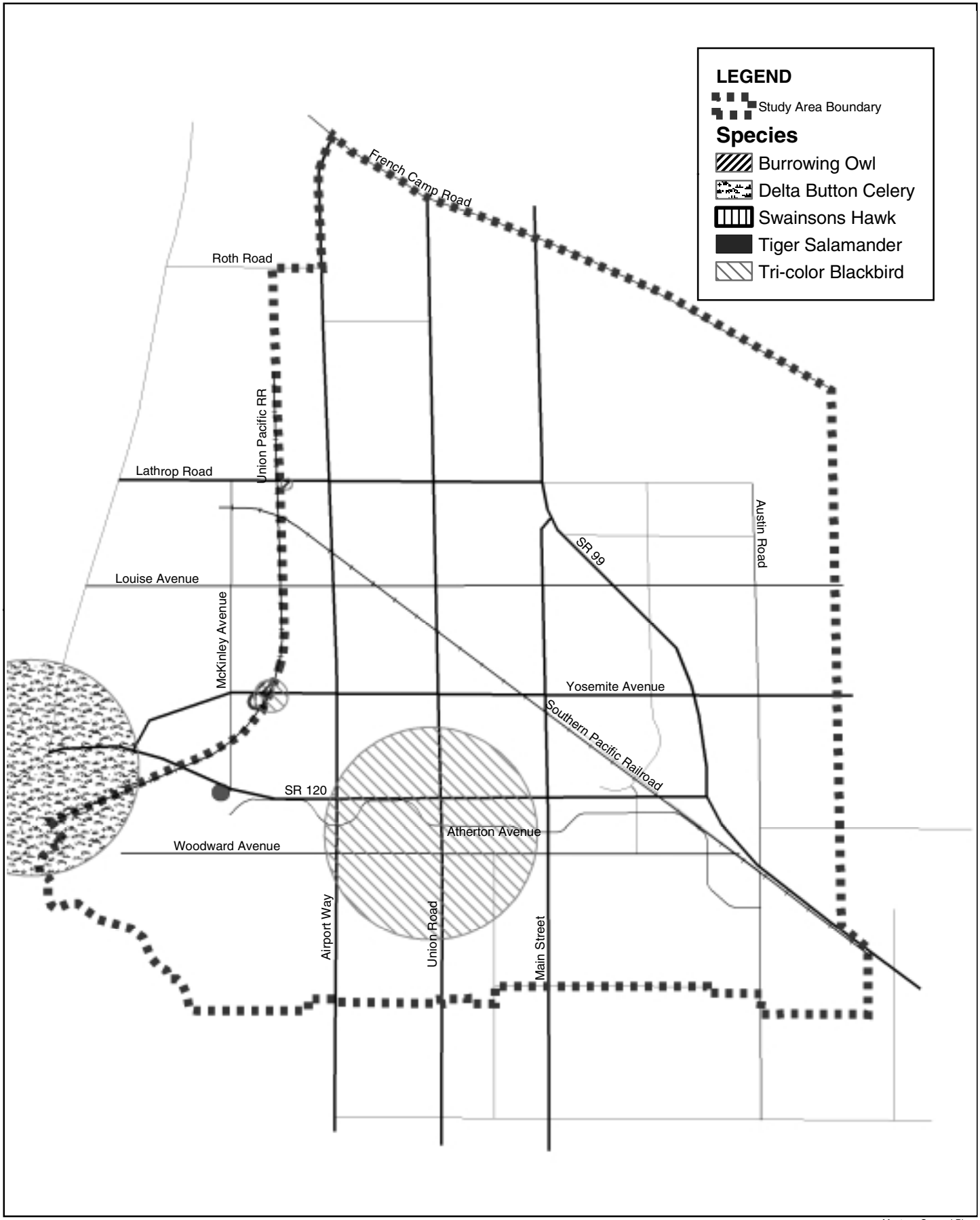
Source: California Department of Fish and Game (CDFG) California Natural Diversity Database (CNDDB), August 21, 2001; update March 2003.

Swainson's Hawk (*Buteo Swainsoni*)

Swainson's hawks were once found throughout California except in the mountainous regions of the state. Today, Swainson's hawks are mostly limited to a few areas of the Great Central Valley and the Great Basin. Historically, there may have been a population in excess of 17,000 pairs; their estimated population in 1992 was 550 pairs in the state. The best remaining habitat for these hawks is found along permanent waterways with a continuous canopy of trees for nesting, with grassland, irrigated pasture, alfalfa or grain fields nearby for foraging. (San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP), page 2-48) **(3)**

California Tiger Salamander (*Ambystoma californiense*)

The California tiger salamander is an amphibian found in the Great Central Valley and the Coast Ranges of California, generally at elevations below 1,000 feet. There are records for this species on both the west and east side of San Joaquin County; the project database includes 38 occurrences, of which 30 define occupied habitat. The California tiger salamander requires both an aquatic and terrestrial habitat for completing its life cycle, and cannot survive in a landscape that does not provide proper conditions for both. This salamander inhabits grasslands, but requires water for successful reproduction. Temporary pools, such as vernal pools and stock ponds, are the optimal breeding ponds for this salamander; permanent pools generally contain predators of the larval salamanders such as introduced fish and bullfrogs. The temporary pools hold water for the several months required for larval transformation. At the onset of the dry season, tiger salamanders return to the nearby uplands (grasslands) for estivation (a state of inactivity). Estivation burrows are found at an average of 3,000 feet from the breeding ponds (ranging from 330 feet to one mile). Holes and crevices created by ground squirrels and other animals are used for these burrows. After approximately nine months of estivation, the adult salamanders migrate back to the breeding ponds. (San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP), pages 2-40,41) **(3)**



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GENERAL LOCATIONS OF STUDY AREA SPECIAL STATUS SPECIES

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FIGURE 6-1

Tricolored Blackbird (*Agelaius tricolor*)

Tricolored blackbirds occur chiefly in California in the Central Valley, surrounding foothills, coastal areas, and scattered inland areas of northern and southern California. The Central Valley population of this blackbird declined by perhaps more than 50% from 1937 to 1972. The total population of the tricolored blackbird continues to decline. San Joaquin, as part of the Sacramento-San Joaquin Delta, may be important wintering habitat for this bird. Low reproductive success has recently been found in deep water marshes of cattails (*Typha ssp*.) and bulrush (*Scirpus acuta*), due primarily to predation from black-crowned night herons and great blue herons. In contrast, reproductive success is often high for colonies nesting in armored vegetation, especially the Himalaya blackberry (*Rubus procerus*), which protects nests from many predators. Foraging areas must be within a few miles of the nesting site. High-value foraging habitats for breeding tricolored blackbirds include grasslands and pastures (irrigated and non-irrigated), vernal pool-grassland complexes, and hay fields of alfalfa or other species, especially if recently cut and flood-irrigated. (San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP), pages 2-45,46) **(3)**

Burrowing Owl (*Speotyto cunicularia*)

Burrowing owls inhabit open grasslands and shrublands in the Central Valley, coastal regions, and deserts of California. Burrowing owls occur in a patchy distribution throughout San Joaquin County, but recent studies have shown a decline of over 50% in the numbers of breeding pairs in the Central Valley. Burrowing owls occur in open ground and forage on small rodents and larger insects. They live and breed in burrows created by mammals such as ground squirrels and badgers. The owls take over the burrows when abandoned by the original residents. (San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP), page 2-52) **(3)**

Delta Button-Celery (*Eryngium racemosum*)

The Delta button-celery plant species is an annual or perennial herb in the carrot, or celery, family. Its historic range is somewhat disjunct within the San Joaquin Valley and eastern foothills of the Sierra Nevada. However, populations in the San Joaquin and Stanislaus Counties are considered by the California Native Plant Society to have been extirpated. The project database includes 11 collections from San Joaquin County, including the Lathrop USGS Quad coverage area; however, none is used to define occupied habitat. The habitat of this plant species consists of vernally mesic (wet during the spring season) clay depressions, often with riparian scrub. (San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP), pages 2-26,27) **(3)**

Wright's Trichocoronis (*Trichocoronis wrightii var wrightii*)

The Wright's trichocoronis plant species is an annual member of the aster, or sunflower, family. Its historic range is in the Central Valley of California from Sutter and Colusa Counties south to Merced County, a disjunct population in Riverside County, and in Texas. It is not clear whether the California populations constitute a separate species. It is presumed extirpated from all known localities in the Central Valley, including the single record from the Lathrop U.S.G.S. Quad. The habitat for this plant species is reported as moist places, mudflats, and shores. (San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP), page 2-30) **(3)**

U.S. Fish and Wildlife Service

The U.S. Fish and Wildlife Service (USFWS), Sacramento Fish and Wildlife Office, also provided a compilation of special status species that may occur in or be affected by projects within the Manteca Area Quadrangles and San Joaquin County **(2)**. This compilation is included as Appendix E` in the Technical Appendix to this EIR (Volume 2).

6.1.2 The San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) *(3,4,5)*

The San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) is a multi-species, multi-habitat, multi-purpose open space management program for all of San Joaquin County. The impetus for the Plan arose from conflicts between proposed development and habitat lands for the Swainson's Hawk and San Joaquin Kit Fox, species that are protected under the California Endangered Species Act (CESA) and the Federal Endangered Species Act (ESA). The Plan covers 97 fish, plant, and wildlife species which are afforded varying degrees of protection under the California Environmental Quality Act (CEQA), CESA, ESA, the Migratory Bird Treaty Act (MBTA), and other local, state, and federal regulations. The six Special Status Species discussed above are among the 97 species covered by the SJMSCP.

Because the habitats for these species span multiple jurisdictions, local jurisdictions approached the San Joaquin County Council of Governments (SJCOG) to coordinate a regional strategy to open space planning. A Memorandum or Understanding (MOU) to prepare the SJMSCP was adopted on October 10, 1994 by participating city, county, state, and federal jurisdictions. The Plan is administered on behalf of Plan participants by a Joint Powers Authority (JPA) that has adequate authority to carry out the Plan.

The SJMSCP's stated purpose is to:

> *"…provide a strategy for balancing the need to conserve Open Space, which contributes to the quality of life of the residents of San Joaquin County, with the on-going pressure to convert Open Space to accommodate a growing population, while at the same time*

protecting the region's agricultural economy, preserving landowner property rights, and providing long-term management of plant, fish and wildlife."

The Manteca City Council adopted the SJMSCP (Resolution #R2001-46) on February 5, 2001, signing a Joint Powers Agreement with other city, county, state, and federal agencies.

Description of SJMSCP

The SJMSCP is a 50-year plan (2001-2051) that provides compensation for the conversion of open space to non-open space uses which affect the plant, fish, and wildlife species covered by the Plan. The specific compensation options are shown in Table 6-2. The Plan also includes some compensation to offset the impacts of open space conversions on non-wildlife related resources such as recreation, agriculture, scenic values, and other beneficial open space. The Plan proposes preserves that contain habitat for many species, not just the targeted species. It is possible that more common plant, fish and animal species may be evaluated for listing in the future; a primary factor in determining the status of those species is likely to be loss of habitat. The SJMSCP preserves benefit these more common species and may help avoid future listings.

SJMSCP Conservation Strategy

The SJMSCP conservation strategy relies on minimizing, mitigating, and avoiding impacts for the covered species.

Minimization

Minimization of impacts to SJMSCP covered species takes a species-based approach emphasizing the implementation of Incidental Take Avoidance Measures aimed at averting the actual killing or injury of individual SJMSCP covered species, and minimization of impacts to habitat for such species in Open Space Lands converted to non-open space uses.

Mitigation

Mitigation of unavoidable impacts to SJMSCP covered species takes a habitat-based approach which emphasizes compensation for habitat losses through the establishment, enhancement and management-in-perpetuity of preserves composed of a specific vegetation type or association of vegetation types upon which discrete groups of covered species rely. Within these preserves, impacts to occupied or potential habitat of covered species will be offset by preserving lands containing potential or occupied habitat for the covered species or group of covered species impacted or for which impacts are assumed. Preserves will normally be located outside of designated existing and planned urban boundaries predominantly on productive agricultural lands located throughout the County. The purchase of easements from landowners willing to sell urban development rights will be the primary method of acquiring preserves.

To ensure that permitted activities will not result in jeopardy to covered species, the Plan also establishes, as part of the mitigation component of its conservation strategy:

- limits to the number of acres of Natural Lands which may be converted from Open Space Lands Countywide;
- limits to the number of acres of occupied and/or potential habitat that may be converted for selected covered species;
- special conservation and mitigation requirements for San Joaquin kit fox, valley elderberry longhorn beetle, valley oak woodlands, and vernal pools;
- mitigation emphasizing changes in project design for linear projects which may create barriers to dispersal of covered species or other plants, fish, or wildlife.

Avoidance

The SJMSCP provides an alternative mitigation approach which allows complete avoidance of covered species and jurisdictional wetlands through project re-design as a substitute for SJMSCP compensation. Wherever covered species or jurisdictional wetlands are entirely avoided, no compensation is required provided that the project proponent complies with the standards established by the SJMSCP.

Monitoring and Adaptive Management

The SJMSCP conservation strategy also relies on monitoring the status of covered species and the success of its minimizing and mitigating actions, and responding to deficiencies in those strategies through the application of an Adaptive Management Plan.

Open Space Categories

The SJMSCP classifies each vegetation type/habitat into one of four (4) general open space land categories for the purposes of evaluating impacts of open space conversions to non-open space uses, and to assist in determining compensation to offset these conversions

Natural Lands**:** Lands that remain natural vegetation and which are not irrigated or cultivated agricultural lands. These include primarily **riparian, vernal pools, and grassland habitats**. Natural lands are considered to have the highest Open Space value since they provide the most valuable plant, fish and wildlife habitat, provide opportunities for recreational trails along linear waterways, and provide outstanding scenic value.

Agricultural Habitat Lands**:** Lands that include **perennial and annual croplands.**

Multi-Purpose Open Space Lands**:** Lands that, if converted, would contribute to the overall loss of Open Space for agriculture, recreation, scenic values, and other beneficial Open Space uses. Multi-Purpose Open Space Lands are primarily **barren lands, or orchards and vineyards.**

Urban Lands**:** Lands that are already converted from Open Space use by urban uses as of January 1l, 2000. These include **urban/industrial/built and scraped/paved** lands.

SJMSCP Permitted Activities

The SJMSCP compensates for conversion of open space for the following activities:

urban development, mining, expansion of existing urban boundaries, non-agricultural activities occurring outside of urban boundaries, agricultural activities which may trigger Section 404 of The Federal Clean Water Act and/or which are subject the Endangered Species Act, levee maintenance undertaken by the San Joaquin Area Flood Control Agency, transportation projects, school expansions, non-federal flood control projects, new parks and trails, non-federal irrigation district projects, utility installation, maintenance activities, managing reserves, and similar public agency projects.

Voluntary Plan

The SJMSCP is a voluntary plan for project proponents. Project proponents who opt not to accept Plan coverage must proceed under the project-by-project application process, including consultation with individual local, state and federal permitting agencies. Project proponents who opt for Plan coverage have four (4) options as shown in Table 6-2.

Table 6-2

Project Proponent Options Under SJMSCP

PROJECT PROPONENTS WHO OPT FOR PLAN COVERAGE:

Option 1. Pay appropriate fee.

The Plan includes a program to allocate a proportionate share of the Plan costs to those undertaking new development projects that would result in conversion of open space land, through payment of ~~the following~~ across-the-board fees (these open space land categories are further discussed below):

Category A Exempt (Urban/Developed Lands)	No Pay Zone
Category B Other Open Space (orchards, vineyards, etc.)	~~$750/per acre~~
Category C Agricultural Open Space	~~$1,500/per acre~~
Category D Natural Habitat Open Space (non-vernal pool)	~~$1,500/per acre~~

Category E Vernal Pool Conversion:

Wetted Surface Area	~~$30,000/peracre~~
Upland Grassland	~~$5,000/per acre~~

Option 2. **Dedicate, as conservation easements or fee title, habitat lands (in-lieu dedications):**

Category B Other Open Space (orchards, vineyards, etc.)	acre-per-acre
Category C Agricultural Open Space	acre-per-acre
Category D Natural Habitat Open Space (non-vernal pool)	3ac/ac converted
Category E Vernal Pool Conversion	3 ac/ac converted

Option 3. **Purchase approved mitigation credits** (SJMSCP Section 5.3.2.4)

Option 4. **Propose an alternative mitigation plan**, consistent with the goals of the Plan, and equivalent in biological value to options 1-3 above, subject to approval by the Joint Powers Agreement with the concurrence of the Permitting Agencies representatives on the Technical Advisory Committee.

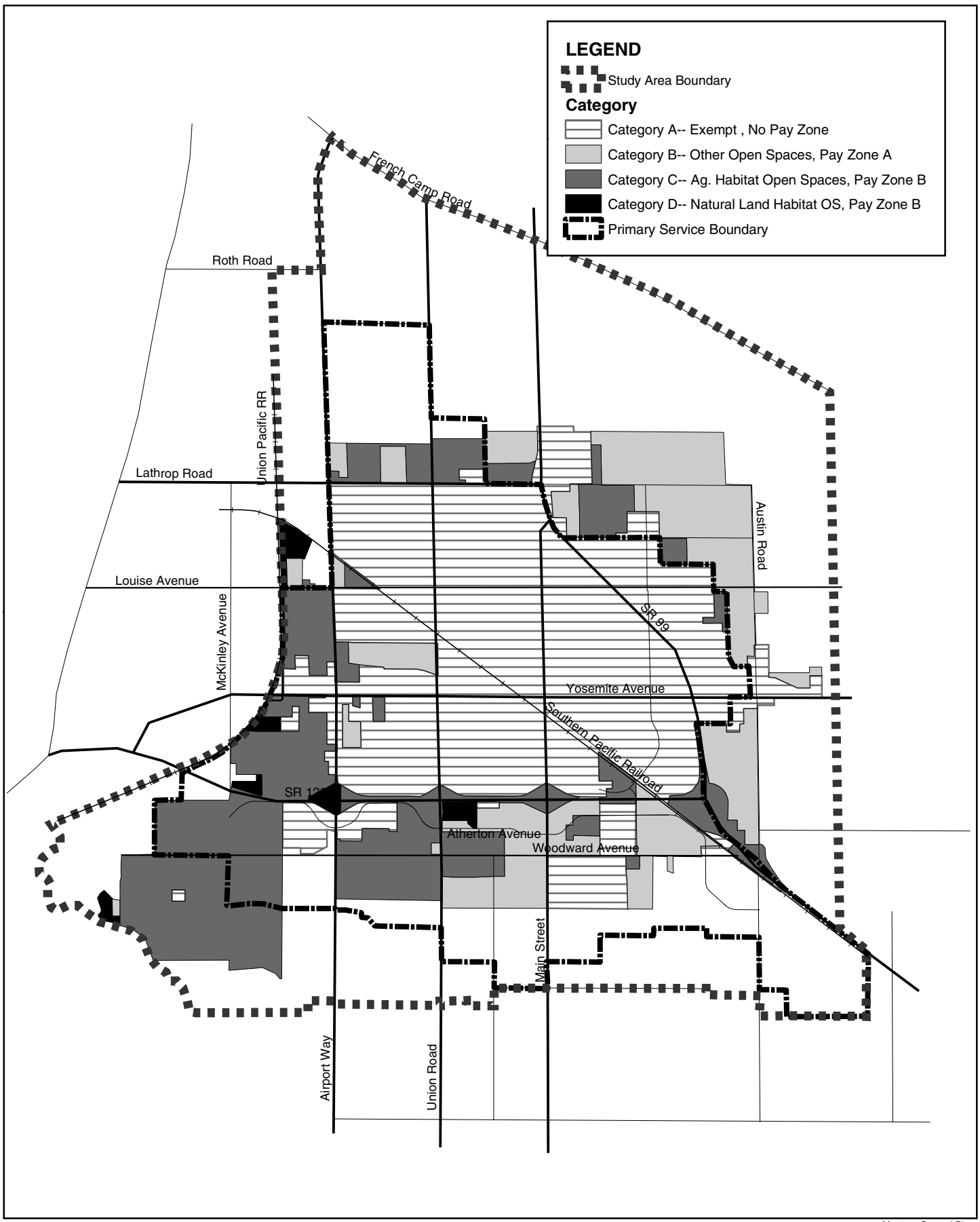
PROJECT PROPONENTS WHO OPT AGAINST PLAN COVERAGE:

Shall satisfy applicable US Endangered Species Act (ESA), California Endangered Species Act (CESA), National Environmental Policy Act (NEPA), and California Environmental Quality Act (CEQA), and other applicable local, state, and federal laws and regulation provisions through consultations with the Permitting Agencies and local planning agencies.

The locations of the open space land categories found within the Study Area are shown in Figure 6-2.

Incidental Take Permits

The SJMSCP replaces project-by-project reviews with agreements from local, county, state and federal agencies to permit development within identified growth areas, in exchange for the management of large tracts of land managed for species located outside population centers. This agreement was accomplished through of use of predictable, standardized mitigation measures for



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STUDY AREA OPEN SPACE LAND CATEGORIES

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FIGURE 6-2

any covered land use conversion. The Plan therefore forms the basis for acquiring these binding agreements, known as "incidental take permits," from:

- Federal agencies (Section 10(a)(1)(B) Federal Endangered Species Act (ESA)); and
- State agencies (Section 2081(b) California Fish and Game Code, relating to species listed under California Endangered Species Act (CESA)).

The SJMSCP also applies to species that receive coverage through mitigation pursuant to CEQA.

Incidental Take is described in two ways under the SJMSCP:

- As Conversion of habitat of the covered species to urban and agricultural uses (expressed in acres) under the regulatory definition of “harm”; and
- As direct killing, injury, or harassment of individual animals.

Incidental Take will be minimized under the SJMSCP through implementation of Incidental Take Minimization Measures to reduce the levels of Take, and will be mitigated through measures to compensate for the effects of such Take as is unavoidable under the Plan.

Open Space Land Conversions Permitted Pursuant to SJMSCP

The goal of the SJMSCP is to provide 100,841 acres of Preserves based on an estimated conversion acreage of 109,302 acres. The SJMSCP anticipates acquiring land primarily through conservation easements and fee title at a ratio of approximately 90% easements to 10% fee title acquisition. Establishment and/or use of mitigation banks, and in-lieu land dedications also will play a role in preserving habitats under the SJMSCP. (SJMSCP Chapter 5, Sections 5.3.2 and 5.3.3)

Table 6-3 lists estimates of overall open space and habitat conversions anticipated for the 50-year term of the SJMSCP.

The SJMSCP limits the conversion of Natural Lands to 14,202 acres within 50 years, or not more than 15% of the total acreage of Open Space conversion for SJMSCP permitted activities within any five-year period, whichever is less. The SJMSCP limits the conversion of Natural Lands for both SJMSCP permitted activities and non-SJMSCP permitted activities to 25,912 acres (10% of the existing Natural Lands mapped in San Joaquin County as detailed in Section 2, Table 2-1 of the Plan document) during the 50-year term of the Plan.

The SJMSCP limits the conversions of Agricultural Habitat Lands to 57,635 acres and Multi-Purpose Open Space Lands to 37,465 acres.

Table 6-3

Anticipated Open Space and Habitat Conversions Under 50-Year SJMSCP

	FULL BUILDOUT OF GENERAL PLANS (a) (Acres)
CONVERSION ACRES TRIGGERING PRESERVE COMPENSATION (b)	
Natural Lands to be converted including submerged aquatic habitats (c)	14,202
Agricultural Habitat Lands (d) to be converted (non-orchard and non-vineyard)	57,635
SJMSCP Covered Species Habitat Conversions (b) **Subtotal**	 **71,837** (b)
MULTI-PURPOSE OPEN SPACE CONVERSIONS	
Multi-Purpose Open Space Lands to be converted (e)	37,465
Lands to be converted after 1999 **Total**	 **109,302**
NEIGHBORING LAND PROTECTION PRESERVES	
Preserve Lands required to compensate for potential impacts to SJMSCP Covered Species which wander off SJMSCP Preserves and onto lands neighboring SJMSCP Preserves	600
Preserve Lands required to compensate for impacts to SJMSCP Covered Species (f)	14,202 X 3 = 42,606 57,635 X 1 = 57,635 600 X 1 = 600 **100,841**

Notes:

(a) See SJMSCP Table 1-2 for details on the distribution of this acreage across the various

habitat types.

(b) Per Sections 4.1 and 4.3, conversion of Agricultural Habitat Lands and Natural Lands triggers requirements to create Preserves. Conversions of Multi-Purpose Open Space Lands is not considered to result in Incidental Take, but is considered to contribute to cumulative impacts to common plant, fish, and wildlife species and to other impacts associated with converting Open Spaces to non-Open Space uses (e.g., agricultural impacts, scenic impacts). Therefore, fees collected due to conversions of Multi-Purpose Open Space uses will contribute to the overall cost of creating Preserves, but conversion of Multi-Purpose Open Spaces does not trigger requirements to add new Preserve acres to the SJMSCP Preserve system. ***These compensation requirements apply only to SJMSCP permitted activities. Agricultural activities are not covered by the SJMSCP (except that conversion of wetlands as a result of agricultural activities requiring a Section 404 permit pursuant to the Federal Clean Water Act and/or subject to the Federal Endangered Species Act (ESA) may be covered pursuant to the SJMSCP). Therefore, conversion of Agricultural Habitat Lands, Natural Lands, Multi-Purpose Open Space Lands, or any lands by agricultural activities, except as noted above, triggers no actions or requirements related to the SJMSCP. Conversions of Agricultural Habitat Lands, Natural Lands, Multi-Purpose Open Space Lands, or any lands by agricultural activities remain subject to the same legal requirements, including the need to comply with the ESA and/or California Endangered Species Act (CESA) even when permits are not required pursuant to the Federal Clean Water Act, as were in effect before adoption of the SJMSCP. Individuals are encouraged to consult with local, state and federal agencies to determine applicable regulations.***

(c) SJMSCP permitted activities affecting submerged aquatic habitat are listed in Section SJMSCP Section 8.2.1(4).

(d) The term "Agricultural Habitat Land" is not equivalent to similar terms used in the 1996 "Federal Farm Bill.

(e) See SJMSCP Glossary (Chapter 10) and Section 2.2.1.3 for a description of Multi-Purpose Open Space Lands.

(f) Per compensation ratios established by the SJMSCP in Section 4.1. See Section 1.1.5 for a summary of compensation ratios.

Source: SJMSCP Table 1-1, page 1-4.

The SJMSCP limits the conversion of Natural Lands to 14,202 acres within 50 years, or not more than 15% of the total acreage of Open Space conversion for SJMSCP permitted activities within and five-year period, whichever is less. The SJMSCP limits the conversion of Natural Lands for both SJMSCP permitted activities and non-SJMSCP permitted activities to 25,912 acres (10% of the existing Natural Lands mapped in San Joaquin County as detailed in Section 2, Table 2-1 of the Plan document) during the 50-year term of the Plan.

The SJMSCP limits the conversions of Agricultural Habitat Lands to 57,635 acres and Multi-Purpose Open Space Lands to 37,465 acres.

In addition to the 71,837 acres of Open Space conversion that will result in Incidental Take, 37,465 acres of Multi-Purpose Open Space Lands are anticipated for conversion. Multi-Purpose Open Space Land conversion is not anticipated to result in Incidental Take, but is addressed in the SJMSCP because of their value for the following purposes:

- common plant, fish, and wildlife species which are not included in the list of SJMSCP covered species;
- recreational areas;
- agricultural use;
- flood control or water regeneration uses,
- scenic areas;
- educational purposes;
- other beneficial open space uses.

Pay-As-You-Go

The requirement for compensation is triggered by new development. The SJMSCP is a "Pay-As-You-Go" Plan. This means that acquisition of Preserve lands will occur when, and at roughly the same pace, that new development occurs. While compensation is not required until development occurs, the Joint Powers Agreement (JPA) is permitted to purchase surplus lands to "get ahead" and establish Preserves in advance of Open Space conversions whenever feasible.

SJMSCP Index Zones

The conservation strategy for the SJMSCP is built upon the division of the County into five (5) distinctive zones:

- Central Zone
- Southwest Zone
- Vernal Pool Zone
- Primary Zone of the Delta
- Southwest/Central Transition Zone.

Each of the SJMSCP Index Zones is distinguished by a discrete association of soil types, water regimes, elevation, topography, and vegetation types.

The City of Manteca is located in the Central Zone. This zone encompasses the lands surrounding each of the County's seven incorporated cites and most of the County's unincorporated defined communities. The Central Zone is composed primarily of Agricultural Habitat Lands on the floor of the Central Valley including, primarily, row and field crops both ditched and unditched. The bulk of the County's Multi-Purpose Open Space Land, in the form of orchards and vineyards, is also located within this Zone. The majority of existing urban

development and proposed new development in the County exists or will exist within the Central Zone.

Coverage Not Included in SJMSCP

Clean Water Act

The SJMSCP does not currently include coverage under the Clean Water Act (CWA) (Gerald Park, SJCOG, personal communication, December 2002 and May 2003). The SJCOG Joint Powers Authority intends to pursue a CWA regional general permit, or equivalent, from the U.S. Army Corps of Engineers. This permit is expected to cover activities which may trigger Section 404 of the Federal Clean Water Act and/or which are subject to the Endangered Species Act. Until issuance of the CWA regional general permit or its equivalent, acquisition of a Section 404 permit by project proponents will continue to occur as required by existing regulations.

There are areas within the Study Area that may contain jurisdictional waters of the United States.

Streambed Alteration (Fish and Game Code Division 2, Chapter 6)

Streambed alteration is not currently covered by the SJMSCP; however, the JMSCP Joint Powers Authority intends to pursue a Programmatic Streambed Alteration Agreement with the California Department of Fish and Game.

Agricultural Activities

Any agricultural activity located on agriculturally zoned land which is not covered by the SJMSCP remains subject to the ESA, CESA, CWA and other state and federal regulations.

Dredging

Dredging activities are not covered by the SJMSCP, except for those dredging activities of limited size already permitted.

Water Diversion and Conveyance

Existing Biological Opinions

Activities currently receiving "Take" authorization under an existing biological opinion are not listed as permitted activities in the SJMSCP.

Study Area Vegetation Types and Habitats

The SJMSCP Biological Analysis identified the following four (4) vegetation types and habitats within the Study Area:

Riparian

The primary area of riparian vegetation and habitat is associated with Walthall Slough. The Slough's northern boundary is contiguous with the southwestern boundary of the Study Area.

There are irrigation water impoundments along State Route 120 in the western portion of the Study Area. These impoundments appear to have been constructed for irrigation runoff from the adjacent farm plots. They function as seasonal wetland vegetation communities. These seasonal wetlands are found within SJMSCP Natural Lands Habitat Open Space areas, shown along State Route 120 in Figure 6-2 above.

There are irrigation and drainage ditches and canals within the Study Area that support riparian vegetation. The major canal within the Study Area is the French Camp Outlet Canal which runs generally north-south along the east side of the Union Pacific Railroad. The lateral drainage ditches empty into the French Camp Outlet Canal. The French Camp Outlet Canal and lateral ditches are periodically cleared of vegetation to remove obstruction to the flow of water.

Croplands

Orchards and Vineyards

Golf Course/Cultivated Parklands

Study Area "Riparian" areas are found in the SJMSCP Natural Lands Habitat Open Spaces, Category D (Shown on Figure 6-2 above).

Study Area "Croplands" are found in the SJMSCP Agricultural Habitat Open Spaces, Category C (shown on Figure 6-2 above).

Study Area "Orchards and Vineyards" and "Golf Course/Cultivated Parkland" are found in the SJMSCP Other Open Spaces, Category B (shown on Figure 6-2 above).

6.2 REGULATORY SETTING

6.2.1 Applicable Federal Regulation

United States Fish and Wildlife Service Regulation

The United States Fish and Wildlife Service (USFWS) implements the Migratory Bird Treaty Act (16 USC Section 703-711), the Federal Endangered Species Act (ESA, 16 USC Section 153 et seq.), and the Bald and Golden Eagle Protection Act (16 USC Section 668).

Migratory Bird Treaty Act (MBTA)

The Federal Migratory Bird Treaty Act implements domestically a series of treaties between the United States and Great Britain (acting for Canada), Mexico, Japan and Russia. The Act, first enacted in 1918, protects international migratory birds, and authorizes the Secretary of the Interior to regulate the "taking" of migratory birds. The USFWS interprets the Act's protection to be "zero loss" of migratory birds. However, the courts have recognized that liability for birds flying into such obstacles as structures, plate glass windows, and aircraft is unreasonable, and that the test of compliance is good faith and reasonable care. Precedence exists that reasonable mitigation measures are acceptable where complete avoidance of migratory bird loss was infeasible.

Federal Endangered Species Act (ESA)

Section 9 of the ESA prohibits the "take" of federally listed threatened and endangered fish and wildlife species. In general, ESA does not protect listed plants located on nonfederal lands unless such species are already protected by state law. "Take" is defined to include harassing, harming (including significantly modifying or degrading habitat), pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting wildlife species, or any attempt to engage in such conduct (16 US Government Code 1532, 50 CFR 17.3). Actions that result in a take may result in civil or criminal penalties

Projects that would result in adverse effects on any federally listed threatened or endangered species are required to consult with, and mitigate through consultation, with the USFWS. This consultation can be pursuant to either Section 7 or Section 10 of the Endangered Species Act. Section 7 outlines the procedures for federal interagency cooperation. Federal agencies are required to consult with the USFWS to ensure that their federal projects do not jeopardize a listed species or critical habitat. Section 10 applies when a federal project is not involved, but "take" of a listed species may occur. Section 10 allows the USFWS to permit an incidental take of a listed species if such take is accompanied by a Habitat Conservation Plan (HCP) that includes measures to minimize and mitigate the impact. The objective of consultation is to determine whether the project would jeopardize a protected species, and what mitigation measures would be required to avoid jeopardizing the species. Species that are identified as candidates for listing do not have the full protection of the Endangered Species Act; however, the USFWS advises project applicants that a candidate species could be elevated to listed status at any time.

The ESA requires the development of recovery plans for listed species. The primary goal of USFWS is to restore endangered or threatened animal and plant species to the point that they can be downlisted or delisted. USFWS has no specific legislative mandate to require federal, state, or local agencies, or private entities, to implement tasks for endangered and threatened species recovery; however, the recovery plans indicate potentially "responsible parties" that may be interested in carrying out particular recovery tasks.

U.S. Army Corps of Engineers Regulation

Under Section 404 of the Clean Water Act, the U.S. Army Corps of Engineers (Corps) has authority to regulate activity that could discharge fill or dredge material, or otherwise adversely modify wetlands or other waters of the United States.

Clean Water Act

The Clean Water Act and the guidelines outlined in a Memorandum of Agreement (MOA) between the Environmental Protection Agency and the Corps dated November 15, 1989, established the goal of restoring and maintaining existing aquatic resources. The MOA directed the Corps (1) to strive to avoid adverse impacts, and offset unavoidable adverse impacts, to existing aquatic resources; and (2) to strive to achieve a goal of "no overall net loss" of the values and functions of wetlands. These guidelines apply to all waters of the United States, and require mitigation based on "values and functions" for all aquatic resources that are impacted.

Waters of the United States include perennial and intermittent streams, their tributaries, lakes, rivers, ponds and adjacent wetlands. Wetlands are defined as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soils conditions."

In 2001, the U.S. Supreme Court ruled that the Corps has jurisdiction only over wetlands that are adjacent to navigable Waters of the United States, interstate water, all other waters where the use, degradation, or destruction could affect interstate or foreign commerce, or tributaries to any of these waters. The Corps has historically claimed jurisdiction over "isolated" water as well. This court ruling also substantially weakened federal protection over non-tidal wetlands that are not part of or adjacent to navigable Waters of the United States. The Corps is currently evaluating its jurisdiction over isolated wetlands on a case-by-case basis.

The Corps has developed a number of nationwide general permits for activities which have only minimal individual and cumulative impacts where the work meets certain criteria and conditions. Nationwide Permits (NWP) cover minor road crossings, utility line backfills, repair of existing structures, bank stabilization, and other routine discharges of dredged or fill material. Some work authorized by nationwide permits requires pre-construction notification, or reporting, and individual water quality certification or a waiver, from the California Regional Water Control Board under Section 401 of the Clean Water Act. Typically, permits issued by the Corps are a condition of a project as mitigation to offset unavoidable impacts on wetlands and other waters of the United States, in a manner that achieves the goal of "no net loss" of wetland acres or values as required by Executive Order 11990.

If the nationwide permit conditions cannot be met, then those projects may be authorized by other general permits or individual permits. The range of project alternatives should include

alternatives that avoid impacts to wetlands or other waters of the United States. When it can be clearly demonstrated that there are no practicable alternatives to filling these waters, mitigation plans should be developed to compensate for the project impacts.

On January 15, 2002, the Corps announced the re-issuance of all existing NWP's to be effective on March 18, 2002 and to expire on March 19, 2007. The new NWP's maintain the less-than-one-half acre average threshold for use of NWP's, as previously modified in March of 2000, when the Corps reduced the acreage threshold from three (3) acres to one-half (1/2) acre. Therefore, any project that impacts more than one-half acre of wetlands will require an individual permit. Also, any project that impacts more than 300 linear feet of streambed will require an individual permit.

6.2.2 Applicable State Regulation

California Department of Fish and Game Regulation

The California Department of Fish and Game (CDFG) derives its authority from the Fish and Game Code of California. Species listed under the California Endangered Species Act (CESA) cannot be "taken" without adequate mitigation and compensation.

The CESA definition for take is defined as any activity that would directly or indirectly kill an individual of a species, but does not include "harm" or "harass" as in the FESA. As a result, habitat modification is not necessarily considered a take under CESA. The take of state-listed species requires an incidental take permit under the Fish and Game Code Section 2081. CDFG also coordinates with USFWS during the Section 10 process to make the federal permit consistent with CESA.

CDFG receives its authority to designate and protect rare plants under the California Native Plant Protection Act of 1977 (CDFG Code Section 1900 et seq.). CEQA Guidelines Section 15380 defines "rare" in a broader sense than the definitions of threatened, endangered, or species of special concern. Guidelines issued by the Director of CDFG state that plants in the California Native Plant Society (CNPS) 1B category fulfill the criteria of "rare" under Section 15380 of the CEQA Guidelines, and should be included in environmental impact reports and mitigations. CDFG guidelines do not carry the obligations of law or regulation, but CDFG views this policy as a means to avoid project delays in addressing species issues of which the applicant was not formerly notified. CDFG can request additional consideration of species not otherwise protected under this definition.

Fish and Game Code Section 3511 describes bird species, primarily raptors, which are "fully protected." These birds may not be taken or possessed except under specific permit. Section 3503.5 of the Code protects all birds of prey, and their eggs and nests.

Section 1601 through 1607 of the CDFG Code prohibit all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake in California that supports wildlife resources, without the consent of CDFG. The limit of CDFG jurisdiction is up to the 100-year flood level. This would apply to any channel modifications that would be required to meet drainage, transportation, or flood-control objects of the projects.

Species of Special Concern (CSC) is a category conferred by CDFG for those species which are considered to be indicators of regional habitat changes, or are considered to be potential future protected species. CSC do not have any special legal status, but are intended by CDFG for use as a management tool to take these species into special consideration when decisions are made concerning the future of any land parcel.

California Endangered Species Act (CESA)

The California Endangered Species Act (Fish and Game Code Section 2050 et seq.) is similar to the Federal ESA, but it pertains to state-listed endangered and threatened plant and wildlife species. CESA requires state agencies to consult with the California Department of Fish and Game (CDFG) when preparing CEQA documents in order to ensure that lead agency actions do not jeopardize listed species. It directs agencies to consult with CDFG on projects or actions that could affect listed species, directs CDFG to determine whether jeopardy would occur, and allows CDFG to identify "reasonable and prudent alternatives" to a project consistent with conserving the species. A lead agency can approve a project that affects a listed species if it is determined that there are "overriding considerations;" however, agencies are prohibited from approving projects that would cause the extinction of a listed species. At this time, based upon the opinion of the California Attorney General's Office, "take" does not prohibit indirect harm by way of habitat modification.

6.2.3 City of Manteca 1988 General Plan

The Natural Resources Element (Section VI) of the existing 1988 General Plan includes the following Goal and Policies which intend to protect, preserve, and enhance biological resources in the City of Manteca:

Goal C To protect sensitive native vegetation and wildlife communities and habitat in the Manteca Area.

Policy C-1 The City shall attempt to ensure in approving new development that its impact on native vegetation and wildlife will be minimized.

Policy C-2 New development in the vicinity of the San Joaquin River shall be conditioned to promote and protect riparian, wetlands, and other native vegetation and wildlife communities and habitats.

Policy C-3 The City shall discourage the removal of existing mature trees (both native and introduced).

6.3 IMPACT EVALUATION CRITERIA

In accordance with CEQA Guidelines, Appendix G, the proposed project would have a significant adverse impact on the environment if the project would:

1) have a substantial adverse effect, either directly or through habitat modification, 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;

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

3) have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;

4) interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native or migratory wildlife corridors, or impede the use of native wildlife nursery sites;

5) conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

6.4 IMPACTS AND MITIGATION

POTENTIAL IMPACT B-1: Implementation of the General Plan 2023 (proposed project) could result in the loss of identified special status species.

Increased development within the Study Area could lead to the loss of habitat and individuals of special status species.

The special status species identified by the California Department of Fish and Game (CDFG) California Natural Diversity Database (CNDDB) as occurring, or potentially occurring, within or adjacent to the Study Area are shown in Figure 6-1. The general locations of the potential special status species within the Study Area are shown in Figure 6-1. These six (6) special status species are covered by the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP).

Level of Significance: Potentially Significant

Mitigation Measures:

B-1.1 The Resource Conservation Element of the proposed City of Manteca General Plan 2023 provides the following policies (P) and implementation (I) measures to protect and maintain special status species.

RC-P-29 Minimize impact of new development on native vegetation and wildlife.

RC-P-34 Protect special status species and other species that are sensitive to human activities.

RC-I-32 Continue to support and comply with the requirements of the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) when reviewing proposed public and private land use changes.

RC-I-33 Project proponents who opt not to participate in the SJMSCP shall:

Satisfy applicable U.S. Endangered Species Act (ESA), California Endangered Species Act (CESA), National Environmental Policy Act (NEPA), California Environmental Quality Act (CEQA), and other applicable local, state, and federal laws and regulation provisions through consultations with the Permitting Agencies and local planning agencies.

Provide site-specific research and ground surveys for proposed development projects. This research must include a detailed inventory of all biological resources onsite, and appropriate mitigation measures for avoiding or reducing impact to these biological resources. This requirement may be waived if determined by the City that the proposed project area is already sufficiently surveyed.

Residual Level of Significance: Less Than Significant With Mitigation

The level of significance will be mitigated to less than significant if the above policies and implementation measures are implemented.

Compliance with the SJMSCP will mitigate the impact to these covered special status species. Project proponents who opt not to participate in the SJMSCP must mitigate any impact to these

special status species through the "project-by-project" evaluation and mitigation process with each permitting agency. The major permitting agencies are discussed above in Section 6.2.

POTENTIAL IMPACT B-2: **Implementation of the City of Manteca General Plan 2023 could result in the loss of riparian habitat or other sensitive natural communities.**

Increased development within the Study Area could lead to the loss of riparian habitat or other sensitive natural communities.

A major area of riparian habitat is ~~approximately four (4) miles outside~~ located on the west side of the Study Area along the San Joaquin River. The riparian vegetation along Walthall Slough is contiguous with the southwestern Study Area boundary. This area of the proposed General Plan 2023 will be left undisturbed in open space.

The seasonal wetland areas (impounded irrigation runoff) along State Route 120 in the western portion of the Study Area also support riparian vegetation and associated wildlife. These wetland areas are located within the SJMSCP Natural Lands Habitat Open Space category. The General Plan 2023 proposes business/industrial park, commercial, and public/quasi-public/utility land uses near these seasonal wetlands.

Level of Significance: **Potentially Significant**

Mitigation Measures:

B-2.1: The Resource Conservation Element of the proposed City of Manteca General Plan 2023 provides the following goal, policies (P), and implementation (I) measures to protect and maintain riparian and other sensitive habitats.

Goal RC-10 Protect sensitive native vegetation and wildlife communities and habitat in Manteca.

RC-P-32 Condition new development in the vicinity of the San Joaquin River and Walthall Slough to ~~promote and~~ protect riparian habitat, wetlands, and other native vegetation and wildlife community.

RC-P-36 Consider the development of new drainage channels planted with native vegetation, which would provide habitat as well as drainage.

RC-I-32 Continue to support and comply with the requirements of the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) when reviewing proposed public and private land use changes.

RC-I-33 Project proponents who opt not to participate in the SJMSCP shall:

Satisfy applicable U.S. Endangered Species Act (ESA), California Endangered Species Act (CESA), National Environmental Policy Act (NEPA), California Environmental Quality Act (CEQA), and other applicable local, state, and federal laws and regulation provisions through consultations with the Permitting Agencies and local planning agencies.

Provide site-specific research and ground surveys for proposed development projects. This research must include a detailed inventory of all biological resources onsite, and appropriate mitigation measures for avoiding or reducing impact to these biological resources. This requirement may be waived if determined by the City that the proposed project area is already sufficiently surveyed.

RC-I-36 Limit the access of pedestrians and cyclists to wetland areas so that access is compatible with long-term protection of these natural resources.

Residual Level of Significance: Less Than Significant With Mitigation

The level of significance will be mitigated to less than significant if the above goal, policies, and implementation measures are implemented.

The proposed General Plan 2023 protects the riparian habitat associated with Walthall Slough by designating the contiguous Study Area land as "open space." Policy RC-P-32 further protects this important riparian habitat area by placing conditions upon new development in the vicinity.

Possible impacts to the seasonal wetlands along State Route 120 are covered by the SJMSCP Natural Lands Habitat Open Space category. Project proponents who opt not to participate in SJMSCP coverage will be required to conduct site-specific investigations, and to protect such areas through the "project-by-project" evaluation and mitigation process with each permitting agency.

POTENTIAL IMPACT B-3: The General Plan 2023 may have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act through direct removal, filling, or hydrological interruption.

Federally protected (jurisdictional) "waters of the United States" include perennial and intermittent streams, their tributaries, lakes, rivers, ponds and adjacent wetlands. Impoundments of these waters may also be jurisdictional. Wetlands are defined as "those areas that are

inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soils conditions."

The SJMSCP does not currently include coverage under the Clean Water Act (CWA). The SJCOG Joint Powers Authority intends to pursue a CWA regional general permit, or equivalent, from the U.S. Army Corps of Engineers. This permit is expected to cover activities which may trigger Section 404 of the Federal Clean Water Act and/or which are subject to the Endangered Species Act.

The proposed land use adjacent to the Walthall is open space; therefore, this tributary to the San Joaquin River should not be adversely impacted by implementation of the General Plan 2023.

There are no free-running streams or natural bodies of water within the Study Area. The majority of the Study Area has been historically leveled and any naturally occurring drainages have been channelized or otherwise disturbed. Some of the numerous Study Area irrigation and drainage ditches/canals support riparian vegetation. The irrigation runoff impoundments along State Route 120 on the west side of the Study Area function as seasonal wetlands. If the Corps determines that the irrigation and drainage ditches/canals, or the irrigation water impoundments on the western edge of the Study Area represent waters "adjacent" to the San Joaquin River, these features would be regulated pursuant to Section 404.

No vernal pools are recorded by the SJMSCP within the Study Area.

Level of Significance: Potentially Significant

Mitigation Measures:

B-3.1: The Resource Conservation Element of the proposed City of Manteca General Plan 2023 provides the following implementation (I) measure to protect federally protected wetlands.

RC-I-34 Until such time that a Clean Water Act regional general permit or its equivalent is issued for coverage under the SJMSCP, acquisition of a Section 404 permit by project proponents will continue to occur as required by existing regulations. Project proponents shall comply with all requirements for protecting federally protected wetlands.

Residual Level of Significance: Less Than Significant With Mitigation

The level of significance will be mitigated to less than significant if the above implementation measure is implemented.

If the Corps determines that there are jurisdictional waters within the Study Area, project proponents in those areas must pursue required permits. If the nationwide permit conditions cannot be met, then those projects may be authorized by other general or individual permits. The range of project alternatives must include alternatives that avoid impacts to the jurisdictional wetlands. When it can be clearly demonstrated that there are no practicable alternatives to filling these waters, mitigation plans must be developed to compensate for the project impacts.

POTENTIAL IMPACT B-4: **Implementation of the General Plan 2023 could substantially interfere with the movement of wildlife species or with established native or migratory wildlife corridors.**

The urban/suburban central area of the Study Area is surrounded by intensely farmed agricultural fields and orchards. There are no known native wildlife corridors passing through this developed and intensely farmed Study Area. However, some species of birds may forage in the agricultural fields during migration.

Level of Significance: **Potentially Significant**

Mitigation Measures:

B-4.1: The Resource Conservation Element of the proposed City of Manteca General Plan 2023 provides the following implementation (I) measures to reduce the impact of loss of agricultural lands to foraging migratory birds.

RC-I-32 Continue to support and comply with the requirements of the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP).

RC-I-33 Project proponents who opt not to participate in the SJMSCP shall: Satisfy applicable U.S. Endangered Species Act (ESA), California Endangered Species Act (CESA), National Environmental Policy Act (NEPA), California Environmental Quality Act (CEQA), and other applicable local, state, and federal laws and regulation provisions through consultations with the Permitting Agencies and local planning agencies.

Provide site-specific research and ground surveys for proposed development projects. This research must include a detailed inventory of all biological resources onsite, and appropriate mitigation measures for avoiding or reducing impact to these biological resources. This requirement may be waived if determined by the City that the proposed project area is already sufficiently surveyed.

Residual Level of Significance: Less Than Significant With Mitigation

The level of significance will be mitigated to less than significant if the above implementation measures are implemented.

Compliance with the SJMSCP will mitigate the loss of agricultural lands to any foraging migratory birds. As a SJMSCP participating agency, the U.S. Fish and Wildlife Service will administer the Migratory Bird Treat Act (MBTA).

Project proponents who opt not to participate in the SJMSCP must mitigate any such impact through the "project-by-project" evaluation and mitigation process with each permitting agency, including the U.S. Fish and Wildlife Service.

POTENTIAL IMPACT B-5: Impacts on biological resources from the buildout of the General Plan 2023 may be cumulatively significant.

Level of Significance: Potentially Significant

The impact of expanding urban development on biological resources is cumulatively significant. Mitigating this cumulative impact is the major objective of the SJMSCP.

Mitigation Measures:

B-5.1: The Resource Conservation Element of the proposed City of Manteca General Plan 2023 provides the following implementation (I) measures to reduce the impact of expanding urban development on biological resources.

RC-I-32 Continue to support and comply with the requirements of the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) when reviewing proposed public and private land use changes.

RC-I-33 Project proponents who opt not to participate in the SJMSCP shall:

Satisfy applicable U.S. Endangered Species Act (ESA), California Endangered Species Act (CESA), National Environmental Policy Act

(NEPA), California Environmental Quality Act (CEQA), and other applicable local, state, and federal laws and regulation provisions through consultations with the Permitting Agencies and local planning agencies.

Provide site-specific research and ground surveys for proposed development projects. This research must include a detailed inventory of all biological resources onsite, and appropriate mitigation measures for avoiding or reducing impact to these biological resources. This requirement may be waived if determined by the City that the proposed project area is already sufficiently surveyed.

Residual Level of Significance: Significant

~~Given the voluntary nature of participation in the SJMSCP, the level of significance cannot be mitigated to less than significant.~~ The SJMSCP is, in effect, a plan to mitigate both the site specific and the cumulative impacts of individual projects on biological resources within San Joaquin County. If all project proponents opted to participate in the SJMSCP, cumulative effects of the buildout of the General Plan 2023 could be mitigated to a less than significant level. However, it cannot be assumed that all project proponents will opt to participate in the SJMSCP. Any project proponent who opts against participating in the Plan will be proceeding under the "project-by-project" evaluation and mitigation process with each permitting agency. Since project-by-project evaluation cannot reasonably foresee the overall effects on biological resources of individual projects under multiple agency control, cumulative impacts may result.

References

(1) California Department of Fish and Game (CDFG), California Natural Diversity Database (CNDDB)

(2) U.S. Fish and Wildlife Service (USFWS), Sacramento Fish and Wildlife Office, Special Status Species of the Manteca Area Quadrangles and San Joaquin County.

(3) "San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP)." San Joaquin County Council of Governments et al, November 14, 2000.

(4) "Draft Joint EIR/EIS for the Approval and Implementation of the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP)." San Joaquin County Council of Governments et al, September 23, 1999.

(5) "Final Joint EIR/EIS for the Approval and Implementation of the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP)." San Joaquin County Council of Governments et al, November 5, 2000.

7. CULTURAL RESOURCES

This section summarizes known historical and archaeological resources within and adjacent to the Study Area. Potential impacts to cultural resources resulting from implementation of the proposed General Plan 2023 are identified.

This section is based upon and incorporates a cultural resources report authored by Ric Windmiller, Consulting Archaeologist, entitled "City of Manteca – General Plan Update: Background Report on Archaeological Resources and Historical Resources." Mr. Windmiller's research includes a record search requested from the Central California Information Center, California State University, Stanislaus, and a 1982 unpublished City of Manteca Historical Survey.

7.1 EXISTING CONDITIONS

7.1.1 Information Resources

The 1988 General Plan contained a survey from the Central California Information Center of the California Archaeological Inventory. The record searches were completed on October 25, 1985 and February 28, 1986. The searches revealed that three archaeological Native American occupation sites were located within the Study Area near the San Joaquin River.

However, it was noted that since cultural resource records for all counties in California were based on incomplete surface and subsurface archaeological and historic investigation, the apparent absence of cultural resources may not be indicative of the actual number, significance, age, or condition of cultural and archaeological resources present in the study area.

The General Plan 2023 record search identified only eight (8) recorded cultural archaeological resources for the Manteca General Plan Study Area:

1. Prehistoric Village and burial site overlain by a historic settlement site.
2. Segments of the Tidewater-Southern Railroad (later, Union Pacific)
3. Segment of the Western Pacific Railroad mainline.
4. Segment of Canal T and Drainage Canal, South~~ern~~ San Joaquin Irrigation District.
5. Segment of Canal R, South~~ern~~ San Joaquin Irrigation District.
6. Segment of Drainage Canal, South~~ern~~ San Joaquin Irrigation District.
7. Historic Cemetery.

8. Kaiser Permanente Metals Corporation Magnesium Plant complex.

7.1.2 Archaeology (Prehistory and Ethnography)

The prehistory of the Manteca area is based on the archaeology of the greater Sacramento Delta region. The earliest known culture dating back to the Middle Archaic of 3000 B.C. was that of hunter-gatherers who buried their dead on clay knolls above the flood plains. The villages of these early settlers were located along the Central Valley's creeks, rivers and delta. The Bear Creek site, located in Stockton, is one example of a Middle Archaic site, which was excavated by archaeologists in the early 1960's.

Prehistoric settlement along the Central Valley's rivers and delta area coincide with the formation of the delta marshlands. At the end of the last ice age, the sea level rose as the continental ice sheets melted. By 8,000 years ago, marine waters began invading the depression that is now San Francisco Bay.

However, archaeologists have uncovered evidence of a much earlier culture in the region between the Valley rivers and delta, and the Sierra Foothills. At the eastern edge of the San Joaquin Valley near Farmington, scholars found stone tools eroding from cobble and gravel stream terraces that date back 7,000 to 9,000 years. The bearers of the Farmington tools would have been contemporaries of the Lower Archaic cultures that adapted to lake, marsh and grasslands along the eastern side of the Sierra Nevada.

Between 6000 and 3000 B.C., many pluvial lakes across the western United States became dry playas as a result of a general warming and drying trend. Between 4000 and 2000 BC, it is probable that Hokan languages were spoken in much of California. However, with increased aridity east of the Sierra, speakers of Penutian languages apparently began moving from the deserts of the northwestern Great Basin and southern Columbia Plateau into northern California.

Between 2000 and 500 B.C., Utian-speaking populations appear to have occupied the Sacramento Delta, the areas along rivers and streams, marshlands, as well as the hills on both the east and west sides of the Sacramento Valley. Expansion westward into the San Francisco Bay area seems to have brought about some type of fusion between the bearers of Utian languages and the resident speakers of Hokan and Yukian languages.

A relatively rapid climatic shift after 400 A.D. coincided with dramatic changes in prehistoric California cultures. It was during this period that ancestral Yokuts-speaking people, members of the Utian language family, probably abandoned foothill areas and congregated at villages near delta waterways. Relatively cool and moist climatic conditions from 1450 to 1850 A.D. coincided with population growth and fluorescence of native cultures. By the 1600s and 1700s, Yokuts-speaking people held nearly the entire San Joaquin Valley.

Manteca lies between the historic territory of the Chulamni and Lakisamne Yokuts tribelets. It is unfortunate that so little is known with respect to ethnography and archaeology in the northern

San Joaquin Valley. Because the native people were decimated by disease, missionization, and effects of the Gold Rush, it was too late for anthropologists to gather much useful information from the native people themselves.

Nonetheless, scholars have characterized the core of the Northern Valley Yokuts' homeland as the San Joaquin River with its maze of channels and sloughs. Yokuts villages consisted of dwellings oval in shape, constructed of light poles pulled together at the top, and covered with tule mats. Earth-covered "sweat houses" and earth-covered ceremonial lodges were also constructed in the villages.

Salmon and acorns figured prominently in the Yokuts diet, as noted in archaeological excavations at Yokuts village sites. Fish of all kinds were taken by nets and by harpoons. Yokuts fished from boats made of bundled tules. The Yokuts people also hunted waterfowl. Scholars suggest that although elk and antelope were abundant, Northern Valley Yokuts seem to have focused on smaller game, and gathered acorns, tule roots and other wild crops.

7.1.3 Cultural History

The first Europeans to arrive in the area, in 1769, were deserters from the Spanish military. In 1813, Spanish Franciscan friars, accompanied by soldiers, entered the San Joaquin Valley to round up the deserters, convert the Native Americans to Catholicism, and search for suitable mission sites. Although the Yokuts at first coexisted with the Europeans, they were eventually exploited by the newcomers and fought with the settlers. Two notable conflicts took place on the banks of the Stanislaus River, about one and one-half miles upstream from its confluence with the San Joaquin River. In the first battle on May 5, 1829, the combined Spanish forces from San Jose and San Francisco were defeated by the Indians, lead by Chief Estanislao. The Spanish later named the Stanislaus River after the Indian chief. General Vallejo returned to the area and on May 19, 1829, defeated the Yokuts, inflicting great losses.

In 1832, Colonel Warner, a member of a trapping expedition, reported finding numerous Indian villages along the San Joaquin River. Upon his return, he found the villages greatly depopulated due to a smallpox epidemic. Disease, war, and the displacement of Indians from their original hunting and fishing grounds had brought them to virtual extinction

Euro-American settlements in California increased sharply with the Gold Rush of 1848. French Camp, located approximately two miles north of the study area, was one of these first settlements and is one of the oldest existing settlements in San Joaquin County. French Camp was the terminus of the Oregon-California Trail used by French Canadian trappers employed by the Hudson Bay Company from about 1832-1845. On January 14, 1844, the Governor of California issued a land grant to Charles Weber and William Gulnac. The grant included French Camp and present day Stockton.

The first structures, including a public house, store, and adobe structure were erected in French Camp in August 1849. French Camp grew rapidly between 1851 and 1853 as French Camp Road was the only passable all-weather route for thousands of miners working in the Mother Lode. By 1854, a post office was established. As roads between Stockton and the Mother Lode improved, business in French Camp declined.

In addition to the discovery of gold in 1848 and the start of the Gold Rush in 1849, American annexation of California in 1846 and California statehood in 1850 contributed to the transformation of the Manteca area.

Many gold seekers of 1850 turned their attention to the soil when they realized gold would not earn them a living.

Ranchers who remained prominent in local agriculture for decades – John McMullin, Cutler Salmon, James Reynolds, Peter Clapp, George and Orseamis Sperry, and Joshua Cowell – were all well established by the mid-1860s.

The major outside influence on the area changed from gold mining in the Sierra Foothills, which slowed in the 1860s, to the railroad, which arrived in the 1870s. Lathrop, at the junction of two rail lines heading to Stockton, replaced French Camp as the Manteca area's major town. Manteca did not yet exist, although the railroad set up a flag stop, Powell's Station, at the present location of downtown. Community life within Manteca's present City limits focused on the corner of Louise Avenue and Union Road. The East Union School was moved there in 1857. A new school building, erected in 1865, had a second floor for church services and public events. A cemetery was established on another corner in 1872, and a church was constructed on a third corner in 1885.

The economy of Manteca was tied to the vast international grain combine. When prices collapsed in the 1890's, the entire country descended into a severe economic depression. To stay in business, local ranchers promoted irrigation for their farmland, which allowed more intense and more profitable use of the land. In 1909, the South San Joaquin Irrigation District was formed. The district delivered its first water in 1913.

Another agricultural development of the period was deeper land cultivation. This practice led to a widespread cultivation of watermelons on local ranches.

Cowell's Station, at first just an unwheeled boxcar, became the shipping point for local produce. It offered a convenient place at the junction of tow wagon roads. In 1896, a skimming station for raw milk was added. Additional enterprises followed. Soon, the Southern Pacific acknowledged the growing commercial activity by giving its station a more formal name, "Manteca", and replaced the boxcar with a small building.

Between 1905 and 1911, Manteca's downtown was the site for its first brick building, a winery, followed by its first telephone exchange, a post office and a hotel, the town's first two-story

building. A board of trade was set up on 1909. In 1910, a branch library and the town's first lumberyard were opened. Manteca was electrified in 1911, along with construction of a bank, a larger train depot, a pair of two-story brick buildings, and concrete sidewalks.

In 1914, the Manteca Canning Company was founded and a large plant for dairy products opened. In the next few years, three more canneries went into operation. In 1916, the Board of Trade succeeded in bringing a Spreckels sugar factory to town. The new plant, complete with office buildings, a clubhouse, landscaped grounds, and housing, opened in 1918.

The City of Manteca was incorporated on May 28, 1918.

Residential neighborhoods, laid out on an irregular north-south grid, were beginning to fill in by 1918. In just ten (10) years, Manteca grew from a few buildings around a railroad stop to a full-fledged city with public services, manufacturing facilities, and more than 60 businesses.

Residential construction continued strong in the 1920s. Weaknesses in Manteca's agricultural base slowed the town's growth. Despite setbacks, the town continued to grow. Its population rose 25 percent during the 1920s. The economic depression of the 1930s did not prevent further growth. A restart of the Spreckels Company's sugar plant and the opening of a Kraft Foods cheese factory boosted the local economy.

The United States as a whole enjoyed unprecedented prosperity after the end of World War II, and Manteca was no exception. During the 1950's, the City grew even faster, as Manteca's inexpensive housing and small-town atmosphere drew workers from the Sharpe Army Depot in Lathrop and industrial plants in outlying areas.

At various times in its history, Manteca has been known as the "watermelon capital of the world", "sugar beet town," "tomatoville," "sunflower center," and "dairy center of California".

7.1.4 Historical Resources

Current information on Manteca's historical resources is scattered and incomplete. One survey has produced a thorough analysis of buildings near the intersection of East Yosemite Avenue and Austin Road. Another provides preliminary information on ranch structures south of town. The State Historic Resources Inventory also has entries for four small downtown commercial buildings. In addition, the Manteca Historical Society has recognized sixteen important buildings and sites on its "Historical Walking Trail." The most useful source is probably Manteca: Selected Chapters from Its History, by Evelyn Prouty, which furnishes information on many historic properties that were still standing at the time of publication in 1980.

Commercial and Industrial Resources

Manteca has perhaps 100 commercial buildings remaining from the period before 1960. Nearly all are arrayed along Yosemite Avenue and crossing streets. These buildings include the former Jacot Department Store (1911), Oddfellows Hall (1911), the former Wiggin Hotel (1908), and the Pacific Motel (circa 1935).

The number of industrial buildings from the period is much smaller. Most are on Oak Street. Facing Oak Street are the two most important remaining buildings, and the only ones constructed of brick: Archille Bacilieri's old winery (1905) and former Kraft Cheese Factory (1937). A few other buildings, corrugated metal with no architectural detailing, also remain in the area.

Institutional Resources

Manteca retains a number of civic and religious buildings constructed in the 1950s and earlier. All of the major government buildings remain in altered form, including the former Irrigation District Headquarters (circa 1922), City Hall (1923), and Post Office (1939).

The schools, when they have survived, have fared much better. The most striking is the Lindbergh School (1928); a well executed example of the Late Gothic Revival. Two school buildings constructed after World War II – Lincoln School (1948) and Yosemite School (1950) – illustrate small-scale International Style design from the period. The small and apparently unaltered American Legion Hall (circa 1925) represents no architectural style but has vaguely classical detailing.

The most notable remaining church building is the former First Methodist Episcopal Church (1918), now home of the Manteca Historical Society. The building has a simple Gothic Revival design, which has been weakened somewhat by the application of plastic siding.

Residential Resources

Manteca has a fairly diverse collection of residential buildings. Nearly all have wood frames and were built for single families. Most have only one story and represent architectural styles or design ideas popular at the time of their construction. Those dating from before 1955 were usually constructed individually. Because most blocks filled in over several decades, houses of different ages and styles often sit on adjacent parcels. Manteca's old residential neighborhoods do not differ much from one another, though there may be a few more large houses northwest of downtown than elsewhere.

The older remaining houses date from after the turn of the last century. They are small, unadorned, and very few in number. The simple hipped-roofed cottage (circa 1905) on Willow Avenue may be the oldest house in the City.

By 1910, when substantial residential construction got underway in Manteca, the Craftsman style had come into vogue throughout California. An informal, often sprawling appearance typifies this style, which got its start in the Los Angeles area.

After World War I, so-called "period revival" styles enjoyed great popularity in California. Houses in these styles emulated those that were built in Europe in earlier times. The Tudor Revival proved the most popular in Manteca, probably because houses in this style could be small and inexpensive.

A revival to the period styles of the 1920s was the California Bungalow. Houses of this type resembled simplified Craftsman buildings.

California saw the arrival of modern styles in the 1930's and 1940's, most notably the California Ranch House and the International Style. Manteca also has a number of houses from this period.

Nearly all residential buildings in Manteca are single-family houses, with a few duplexes put up around World War II. Actual apartment houses were seldom constructed. One of Manteca's most striking buildings, however, was always intended for multiple occupancy: the ten-unit Walser or Sherman Apartments (circa 1920) on North Sherman Avenue.

Resources in Outlying Areas

Most resources outside the City Limits but within Manteca's present Study Area are connected to agriculture. By 1950, the number of large farm structures (houses, barns, water tanks) within the area might well have totaled 200. Maybe half remain today. A few date from the late nineteenth century, when wheat dominated local agriculture. The most notable of these structures have been well documented by historians. Most outlying agricultural buildings, however, come from the era of dairying and the raising of orchard crops. Some ranches are still in operation.

Other resources outside the City Limits include a few school buildings arrayed along Airport Way and East Yosemite Avenue in East Manteca. Structures associated with the South San Joaquin Irrigation District may also remain.

7.1.5 Records Search

A record search by the Central California Information Center, California Historical Resources Information Systems was completed on October 22, 2001. The following outlines the results of that record search.

7.1.6 Historic Buildings

The Information Center's records search identified (10) buildings and structures previously recorded within the Manteca General Plan Study Area:

1. Jesse Building
2. Warren's Shoes
3. Manteca Drug
4. Home Run Hot Dogs
5. Craftsman Style bungalow, constructed in the late 1920s
6. Spanish Colonial Revival Style home, constructed in 1947
7. Craftsman Style bungalow, constructed circa 1930
8. Craftsman Style bungalow, constructed circa 1915
9. Period Revival Style house with minor Spanish Colonial Revival influences, constructed circa 1930
10. Calla High School

7.1.7 Historic Ranches

The Information Center's records search indicated that Thompson and West's History of San Joaquin County (1879) documented 24 historic ranches within Castoria Township that are also within the Manteca General Plan Study Area.

7.1.8 Cultural Resources Known to Have Value to Local Cultural Groups

The Central California Information Center's search of its records included a search for cultural resources known to have value to local ethnic and other groups. The results of that search were negative; no such cultural resources have been reported to the information center.

7.2 REGULATORY SETTING

Cultural resources are protected and managed in California primarily by the California Environmental Quality Act (CEQA), the State Historic Preservation Office (SHPO), and the National Historic Preservation Act (NHPA) of 1966.

7.2.1 Applicable Federal Regulations

National Historic Preservation Act (NHPA) of 1966

The NHPA includes and provides for:

- Advisory Council on Historic Preservation (ACHP) which is authorized by the Secretary of the Interior to maintain the National Register of Historic Places (NRHP);
- approval by the Secretary of the Interior of state historic preservation programs that provide for a State Historic Preservation Officer (SHPO); and
- a National Historic Preservation Fund program.

Section 106 of the NHPA requires that federal agencies take into account the impacts of their actions on properties that may be eligible for or listed on the NRHP, and provide the ACHP the opportunity to comment. All cultural sites that could be affected must be inventoried and evaluated for inclusion on the NRHP.

7.2.2 Applicable State Regulations

California Environmental Quality Act

Before discretionary projects are approved, the potential for significant impacts of the project on archaeological and historical resources must be considered under CEQA.

State archaeological and historic preservation regulations include CEQA Statutes and CEQA Guidelines (including Public Resources Code Sections 21083.2 and 21084.1, and Sections 15064.5 and 15126.4 of the CEQA Guidelines). CEQA requires lead agencies to carefully consider the potential effects of a project on historical resources. In addition, California law protects Native American burials, skeletal remains and associated grave goods regardless of their antiquity, and provides for the sensitive treatment and disposal of those remains (California Health and Safety Code Section 7050.5, California Public Resources Code Sections 5097.94 et seq.).

CEQA Section 21083.2 states,

> "…the lead agency shall determine whether the project may have a significant effect on archaeological resources. If the lead agency determines that the project may have a significant effect on unique archaeological resources, the environmental impact report shall address the issue of those resources. An environmental impact report, if otherwise necessary, shall not address the issue of nonunique archaeological resources." (Section 21083.2(a))

CEQA Section 21083.2 continues,

> "…unique archaeological resource" means an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:
>
> 1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
> 2. Has a special and particular quality such as being the oldest of its types or the best available example of its type.
> 3. Is directly associated with a scientifically recognized important prehistoric or historic event or person." (Section 21083.2(g))

CEQA Section 21084.1 states,

> "A project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment…an historical resource is a resource listed in, or determined to be eligible for listing in, the California Register of Historical Resources…The fact that a resource is not listed in, or determined to be eligible for listing in, the California Register of Historical Resources, not included in a local register of historical resources, or not deemed significant pursuant to criteria set forth in subdivision (g) of Section 5024.1 shall not preclude a lead agency from determining whether the resource may be an historical resource for purposes of this section."

Under the CEQA Guidelines in Section 15064.5, a "historical resource" includes: a resource listed in or eligible for the California Register of Historical Resources; or listed in a local register of historical resources; or identified in a historical resource survey and meeting requirements in Section 5024.1(g) of the Public Resources Code; or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines historically significant, provided the determination is supported by substantial evidence in light of the whole record; or a resource so determined by a lead agency as defined in Public Resources Code 5020.1(1) or 5024.1.

Under CEQA Guidelines Section 15064.5(b), "(a) project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment." Substantial adverse change is physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired (CEQA Guidelines Section 15064.5(b)(2)).

While alteration of the setting of an archaeological site that is eligible only for its information potential may not affect the site's significant characteristics, alteration of a property's location (i.e., removing or damaging all or part of the site) may have a significant adverse effect.

CEQA Guidelines Section 15126.4(b)(3) state that, "(p)ublic agencies should, whenever feasible, seek to avoid damaging effects on any historical resource of an archaeological nature." The guidelines further state that preservation in place is the preferred manner of mitigating impacts, and that preservation "may be accomplished by, but is not limited to, the following:

1. Planning construction to avoid archaeological sites;
2. Incorporation of sites within parks, greenspace, or other open space;
3. Covering the archaeological sites with a layer of chemically stable soil before building tennis courts, parking lots, or similar facilities on the site; and
4. Deeding the site into a permanent conservation easement."

CEQA Guidelines require that, "when data recovery through excavation is the only feasible mitigation, a data recovery plan, which makes provision for adequately recovering the scientifically consequential information from and about the historical resource, shall be prepared

and adopted prior to any excavation being undertaken (Section 15126.4(b)(3)(C)).” However, “data recovery shall not be required for a historical resource if the lead agency determines that testing or studies already completed have adequately recovered the scientifically consequential information from and about the archaeological or historical resource (CEQA Guidelines, Section 15126.4(b)(3)(D)).”

California Historic Register

The State Historic Preservation Office (SHPO) maintains the California State Register of Historic Resources (CRHR). Properties that are listed on the National Register of Historic Properties (NRHP) are automatically listed on the CRHR, along with State Landmarks and Points of Interest. The CRHR can also include properties designated under local ordinances or identified through local historical resource surveys.

Under the California Environmental Quality Act (CEQA), historical resources are recognized as a part of the environment (Public Resources Code 21001(b), 21083.2, 21084(e), 21084.1). A “historical resource” includes, but is not limited to, any object, building, structure, site, area, place, record, or manuscript that is historically or archaeologically significant, or important in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military or cultural annals of California (Public Resources Code 5020.1).

The Public Resources Code affects historical resources and created the California Register of Historical Resources and the State Office of Historical Preservation (Public Resources Code Sections 5020.4, 5024.1, and 5024.6).

The California Register is an authoritative listing and guide for state and local agencies and private groups and citizens in identifying historical resources. This listing and guide indicates which resources should be protected from substantial adverse change. The California Register includes historical resources that are listed automatically by virtue of their appearance on or eligibility for certain other lists of important resources. The Register includes historical resources that have been nominated by application and listed after public hearing. Also included are historical resources listed as a result of an evaluation by specific criteria and procedures adopted by the State Historical Resource Commission, similar to those developed by the National Park Service for the National Register of Historic Places. However, criteria of eligibility for the California Register were reworded to better reflect California history.

Any building, site, structure, object or historic district meeting one or more of the following criteria may be eligible for listing in the California Register:

1. It is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States;

2. It is associated with the lives of persons important to local, California, or national history;
3. It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values; or
4. It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

Eligibility for the California Register also depends on the integrity, or the survival of characteristics of the resource that existed during its period of significance. Eligible historic resources must not only meet one of the above criteria, but also they must retain enough of their historic character or appearance to convey the reasons for their importance, or retain the potential to yield significant scientific or historical information or specific data.

Like the process of evaluating historical resources for National Register eligibility, California Register evaluations include the consideration of seven aspects of integrity: location, design, setting, materials, workmanship, feeling and association. The evaluation of integrity must be judged with reference to the particular criterion or criteria under which a resource may be eligible for the California Register. However, the implementing regulations specifically caution that alterations of a historic resource over time may themselves have historical, cultural or architectural significance.

Most often, historical resources eligible for the California Register will be 50 years old or older. However, the new implementing regulations stipulate that "a resource less than fifty (50) years old may be considered for listing in the California Register if it can be demonstrated that sufficient time has passed to understand its historical importance."

Each register uses similar criteria, and sites eligible for CRHR listing are also potentially eligible for inclusion on the NRHP.

Private Properties

While public agencies are required to consider the effects of their actions on properties listed on the NRCP and CRHR, no comparable provisions exist for listed properties owned by private individuals, organizations, or agencies. Consequently, the preservation of such properties or the mitigation of potentially adverse impacts are not required. However, both private and public owners of listed properties may be eligible to receive financial incentives for preservation or restoration.

7.2.3 City of Manteca 1988 General Plan

The Recreational and Cultural Resources Element (Section V) of the existing 1988 General Plan includes the following Goal and Policies, and Implementation Measures which intend to protect, preserve, and enhance the cultural resources of the City of Manteca:

Goal E To preserve and enhance Manteca's historical heritage.

Policy E-1 The City shall set as a high priority the protection and enhancement of Manteca's historically and architecturally significant buildings.

Policy E-2 The City shall work with property owners in seeking registration of historical structures as State Historic Landmarks or listing on the Federal Register of Historic sites.

Policy E-3 The City shall prepare and adopt a Historical Preservation Ordinance.

Policy E-4 The City and Redevelopment Agency shall support the efforts of property owners to preserve and renovate historic and architecturally significant structures. Where such buildings cannot be preserved in tact, the City shall seek to preserve the building facades.

Goal F To protect Manteca's Native American heritage.

Policy F-1 The City shall not knowingly approve any public or private project that may adversely affect an archaeological site without consulting the California Archaeological Inventory at Stanislaus State University, conducting a site evaluation as may be indicated, and attempting to mitigate any adverse impacts according to the recommendations of a qualified archaeologist. City implementation of this policy shall be guided by Appendix K of the State CEQA Guidelines.

Policy F-2 The City shall refer development proposals that may adversely impact archaeological sites to the California Archaeological Inventory, Stanislaus State University.

Implementation Measure 4 The City shall adopt and implement a historic building code, as authorized by state law.

Implementation Measure 5 The City shall establish an agreement with the California Archeological Inventory at Stanislaus State University for review of development proposals that may adversely impact archeological sites.

7.3 IMPACT EVALUATION CRITERIA

In accordance with CEQA Guidelines, Appendix G, the proposed project would have a significant adverse impact on cultural resources if the project would:

a) cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5;

b) cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5;

c) directly or indirectly destroy a unique paleontological resource or site or unique geologic feature;

d) disturb any human remains, including those interred outside of formal cemeteries.

Section 15064.5(a) of the CEQA Guidelines defines an "historical resource" as:

1. A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources.

2. A resource included in a local register of historical resources as defined in Section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements in Section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant.

   Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

3. Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources...including the following:

   A. is associated with events that have made a significant contribution to the broad pattern of California's history and cultural heritage;

   B. is associated with the lives of persons important in our past;

   C. embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

   D. has yielded, or may be likely to yield, information important in prehistory or history.

Section 15064.5(c)(3) of the CEQA Guidelines defines an "archaeological resource" as follows:

If an archaeological resource does not meet the definition of a "historical resource," it may meet the definition of a "unique archaeological resource" under Public Resource Code 21083.2. An archaeological resource is "unique" if it meets the following criteria:

1. is associated with an event or person of recognized significance in California or American history or recognized scientific importance in prehistory;
2. can provide information that is of demonstrable public interest and is useful in addressing scientifically consequential and reasonable research questions;
3. has a special or particular quality such as oldest, best example, largest, or last surviving example of its kind;
4. is at least 100 years old and possesses substantial stratigraphic integrity;
5. involves important research questions that historical research has shown can be answered only with archaeological methods.

Section 15064.5(c)(4) of the CEQA Guidelines states that if an archaeological site is neither a "unique archaeological resource" nor a "historical resource" any effect to it shall not be considered significant. The environmental document must provide documentation supporting a conclusion of "no effect" and no further consideration is necessary.

7.4 IMPACTS AND MITIGATION

POTENTIAL IMPACT C-1: Implementation of the General Plan 2023 (proposed project) may cause a substantial adverse change in the significance of known and unknown archaeological or historical resources, or a unique paleontological resource or geologic feature.

Level of Significance: Potentially Significant

Mitigation Measures:

C-1.1 The Resource Conservation Element of the proposed City of Manteca General Plan 2023 provides the following Goals, policies (P) and implementation (I) measures to protect archaeological and historical resources.

Goal RC-11 Preserve and enhance Manteca's archaeological and historic resources for their aesthetic, educational and cultural values.

Goal RC-12 Protect Manteca's Native American heritage.

RC-P-35 The City shall not knowingly approve any public or private project that may adversely affect an archaeological site without consulting the California Archaeological Inventory at Stanislaus State University, conducting a site evaluation as may be indicated, and attempting to mitigate any adverse impacts according to the recommendation of a qualified archaeologist. City implementation of this policy shall be guided by the California Environmental Quality Act (CEQA) and the National Historic Preservation Act (NHPA).

RC-P-36 The City ~~shall refer~~ shall require that the proponent of any development proposal~~s,~~ in an area with potential archaeological resources, and specifically near the San Joaquin River and Walthall Slough, and on the east side of State Highway 99 at the Louise Avenue crossing, shall consult with ~~that may adversely impact archaeological sites to~~ the California Archaeological Inventory, at Stanislaus State University to determine the potential for discovery of cultural resources, conduct a site evaluation as may be indicated, and mitigate any adverse impacts according to the recommendation of a qualified archaeologist. The survey and mitigation shall be developer funded. ~~that may adversely impact archaeological sites to the California Archaeological Inventory, Stanislaus State University~~.

RC-P-37 The City shall set as a ~~high~~ priority the protections and enhancement of Manteca's historically and architecturally significant buildings.

RC-P-38 The City shall work with property owners ~~in~~ seeking registration of historical structures as ~~State~~ Historic Landmarks or listing on the ~~Federal~~ Register of Historic Sites.

RC-P-39 The City shall prepare and adopt a Historical Preservation Ordinance.

RC-P-40 The City and Redevelopment Agency shall support the efforts of property owners to preserve and renovate historic and architecturally significant structures. Where such buildings cannot be preserved in tact, the City shall seek to preserve the building facades.

RC-I-38. Require a records search for any proposed development project, to determine whether the site contains known archaeological, historic, or cultural resources and/or to determine the potential for discovery of additional cultural resources. This requirement may be waived if determined by the City that the proposed project area is already sufficiently surveyed.

RC-I-39. Require that sponsors of proposed development projects on sites where probable cause for discovery of archaeological resources (as indicated by records search and where resources have been discovered in the vicinity of the project) retain a consulting archaeologist to survey the project site. If unique resources, as defined by California State law, are found, a qualified archaeologist or historian shall be called to evaluate the find and to recommend proper action. Require a monitoring plan for the project to ensure that mitigation measures are implemented.

RC-I-40. When feasible, incorporate significant archaeological sites into open space areas.

RC-I-41. The City should continue its inventory of all historic sites throughout the City. The inventory should contain a narrative of the significant facts regarding the historic events or persons associated with the site, and pictures of the site.

RC-I-42. The City shall continue to support the local historical society in their efforts to: ~~The City should maintain an~~ archive ~~of~~ historic information, including photographs, publications, oral histories and other materials, and make the information available to the public for viewing and research.

~~RC-I-43. The historic archives will be compiled according to location in the City, and will be maintained in a safe environment to protect it over time.~~

~~RC-I-44. The City should develop policies and the means to make the information available to the public for viewing and research.~~

RC-I-45. All City permits for reconstruction, modification of existing buildings will require submittal of a photograph of the existing structure or site. The intent is to create a record of the buildings in the City over time. A photograph will also be required for vacant sites that will be modified with new construction of new buildings or other above ground improvements.

RC-I-46. Encourage the placement of monuments or plaques that recognize and celebrate historic sites, structures, and events.

RC-I-47. The City shall adopt and implement a historic building code, as authorized by state law.

Residual Level of Significance: Less Than Significant With Mitigation

The level of significance will be mitigated to less than significant if the above goals, policies and implementation measures are implemented.

POTENTIAL IMPACT C-2: Implementation of the General Plan 2023 could disturb human remains, including those interred outside of formal cemeteries.

Level of Significance: Potentially Significant

The record search for the Study Area listed two sites of concern regarding human remains: a prehistoric village and burial site overlain by a historic settlement site near the San Joaquin River, and an historic cemetery.

The Native American archaeological site has been reported as destroyed. However, even Native American archaeological sites that appear to some to have been destroyed, may still retain cultural deposits significant for their information potential.

There is no known intention to disturb the human remains buried in the historic cemetery. The standard procedures of the County Coroner's Office would be enforced in such cases.

Mitigation Measures:

C-2.1: The Resource Conservation Element of the proposed City of Manteca General Plan 2023 provides the following implementation (I) measure to reduce disturbance to discovered human remains.

RC-I-48. If human remains are discovered, California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the county coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code Section 5097.98. If the coroner determines that no investigation of the cause of death is required and if the remains are of Native

American origin, the coroner will notify the Native American Heritage Commission, which in turn will inform a most likely descendant. The descendant will then recommend to the landowner appropriate disposition of the remains and any grave goods.

Residual Level of Significance: Less Than Significant With Mitigation

The level of significance will be mitigated to less than significant if the above implementation measure is implemented. Compliance will help to ensure that any human remains discovered are handled in accordance with state and federal laws.

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8. GEOLOGY, SOILS, AND SEISMICITY

This section discusses geologic conditions in the Manteca area. Specific issues are addressed including soil erosion, expansive soils, and seismicity.

As discussed in Section 1, Summary, mineral resources are not an issue in this General Plan Study Area, and will not be further analyzed.

8.1 EXISTING CONDITIONS

8.1.1 Geology of the Manteca Area

Manteca is located in northern San Joaquin Valley. The San Joaquin Valley is the southern section of the Great Central Valley of California; the Sacramento Valley is the northern section.

The Great Central Valley is a sedimentary basin, with the Coast Range to the west and the Sierra Nevada to the east. Almost all of the sediments that fill the Great Central Valley eroded from the Sierra Nevada. The oldest of these sediments are full of fragments of volcanic rocks eroded from its early volcanoes. As erosion stripped the cover of volcanic rocks from the granites of the Sierra Nevada, their detritus of pale quartz and feldspar sand began to wash into the Great Central Valley.

Drainage into the San Joaquin Valley is mainly from the Sierra Nevada. The sediments on the valley floor were deposited within the past one-two million years, some within the past few thousand years. **(1)**

Slope Instability

Generally, slopes are nearly level across the Study Area. The elevation ranges from approximately 10-50 feet above sea level, gently rising from the San Joaquin River on the west toward the east and the Sierra Nevada.

Slope instability is not a major constraint to land use in the Study Area because of the relatively flat topography

8.1.2 Study Area Soils

The Soil Conservation Service (now referred to as the Natural Resources Conservation Service (NRCS)) published a Soil Survey for San Joaquin County in 1992. **(2)** According to that Soil Survey, there are nineteen (19) soil series within the Study Area. A soil series consists of soils that have similar horizons in their profile. The horizons are similar in color, texture, structure,

reaction, consistence, mineral and chemical composition, and arrangement in the profile. The texture of the surface layer or of the underlying material can differ within a series.

The majority of the soils in the Study Area were formed in alluvium, and are found on low alluvial fans, low terraces, and floodplain along the San Joaquin River. These soils are moderately-deep to very-deep, and drainage ranges from partially-drained to moderately well-drained on the majority of these soils. The water table is relatively high.

The Study Area soils are shown in Table 4-1 of Section 4, Agricultural Resources.

Erosion Potential

Erosion can be defined as a combination of processes in which the materials of the surface of the earth are loosened, dissolved, or worn away, and transported from one place to another by natural agents. The primary concerns regarding soil erosion are soil loss, and water quality loss due to erosion and sedimentation.

There are two (2) types of soil erosion: water erosion and wind erosion.

Water Erosion: The Study Area soils are moderately-deep to very-deep, and drainage ranges from partially-drained to moderately well-drained on the majority of these soils. Given the partial-to-moderate drainage characteristics of the majority of the soils and the nearly level topography of the Study Area, water erosion hazard is considered low.

Wind Erosion: The Carquinez Strait, located approximately 55 miles to the northwest of the Study Area, is a sea-level gap in the coastal range. The prevailing wind through the Strait pushes marine breezes over the relatively flat terrain of the Valley. The wind erosion potential within the Study Area ranges from moderate-to-high during the spring, summer, and fall. These sea breezes diminish during the winter.

Subsidence Potential

Subsidence is the settlement of soils. Settlement can result from either desiccation (dehydration) and shrinkage, or oxidation of organic material, or both, following drainage.

The Soil Conservation Service found that subsidence is not a characteristic of the twenty-two soil series found within the Study Area (Table 4-1 in Section 4, Agricultural Resources).

Expansive Soils

Expansive soils are those that increase in volume when they absorb water and shrink when they dry out, commonly referred to as “shrink-swell” potential. Soil surveys generally rate shrink-swell potential in soils on a low, medium, and high basis. If the shrink-swell potential is rated moderate to high, shrinking and swelling can cause damage to buildings, roads, and other structures. Special design is often needed.

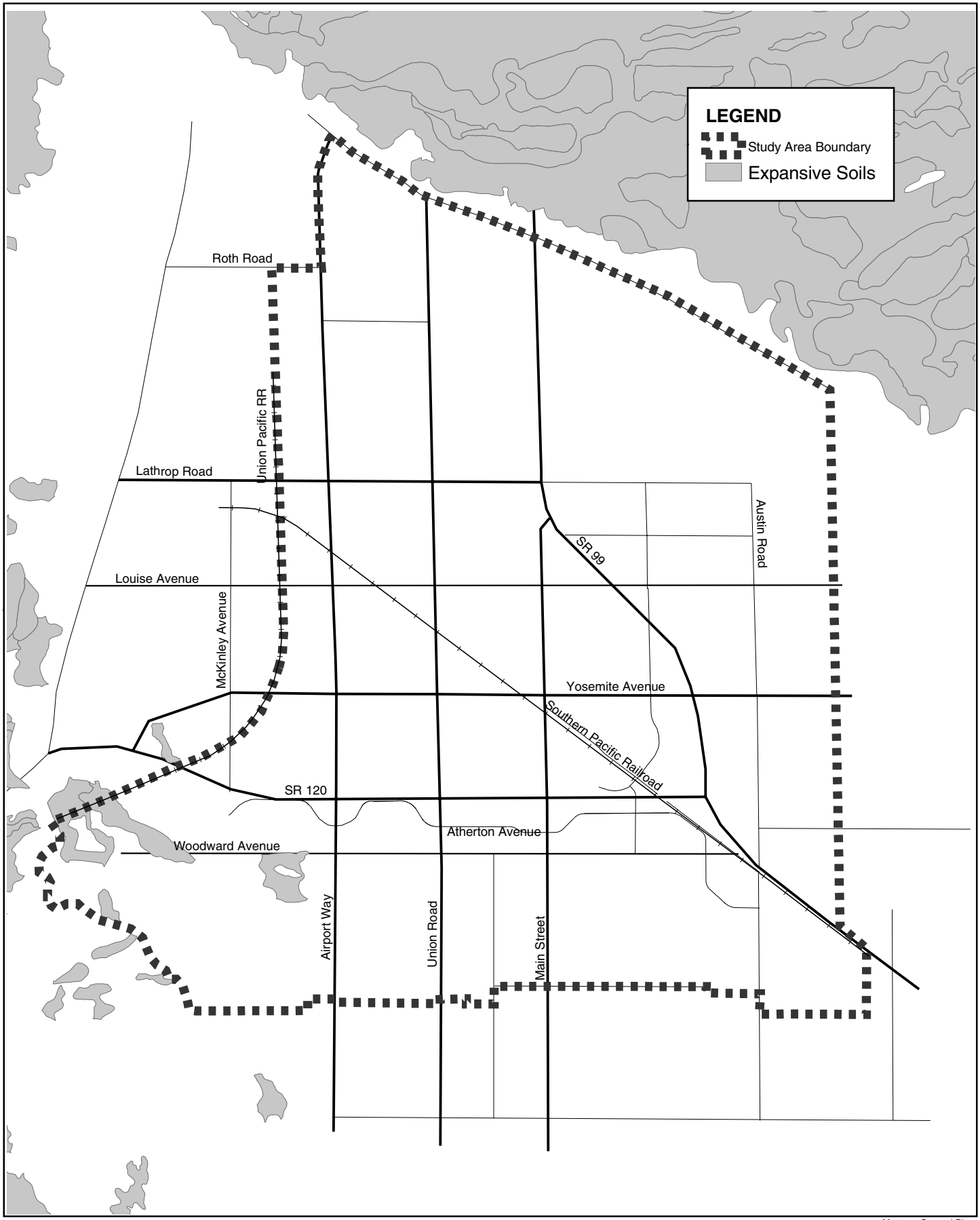
As shown in Table 8-1, four (4) of the twenty-two Study Area soils have been identified as expansive soils: one (1) with a high shrink-swell potential, two (2) with a moderate-high shrink-swell potential, and one (1) with a moderate shrink-swell potential. The location of these expansive soils is shown in Figure 8-1.

Table 8-1

Expansive Soils in the Study Area

Soil (Symbol & Series Name)	Shrink-Swell Potential
152 Egbert	Moderate-High
153 Egbert	Moderate-High
169 Guard	Moderate
160 Galt	High

Source: Extracted from Soil Survey of San Joaquin County, California. October 1992. U.S. Department of Agriculture, Soil Conservation Service.



Manteca General Plan

WADE ASSOCIATES
urban planning & design
environmental planning

LOCATION OF EXPANSIVE SOILS IN THE STUDY AREA

May 2003

FIGURE 8-1

8.1.3 Seismicity

Seismicity can be defined simply as earthquake activity.

A seismic hazard is a risk or danger to our environment due to existence of active or potentially active earthquake faults. The term "earthquake" is used to describe both a sudden slip along a fault and the resulting ground shaking and radiated seismic energy caused by the slip, or by volcanic or magmatic activity, or other sudden stress changes in the earth.

Earthquake Hazards

Earthquake hazards include surface faulting, ground shaking, landslides, liquefaction, tectonic deformation, tsunamis, and seiches (tsunami-like waves from an inland body of water). The risk associated with earthquake hazards is generally described in terms of the probability of building damage, and the number of people that are expected to be hurt or killed if a likely earthquake on a particular fault occurs.

Earthquakes are measured by their physical effects and by the amount of energy being released. The Modified Mercalli Scale is used to measure the physical effect of earthquakes, as described in Table 8-2. This scale ranges from I to XII, with an earthquake intensity of XII resulting in nearly total damage to manmade structures and displacement of large masses of rock. The Richter Scale is used to assign a number to the calculated energy release of an earthquake, measuring the amplitude of seismic waves recorded by a seismograph. The Richter Scale is logarithmic, and an increase of one number in magnitude is the same as an increase of 32 times in energy release. A comparison of these two earthquake scales is shown in Table 8-3.

Table 8-2

Modified Mercalli Scale of 1931

Scale	Effects
I	Earthquake shaking not felt.
II	Shaking felt by those at rest.
III	Felt by most people indoors; some can estimate duration of shaking.
IV	Felt by most people indoors. Having objects swing, windows and doors rattle, wooden walls and frames creak.
V	Felt by everyone indoors; many estimate duration of shaking. Standing autos rock. Crockery clashes, dishes rattle, and glasses clink. Doors close, open, or swing.
VI	Felt by everyone indoors and most people outdoors. Many now estimate not only the duration of the shaking, but also its direction and have no doubt as to its cause. Sleepers awaken. Liquids disturbed, some spilled. Small unstable objects displaced. Weak plaster and weak materials crack.
VII	Many are frightened and run outdoors. People walk unsteadily. Pictures thrown off walls, books off shelves. Dishes or glasses broken. Weak chimneys break at roofline. Plaster, loose bricks, unbraced parapets fall. Concrete irrigation ditches damaged.
VIII	Difficult to stand. Shaking noticed by auto drivers, waves on ponds. Small slides and cave-ins along sand or gravel banks. Stucco and some masonry walls fall. Chimneys, factory stacks, towers, elevated tanks twist or fall.
IX	General fright. People thrown to the ground. Steering of autos affected. Branches broken from trees. General damage to foundations and frame structures. Reservoirs seriously damaged. Underground pipes broken.
X	General panic. Conspicuous cracks in ground. Most masonry and frame structures destroyed along with their foundations. Some well-built wooden structures and bridges are destroyed. Serious damage to dams, dikes, and embankments. Railroads bent slightly.
XI	General panic. Large landslides. Water thrown out of banks of canals, rivers, lakes, etc. Sand and mud shifted horizontally on beaches and flatland. General destruction of buildings. Underground pipelines completely out of service. Railroads bent greatly.
XII	General panic. Damage nearly total, the ultimate catastrophe. Large rock masses displaced. Lines of sight and level distorted. Objects thrown into air.

Source: California Geologic Survey, 2002

Table 8-3

Comparison of Richter Magnitude and Modified Mercalli Intensity

Richter Magnitude		Expected Modified Mercalli Maximum Intensity (at epicenter)
2	I-II	Usually detected only by instruments
3	III	Felt indoors
4	IV-V	Felt by most people; slight damage
5	VI-VII	Felt by all; many frightened and run outdoors; damage minor to moderate
6	VII-VIII	Everybody runs outdoors' damage moderate to major
7	IX-X	Major damage
8+	X-XI	Total and major damage

Source: California Geologic Survey, 2002 after Charles F. Richter, 1958, Elementary Seismology.

Uniform Building Code (UBC) Seismic Zones

The Uniform Building Code (UBC) includes a Seismic Zone Map to determine applicable construction standards for proposed structures. Seismic zones range from 0 – 4, with Zone 0 being the least active and Zone 4 being the most active. Manteca is located in Seismic Zone 3. **(3)** All structures built in Manteca must comply with UBC requirements for this zone.

Seismic Hazard Zones

Seismic Hazard Zones are regulatory zones that encompass areas prone to liquefaction (reduction in strength and stiffness of water-saturated soil) and earthquake-induced landslides. California requires the State Geologist to establish regulatory zones (Zones of Required Investigation) and to issue appropriate maps (Seismic Hazard Zone maps). These maps are distributed to all affected cities, counties, and state agencies for their use in planning and monitoring construction. As of this writing, lands in San Joaquin County have not yet been mapped. **(4)**

Alquist-Priolo Act

The Alquist-Priolo Special Studies Zone Act of 1972 is directed at areas identified by the California State Geologist as having active surface fault ruptures. It is a regulatory prohibition to build across a surface fault rupture of active faults. It addresses earthquake safety in building permits and subdivision procedures by requiring project applicants to submit a registered geologist's report describing the potential for on-site surface rupture.

Manteca is not located within an Alquist-Priolo Fault-Rupture Hazard Zone.**(4)** There are faults located in the region, but there are no known faults located within or adjacent to the Study Area.

The known earthquakes affecting San Joaquin County are shown below in Table 8-4.

Figure 8-2 illustrates faults located in the vicinity of the Study Area, as mapped by the California Department of Conservation, Division of Mines and Geology.

Figure 8-2

Faults in the Vicinity of the Study Area

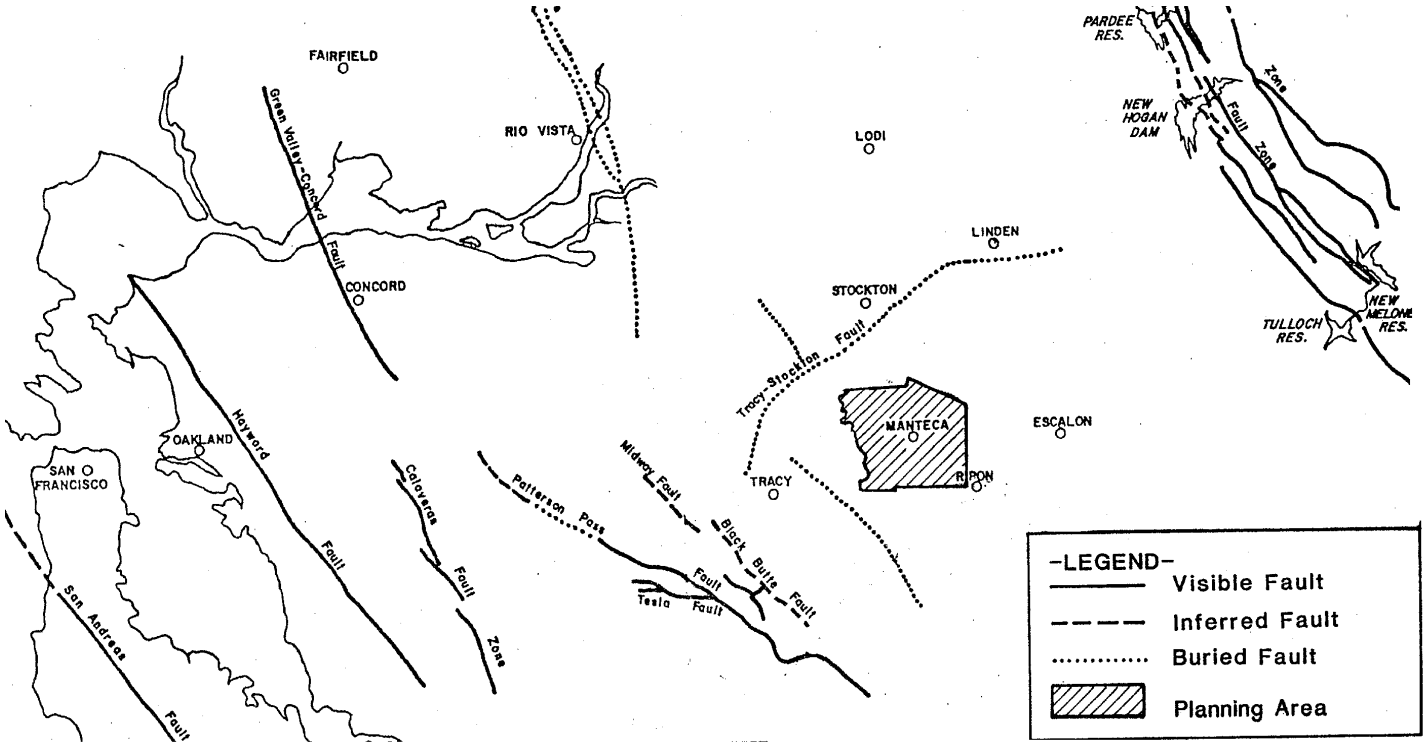


Table 8.1-4

Earthquakes Affecting San Joaquin County

Date	*MM Intensity in San Joaquin Co*	*MM Intensity Near Epicenter*	*Epicenter*	*Richter Magnitude*
1836	V-VI	IX-X	Hayward	7.0
1838	VI	X	S.F. Peninsula	7.0
1857	VI	X-XI	Mountains between Santa Barbara and Bakersfield	8.8
1868	V-VI	IX-X	Hayward	7.0
1872	VI	X	Owens Valley	8.0
1881	V-VI	VII	Linden	5.0
1892	IV-V	VIII	Vacaville	7.0
1906	VI-VII	XI	San Francisco	8.3
1940	?	?	Southeast of Linden	4.0
1946	?	?	Patterson Pass	4.5
1952	V	VIII	Bakersfield	7.7
1966	IV-V	VII	North of Tahoe	6.5
1980	?	?	Mammoth Lakes	6.5
1980	?	?	Mammoth Lakes	6.7
1989	?	?	Loma Prieta	7.1

Source: California Department of Conservation, California Geological Survey, 2002, as compiled from T. Toppozada, 2000.

As shown in Table 8-4 above, seismic activity in other parts of the state can also affect the area. The fault systems detailed below are the most prominent area faults, but do not represent every fault system that could potentially affect the Study Area.*San Andreas Fault Zone.* The San Andreas Fault is one of the longest, most thoroughly studies, and most active faults in the world. Some sections in the Central Coast Ranges south of San Joaquin County are creeping at rates as great as 3.5 centimeters per year. Other segments north and south of the creep areas exhibit essentially no movement. The fault in those areas appears to be temporarily “locked”. It is generally agreed that a “locked” condition allows stresses to accumulate more rapidly, thus shortening the time between major earthquakes.

It is possible to demonstrate an accumulated offset along the San Andreas Fault measured in hundreds of miles, occurring over a period of tens of millions of years. Since there is presently movement along some of its length, and numerous smaller earthquakes are recorded as emanating from the fault zone, it is considered probable that moderate-to-great earthquakes will occur on the San Andreas Fault in the near future.

Hayward Fault. The Hayward Fault is located east of San Francisco Bay and extends southeast to where it probably merges with the Calaveras Fault north of Hollister. A review of the recent history of this fault shows two major earthquakes (1836 and 1868) each with an estimated Richter Scale Magnitude 7.0 (Table 8-4). Numerous small earthquakes continue to occur along this fault, indicating continued activity.

San Joaquin Fault Zone. A new fault system has recently been identified by the U.S. Geologic Survey (USGS), extending from Tracy to Los Banos, paralleling Interstate 5. Geologic studies show that the zone has sustained activity during the Quaternary period. This could be an important fault system for San Joaquin County.

Other nearby fault systems include: Rescue Lineament-Bear Mountains fault zone, Clayton-Marsh Creek-Greenville fault, O'Neil fault system, and Ortigalita fault. The known faults nearest to the Study Area are the Tracy-Stockton Fault crossing southwest near Tracy to the northeast near Linden, and a small buried fault running southeast from the Tracy area (Figure 8-2).

8.2 REGULATORY SETTING

8.2.1 Applicable Federal Regulations

U.S. Uniform Building Code (UBC)

The U.S. Uniform Building Code (UBC) provides site development and construction standards. The UBC is widely used throughout the United States, and is generally adopted on a district-by-district or state-by-state basis. The UBC has been modified for California conditions with more detailed and more stringent regulations.

8.2.2 Applicable State Regulations

California Uniform Building Code (CUBC)

The California Uniform Building Code (CUBC) is based upon the 1997 U.S.Uniform Building Code (UBC). Where no other building codes apply, Chapter 29 regulates excavation, foundations, and retaining walls; Chapter 70 regulates grading activities, including drainage and erosion control.

California Code of Regulations (CCR), Title 24 (Building Standards)

The State of California provides minimum standards for building design through the California Building Standards Code.

California Health and Safety Code 19100 et seq. (Earthquake Protection Law)

The State of California earthquake protection law requires that buildings be designed to resist stresses produced by lateral forces caused by wind and earthquakes.

California Department of Conservation, Division of Land and Resource Protection (DLRP)

The California Division of Land and Resource Protection (DLRP) provides information to guide land use planning decisions, and well as programs that allow agricultural and open space landowners to voluntarily protect their land.

California Department of Conservation, Division of Mines and Geology

The California Division of Mines and Geology has historically focused on gathering geologic information and mapping information. However, programs have expanded often due to the passage of legislation. DMG's authority now includes obtaining statewide records of the response of rock, soil, and structures to ground motion caused by earthquakes; mandating the delineation of zones along traces of hazardous faults; ensuring that significant mineral deposits are identified and protected; providing geologic hazard review and investigation; identifying and mapping seismic hazard zones; developing public policy; and providing emergency response services.

8.2.3 City of Manteca

The Health and Safety Element (Section VII) of the existing 1988 General Plan includes the following goals and policies to protect Manteca residents and structures from geologic and seismic hazards:

Goal A: To prevent loss of lives, injury, and property damage due to geological hazards.

Policy A-1 The City shall require preparation of geological reports and/or geological engineering reports for proposed new development located in areas of suspected significant geological hazards.

Goal B: To prevent loss of lives, injury, and property damage due to the collapse of building and critical facilities and to prevent disruption of essential services in the event of an earthquake.

Policy B-1 The City shall maintain an inventory or pre-1940 unreinforced masonry buildings within the City. No change in use to a higher occupancy or more intensive use shall be approved in such structures until an engineering evaluation of the structure has been conducted and any structural deficiencies corrected. The Redevelopment Agency shall be encouraged to assist property owners in reinforcing buildings.

Policy B-2. The City should ensure that all public facilities, such as buildings, water tanks, and reservoirs, are structurally sound and able to withstand seismic shaking and the effect of seismically induced ground failure.

8.3 IMPACT EVALUATION CRITERIA

In accordance with CEQA Guidelines, Appendix G, the proposed project would have a significant adverse impact the project would:

1) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
   - 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.
   - Strong seismic ground shaking.
   - Seismic-related ground failure, including liquefaction.
   - Inundation by seiche, tsunami, or mudflow.
   - Landslides.

2) Result in substantial soil erosion or the loss of topsoil.

3) 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.

4) Be located on expansive soil creating substantial risks to life or property.

5) 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 waster water.

8.4 IMPACTS AND MITIGATION

POTENTIAL IMPACT GSS-1: **Implementation of the General Plan 2023 may expose people and structures to rupture of a known earthquake, as delineated on the Alquist-Priolo Earthquake Fault Zoning Map.**

Level of Significance: **Less Than Significant Impact**

Manteca is not located within an Alquist-Priolo Fault-Rupture Hazard Zone. There are no known active surface fault ruptures located within or adjacent to the Study Area.

POTENTIAL IMPACT GSS-2: **Implementation of the General Plan 2023 may expose people and structures to ground shaking, ground failure (including liquefaction) or landslides.**

Level of Significance: **Potentially Significant**

Lands within San Joaquin County have not yet been mapped in the California Department of Mines and Geology Seismic Hazard Zone Mapping System, which maps areas of possible liquefaction and landslides. However, given the nearly level terrain of the Study Area, the possibility of landslides is considered a less than significant impact. The Soil Survey for the area found that subsidence is not a characteristic of the soils within the Study Area. As shown in Table 8-4 above, significant earthquakes from regional fault systems have affected San Joaquin County in the past; therefore, the possibility of some level of regional ground shaking in the future is likely. Given that there is a relatively high water table, liquefaction could be a significant impact within the Study Area.

Mitigation Measures:

GSS-2.1: The General Plan 2023 Safety Element (Section 7) provides the following goals, policies (P), and implementation measures (I) to lessen the possible exposure of people and structures to ground shaking or ground failure, including liquefaction:

Goal S-1: Prevent loss of lives, injury, and property damage due to seismic activity and geological hazards.

Goal S-2: Prevent loss of lives, injury, and property damage due to the collapse of buildings and critical facilities and to prevent disruption of essential services in the event of an earthquake.

S-P-1 The City shall require preparation of geological reports and/or geological engineering reports for proposed new development

located in areas of suspected significant geological hazards, including potential subsidence (collapsible surface soils) due to groundwater extraction.

S-P-2 The City shall require new development to mitigate the potential impacts of geologic hazards through Building Plan review.

S-P-3 The City shall ~~avoid potential~~ require new development to mitigate the potential impacts of seismic induced settlement of uncompacted fill and liquefaction (water-saturated soil) due to the presence of a high water table.

S-P-4 The City shall maintain an inventory of pre-1940 unreinforced masonry buildings within the city. No change in use to a higher occupancy or more intensive use shall be approved in such structures until an engineering evaluation of the structure has been conducted and any structural deficiencies corrected. The Redevelopment Agency shall be encouraged to assist property owners in reinforcing buildings.

S-P-5 The City shall ~~should~~ ensure that all public facilities, such as buildings, water tanks, and reservoirs, are structurally sound and able to withstand seismic shaking and the effects of seismically induced ground failure.

S-P-6 The City shall comply with the California State seismic and building standards in the design and siting of critical facilities, including police and fire stations, school facilities, hospitals, hazardous materials manufacturing and storage facilities, and large public assembly halls.

SG-I-1 All new development shall comply ~~Comply~~ with the current Uniform Building Code (UBC) requirements for Seismic Zone 3, which stipulates building structural material and reinforcement.

SG-I-2 All new development shall comply ~~Comply~~ with California Health and Safety Code Section 19100 et seq. (Earthquake Protection Law), which requires that buildings be designed to resist stresses produced by natural forces caused earthquakes and wind.

SG-I-3 The City shall inventory potentially hazardous buildings within the City and adopt a mitigation program, including requirements for strengthening buildings, changing the use of the buildings to an acceptable occupancy level, or demolishing the buildings.

Residual Level of Significance: Less Than Significant With Mitigation

The level of significance will be mitigated to less than significant if the above goals, policies, and implementation measures are implemented.

POTENTIAL IMPACT GSS-3: Implementation of the General Plan 2023 may result in substantial soil erosion of loss of topsoil.

Given the partial-to-moderate drainage characteristics of the majority of the soils and the nearly level topography of the Study Area, water erosion hazard is considered low.

The wind erosion potential within the Study Area ranges from moderate-to-high during the Spring, Summer, and Fall. These sea breezes diminish during the Winter.

Level of Significance: Potentially Significant

Mitigation Measures:

GSS-3.1: The Resource Conservation Element (Section 8) of the City of Manteca General Plan 2023 provides the following goal, policy (P), and implementation measures (I) to mitigate the potential of substantial soil erosion or loss of topsoil.

Goal RC-6 Preserve and maintain Manteca's soils to avoid pollution of surface waters, decreased air quality, and loss of soil.

RC-P-9 The City shall adopt and enforce land management standards that minimize ~~Minimize~~ soil erosion and loss of topsoil from land development activities, wind, and water flow.

RC-I-16 All new development shall comply ~~Comply~~ with the Uniform Building Code (UBC) requirements for specific site development and construction standards for specific soils types.

RC-I-17 All new development shall comply ~~Comply~~ with the Uniform Building Code (UBC), Chapter 70, regulating grading activities including drainage and erosion control.

RC-I-18 Require site-specific land management and development practices ~~survey and research~~ for proposed development

projects, including appropriate mitigation measures for avoiding or reducing erosion~~, if needed~~. ~~This requirement may be waived if the City determines that the proposed project area is already sufficiently surveyed.~~

Residual Level of Significance: Less Than Significant With Mitigation

The level of significance will be mitigated to less than significant if the above goal, policies, and implementation measures are implemented.

POTENTIAL IMPACT GSS-4: Implementation of the General Plan 2023 may expose people and structures to the hazards of expansive soils.

Level of Significance: Potentially Significant

Five (5) of the nineteen Study Area soils have been identified as expansive soils: two (2) with a high shrink-swell potential, and three (3) with a moderate shrink-swell potential.

Mitigation Measures:

GSS-4.1: The General Plan 2023 Safety Element (Section 7) provides the following policies (P) to lessen the possible exposure of people and structures to the shrink-swell hazards of expansive soils:

S-P-1 The City shall require preparation of geological reports and/or geological engineering reports for proposed new development located in areas of suspected significant geological hazards, including potential subsidence (collapsible surface soils) due to groundwater extraction.

S-P-2 The City shall require new development to mitigate the potential impacts of geologic hazards through Building Plan review.

The General Plan 2023 Resource Conservation Element (Section 8) provides the following policies implementation measure (I) to lessen the possible exposure of people and structures to the shrink-swell hazards of expansive soils:

RC-I-16 Comply with the Uniform Building Code (UBC) requirements for specific site development and construction standards for specific soil types.

Residual Level of Significance: Less Than Significant With Mitigation

The level of significance will be mitigated to less than significant if the above policies and implementation measure are implemented. Compliance with UBC construction requirements will implement state-of-the-art mitigation relating to site-specific soil types.

POTENTIAL IMPACT GSS-5: Septic tanks or alternative waste water systems could be placed in soils incapable of supporting their use.

Level of Significance: No Impact

All proposed development within the Study Area will be served by the City's municipal sewer system. No septic tanks or alternative waste water systems will be used.

References

(1) Alt, David and Donald W. Hyndman. Roadside Geology of Northern and Central California. Mountain Press Publishing Company. Missoula, Montana. August 2001, Second Printing. Extracted from Pg. 243-254.

(2) U.S. Department of Agriculture, Soil Conservation Service. Soil Survey of San Joaquin County, California. October 1992. Extracted from Pg. 185-238.

(3) Telephone Conversation with Dennis Rock, San Joaquin County Community Development Department, Building Inspection and Permitting. June 2003.

(4) Telephone Conversation with Dale Stickney, Information Geologist, California Department of Conservation, Division of Mines and Geology. February 21, 2002; Update June 2003.

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9. HAZARDOUS MATERIALS

Hazardous materials are substances that may pose a potential hazard to human health or the environmental when handled improperly.

This Section addresses hazardous materials and the City of Manteca. The discussion includes hazardous wastes from residential, small business, industrial, and government facilities. Hazardous waste sites that appear on San Joaquin County and California state hazardous materials database lists for Manteca are addressed. The transportation of hazardous materials, particularly over the Union Pacific Railroad lines through the City, is also discussed.

9.1 EXISTING CONDITIONS

9.1.1 Household Hazardous Waste

Household hazardous waste includes common items such as paints, cleaners, motor oil and pesticides. Other household items contain hazardous materials that are considered less hazardous to handle, such as batteries, lamps, televisions, and computer monitors. Such items are classified by the Environmental Protection Agency (EPA) and the California Department of Toxic Substances Control (DTSC) as Universal Waste.

City of Manteca Household Hazardous Waste Disposal Program

The City of Manteca's Solid Waste Division has a free household hazardous waste disposal program for its residents. The Division's "Facts & Information" publication gives details on (1) the year-around drop-off locations for used motor oil, latex paints, antifreeze, and auto batteries; (2) twice-per-year drop-off events for pesticides, oil-based paints, solvents, varnishes, cleaners, and other types of hazardous wastes; and (3) E-Waste (computers, computer monitors, printers, telephones, typewriters, cell phones, televisions, and "just about anything that you can plug into an electrical socket") drop-off locations, by appointment.

9.1.2 Non-Household Hazardous Waste

Hazardous waste can also be generated by small businesses, industry, and government facilities. Small businesses and government facilities may be classified as Small Quantity Generators (SQG's) or Conditionally Exempt Small Quantity Generators (CESQG's). Industries are typically classified as SQG's or Large Quantity Generators (LQG's). These classifications are discussed below in Subsection 9.2, Regulatory Setting.

9.1.3 Hazardous Material Sites in City of Manteca

CalSites Database

Summary reports that list potential toxic sites within the City of Manteca are shown in Table 9-1. These listings are from the Site Mitigation and Brownfields Reuse Program Database, also known as the CalSites Database, maintained by the (DTSC) **(1)**. This Database contains information on properties in the state where hazardous substances have or may have been released. No sites within the City of Manteca have been classified as a confirmed hazardous materials site, also known as a CalSite or State Superfund site.

The DTSC also maintains the Hazardous Waste and Substances Site List Database, also known as the Cortese List Database, which contains information on hazardous material sites provided by various state and local agencies. Agencies are required by CEQA to use the Cortese List to identify locations of hazardous materials release sites when considering development proposals. The City of Manteca does not contain sites that are identified on the Cortese List.

As shown in Table 9-1, "no further action" is required for the four (4) school sites. It has been determined that these properties do not pose a threat from hazardous materials. The Department of Toxic Substances Control recommended their Website for current status of the remaining seven (7) properties. The following information was obtained from that search **(2)**:

Schmiedt Soil Service, Inc.:

Site inspections by the California Regional Water Quality Control Board (RWQCB) in 1987 and 1988, and by the San Joaquin County Department of Public Health Services in 1990, found no violations. A site inspection was conducted on 9/23/93 by the EPA, which found no groundwater contamination in the on-site well. The EPA recommended no further action, and referred the property to San Joaquin County on 3/7/96.

Spreckels Sugar Company:

Referred to the RWQCB on 6/10/91. RWQCB currently monitors groundwater at the site. Water quality is regulated with monitoring wells. On 1/21/94, water was reported as contaminated with salts and bicarbonates. Wastewater ponds on-site consisted of beet-hop wastes, mud, and limestone wastewater. There was also a problem with odor. RWQCB reported that the concerns are being addressed.

United Agricultural Products:

On 7/13/82, a questionnaire was completed by United Agricultural Products. Based on 8/17/82 and 8/24/82 follow-up telephone calls, no further action was recommended.

Table 9-1
CalSites Database Summary Report, City of Manteca

Site Name	Address	Status
Schmiedt Soil Service, Inc.	20696 South Manteca Road	REFOA
Spreckels Sugar Co.	Yosemite Avenue	REFRW
United Agricultural Products	301 Wetmore	REFOA
French Cleaners	416 W. Yosemite Avenue	REFOA
OK Cleaners #1	162 N. Maple Avenue	REFOA
Mainz Cleaners	358 N. Main Street	REFOA
Bobson Cleaners	600 N. Main Street	REFOA
South Manteca Elementary School	Tannehill Drive	NFA
North Main Street Community School	1271, 1275, 1281 N. Main Street	NFA
Sand Lane Elementary School	6647 E. Woodward Avenue	NFA
South Airport Way School	21164 South Airport Way	NFA

LEGEND

REFOA: Referred to Other Agencies. Identifies properties referred to another agency, such as the Integrated Waste Management Board or other State or local agency. These properties were determined not to require direct Department of Toxic Substances Control Site Mitigation Program action or oversight. In many referral cases, it should be noted that DTSC has not confirmed an actual release of a hazardous substance.

REFRW: Referred to the Regional Water Quality Control Board. Identifies properties that were determined not to require direct Department of Toxic Substances Control Site Mitigation Program action or oversight and have been referred to another state or local regulatory agency. In many referral cases, it should be noted that DTSC has not confirmed an actual release of a hazardous substance.

NFA: No Further Action. Identifies properties that had a possibility of a release that the Department of Toxic Substances Control determined after additional investigation (a Preliminary Endangered Assessment (PEA)) that the property does not pose a problem to the environment or the public health.

Source: Department of Toxic Substances Control, May 23, 2002. Update April 23, 2003 (Telephone Conversation with Shannon Similai, Toxics Help Desk, Department of Toxic Substances Control)

French Cleaners:

The facility was identified from DMI List on 6/24/82. A facility drive-by was completed on 9/28/82. Based on finding no problems during drive-by, a recommendation for no further action was made on 10/14/82.

OK Cleaners #1:

The facility was identified from DMI List on 6/24/82. A facility drive-by was completed on 9/28/82. Based on finding no problems during drive-by, a recommendation for no further action was made on 10/14/82. (Same information as for French Cleaners)

Mainz Cleaners:

The facility was identified from DMI List on 4/2/82. A facility drive-by was completed on 8/10/82. Based on finding no problems during drive-by, a recommendation for no further action was made on 9/5/82.

Bobson Cleaners:

The facility was identified from DMI List on 6/24/82. A facility drive-by was completed on 9/28/82. Based on finding no problems during drive-by, a recommendation for no further action was made on 10/14/82. (Same information as for French Cleaners)

Underground Tank Site Mitigation Database

San Joaquin County Public Health Services monitors the possible groundwater and soil contamination from underground tanks. The "Closed Site" entries in Table 9-2 indicate that it has been determined that the site will not contaminate ground water nor impact drinking water **(3)**. As noted, the remaining sites are currently being monitored for either ground water or soil contamination.

Table 9-2
Underground Tank Site Mitigation Database List, City of Manteca

Site Name	Address	Status
Luther Russell	23675 W. Airport Way	Closed Site
Tuff Boy Trailers	5151 Almondwood Drive	GW Site
Frank's Exxon #4	14800 S. Highway 99	Closed Site
Edward and M Pitts	203 S. Lincoln Avenue	Closed Site
Quik Stop Market #21	1196 Louise Avenue	GW Site
Manteca USD-District Office	2901 E. Louise Avenue	Soil Site

Site Name	Address	Status
Shell Service Station	1071 N. Main Street	GW Site
Jiffy Lube	1130 N. Main Street	Closed Site
7 Eleven, #19976	1399 N. Main Street	GW Site
Diamond Lumber	151 S. Main Street	GW Site
Fiore Development	2001 N. Main Street	Closed Site
Modesto Dry Ice	260 S. Main Street	Closed Site
Super Stop Market	290 N. Main Street, #C	GW Site
Boyett Petroleum	419 S. Main Street	Closed Site
Beacon	470 N. Main Street	Closed Site
Royal Oaks Savings	510 N. Main Street	Closed Site
Manteca Equipment Rental	616 S. Main Street	Closed Site
Food and Liquor	890 N. Main Street	Closed Site
Carl Karcher Distribution Center	800 Mellon Avenue	Soil Site
Manteca USD Shop	660 Mikesell Street	Soil Site
Manteca Bean Co.	229 Moffat Boulevard	Closed Site
San Joaquin County Ag. Comm.	392 S. Moffat Boulevard	GW Site
Bob's Muffler and Radiator	466 Moffat Boulevard	GW Site
Eckert Cold Storage Company	757 Moffat Boulevard	GW Site
Lee Jennings Enterprises	815 Moffat Boulevard	Closed Site
Pony Express Courier Corp.	959 Moffat Boulevard	Closed Site
Olympian CFN	983 Moffat Boulevard	GW Site
City of Manteca Public Works	220 Oak Street	Closed Site
Cal West Concrete Cuttings	1153 Vanderbilt Circle	Closed Site
City of Manteca	210 E. Wetmore Avenue	GW Site
Yosemite Avenue Beacon	1001 E. Yosemite Avenue	GW Site
Fill-em Fast	1012 W. Yosemite Avenue	GW Site
7 Eleven #17647	1048 W. Yosemite Avenue	GW Site
Payless Shoe Store	1160 W. Yosemite Avenue	GW Site
Chevron #SS1848	1257 W. Yosemite Avenue	GW Site
Frank's Exxon #2	1399 E. Yosemite Avenue	Closed Site
Jackpot Food Mart	1434 W. Yosemite Avenue	Closed Site
Tosco Corporation #30877	1700 E. Yosemite Avenue	Closed Site
Arco Station #6020	1711 E. Yosemite Avenue	GW Site
Arco Station #6020	1711 E. Yosemite Avenue	Closed Site

Site Name	Address	Status
Ted Peters Trucking Company	1985 W. Yosemite Avenue	GW Site
Frank's Exxon #3	2072 W. Yosemite Avenue	GW Site
ABF Freight Systems, Inc	2427 W. Yosemite Avenue	Closed Site
Rainwater Car Wash	420 W. Yosemite Avenue	GW Site
Pontes Quicki-Kleen Car Wash	707 E. Yosemite Avenue	Closed Site
Pontes Quicki-Kleen Car Wash	707 E. Yosemite Avenue	Soil Site
7 Eleven #21756	853 E. Yosemite Avenue	GW Site
Texaco	941 E. Yosemite Avenue	Closed Site

LEGEND

Closed Site: Site is no longer active for remediation under the Local Oversight Program.

GW Site: Site remains active for remediation of groundwater under the Local Oversight Program.

Soil Site: Site remains active for remediation of soil under the Local Oversight Program.

Source: San Joaquin County Public Health Services, Environmental Health Division, Report #7541, May 2002 (Update unavailable as of May 21,2003)

9.1.4 Hazardous Materials Transportation

Union Pacific Railroad

The Union Pacific Railroad tracks are located at the west side of the Study Area. Cargo is transferred between trucks and trains at a transfer station north of Lathrop Road.

Potential issues related to the railroad running through the City include risks to human health and safety associated with a hazardous materials-related emergency.

The Union Pacific Railroad has primary responsibility for hazardous materials spills on its premises. Union Pacific's emergency response plan contains operations guidelines, training requirements, and response procedures to be implemented in the event of a derailment, leak, or off-railroad incident involving hazardous materials.

Roadways

Hazardous materials are routinely transported over state and federal highways, as well as local roads. Trucks travel to and from Interstate 5 (outside the Study Area) to the railroad transfer station north of Lathrop Road.

Hazardous materials spills on state and federal highways are the responsibility of the California Department of Transportation (Caltrans) and the California Highway Patrol (CHP). These agencies provide on-scene management of the spill site and coordinate with the California Environmental health Department, California Office of Emergency Services, and the Manteca Fire Department.

9.1.5 Solid Waste Management

The Integrated Waste Management Board (CIWMB) coordinates the database records of waste management facilities in Manteca with San Joaquin County Public Health Services, Environmental Health Division. The IWMB lists eight (8) waste management facilities in Manteca. **(4)** A copy of this IWMB list is included as Appendix F in the Technical Appendix (Volume 2). Following is a summary of the current status of those listed facilities:

1. Manteca County Dump (I.D. SWIS #39-CR-0025)

   Solid waste disposal site. Pre-regulations site closed 12/31/63.

2. Manteca City Dump (I.D. SWIS #39-CR-0024)

   Solid waste disposal site. Pre-regulations site closed 12/31/63.

3. Spic and Span Private Garbage Dump (I.D. SWIS #39-CR-0032)

   Solid waste disposal site. Pre-regulations site closed (no date given).

4. Forward Resource Recovery Facility (I.D. SWIS #39-AA-0020)

   Unit 01 Solid waste transfer/processing facility. Permitted site now inactive.

   Unit 02 Solid waste materials recovery facility (MRF). Permitted site now inactive.

   Unit 03 Solid waste composting facility (Green Waste). Permitted site now active.

   Unit 04 Solid waste composting facility (Mixed). Permitted site planned.

   Unit 05 Solid waste operation (Non-Hazardous Ash Disposal/Monofill). Permitted site now inactive.

5. Austin Road/Forward Landfill (I.D. SWIS #39-AA-0001)

   Solid waste landfill. Permitted site now active.

6. Lovelace Transfer Station (I.D. SWIS #39-AA-0008)

Solid waste large volume transfer/processing facility. Permitted site now active.

7. Forward, Inc. (I.D. SWIS #39-AA-0015)

   Unit 01 Solid waste landfill. Permitted site now active.

   Unit 02 Solid waste treatment (processing) facility. Permitted site now active.

   Unit 03 Solid waste ACW disposal operation. Permitted site now active.

8. Delicato Vineyards (I.D. SWIS $39-AA-0037)

   Solid waste composting facility (Ag). Notification site now active.

San Joaquin County Public Health Services (Environmental Health Division), the State Regional Water Quality Control Board (RWQCB), and the California Department of Toxic Substances Control (DTSC) are now in the process of developing protocols for urban development in the vicinity of these waste management facilities. Currently, the Health and Safety Code requires a DTSC Preliminary Environmental Assessment (PEA) for development within 1,000 feet of a solid waste facility. **(5)**

9.1.6 City of Manteca Fire Department (MFD)

The City of Manteca operates a full-service Fire Department (MFD). MFD provides support for a variety of public agencies at the local, state, and federal levels. Support and services include hazardous materials response.

9.2 REGULATORY SETTING

The regulation of hazardous materials occurs at the federal, state, and local levels. These regulatory agencies are described below.

9.2.1 Applicable Federal Regulation

U.S. Environmental Protection Agency (EPA)

EPA's mission is to protect human health and to safeguard the natural environment, related to air, water, and land. EPA works closely with other federal agencies, state and local governments, and Indian tribes to develop and enforce regulations under existing environmental laws. EPA is responsible for researching and setting national standards for a variety of environmental programs and delegates to states and tribes responsibility for issuing permits, and monitoring and enforcing compliance. Where national standards are not met, EPA can issue sanctions and take other steps to assist the states and tribes in reaching the desired levels of environmental quality.

The Agency also works with industries and all levels of government in a wide variety of voluntary pollution prevention programs and energy conservation efforts.

EPA Region 9 office has jurisdiction over Manteca and the southwestern United States (Arizona, California, Nevada, and Hawaii).

EPA Programs related to Hazardous Materials include:

- Community Right-to-Know Information
- Pesticide Management
- Toxic Release Inventory
- Brownfields (CalSites Database)
- Cleanup Technologies
- Compliance Assistance
- Emergency Response
- Hazardous Waste
- Oil Spills

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) as updated in 1984, deals with both hazardous and nonhazardous solid waste. The EPA (or the states) must issue a permit to facilities before they can treat, store, and dispose of hazardous wastes.

According to the RCRA, generators are separated into three groups:

1. Large Quantity Generators (LQG's): Those that generate more than 2,200 pounds of hazardous waste per calendar month. Examples include pharmaceutical companies and chemical manufacturers.

2. Small Quantity Generators (SQG's): Those that generate between 220 pounds and 2,200 pounds of hazardous waste per calendar month. Examples include laboratories, printers, and dry cleaners.

3. Conditionally Exempt Small Quantity Generators (CESQG's): Those that generate less than 220 pounds of hazardous waste per calendar month. Examples include 1-hour photo labs and dental offices.

U.S. Department of Transportation (DOT)

The Hazardous Materials Transportation Act of 1974, as amended, is the basic statute regulating hazardous materials transportation in the U.S.. This law gives USDOT and other agencies the authority to issue and enforce rules and regulations governing the safe transportation of hazardous materials.

State agencies are authorized to designate highways for the transport of hazardous materials. Where highways have not been designated, hazardous materials must be transported on routes that do not go through or near heavily populated areas.

Office of Emergency Services (OES)

OES administers the state's Emergency Plan for coordinating emergency services provided by federal, state, local government agencies, and private agencies, including California Environmental Protection Agency, California Highway Patrol, California Department of Fish and Game, and various county agencies and fire protection districts. Response to hazardous materials incidents is one part of this Plan.

9.2.2 Applicable State Regulation

CEQA and the Cortese List

The Cortese List (Hazardous Waste and Substances Site List) is a planning document used by the state, local agencies, and developers to comply with CEQA requirements to consider Government Code Section 5962.5 in evaluating proposed development projects. Section 65962.5 states,

> "The list should contain all hazardous waste facilities subject to corrective action , all hazardous waste property or border zone property designations, all information received on hazardous waste disposals on public land, all hazardous substance release sites listed pursuance to Government Code Section 25356, and all sites that were included in the former Abandonment Site Assessment Program **(2)**.

California Environmental Protection Agency (Cal EPA)

Government Code Section 65962.5 requires the California Environmental Protection Agency to develop a Cortese List at least annually. The Department of Toxic Substances Control is responsible for a portion of the information on the list, and other local and state government agencies are required to provide additional information

Cal EPA operates the Air Resources Board, the Department of Pesticide Regulation, Department of Toxic Substances Control, Integrated Waste Management Board, Office of Environmental

Health Hazard Assessment, and the State Water Resources Control Board. The function of each of these six (6) offices is discussed below:

Air Resources Board (ARB): To promote and protect public health, welfare and ecological resources through the effective and efficient reduction of air pollutants in recognition and consideration of the effects on the economy of the state.

Department of Pesticide Regulation (DPR): Regulates all aspects of pesticide sales and use to protect the public health and the environment for the purpose of evaluating and mitigating impacts of pesticide use, maintaining the safety of the pesticide workplace, ensuring product effectiveness, and encouraging the development and use of reduced risk pest control practices.

Department of Toxic Substances Control (DTSC): The Department's mission is to restore, protect and enhance the environment, to ensure public health, environmental quality and economic vitality, by regulating hazardous waste, conducting and overseeing cleanups, and developing and promoting pollution prevention. DTSC protects residents from exposures to hazardous wastes. DTSC operates programs to:

- -Deal with the aftermath of improper hazardous waste management by overseeing site cleanups.
- -Prevent releases of hazardous waste by ensuring that those who generate, handle, transport, store and dispose of wastes do so properly.
- -Take enforcement actions against those who fail to manage hazardous wastes appropriately.
- -Explore and promote means of preventing pollution, and encourage reuse and recycling.
- -Evaluate soil, water and air samples taken at sites, and develop new analytical methods.

Integrated Waste Management Board (IWMB): To protect the public health and safety and the environment through waste prevention, waste diversion, and safe waste processing and disposal. The IWMB is responsible for managing California's solid waste stream. The Board is helping California divert its waste from landfills by:

- -Developing waste reduction programs.
- -Providing public education and outreach.
- -Assisting local governments and businesses.
- -Fostering market development for recyclable materials.
- -Encouraging used oil recycling.
- -Regulating waste management facilities.

- -Cleaning up abandoned and illegal dump sites.

Office of Environmental Health Hazard Assessment (OEHHA): OEHHA is responsible for developing and providing risk managers in state and local government agencies with toxicological and medical information relevant to decisions involving public health. OEHHA also works with Federal agencies, the scientific community, industry and the general public on issues of environmental as well as public health. Specific examples of OEHHA responsibilities that directly relate to Manteca include:

- -Developing health-protective exposure standards for air, water, and land to recommend to regulatory agencies, including ambient air quality standards for the Air Resources Board and drinking water chemical contaminant standards for the Department of Health Services.
- -Assessing health risks to the public from air pollution, pesticide and other chemical contamination of food, seafood, drinking water, and consumer products.
- -Providing guidance to local health departments, environmental departments, and other agencies with specific public health problems, including appropriate actions to take in emergencies that may involve chemicals.

State Water Resources Control Board (SWRCB): To preserve and enhance the quality of California's water resources, and ensure their proper allocation and efficient use for the benefit of present and future generations. The SRWQCB maintains the Leaking Underground Storage Tank Information System (LUTIS) Database, which contains information on registered leaking underground storage tank (LUST's) in the state.

California Occupational Safety and Health Agency (CalOSHA)

CalOSHA sets and enforces standards that insure safe and healthy working conditions for California's workers. The Division of Occupational Safety & Health is charged with the jurisdiction and supervision over workplaces in California that are not under Federal jurisdiction. CalOSHA regulates issues involving unsafe workplace conditions, worker exposure to chemicals, illness due to workplace exposure, or improper training.

State Regulatory Programs Division (SRPD)

The State Regulatory Programs Division (SRPD) oversees the technical implementation of the state's Unified Program; a consolidation of six environmental programs at the local level, and conducts reviews of Unified Program agencies to ensure their programs are consistent statewide, conform to standards, and deliver quality environmental protection at the local level. SRPD also carries out the state's hazardous waste recycling and resource recovery program designed to facilitate recycling and reuse of hazardous waste. SRPD conducts a corrective action oversight program that assures any releases of hazardous constituents at generator facilities that conduct

onsite treatment of hazardous waste are safely and effectively remediated, and oversees the hazardous waste generator and onsite waste treatment surveillance and enforcement program carried out by local Unified Programs.

California Department of Transportation (Caltrans) and California Highway Patrol

The California Vehicle Code Section 31303 requires that hazardous materials be transported via routes with the least overall travel time, and prohibits the transportation of hazardous materials through residential neighborhoods.

In California, the California Highway Patrol (CHP) is authorized to designate and enforce route restrictions for the transportation of hazardous materials.

To operate in California, all hazardous waste transporters must be registered with the Department of Toxic Substances Control (DTSC). Unless specifically exempted, hazardous waste transporters must comply with the California Highway Patrol Regulations; the California State Fire Marshal Regulations; and the United States Department of Transportation Regulations. In addition, hazardous waste transporters must comply with Division 20, Chapter 6.5, Article 6 and 13 of the California Health and Safety Code and the Title 22, Division 4.5, Chapter 13, of the California Code of Regulations which are administered by DTSC.

Central Valley Regional Water Quality Control Board (RWQCB)

There are nine Regional Water Quality Control Boards (RWQCBs) throughout the State. The Central Valley RWQCB has jurisdiction over the City of Manteca, with offices in Stockton.

Individual RWQCB's function as the lead agencies responsible for identifying, monitoring, and cleaning-up leaking underground storage tanks. Storage of hazardous materials in underground storage tanks is regulated by the State Water Resources Control Board (SWRCB), which oversees the nine RWQCB's.

9.2.3 Applicable Local Government Regulation

Certified Unified Program Agencies (CUPA)

Senate Bill 1082 (1993) required the establishment of a unified hazardous waste and hazardous materials management program. The result was Cal EPA's United Program, which consolidates the actions of DTSC, the SWRCB, the RWQCB's, OES, and the State Fire Marshall. DTSC oversees the implementation of the hazardous waste generator and onsite treatment program, one of six environmental programs at the local level, through Certified Unified Program Agencies (CUPAs). CUPAs have authority to enforce regulations, conduct inspections, administer

penalties, and hold hearings. San Joaquin County implements the CUPA that has enforcement authority over the City of Manteca. Offices are located in Stockton.

San Joaquin County Air Pollution Control District (APCD)

San Joaquin County Air Pollution Control District has jurisdiction over the City of Manteca and deals with pollutants that get into the air from stationary sources (including fumes, dust and smoke, some asbestos). APCD responds to complaints about smells and answers questions about air quality management permits. The APCD and air quality are addressed in detail in Section 5, Air Quality, of this EIR.

San Joaquin County

Hazardous waste programs are managed and implemented locally through the County of San Joaquin Certified Unified Program Agency (CUPA). The County hosts a variety of hazardous waste collection events throughout the County in an effort to deter improper disposal of hazardous wastes

Household Hazardous Waste (HHW) Collection Facilities receive hazardous waste that comes from homes and, in some cases, from small business hazardous waste generators. Household wastes include pesticides, batteries, old paint, solvents, used oil, antifreeze, and other chemicals that should not go into a regular municipal landfill.

San Joaquin County Public Health Services monitors the possible groundwater and soil contamination from underground tanks. Its funding mechanism is a billing contract with the State Water Quality Control Board. Public Health Services clean-up enforcement falls under Title 23, California Code of Regulations. Case workers monitor site specific development, and must be contacted prior to development **(3)**.

The City of Manteca and San Joaquin County Public Works Department deal with illegal discharges to sanitary or industrial sewers, and sometimes collect household hazardous waste. They also help to guard against illegal discharges to storm sewers (releases to the street, etc.).

9.2.4 City of Manteca

Household Hazardous Waste (HHW)

Household wastes include pesticides, batteries, old paint, solvents, used oil, antifreeze, and other chemicals that should not go into a regular municipal landfill. HHW programs focus on removing dangerous substances from homes and preventing their release into the environment through landfills, sewer systems and illegal dumping. The City of Manteca and San Joaquin County Public Works Solid Waste Division host a variety of hazardous waste collection events throughout the year to assist in the elimination of household hazardous waste. HHW Collection

Facilities receive hazardous waste that comes from homes and, in some cases, from small business hazardous waste generators.

9.2.5 City of Manteca 1988 General Plan

The Health and Safety Element (Section VII) of the existing 1988 General Plan includes the following Goal, and Policies, and Implementation Measure which intend to protect Manteca residents from hazardous materials:

Goal F — To protect Manteca residents from the effects of hazardous materials.

Policy F-1 — City approvals of all new development shall consider the potential for the production, use, storage, and transport of hazardous materials and provide for reasonable controls on such hazardous materials.

Policy F-2 — Within its authority, the City shall regulate the production, use, storage, and transport of hazardous materials to protect the health of Manteca residents.

Implementation Measure 3 — The City shall adopt an ordinance requiring businesses, manufacturing, storing, using, or transporting significant quantities of hazardous materials to identify annually such materials and their quantities.

9.3 IMPACT EVALUATION CRITERIA

In accordance with CEQA Guidelines, Appendix G, the proposed project would have a significant adverse impact on the environment if the project would:

1. create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials;
2. create a significant hazard to the public or the environment through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
3. emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school;
4. 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 create a significant hazard to the public or the environment;
5. impair implementation of or physically interfere with an adopted emergency plan or emergency evaluation plan.

9.4 IMPACTS AND MITIGATION

POTENTIAL IMPACT HM-1: **The existing and future residents of the City of Manteca could be exposed to increased risk resulting from the routine use, transport, or disposal of hazardous materials.**

Light industrial development is expected to involve storage and use of hazardous materials. Commercial development may also use hazardous materials. Hazardous wastes are expected to be generated by some small businesses as well. The use and storage of hazardous materials will involve the transport of such materials.

Level of Significance: **Potentially Significant**

Mitigation Measures:

HM-1.1 The General Plan 2023 Safety Element ~~of the City of Manteca General Plan~~ (Subsection 7~~.3~~) provides the following goal, policy (P), and implementation (I) measures to mitigate the exposure of residents to hazardous materials:

Goal S-5 The City shall protect ~~Protect~~ the health, safety, natural resources, and property through regulation of use, storage, transport, and disposal of hazardous materials.

S-P-15 The City shall maintain an awareness of hazardous materials throughout the Manteca region.

S-I-9 The City shall require ~~Require~~ businesses that manufacture, store, use, or transport significant quantities of hazardous materials to identify annually such materials and their quantities.

S-I-10 The City shall require ~~Require~~ the submittal of lists of hazardous materials used in existing and proposed industrial and commercial businesses within the City of Manteca. The list shall be maintained through the Manteca Fire Department and updated through periodic review.

Residual Level of Significance: **Less Than Significant With Mitigation**

The level of significance will be mitigated to less than significant if the above goal, policy and, implementation measures are implemented. The requirement for businesses and others manufacturing, storing, using, and transporting hazardous materials to identify such activities annually, will reduce the risks of increased exposure.

POTENTIAL IMPACT HM-2: **The existing and future residents of the City of Manteca could be exposed to increased risk of accidental release of hazardous materials.**

With the increased use, storage and transport of hazardous materials expected from the development of small business, industrial, and commercial land uses, the risk of accidental release of those materials is increased. In addition, the proposed residential development increases the use of household hazardous materials, which increases the accidental release of common household hazardous materials.

Level of Significance: **Potentially Significant**

Mitigation Measures:

HM-2.1 The Safety Element of the City of Manteca General Plan (Subsection 7.3) provides the following policies (P) and implementation measure (I) to reduce the risk of accidental release of hazardous materials:

S-P-17 Within its authority, the City shall regulate the production, use, storage, and transport of hazardous materials to protect the health of Manteca residents.

S-I-11 Work with San Joaquin County and other public agencies to inform consumers about household use and disposal of hazardous materials.

S-I-12 Cooperate fully with Union Pacific Railroad and other public agencies, such as the CHP, in the event of a hazardous material emergency.

HM-2.2 The General Plan 2023 Air Quality Element (Section 10) provides the following implementation (I) measure to help reduce the exposure to hazardous materials:

AQ-I-3 Cooperate with San Joaquin County Environmental Health Department in identifying hazardous material users and in developing a hazardous materials management plan.

Residual Level of Significance: **Less Than Significant With Mitigation**

The level of significance will be mitigated to less than significant if the above policy and implementation measure are implemented. Regulation and increased awareness of proper use and disposal of hazardous materials will reduce the risk of accidental release. Cooperation with the Railroad and CHP will help reduce the level of release during any emergency.

POTENTIAL IMPACT HM-3: **Use and possible emission of hazardous materials within one-quarter mile of an existing or proposed school could occur.**

Increased mixed-use development, including building of needed schools, could increase the possibility of hazardous materials use near schools.

Level of Significance: **Potentially Significant**

Mitigation Measures:

HM-3.1 The Safety Element of the City of Manteca General Plan (Subsection 7.3) provides the following policy (P) to mitigate the possible exposure of schools to hazardous materials:

SP-P-16 City approvals of all new development shall consider the potential for the production, use, storage, and transport of hazardous materials and provide for reasonable controls on such hazardous materials.

Residual Level of Significance: **Less Than Significant With Mitigation**

The level of significance will be mitigated to less than significant if the above policy is implemented. Through the approval and permitting process, the City can regulate the location of hazardous material use, assuring that such activities are not placed near schools.

POTENTIAL IMPACT HM-4: **Placing development on a site which included on the Cortese list of hazardous materials would create a significant impact.**

Level of Significance: **No Impact**

The City of Manteca does not contain sites that are identified on the Cortese List.

POTENTIAL IMPACT HM-5: **The City of Manteca General Plan 2023 could interfere with emergency response or evacuation procedures.**

Level of Significance: **Potentially Significant**

Mitigation Measures:

HM-5.1 The Safety Element of the City of Manteca General Plan (Subsection 7.4) provides the following goal, policy (P), and implementation measures to facilitate emergency procedures.

Goal S-6 Ensure that City emergency procedures are adequate in the event of potential natural or man-made disasters.

S-P-18 The City shall maintain and periodically update the City's Emergency Plan.

S-I-14 The City shall conduct periodic emergency response exercises to test the effectiveness of City emergency response procedures.

S-I-15 The City shall review County and state emergency response procedures that must be coordinated with City procedures.

Residual Level of Significance: Less Than Significant With Mitigation

The level of significance will be mitigated to less than significant if the above goal, policy, and implementation measures are implemented. These actions will facilitate emergency procedures for hazardous materials incidents, as well as other emergency situations. Seismic, flooding, and structural fire emergencies are discussed in Section 8, Section 10, and Section 14, respectively.

References

(1) California Department of Toxic Substances Control. "CalSites Short Summary Report." May 22, 2002.

(2) California Department of Toxic Substances Control. www.DTSC.ca.gov. May 2003.

(3) San Joaquin County Public Health Services, Environmental Health Division. Telephone conversation with Margaret Lagorio, LOP Director. May 21, 2003.

(4) California Integrated Waste Management Board. www.CIWMB.ca.gov. June 2003.

(5) San Joaquin County Public Health Services, Environmental Health Division. Telephone conversation with Robert McClellan. June 2003.

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10. HYDROLOGY AND WATER QUALITY

This section addresses the quality of groundwater and surface water, and the depletion of groundwater. This section also addresses potential flooding in the Study Area.

10.1 EXISTING CONDITIONS

10.1.1 Local Drainage

No major drainages flow within the Study Area. Manteca is located on the relatively higher ground between Lone Tree Creek to the north, the Stanislaus River to the south, and the San Joaquin River to the southwest and west.

Although no major watercourse lies within the Study Area, the San Joaquin River flows approximately four (4) miles to the west of the Study Area boundary. Walthall Slough is a tributary to the river. The Slough's northern boundary is contiguous with the southwestern boundary of the Study Area.

Meteorological events such as intense precipitation may adversely affect the natural drainage of the region. In addition, seasonal snowmelt from the Sierra Nevada mountain range to the east contributes to the volume of water in the local hydrologic system. Urbanization contributes to an increased volume in the hydrologic system by increasing impervious surfaces, which do not allow for infiltration of water into the soil resulting in increased velocities and volumes of runoff.

The South San Joaquin Irrigation District (SSJID) operates drainage facilities that pass through Manteca and carry a portion of the City's drainage. Because of topography, drainage facilities generally follow along an east-to-west alignment. In some instances where subdivisions have developed near irrigation laterals, drainage pumping stations have been installed in lieu of long trunk lines to drains. Water from the SSJID, along with drainage pumped by the City, flows west into French Camp Canal, which eventually flows into French Camp Slough. Storm drainage is gravity-discharged from the Study Area north to French Camp Canal. Existing road and railroad crossings of the Canal are, however, undersized and will require replacement to accommodate peak design flows from the Study Area. The San Joaquin Delta is the ultimate destination of drainage carried by French Camp Slough.

The City's stormwater drainage system is further discussed in Public Facilities and Services (Section 14).

10.1.2 100-Year Flood Areas

The Federal Emergency Management Agency (FEMA) categorizes flood prone areas based on the frequency of occurrence. The City of Manteca has not been mapped. Figure 10-1 shows the location of the FEMA defined 100-year area of potential inundation and the 500-year area of

potential inundation nearest to the City. The primary flood hazard is the San Joaquin River (four miles outside the Study Area) and its tributaries, notably Walthall Slough (contiguous with the southwestern Study Area boundary). A levee running from Williamson Road east to Airport Way provides flood protection for the land north and east of Walthall Slough. This levee is under the jurisdiction of Reclamation District No. 17.

10.1.3 Dam Failure Inundation

Portions of the 100-year floodplain would be subject to inundation in the event of dam failure. Although the likelihood is remote, the area subject to inundation within the Study Area is not specifically defined, but would generally coincide with the area delineated as the 100-year floodplain.

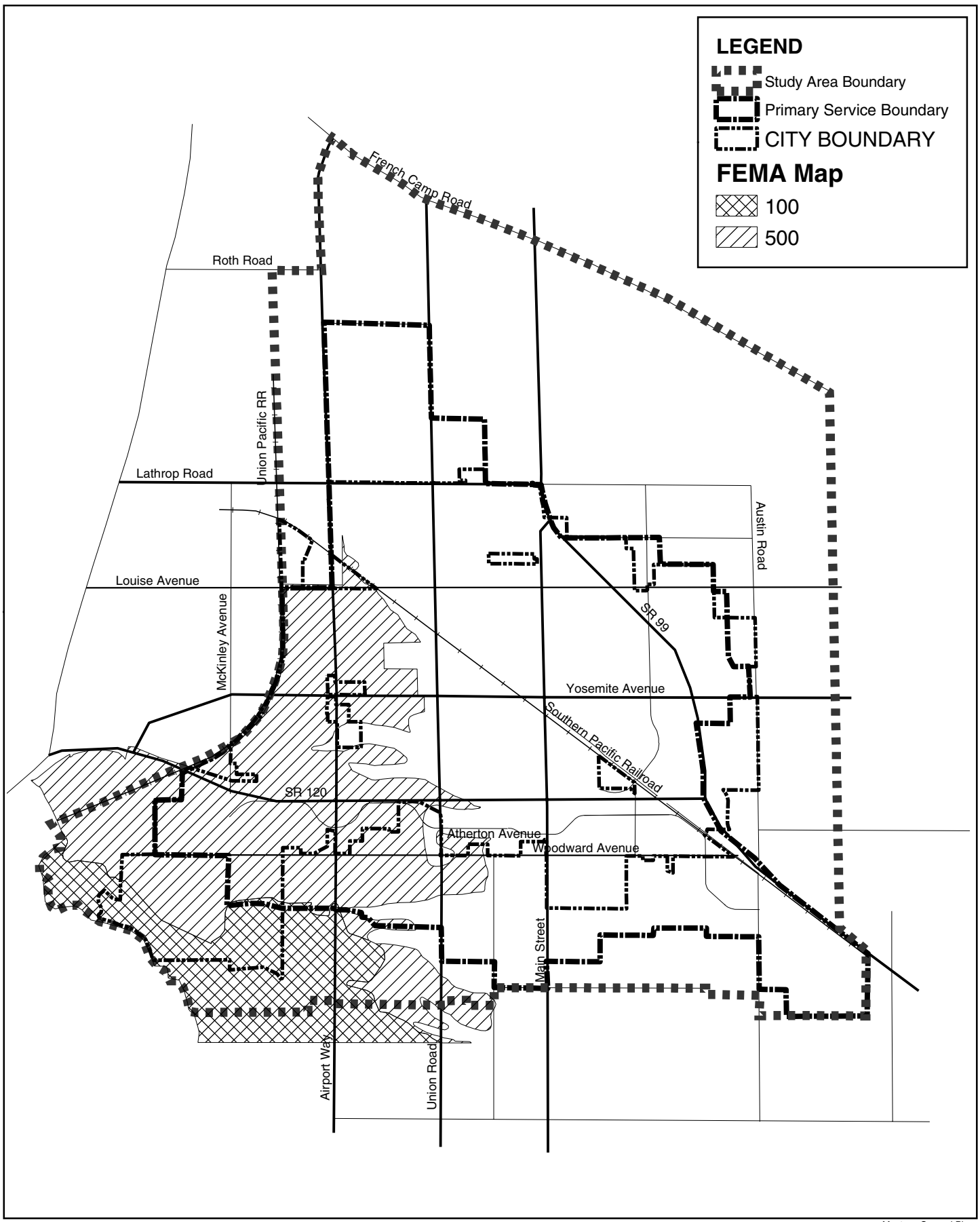
Despite the number of dams near San Joaquin County, the risk of dam failure inundating portions of the County is considered low, and the degree and nature of risk for each dam is unknown. Dam failure can occur under three general conditions: as a result of an earthquake, an isolated incident due to structural instability, or because of intense rain in excess of design capacity.

Section 8589.5 of the California Government Code requires local jurisdictions to adopt emergency procedures for the evacuation of populated inundation areas identified by dam owners. The local Office of Emergency Services has prepared a Dam Failure Plan. This plan includes a description of dams, direction of floodwaters, responsibilities of local jurisdictions, and evacuation plans.

10.1.4 Surface Water Quality

The quantity, quality, and availability of water are vital to both human activities, and vegetation and wildlife in the Study Area. Water is essential to the viability of agriculture; the development of housing, commerce, and industry; recreation; and the maintenance of high-quality fish and wildlife habitats.

There are land uses and activities which the City must consider in protecting its water quality, including construction activities, agricultural land use, a dairy, urban runoff, and the wastewater treatment plant. Water quality issues associated with underground fuel or chemical storage tanks are discussed in Hazardous Materials (Section 9).



Manteca General Plan

WADE ASSOCIATES
urban planning & design
environmental planning

FEMA FLOOD ZONE MAP

May 2003

FIGURE 10-1

Construction Activities

Construction grading can impact water quality because it exposes bare soil. Rainfall on bare soil can cause erosion and sedimentation into nearby water bodies. Unstabilized soil can be washed or wind-blown into nearby surface water. Construction activities can also result in petroleum products and other pollutants from construction equipment, entering nearby drainages.

Agricultural Land Use

Water running off irrigated agricultural fields may contain fertilizers and pesticides. Improper use and disposal of farm chemicals can contaminate surface and groundwater resources. Agricultural procedures can also result in erosion of unstabilized soil, especially during conversion of vegetation. Aerial spraying could also drift into nearby water bodies.

Dairy

There is a dairy within the Study Area, located along Airport Way north of Yosemite Avenue. Wastes from confined animals can cause problems in nearby surface and groundwater. The wastes include nitrate, ammonia, bacteria, and total dissolved solids (TDS). The current adjacent land uses to the dairy are residential and a golf course. This property is proposed for conversion to residential land use in the General Plan 2023.

Urban Runoff

Urban runoff includes household chemicals (including pesticides, herbicides, and paints), as well as petroleum products from automobiles and landscaping equipment. Municipal sources of pollution include government yards where transportation, fueling, and maintenance activities take place.

Wastewater Treatment Plant

Discharge from municipal treatment plants may result in high coliform counts, elevated temperatures, pH changes, increased turbidity, and low dissolved oxygen in water bodies.

The discharge is subject to standards established by the California Regional Water Quality Control Board.

10.1.5 Groundwater Quality

Groundwater levels are relatively high throughout the Study Area.

The City's wells produce groundwater that meet or exceed the State Department of Health Services recommended drinking water quality standards.

10.1.6 Groundwater Recharge

Area water levels are buoyed by the proximity of the Delta channels to the west. Groundwater recharge comes from irrigation of agricultural lands surrounding the City and infiltration from streams flowing west out of the Sierra Nevada. This recharge occurs in areas with permeable materials which allow the infiltration of water along streams, alluvial fans and foothill areas. The Study Area includes a variety of soil types that provide percolation to groundwater. However, with no streams or alluvial fan conditions, there are no notable groundwater recharge areas identified within the Study Area.

10.2 REGULATORY SETTING

The following is a summary of the regulatory context under which surface water and groundwater resources are managed at the federal, state, and local level.

10.2.1 Applicable Federal Regulation

Water Quality: Federal Clean Water Act

The Federal Clean Water Act of establishes the basic structure for regulating discharges of pollutants into surface waters of the United States, and sets water quality standards for all contaminants in surface waters. Water quality standards are intended to protect public health, enhance the quality of water, and serve the purposes of the Clean Water Act. The Act defines water quality standards as federal or state provisions or laws that, (1) designate the beneficial uses of water, and (2) establish water quality criteria to protect those designated uses.

Safe Drinking Water Act

The Safe Drinking Water Act was amended in 1986 and 1996, and requires protection of drinking water and its sources (i.e., rivers, lakes, reservoirs, springs, and groundwater wells). The Act authorizes the U.S. Environmental Protection Agency (EPA) to set national standards for drinking water to protect against pollutants. The EPA, states, and local agencies work together to enforce these standards.

Water Quality: National Pollution Discharge Elimination System (NPDES)

The Federal Clean Water Act was amended in 1972 to regulate discharge of pollutants from any point source into the waters of the United States. NPDES permits cover industrial and municipal discharges, discharges from storm sewer systems in larger cities, stormwater associated with industrial activity, runoff from construction sites disturbing more than one (1) acre of soil, mining operations, and animal feedlots and agricultural facilities above certain thresholds.

Stormwater discharges from both large and small construction sites are now subject to NPDES requirements. Large construction sites are those that involve five or more acres of soil

disturbance. Small construction sites are those that involve from one to five acres of soil disturbance.

The NPDES stormwater permitting program is administered by the State Regional Water Quality Control Boards on behalf of the U.S. Environmental Protection Agency (EPA).

Flooding and Drainage: FEMA 100-Year Floodplain

The boundaries of the 100-year floodplain are delineated by FEMA on the basis of hydrology, topography and modeling during predicted rainstorms. Areas designated as flood zones are shown on published Flood Insurance Rate Maps (FIRM). FEMA requirements for residential development in a designated 'A' Zone include raising the first floor to at or above the base flood elevation (100-year). The National Flood Insurance Program (NFIP) requires owners of property within designated flood zones to purchase flood insurance.

10.2.2 Applicable State Regulation

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act, also known as the California Water Code, is California's statutory authority for the protection of water quality. Under this Act, the state must adopt water quality policies, plans and objectives that protect the state's waters. The Act sets forth the obligations of the State Water Resources Control Board (SWRCB) and Regional Water Quality Control Boards (RWQCB) pertaining to the adoption of Basin Plans and establishment of water quality objectives. Unlike the Federal Clean Water Act, which regulates only surface water, the Porter-Cologne Act regulates both surface and ground water.

State Water Resources Control Board (SWRCB)

The State Water Resources Control Board (SWRCB) administers state water rights and water quality functions. The SWRCB and its nine (9) Regional Water Quality Control Boards (RWQCB) administer water rights and enforce pollution control standards. The SWRCB and RWQCB's are responsible for ensuring implementation and compliance with the provisions of the Federal Clean Water Act (CWA) and California's Porter-Cologne Water Quality Control Act. The project is situated within the jurisdiction of the Central Valley Region of the RWQCB. The Central Valley RWQCB has the authority to implement water quality standards through the issuance of permits for discharges to waters within its jurisdiction.

General Construction Activity Stormwater Permit

General Stormwater Discharge Permits are required by the state for stormwater discharges associated with construction activities involving disturbance of five (5) acres or more. Construction on sites of fewer than five acres requires a permit if part of a larger development or

land sale. Landowners are responsible for obtaining and complying with the permits, but may delegate specific duties to developers and contractors by mutual consent.

Regulations under Section 402(p) of the Federal Clean Water Act are now in effect. They involve control of pollution in stormwater discharges. In California, the Section 402(p) NPDES Permit applicants are required to prepare and retain at the construction site a Stormwater Pollution Prevention Plan (SWPPP), and implement Best Management Practices (BMP) to reduce construction effects on receiving water quality by implementing erosion control measures. The SWPPP must describe the site, erosion and sediment controls, means of waste disposal, implementation of approved local plans, control of post-construction sediment and erosion control measures, maintenance responsibilities, and non-stormwater management controls. Dischargers are also required to inspect construction sites before and after storms to identify stormwater discharge from construction activity, and to identify and implement controls where necessary.

Central Valley RWQCB Basin Plan

The Water Quality Control Plan for the Sacramento and San Joaquin River Basins provides water quality objectives and standards for waters of these two river basins. The Basin Plan contains specific water quality objectives for bacteria, dissolved oxygen, pH, pesticides, electrical conductivity, total dissolved solids (TDS), temperature, turbidity, and trace elements. It also includes objectives for groundwater quality that pertain to bacteria, chemical constituents, radioactivity, taste, color, and toxicity.

California and Section 303(d) of the Clean Water Act

Section 303(d) of the Clean Water Act requires states to develop lists of water bodies that will not attain water quality standards after implementation of minimum required levels of treatment by point-source dischargers (municipalities and industries). Section 303(d) requires states to develop a total maximum daily load (TMDL) for each of the listed pollutants and water bodies. TMDL is the amount of loading that the water body can receive and still meet water quality standards.

The most recently approved (1988) Clean Water Act Section 303(d) list for California identifies the various waterways throughout the state that are water quality impaired for a number of constituents. The SWRCB is responsible for compiling the list. The San Joaquin River is on that list. The TMDL end dates for the pollutant constituents for the river range from December 1999 to December 2011. **(1)**

10.2.3 City of Manteca

South San Joaquin Irrigation District (SSJID) Surface Water Project

Groundwater is the City's primary source of domestic water. The City of Manteca is participating in the South San Joaquin Irrigation District (SSJID) Surface Water Project. This project will deliver surface water to provide a conjunctive use of groundwater and surface water. This will enhance the available water supply and will substantially reduce the amount of groundwater withdrawal. The South San Joaquin Irrigation District (SSJID) Surface Water Project and the conjunctive use of surface and ground water is described in Subsection 14.1.1 of this EIR.

Drainage

The City of Manteca Public Facilities Implementation Plan (1993) identifies a series of specific improvements required to accommodate drainage of the existing urban areas of the City. In addition, the plan identified other measures that apply to future development.

The PFIP requires that:

- Wherever possible, the land ultimately required for each improvement (included in the Drainage Master Plan) will be preserved before development occurs in an area.
- Storm drainage and flood protection facilities should be constructed when each new development begins.

Manteca has predominantly relied upon the lateral and drain facilities of South San Joaquin Irrigation District for terminal drainage. In concert with development, the SSJID facilities have been realigned into rights-of-way and/or structurally upgraded to be compatible with the land conversion from agricultural to urban use. As in the past, drainage improvements will be constructed in a timely manner in order to maintain the level of service standard. This is accomplished by constructing the storm drainage and flood protection facilities for each new project, and by having the necessary facilities in place at time of occupancy.

Manteca presently administers a variety of regulations designed to prevent flooding and address stormwater management. These include a flood ordinance, various provisions of the zoning ordinance and subdivision ordinance, and construction codes for residential and non-residential developments.

The City's municipal drainage system is further discussed in Public Facilities and Services, Section 14.

10.3 IMPACT EVALUATION CRITERIA

In accordance with CEQA Guidelines, Appendix G, any land use directed by the General Plan 2023 would have a significant impact on the environment if the land use would:

a. Violate any water quality standards or waste discharge requirements.

b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).

c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site.

d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in substantial flooding on- or off-site.

e. 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.

f. Otherwise substantially degrade water quality.

g. Place housing within a 100-year flood hazard as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map, or other flood hazard delineation map.

h. Place within 100-year flood hazard area structures which would impede or redirect flood flows.

i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.

j. Inundation by seiche, tsunami, or mudflow.

Soil erosion is addressed in Geology, Soils, and Seismicity, Section 8.

Stormwater drainage system capacity is addressed in Public Facilities and Services, Section 14.

10.4 IMPACTS AND MITIGATION

POTENTIAL IMPACT HWQ-1: Planned development in the General Plan 2023 could violate water quality standards or waste discharge requirements.

Level of Significance: **Potentially Significant**

Mitigation Measures:

HWQ-1.1: Subsection 8.6 of the Resource Conservation Element of the proposed General Plan 2023 addresses water quality. The following implementation measure (I) should be **amended (as shown below in bold)** to meet water quality standards and waste discharge requirements for groundwater and surface water:

RC-I-24 Comply with the Regional Water Control Board's regulations and standards to maintain and improve groundwater **and surface water quality** in Manteca.

Residual Level of Significance: **Less than Significant with Mitigation**

Through compliance with the RWQCB regulations, the City of Manteca will meet water quality standards.

POTENTIAL IMPACT HWQ-2: **Planned development in the General Plan 2023 could substantially deplete groundwater supplies or interfere with groundwater recharge.**

Level of Significance: **Less Than Significant**

As discussed in Subsection 10.1.6 above, the Study Area includes a variety of soil types that provide percolation to groundwater. However, with no streams or alluvial fan conditions, there are no notable groundwater recharge areas identified within the Study Area.

Continued use of groundwater as the City's primary source of domestic water would be a significant impact. However, the level of significance will be reduced when surface water supplies are available through the SSJID Surface Water Project. Delivery of this water is planned for 2005, well before major new development would occur under the General Plan 2023. Even with the Surface Water project, Manteca would continue to pump groundwater water to meet the full projected demand associated with planned growth but would do so at the safe yield rate of extraction. Therefore, the impact is less than significant.

In addition, the General Plan 2023 provides the following goals, policies (P), and implementation measures (I) from the Resource Conservation Element (Section 8) will help to lessen the impacts to groundwater supplies:

Goal RC-1 Minimize the consumption of water to reasonable levels consistent with a high level of amenities and quality of life for City residents and visitors.

Goal RC-2 Maximize the beneficial uses of water by recycling water for irrigation and other non-potable uses.

Goal RC-7 To protect water quality in the San Joaquin River and in the area's groundwater basin.

RC-P-1 The City shall continue to implement water conservation standards for all commercial and industrial development, and for all existing and new residential development.

RC-P-2 The City shall explore potential uses of treated wastewater when such opportunities become available.

RC-P-4 The City shall require ~~promote~~ water conservation in both City operations and private development to minimize the need for the development of new water sources.

Development of private water wells within the city limits shall be allowed only where the City makes a finding that municipal water service is not readily and feasibly available, and such private well systems shall only be allowed to be used until such time as City water service becomes available.

RC-I-1 Continue to implement standards for water conserving landscape practices, including the use of drought tolerant plants, for both public and private projects.

RC-I-2 Continue efforts to increase public participation in water conservation.

RC-I-3 Require large commercial and industrial water users to submit a use and conservation plan as part of the project entitlement review and approval process, and develop a program to monitor compliance with and effectiveness of that plan.

RC-I-4 Cooperate with other agencies and jurisdictions to expand water conservation programs, and to develop methods of water reuse.

RC-I-5 Actively pursue the use of treated wastewater in irrigation and industrial applications, including development of appropriate infrastructure.

RC-P-12 Protect the quality of Manteca's groundwater.

RC-P-13 Encourage participation of the County and surrounding communities in a basin-wide groundwater management study.

RC-I-19 The City shall work with the County and surrounding communities to develop an action plan and/or to create an agency to manage and protect local and regional groundwater resources.

RC-I-20 The City shall not approve new industrial or commercial development that has a significant potential for adversely affecting water quality in the San Joaquin River or in the area's groundwater basin.

POTENTIAL IMPACT HWQ-3: Implementation of the General Plan 2023 could alter the existing drainage pattern, or increase the rate of runoff that could result in flooding.

Level of Significance: Potentially Significant

There are no natural drainages in the Study Area. The South San Joaquin Irrigation District (SSJID) operates drainage facilities that pass through Manteca and carry a portion of the City's drainage. Water from the SSJID, along with drainage pumped by the City, flows west into French Camp Canal, which eventually flows into French Camp Slough.

Urban development increases the amount of impervious surfaces, which in turn increases the amount of runoff.

Mitigation Measures:

HWQ-3.1: The Safety Element (Section 7) of the General Plan 2023 addresses the issue of impervious surfaces and flooding potential. The following implementation measures (I) are intended to reduce the amount of impervious surfaces and the subsequent flooding potential:

S-I-6 Discourage large continuous paved areas unless provided with engineered drainage facilities.

S-I-7 Where feasible, require ~~Encourage~~ the use of pervious paving materials, such as brick or stepping stones with sand joints.

S-I-8 ~~Where feasible,~~ New development shall be required to maintain natural stream courses and adjacent habitat and combine flood control, recreation, water quality, and open space functions.

Residual Level of Significance: Less than Significant with Mitigation

The implementation measures listed above will help reduce the potential for flooding due to impervious surfaces.

POTENTIAL IMPACT HWQ-4: Runoff from new development and impervious surfaces would contain urban contaminants that could affect receiving water quality.

Level of Significance: Potentially Significant

Conversion of undeveloped land to urban uses would increase the amount of impervious surfaces, which in turn would alter the types of pollutants that could be present in runoff. Urban activities which increase polluted runoff include motor vehicle operation and maintenance, residential and landscape maintenance, littering, careless material storage and handling (fertilizers, herbicides, pesticides, gasoline, oil, paint, etc.), domestic animal waste, and pavement wear.

Mitigation Measures:

HWQ-4.1: The Resource Conservation Element (Section 7) of the proposed General Plan 2023 provides the following policy (P) and implementation measures (I) to help reduce urban contaminants from polluting receiving water bodies:

RC-P-11 Minimize pollution of waterways and other surface water bodies from urban runoff.

RC-I-22 Maintain a buffer areas between waterways and urban development to protect water quality and riparian areas.

RC-I-23 Utilize cost-effective urban runoff controls, including Best Management Practices (BMPs), to limit urban pollutants from entering the water courses.

Residual Level of Significance:

The level of significant of urban pollutants entering receiving waters will be reduced to less-than-significant with above implementation measures. BMPs are specifically designed to reduce the impact of urban runoff.

POTENTIAL IMPACT HWQ-5: Implementation of the City of Manteca General Plan 2023 may expose people and structures to the flood hazards of the San Joaquin River 100-year floodplain.

Level of Significance: Potentially Significant

The FEMA 100-Year Potential Flood Map nearest to Manteca is that for the San Joaquin River, as shown in Figure 10-1. The City of Manteca has not been mapped. The San Joaquin River and its tributary, Walthall Slough (contiguous with the southwestern Study Area boundary) are the primary flood hazards for the Study Area. A levee running from Williamson Road east to Airport Way provides flood protection for the land north and east of Walthall Slough. This levee is under the jurisdiction of Reclamation District No. 17.

Mitigation Measures:

HWQ-5.1: The Safety Element (Section 7) of the City of Manteca General Plan 2023 provides the following goals, policies (P), and implementation measures (I) to mitigate potential exposure of people and structures to a significant loss of property and life involving flooding from the designated San Joaquin River 100-year floodplain:

Goal S-3 Prevent loss of lives, injury, and property damage due to flooding.

Goal S-4 Pursue flood control solutions that minimize environmental impacts.

S-P-7 Regulate all uses and development in areas subject to potential flooding through zoning and other land use regulations.

S-P-8 Cooperate with other agencies in the pursuit of ~~Pursue~~ a regional approach to flood issues.

S-P-9 Combine flood control, recreation, water quality, and open space functions where feasible.

S-P-10 Ensure that any existing structures subject to the 100-year flood provide adequate protection from flood hazards.

S-P-11 Ensure that the impacts of potential flooding are adequately analyzed when considering areas for future urban expansion.

S-P-12 New residential development, including mobile homes, shall be constructed so that the lowest floor is at least one foot above the 100-year flood level.

S-P-13 Non-residential development shall be anchored and flood-proofed in accord with the Federal Emergency Management Agency (FEMA) standards to prevent damage or causing damage due to a ~~from the~~ 100-year flood or, alternatively, elevated to at least one foot above the 100-year flood level.

When improvements to existing development are made costing at least 50 percent of the current market value of the structure before improvements, the structure shall be brought into compliance with FEMA standards.

S-I-4 The City shall continue to participate in the National Flood Insurance Program. To this end, the City shall ensure that local regulations are in full compliance with standards adopted by the Federal Emergency Management Agency (FEMA).

S-I-5 Provide flood warning and forecasting information to City residents.

The City shall adopt and implement local flood management development standards.

Residual Level of Significance: Less than Significant with Mitigation

The level of significance will be less than significant after implementation of the above goals, policies, and implementation measures. Combined with General Plan 2023 open space designations nearest the 100-year floodplain and the levee system, these measures will significantly reduce the flood hazards to the Study Area.

POTENTIAL IMPACT HWQ-6: Implementation of the proposed General Plan 2023 could expose people of structures to inundation by seiche, tsunami, or mudflow.

Level of Significance: Less Than Significant

It is highly unlikely that inundation from a seiche (earthquake-induced, tsunami-like flows of water from an inland body of water) will affect the Study Area. The nearest body of inland water is the San Joaquin River, and the Study Area is protected by a levee system.

Given that the Study Area is nearly level in topography; ~~(Geology, Soils, and Seismicity, Section 8),~~ it is highly unlikely that the Study Area would be inundated by mudflows. The nearest source of possible mudflow is the San Joaquin River located at the southwesterly perimeter of the Study Area ~~four miles outside the Study Area boundary, and the Study Area is protected by a levee system~~.

References

(1) Central Valley Water Quality Control Board, 1988 303(d) List, By Water Body. www.swrcb.ca.gov/rwqcb5.

11. LAND USE

This section describes the current land use patterns and development trends within the General Plan Study Area, and the regulatory and planning environment under which future land use planning will or may occur.

11.1 EXISTING CONDITIONS

11.1.1 Land Use Development History

The City of Manteca was established as an agricultural service center. Manteca formed around the primary crossroads, Yosemite Avenue and Main Street, and the Southern Pacific (now the Union Pacific) and Tidewater railroads.

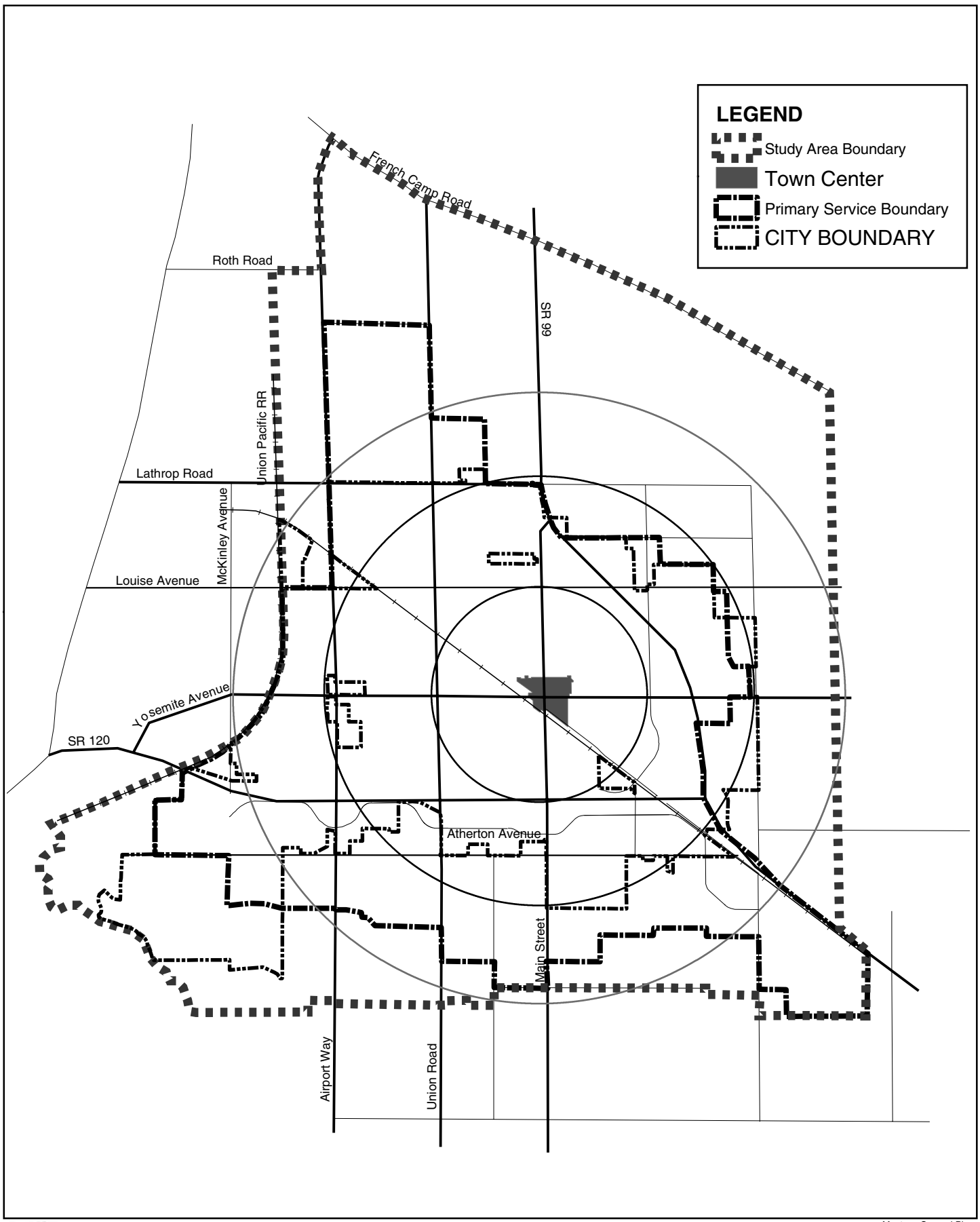
Development began in earnest in Manteca between 1914 and 1920. Residential neighborhoods were beginning to fill in by 1918. The City of Manteca was incorporated on May 28, 1918. During the 1950's, the City grew as inexpensive housing drew workers from the Sharpe Army Depot in Lathrop and industrial plants in south San Joaquin County.

While agriculture still plays an important role in the local economy, the economic base has become more diversified with the development of industries and the influx of Bay Area workers seeking affordable housing. The community has grown with the addition of new neighborhoods, primarily to the north and west of the historic geographic core.

As shown in Figure 11-1, Manteca has grown outward from the geographic center at Yosemite Avenue and Main Street. Commercial development along Yosemite Avenue and Main Street is flanked by residential neighborhoods. In the early years, the community grew close to the historic center in a concentric pattern. In the decades of the 1970’s through 1990’s the community grew away from the center toward the north and west. In the latter 1990’s, following the approval of the South Area Plan, Manteca began to grow south of SR 120.

The community has tended to grow in a compact form with few large vacant parcels. The few, larger vacant lands tend to be located along the west end of Yosemite Avenue and the north end of Main Street at the periphery of the historic urban growth pattern. In these locations more contemporary residential neighborhoods have by-passed underutilized commercial and industrial properties. A handful of agricultural lands remain near the urbanized area.

Development densities are typical of small, suburban communities. The average residential neighborhood has approximately 4 to 5 dwelling units per acre. The density of residential neighborhoods in the older portions of Manteca is comparable to the newer residential neighborhoods.



Manteca General Plan

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CONCENTRIC GROWTH AROUND THE HISTORIC CITY CORE

May 2003

FIGURE 11-1

11.1.2 Existing Land Use Conditions

As of 2003, the City of Manteca encompassed an area of 16.2 square miles and an urbanized area of approximately 8 square miles.

Table 11-1

Land Area in the City of Manteca (2002)

Area	Acres	Square Miles
City Boundary	10,353	16.2
Urbanized Area	5,120	8.0
Primary Area (1988 General Plan)	11,560	18.1
Secondary Service Area (1988 General Plan)	25,149	39.0

Source: Manteca General Plan, 1988 and City of Manteca GIS Data Base, 2002

11.1.3 Physical Constraints

Urban development is not significantly constrained by physical features or terrain in the Study Area. All natural features, including natural waterways and any native vegetation have been removed for agriculture.

Potential flooding is limited to the southwest quadrant of the Study Area, as described in Section 10.1.2 of this EIR. South San Joaquin Irrigation District irrigation and drainage ditches cross the Study Area, generally flowing in an east-west direction. These ditches have been modified or piped in most developed areas of the city. The French Camp Outlet Canal on the west side of the Study Area is a large open drainage canal that could affect the development potential adjacent to it. The canals and other drainage features are discussed in more detail in Section 10.1.1 of this EIR.

The Union Pacific Railroad (UPRR) along the west side of the Study Area would constrain development, coincides with the common boundary with the City of Lathrop and is, therefore, not a factor. The UPRR, running diagonally through Manteca, is substantially developed along the rail right-of-way, and is not a significant constraint to future development.

The power line corridor easement that transects the Study Area from northeast to southwest is a potential constraint to future development, but is substantially developed along the easement. In

some areas of the older part of Manteca, the easement crosses the yards of single family development and is used as part of the private yard.

The Lovelace Solid Waste Transfer Station located on Lovelace Road is a major waste management facility that serves all of Manteca. Potential land use conflicts with this established public facility could constrain future land use or could result in operational constraints on the facility that could affect its future use.

11.2 REGULATORY SETTING

11.2.1 City of Manteca 1988 General Plan

The 1988 City of Manteca General Plan, which currently regulates land development issues, will be replaced by the 2023 General Plan. The 1988 General Plan, as amended through 2002, provides approximately 12,000 acres designated for urban use, exclusive of agricultural uses.

11.2.2 City of Manteca South Area Plan

The South Area Plan was approved by the City of Manteca in 1993 to establish urban land uses south of SR 120. The Plan provides for residential, commercial, and industrial uses near SR 120. The Plan also established the Planned Employment Center (PEC) designation in the southwest quadrant, west of Airport Way.

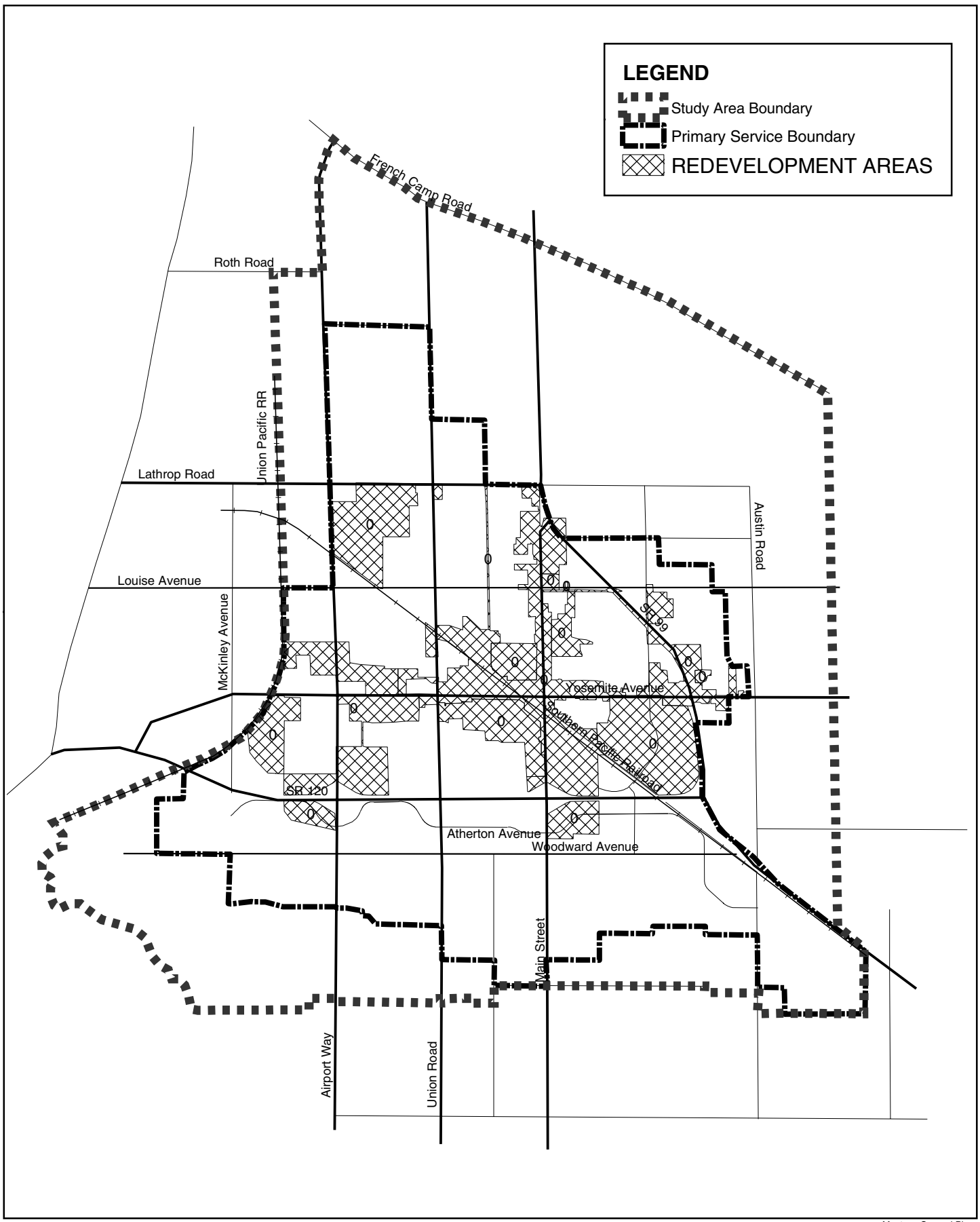
11.2.3 Manteca Redevelopment Agency

The City of Manteca Redevelopment Agency has established two redevelopment areas. The Redevelopment Plan establishes goals and policies for these areas that may affect General Plan land use. Figure 11-2 shows the boundaries of the existing redevelopment areas.

11.2.4 San Joaquin County

The San Joaquin County General Plan and Zoning Ordinance regulates land use in the unincorporated area adjacent to the Manteca City boundary. Manteca has historically annexed land as development has created the demand for urban services. Therefore, the incorporated area of Manteca very closely follows the existing developed area. The predominant land use designation in the County is Agriculture, and the typical zoning in the Manteca area is AG-40 or AU-20. Figure 11-3 shows the County zoning in the General Plan Study Area.

The Oakwood Lake Resort and the residential areas around the Weatherbee Lake (a reach of Walthall Slough) are existing developments within the County that are included in the Study Area boundary, but are not proposed to be annexed to Manteca. These areas were included in the Study Area because their sole access is through the proposed development areas in Manteca and would therefore, be part of the traffic analysis. In addition to the existing developed area, San



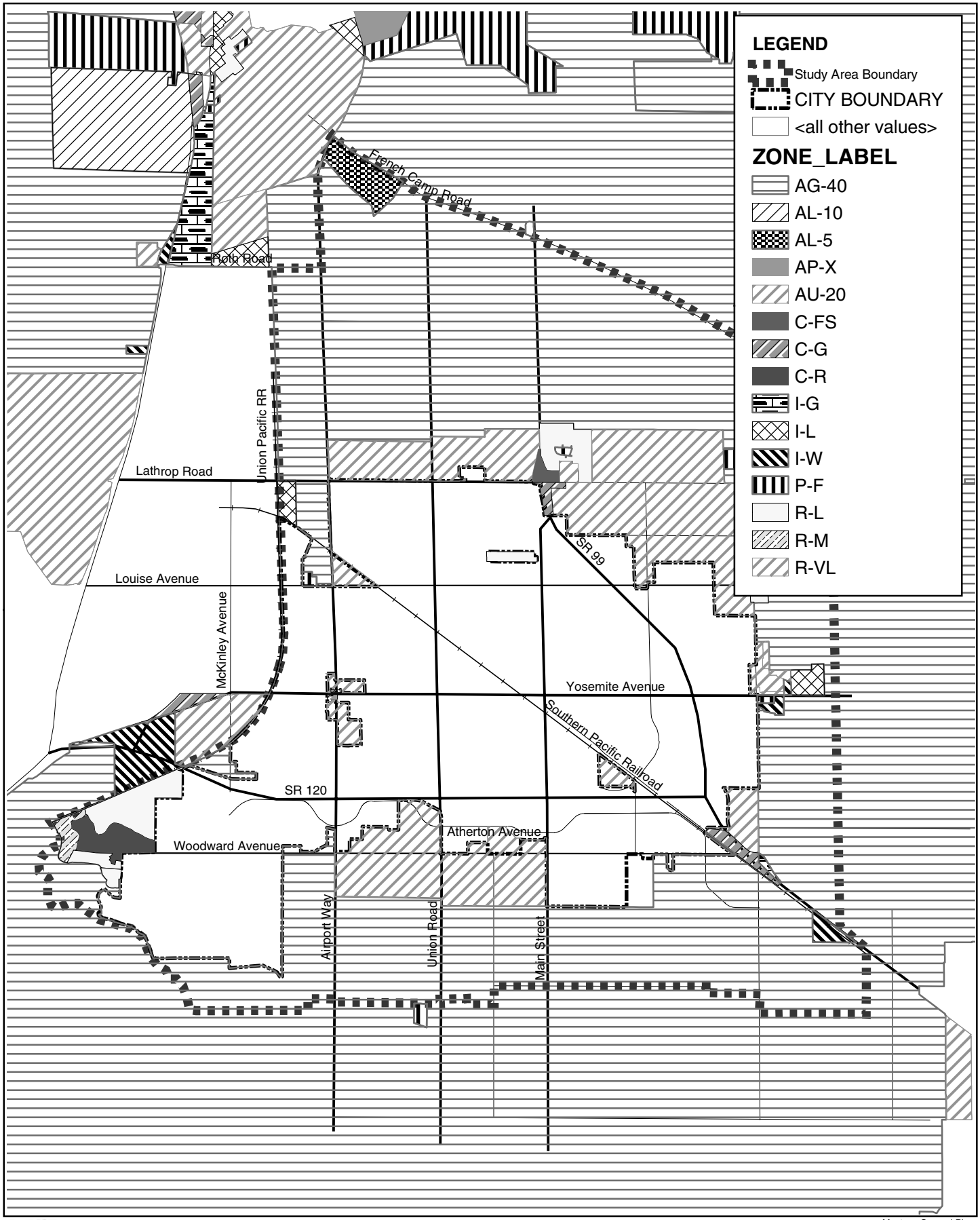
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REDEVELOPMENT AREAS IN THE CITY OF MANTECA

May 2003

FIGURE 11-2



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SAN JOAQUIN COUNTY ZONES

May 2003

FIGURE 11-3

Joaquin County has approved a subdivision and commercial use area within the Oakwood Lake properties. This proposed development is contiguous to the proposed land use in the General Plan 2023.

11.2.5 Local Agency Formation Commission

The San Joaquin County Local Agency Formation Commission (SJLAFCo) has authority over the formation of special districts, incorporation of municipalities, and reorganization of district and municipal boundaries. All land use designations in the Manteca General Plan that lie beyond the existing Manteca municipal boundary will apply to the affected properties only when those properties have been annexed to the City. Such annexation can only occur with the approval of the SJLAFCo.

Municipal Spheres of Influence

The Local Agency Formation Commission also has the authority to establish a Sphere of Influence (SOI) for each special district and city in the county. The SOI establishes the anticipated area of annexation for each of these agencies. Therefore, the general plan for each agency should be compatible with the SOI of each adjacent jurisdiction. Figure 11-4 shows that the Manteca General Plan Study Area does not conflict with the Stockton, Ripon, or Lathrop municipal spheres of influence.

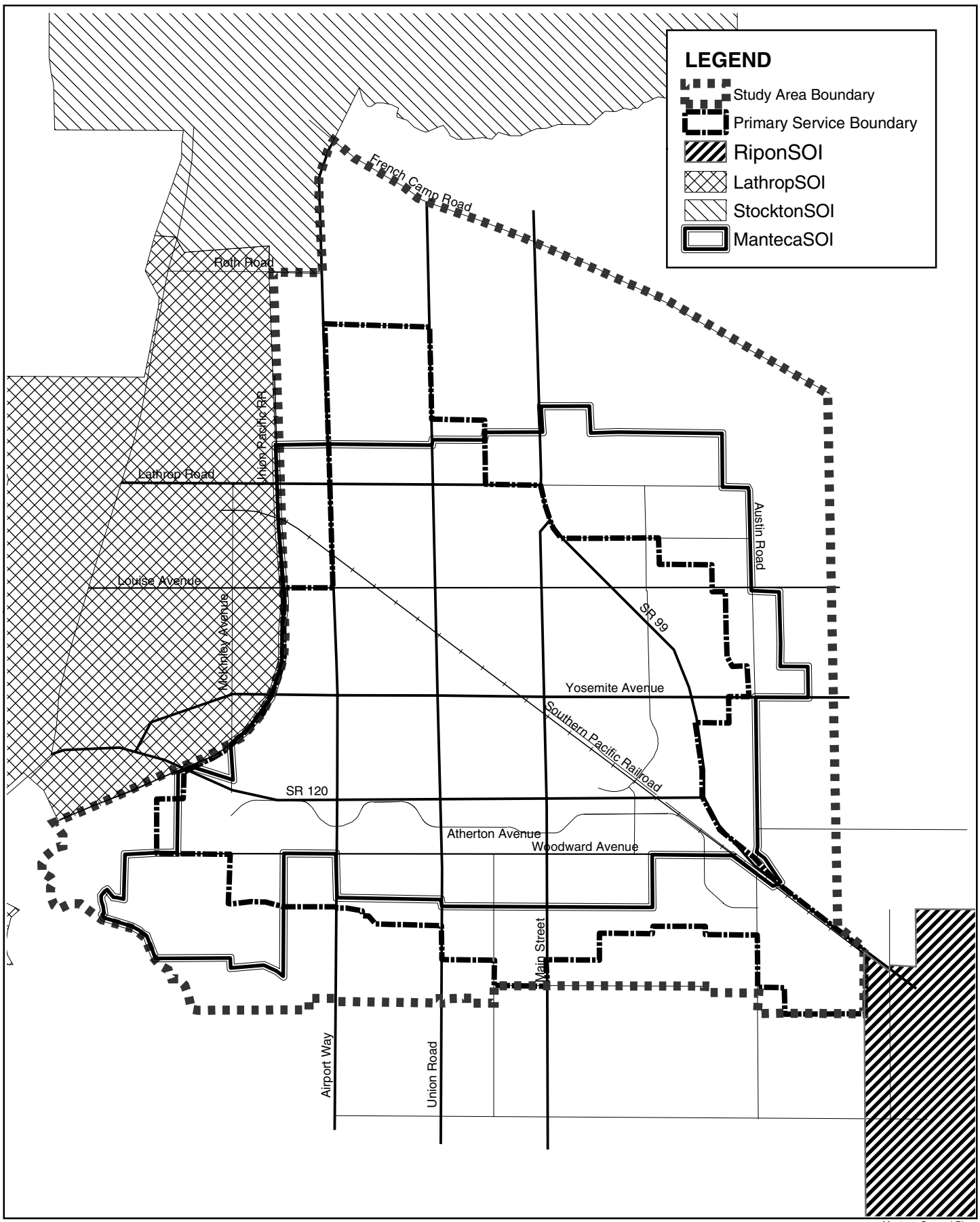
11.2.6 School District Boundaries

The Manteca General Plan Study Area is primarily within the Manteca Unified School District boundary. Figure 11-5 shows that approximately 1,260 acres located in the southeast quadrant of the Study Area lies within the Ripon Unified School District boundary.

11.2.7 The San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) *(3,4,5)*

The San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) is a multi-species, multi-habitat, multi-purpose open space management program for all of San Joaquin County, including the incorporated area of Manteca. The Manteca City Council adopted the SJMSCP (Resolution #R2001-411) on February 5, 2001, signing a Joint Powers Agreement with other city, county, state, and federal agencies.

The SJMSCP is a 50-year plan (2001-2051) that provides compensation for the conversion of open space to non-open space uses that affect the plant, fish, and wildlife species covered by the Plan. The Plan also includes some compensation to offset the impacts of open space conversions on non-wildlife related resources such as recreation, agriculture, scenic values, and other beneficial open space. The Plan proposes preserves that contain habitat for many species, not just the targeted species.



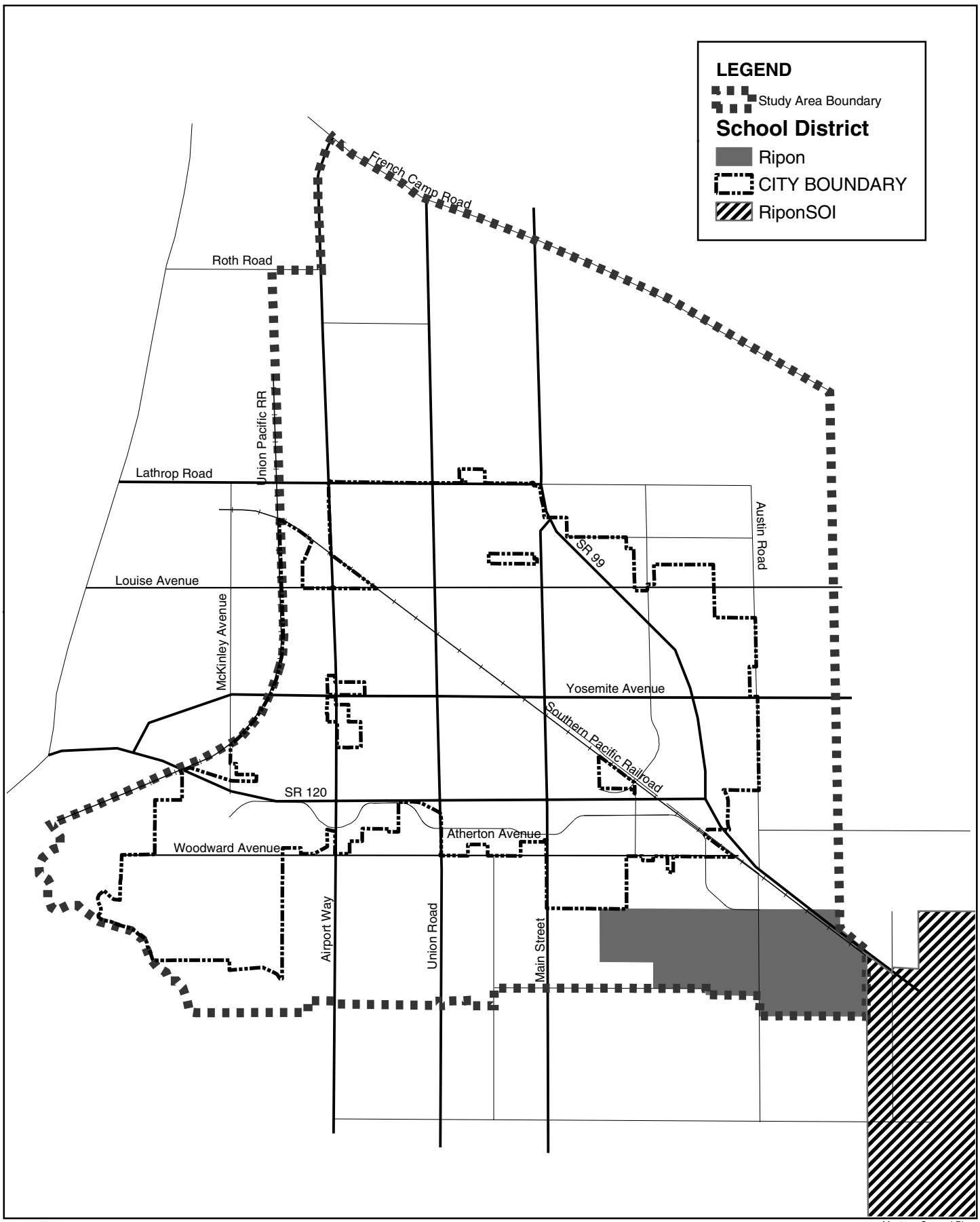
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SPHERES OF INFLUENCE

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FIGURE 11-4



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RIPON SCHOOL DISTRICT BOUNDARY WITHIN THE STUDY AREA

May 2003

FIGURE 11-5

The SJMSCP conservation strategy relies on minimizing, mitigating, and avoiding impacts for the covered species. These strategies may directly influence land use by establishing preserve areas that would preclude future development or by constraining the potential land use. The specific features of the SJMSCP that apply to the Manteca General Plan Study Area are more fully described in Section 6.1.2 ~~11.1.2~~ of this EIR.

11.2.8 California Farmland Mapping and Monitoring Program (FMMP)

The FMMP establishes criteria and mapping for prime farmland, unique farmland, and farmlands of statewide importance. The California Environmental Quality Act (CEQA) requires that these farmland designations be considered in the environmental analysis and consequently, may affect the General Plan land use. The FMMP is discussed in detail in Section 4.1.1 of this EIR.

11.2.9 Delta Protection Act of 1992

The southwest corner of the General Plan Study Area is within the "Secondary Zone" defined in the Resource Management Plan required in the California Delta Protection Act of 1992. As stated in the act the "basic goals of the state for the delta are the following:

(a) Protect, maintain, and, where possible, enhance and restore the overall quality of the delta environment, including, but not limited to, agriculture, wildlife habitat, and recreational activities.

(b) Assure orderly, balanced conservation and development of delta land resources.

(c) Improve flood protection by structural and nonstructural means to ensure an increased level of public health and safety.

"Secondary zone" means all the delta land and water area within the boundaries of the delta not included within the primary zone, subject to the land use authority of local government, and that includes the land and water areas as shown on the map titled "Delta Protection Zones" on file with the State Lands Commission. (Section 29731)

However, this division does not confer any permitting authority upon the commission or require any local government to conform their general plan, or land use entitlement decisions, to the resource management plan, except with regard to lands within the primary zone. The resource management plan does not preempt local government general plans for lands within the secondary zone. (Section 29764)

11.3 IMPACT EVALUATION CRITERIA

The General Plan would have a significant adverse impact on the environment if development would:

- Physically divide an existing community.
- Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning, ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.
- Conflict with any applicable habitat conservation plan or natural community conservation plan.
- The proposed land use would create conflicts with established land uses.

11.4 IMPACTS AND MITIGATION

11.4.1 Summary of Proposed General Plan Land Use

Table 11-2 summarizes the General Plan 2023 Land Use.

Table 11-2

General Plan 2023 Land Use

	Proposed Developable Land Use	**Existing Urbanized Land Use**	**Total 2023 Land Use**
LAND USE	Acres	Acres	Acres
AG Agriculture	3960.0		3960.0
GC General Commercial	518.0	154	672.0
NC Neighborhood Commercial	111.8	380	491.8
CMU Commercial Mixed Use	255.0		255.0
HI Heavy Industrial	715.0	194.9	909.9
LI Light Industrial	798.1	226	1024.1
BIP Business Industrial Park	258.0		258.0
BP Business Professional	133.0		133.0
HDR High Density Residential (15.1 to 25 du/ac)	251.0	191	442.0
MDR Medium Density Residential (8.1to 15 du/ac)	359.0	187.6	546.6
LDR Low Density Residential (2.1 to 8 du/ac)	3685.9	2741.7	6427.6
VLDR Very Low Density Residential (0.5 to 2 du/ac)	248.0	109.8	357.8
P/QP/ Public/Quasi-public Schools/Utilities	317.6	788.3	1105.9
OS Open Space	516.0	27	543.0
P Park	175.7	342.4	518.1
Total	12302.1	5342.7	17644.8

Proposed Land Use Designations

The General Plan amends the existing land use designations in the 1988 General Plan by increasing the densities permitted in each residential category, and by providing new designations. Commercial Mixed Use (CMU) is added to provide a flexible designation suited to small retail and service commercial uses combined with office, and residential uses. One purpose of this designation is to provide pedestrian destinations within neighborhoods.

Organization of Land Uses

The General Plan 2023 directs land use in a pattern that maintains the historic commercial core of Manteca as the geographic center of development. Figure 11-1 shows that the pattern of planned development in the Primary Urban Service Boundary corresponds to concentric circles at one-mile intervals radiating out from the historic core.

POTENTIAL IMPACT LU-1: Proposed land use would divide an existing community.

Level of Significance: Less Than Significant

Manteca has grown outward from the historic core of the city. Continued urbanization as planned would continue this expansion and would seek to reinforce the historic concentric growth pattern focused on the geographic center of the city. Such expansion would not interfere with any adjacent community. However, the planned urbanization of Manteca would overlap the Ripon Unified School District boundary near Austin Road and Sedan Avenue, as shown in Figure 11-5. This area is currently undeveloped, but is contiguous to the Ripon community.

The Land Use Element (Section 2) of General Plan 2023 establishes specific policies (P) for addressing the potential annexation of an adjacent area.

LU-P-9 The City will consider applications for annexations that:

- are contiguous with city boundaries and provide for a logical expansion of the city;
- create clear and reasonable boundaries;
- ensure the provision of adequate municipal services;
- reflect a long-term fiscal balance to the city and its residents, when reviewed cumulatively with other annexations;
- are consistent with State law and San Joaquin County Local Agency Formation Commission standards; and
- are consistent with the General Plan.

LU-P-10 The City will consider expanding its sphere of influence to incorporate areas that logically should be planned and serviced by Manteca. The City shall consider the following factors when making determinations involving sphere of influence boundaries:

- Present and planned land uses in the area;
- Present and probable need for public facilities and services in the area;
- Present capacity of public facilities and adequacy of public services; and
- Existence of any social or economic communities of interest in the area.

POTENTIAL IMPACT LU-2: The proposed General Plan 2023 would conflict with any applicable land use plan, policy, or regulation of any agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect.

Level of Significance: Less Than Significant

The General Plan 2023 proposes urbanization of land that is currently unincorporated territory of San Joaquin County and is subject to the San Joaquin County General Plan and Zoning Ordinance. The County General Plan designates much of the area surrounding Manteca as Agriculture. Approximately 15,700 acres, or 60 percent of the General Plan Study Area, is in the unincorporated area of San Joaquin County. However, the General Plan 2023 does not propose to urbanize the entire Study Area. The Primary Urban Service Area would affect 4,221 acres outside of the existing City of Manteca Boundary.

The area planned for urbanization is substantially within or contiguous to the Manteca Sphere of Influence and is therefore designated for urban use. The procedures and standards for annexation of unincorporated areas are established by the San Joaquin County Local Agency Formation Commission. The General Plan 2023 policies LU-P-5, LU-P-6, LU-P-7, and LU-P-9 establish the City policies for proceeding with annexations that would convert the current County land use designations to City of Manteca land use designations.

The General Plan 2023 proposes land uses that differ from the 1988 General Plan and the Manteca South Area Plan. It is the purpose of the General Plan 2023 to update the 1988 General Plan and the South Area Plan. Therefore, although different land use policies and a new land use map will apply, the General Plan 2023 does not conflict with existing plans.

POTENTIAL IMPACT LU-3: The proposed General Plan 2023 would conflict with any applicable habitat conservation plan or natural community conservation plan.

Level of Significance: **Less Than Significant**

The San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) identifies the location of sensitive species habitat within the General Plan Study Area, (refer to General Plan Figure 6-1), and establishes the procedures for compensating for the loss of such habitat. Through the compensation methods described in Section 6 of this EIR, the development of such habitat is allowed.

POTENTIAL IMPACT LU-4: **The proposed General Plan 2023 would create conflicts between incompatible land uses.**

Level of Significance: **Potentially Significant**

The General Plan 2023 Land Use Map creates a potential land use conflict with the location of residential use adjacent to the Lovelace Solid Waste Transfer Station on Lovelace Road. The City of Manteca depends on the Waste Transfer Station to process all solid waste collections. Complaints from residents regarding normal operations of the Waste Transfer Station could lead to calls for closure of the facility, with a substantial loss in public investment and environmental impacts resulting from trash hauling to another location.

Mitigation Measure:

LU-4.1 The General Plan 2023 Public Facilities Element (Section 6) ~~of the General Plan 2023~~ provides the following policy (P) for reducing conflicts between residential use and the Lovelace Solid Waste Transfer Station.

PF-P-31 The City shall deny any residential or institutional uses within one half-mile of the Lovelace Transfer Station that would constrain or limit its continuation.

The City shall respond negatively to any County referral for proposed residential or institutional use within one half-mile of the Lovelace Transfer Station that would constrain or limit its continuation.

~~**LU-4.2** Before adoption of the General Plan 2023, the Land Use Map would be revised to remove any land uses that would constrain or limit the continued use of the Lovelace Transfer Station.~~

Residual Level of Significance: **Less than Significant With Mitigation**

The level of significance will be mitigated to less than significant if the above policies and measures are implemented to maintain a buffer between residential uses and the Lovelace Transfer Station.

12. NOISE

This section is based upon and incorporates the noise analysis completed by Brown-Buntin, Inc., Noise Analysts: "Noise Analysis for the City of Manteca General Plan Update."

12.1 EXISTING CONDITIONS

The principal noise sources in the City of Manteca are traffic on State Routes 99, 120 and on local roads; the Union Pacific rail line; and commercial/industrial facilities. The existing noise environment in the City of Manteca was determined by a combination of noise level measurements and noise modeling. Following is a discussion of the background noise level survey results in residential and industrial areas of the City, and a description of the studied noise sources in the City.

12.1.1 Background Noise Level Survey

The purpose of the background noise level survey was to determine the baseline environment in the City at various locations. Three residences (Sites 1-3) were selected for the survey for continuous noise monitoring through a 24-hour period. Two other locations (Sites 4 & 5) were monitored intermittently. Their locations are shown in Figure 12-1. The results of the monitoring are shown in Figures 12-2 through 12-4 and in Table 12-1.

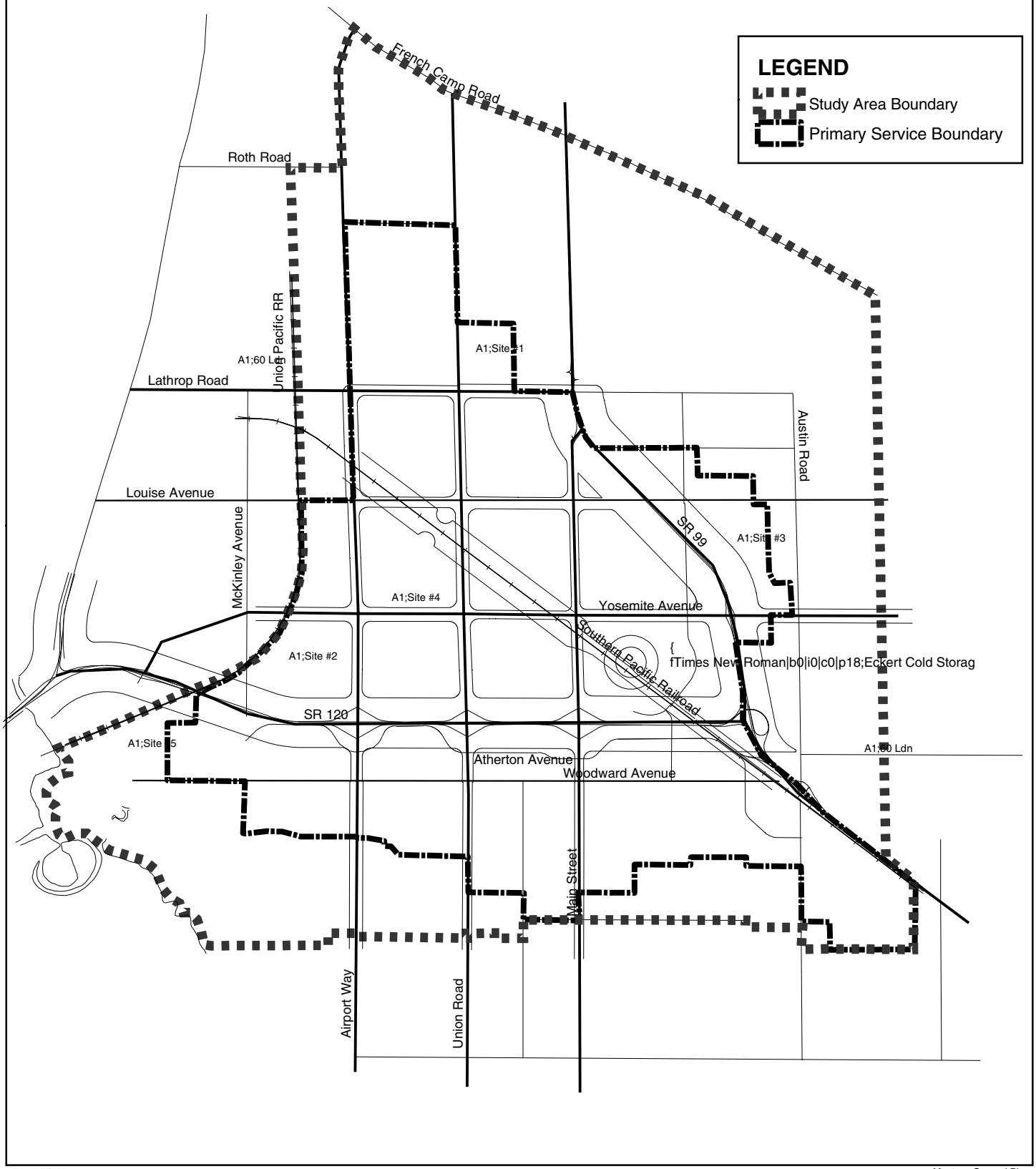
The background noise levels in terms of the Day/Night Average Level (L_{dn}) at the three residences that were measured for a 24-hour period ranged from about 55 to 59 dB. These noise levels are typical of residential areas in small communities that are located away from major noise sources, such as State Highways. In Table 12-1 background noise levels are summarized at a location off Airport Way (Site #4) in the Yosemite-Airport Specific Plan Area, and south of Route 120 (Site #5) in the Southwest Manteca Specific Plan Area.

Table 12-1

Intermittent Measurements of Background Noise Levels

Location	Date	Time	Sound Level, dBA			Source
			L_{eq}	L_{max}	L_{min}	
Site #4	5/20/03	10:20 a.m.-10:35 a.m.	56	72	43	Traffic on Airport Way
		11:30a.m.-11:45 a.m.	54	70	41	
		3:30 p.m.-3:45 p.m.	49	70	40	
Site #5	5/20/03	10:40 a.m.-10:55 a.m.	49	72	56	Traffic on SR 120
		1:30 p.m.-1:45 p.m.	53	75	58	
		4:00 p.m.-4:15 p.m.	52	70	55	

Source: Brown-Buntin



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LOCATION OF BACKGROUND NOISE LEVEL SURVEYS AND EXISTING 60 dB Ldn NOISE CONTOURS

May 2003

FIGURE 12-1

Source: Brown-Buntin June 2003

Figure 12-2
Background Noise Levels
655 Sierra, May 19-20, 2003

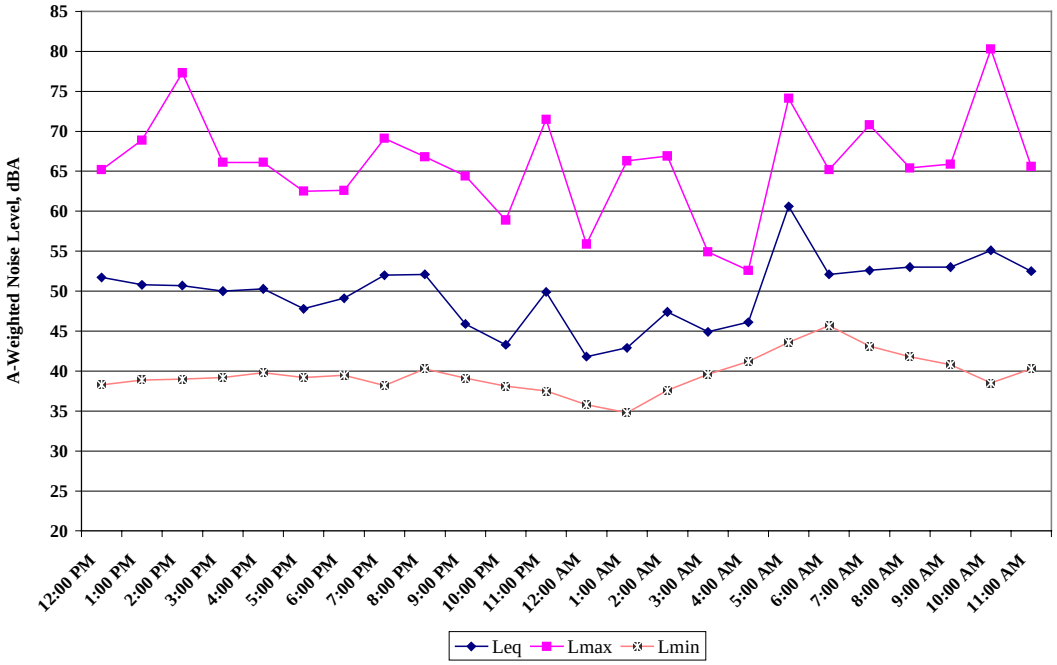


Figure 12-3
Background Noise Levels
1345 Keith Lane, May 19-20, 2003

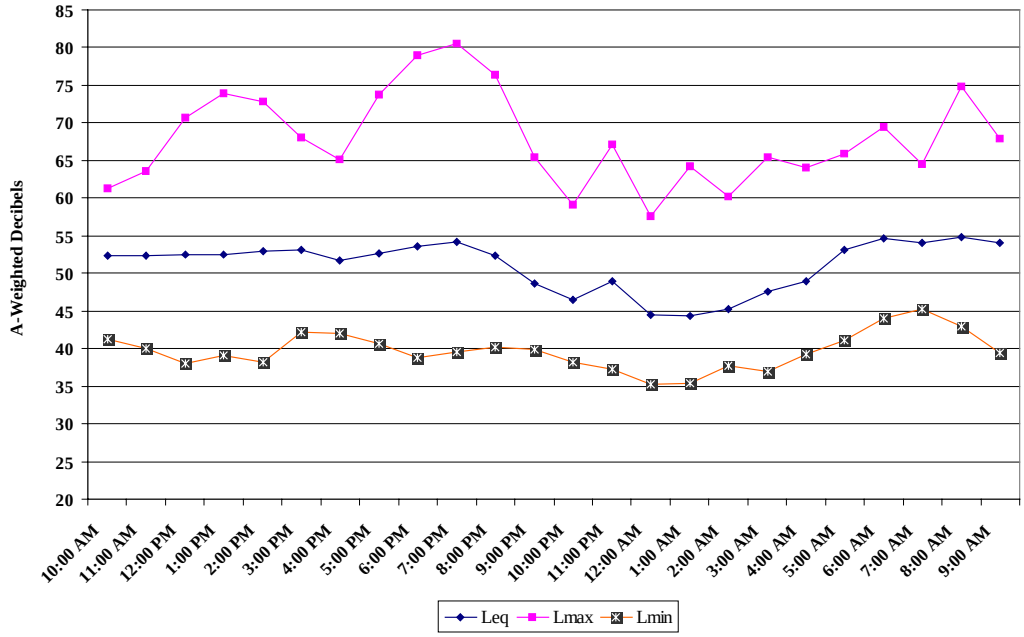
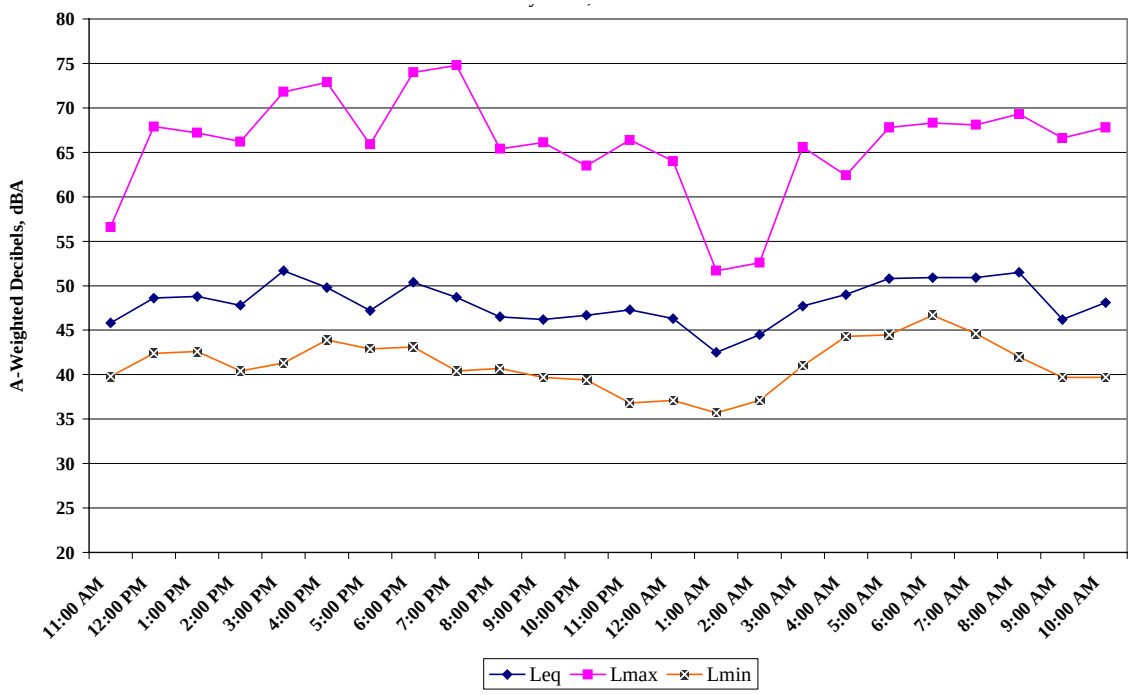


Figure 12-4
Background Noise Levels
1417 Sextant, May 19-20, 2003



In Figures 12-2 through 12-4 the L_{max} represents the highest (maximum) instantaneous noise level occurring during an hour. The L_{min} is the minimum instantaneous noise level during an hour, and the L_{eq} is the energy equivalent or average noise level during the hour.

Major Stationary Noise Sources

The production of noise is an inherent part of many industrial, commercial and agricultural processes, even when the best available noise control technology applied. Noise production within industrial or commercial facilities is controlled indirectly by Federal and State employee health and safety regulations (OHSA and Cal-OSHA), but exterior noise emissions from such operations have the potential to exceed locally acceptable standards at nearby noise-sensitive land uses.

Noise exposure information for the major stationary noise sources selected for study by the City was developed from noise level measurements conducted at reference locations around the noise source, and BBA file information. Only existing noise levels are described since there are too many variables and unknown conditions to predict future noise exposure.

The following discussions provide generalized information concerning the relative noise impacts of each source, and identify specific noise sources which should be considered in the review of development proposals where potential noise conflicts could result. Not all industrial noise sources in the City are discussed. Unidentified industries or other major noise sources may exist, which could generate significant noise levels and result in noise-related land use conflicts. Generalized 50 and 55 dBA hourly L_{eq} noise contours were prepared for major stationary noise sources where it was determined that such contours would be located off the property occupied by the source. These contours are included in Figure 12-1 of this document. The generalized contours contained within Figure 12-1 should be used as a screening device to determine when potential noise-related land use conflicts may occur, and when site-specific studies may be required to properly evaluate noise at a given noise-sensitive receiver location.

Eckert Cold Storage:

This industrial facility is located at 757 Moffat Boulevard. The main sources of noise appear to be heat exchanger fans. At a distance of 100 feet, the energy average noise level was 72.1 dBA. The hourly 50 and 55 dBA L_{eq} are approximately 1270 and 720 feet from the industry. These contours are plotted on Figure 12-1.

Miscellaneous Stationary Noise Sources:

A wide variety of land uses is permitted in light industrial and commercial zones areas. Thus there is the potential for a wide variety of noise sources associated with those uses. However, the noise sources which could be present can be categorized as either fixed or mobile noise sources, and the typical sources of concern can be limited to relatively few. For example, the following list describes typical noise sources of concern in industrial and commercial uses.

Fixed Noise Sources

- Fans and blowers
- Impact-causing devices, such as:
  - hammers
  - presses
  - bottling equipment
  - loading operations (lumber, pipes)
- Saws, routers, grinders
- Cardboard compactors
- Small engine repair and testing
- Auto, motorcycle, boat repair and testing
- Car wash equipment
- Vacuums
- Garage pickup
- Garage compactors
- Machine shop equipment
- Barking dogs (kennels)
- Music (in studios)
- Music (in bars and restaurants)
- Arcade games
- Carnivals
- Heating and ventilation (HVAC) units

Mobile Noise Sources	Heavy truck loading and unloading
Delivery trucks	Forklifts

It is difficult to quantify noise levels produced by the noise sources listed above, as the levels depend upon such variables as the size of the equipment, the amount of noise control engineered into the equipment, the distance to the equipment or activity, and whether the receiver is shielded from the noise by a close structure, a barrier, or an intervening building. In general, however, each of the noise sources listed above has the potential to exceed the provisions of the City of Manteca noise standards.

12.1.2 TRANSPORTATION NOISE SOURCES

Traffic Noise

Traffic noise exposure was calculated using the Federal Highway Administration Highway Traffic Noise Model (FHWA Model). The FHWA Model is the analytical method currently favored by most state and local agencies, including Caltrans, for highway traffic noise prediction. The Model is based upon reference energy emission levels for automobiles, medium trucks (2 axles) and heavy trucks (3 or more axles), with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, the acoustical characteristics of the site. The FHWA Model was developed to predict hourly L_{eq} values for free-flowing traffic conditions, and is generally considered to be accurate within ± 1.5 dB. The Model assumes a clear view of traffic with no shielding at the receiver location. To predict L_{dn} values, it is necessary to determine the hourly distribution of traffic for a typical day and adjust the traffic volume input data to yield an equivalent hourly traffic volume. The Calveno traffic noise emission curves were used as recommended by Caltrans to more accurately calculate noise levels generated by California traffic.

Traffic conditions for existing conditions that were used in the FHWA Model were provided by Fehr and Peers. Traffic volumes within some road segments were averaged by BBA where differences were minor. Appendix A shows the traffic data used in the Model. Appendix B shows existing traffic noise levels calculated at a reference distance of 100 feet, and Appendix C shows distance to noise contours. Figure 1shows the distances to noise contours from roadway centers.

In general, existing traffic noise levels on major roadways through Manteca range from about 62-65 dB L_{dn} at a reference distance of 100 feet. Along Routes 120 and 99, existing noise levels are about 74-75 dB L_{dn} at the same distance. Traffic noise levels that are 60 dB L_{dn} or less usually are considered to be fully compatible with noise-sensitive uses, which include residences, schools, churches and hospitals. Levels between 60 and 70 dB L_{dn} are marginally acceptable, and levels over 70 dB L_{dn} usually are considered to be unacceptable.

Rail Noise

The Union Pacific (UP) mainline track runs through the center of Manteca diagonally in a southeast to northwest direction. According to the UP there are about 18-23 freight trains on the track during a typical 24-hour period. The mean Sound Exposure Level (SEL) for a UP freight train more than 1,000 feet from a grade crossing is 96.3 dB at 125 feet. At grade crossings where the warning horn is blown, the mean SEL is 101.3 at 125 feet. The distances to the 60 dB L_{dn} were calculated based on the mean SEL values and the operational characteristics of the trains. The 60 dB L_{dn} contour is shown in Figure 12-1.

A branch line of the UP forms the west boundary of the General Plan Study Area. Very few train operations occur on the branch line and the noise exposure is less than 60 dB L_{dn} outside the railroad right-of-way.

12.1.3 Sensitive Land Uses

Noise sensitive land uses refer to specific uses where a person would be adversely impacted by noise and where the person would have the expectation of a relatively quiet environment. Uses include residences of all types, nursing homes, day care centers, medical facilities, schools, parks, and open space near the City.

12.1.4 Mobile Noise Sources

The primary mobile noise sources in the Study Area are vehicular traffic along SR 99 and SR 120, and railroad operations. Noise from the railroad operations, including train traffic and train whistles, is generally buffered by distance from much of the community. The rail lines are separated from homes on the east and west sides of the tracks by a distance of approximately 250 feet.

Maximum allowable noise exposure from mobile sources is shown in Table 12-2.

Table 12-2

Maximum Allowable Noise Exposure – Mobile Noise Sources

Land Use	Outdoor Activity Areas	Interior Spaces	
		Ldn/CNEL, dB	Leq, dB2
Residential	60	45	
Transient Lodging	60	45	
Hospitals, Nursing Homes	60	45	
Theaters, Auditoriums, Music Halls			35
Churches, Music Halls	60		40
Office Buildings	65		45
Schools, Libraries, Museums			45
Playgrounds, Neighborhood Parks	70		

Notes:

Outdoor activity areas for residential development are considered to be backyard<u>s</u>, patios <u>areas,</u> or decks of single family dwellings, and the patios<u>, balconies,</u> or common areas where people generally congregate for multi-family developments.

Outdoor activity areas for non-residential developments are considered to be those common areas where people generally congregate, including pedestrian plazas, seating areas, and outside lunch facilities.

Where the location of outdoor activity areas is unknown, the exterior noise level standard shall be applied to the property line of the receiving land use.

Determined for a typical worst-case hour during periods of use.

Where a proposed use is not specifically listed on the table, the use shall comply with the noise exposure standards for the nearest similar use as determined by the City.

12.1.5 Stationary Noise Sources

Stationary noise sources include, but are not limited to, construction activities, operational, and equipment noise produced from commercial and industrial facilities. These noise sources are typically mitigated through enforcement of the City's Noise Ordinance. The Ordinance sets forth criteria for residential areas impacted by stationary noise sources.

Performance standards for stationary noise sources are shown in Table 12-2.

No standards have been included for interior noise levels. Standard construction practices should, with the exterior noise levels identified, result in acceptable interior noise levels.

Table 12-3

Performance Standards for Stationary Noise Sources or

Projects Affected by Stationary Noise Sources

Noise Level Descriptor	Daytime	Nighttime
	7 a.m. to 10 p.m.	10 p.m. to 7 a.m.
Hourly Leq, dB	60	45
Maximum Level, dB	60	45

Notes:

Each of the noise levels specified above should be lowered by five (5) dB for simple noise tones, noises consisting primarily of speech or music, or recurring impulsive noises. Such noises are generally considered by residents to be particularly annoying and area a primary source of noise complaints.

12.2 REGULATORY SETTING

12.2.1 Federal Standards

The U.S. Department of Housing and Urban Development (HUD) has set an L_{dn} of 45 dB as its goal for interior noise in residential units built with HUD funding.

12.2.2 State of California Standards

The Office of Noise Control, California Department of Health Services (DHS), has established four categories for judging the severity of noise intrusion on specified land uses:

- normally acceptable - no undue burden on affected receptors and no mitigation needed
- conditionally acceptable - some mitigation of exposure, as established by an acoustic study, would be warranted
- normally unacceptable - noise intrusion is so severe that it would require extraordinary noise reduction measures to avoid disruption
- clearly unacceptable - noise so severe that it cannot be mitigated

Title 24 of the California Code of Regulations establishes standards governing interior noise levels that apply to all new multi-family residential units. The standards require that acoustical

studies be conducted prior to construction where the future Ldn exceeds 60 dbA. Mitigation measures are required that will limit maximum L_{dn} values to 45 dB in any inhabitable room.

12.2.3 Non-Regulatory Standards of Significance

Another means of assessing noise impact is to estimate public reaction to the change in noise level that results from a given project. Expected human reactions to changes in ambient noise levels have been quantified by metrics that define short-term exposure (e.g., hourly Leq, Lmax, and Ln) to noise. An increase of at least 3 dB is usually required before most people will perceive a change in noise levels, and an increase of 5 dB is required before the change will be clearly noticeable. Table 11-6 (GP) is used to show expected public reaction to changes in environmental noise levels. This table was developed on the basis of test subjects' reactions to changes in the levels of steady-state pure tones or broad-band noise and to changes in levels of a given noise source. It is probably most applicable to similar sounds in the range of 50 to 70 dBA.

12.2.4 City of Manteca Noise Standards

The City of Manteca Noise Ordinance establishes the noise standards shown in Table 12-3.

The City of Manteca uses the Uniform Building Code that establishes the following standard for interior living spaces.

"Interior community noise levels (CNEL) with windows closed, attributable to exterior sources, shall not exceed an annual CNEL or Ldn of 45 dB in any habitable room."

This standard is to apply to all new hotels, motels, apartments, and dwellings other than single-family detached dwellings. State law also requires noise insulation of new multi-family dwellings constructed within the 60 dB CNEL noise exposure contours.

Table 12-4

Maximum Permissible Sound Pressure Levels, City of Manteca

Receiving Land Use Category	Time Period	Max Exterior Noise Level (dBA)
Single & Limited Multiple Family	10 pm – 7 am	50
	7 am – 10 pm	60
Multiple Family, Public Institutional,	10 pm – 7 am	55
& Neighborhood Commercial	7 am – 10 pm	60
Medium & Heavy Commercial	10 pm – 7 am	60
	7 am – 10 pm	65
Light Industrial	Anytime	70
Heavy Industrial	Anytime	75

Notes:
The following corrections are applicable (apply only one correction):
Daytime Operation Only (7 am – 7 pm) + 5 decibels
Noise Source Operates Less Than:
20% of any one-hour period + 5 decibels
5% of any one-hour period +10 decibels
1% of any one-hour period + 15 decibels
Noise of Impulsive Character - 5 decibels
(hammering, etc.)
Noise Rising or Falling in Pitch or - 5 decibels
Volume (hum, screech, etc.)

Source: City of Manteca. Title 17, Zoning Ordinance. Chapter 17.13, Section 17.13.040.

12.3 IMPACT EVALUATION CRITERIA

In accordance with CEQA Guidelines, Appendix G, any substantial increase in the ambient noise levels for adjoining areas would be significant if the project would result in:

1. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

2. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.

3. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

4. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

12.4 IMPACTS AND MITIGATION

POTENTIAL IMPACT N-1: **Planned development in the General Plan 2023 could result in exposure of persons to noise levels in excess of established standards.**

The existing city is a relatively quiet residential community with the notable exceptions of the railroad operations, traffic noise from SR 99 and SR 120, and commercial/industrial uses. These sources are endemic to the community and cannot be easily avoided. The General Plan 2023 seeks to avoid creating new noise generating conditions that would degrade the existing community environment, or to place a sensitive land use where it would be adversely affected by an existing noise source.

Level of Significance: **Potentially Significant**

Mitigation Measures:

N-1.1: The General Plan 2023 Noise Element (Section 9) ~~of the General Plan 2023~~ provides the following policies (P) to mitigate the effects of increased noise levels in excess of established standards:

N-P-2: New development of residential or other noise-sensitive land uses will not be permitted in noise-impacted areas unless effective mitigation measures are incorporated into the project design to satisfy the performance standards in Table 9-1 (*Table 12-2 above).*

N-P-3 The City may permit the development of new noise-sensitive uses only where the noise level due to fixed (non-transportation) noise sources satisfies the noise level standards of Table 9-2 (*Table 12-3 above*). ~~Noise mitigation may be required to meet Table 9-2 performance standards.~~

N-P-4 The City shall require stationary noise sources proposed adjacent to noise sensitive uses to be mitigated so as to not exceed the noise level performance standards in Table 9-2 (*Table 12-3 above*).

N-P-6 Where the development of residential or other noise-sensitive land use is proposed for a noise-impacted area, an acoustical analysis is required as part of the environmental review process so that noise mitigation may be considered in the project design. The acoustical analysis shall:

- Be the responsibility of the applicant.
- Be prepared by a qualified acoustical consultant experienced in the fields of environmental noise assessment and architectural acoustics.
- Include representative noise level measurements with sufficient sampling periods and locations to adequately describe local conditions and the predominant noise sources.
- Estimate existing and projected (20 years) noise levels in terms of the standards of Table 9-1 (*Table 12-2 above*) or Table 9-2 (*Table 12-3 above*), and compare those levels to the adopted policies of the Noise Element.
- Recommend appropriate mitigation measures to achieve compliance with the adopted policies and standards of the Noise Element.
- Estimate noise exposure after the prescribed mitigation measures have been implemented.
- Describe a post-project assessment program that could be used to monitor the effectiveness of the proposed mitigation measures.

N-P-8 The City shall enforce the Sound Transmission Control Standards of the California Building Code concerning the construction of new multiple occupancy dwellings such as hotels, apartments, and condominiums.

N-P-10 The Manteca Police Department shall actively enforce requirements of the California Vehicle Code relating to vehicle mufflers and modified exhaust systems.

Residual Level of Significance: Less Than Significant With Mitigation

The level of significance will be mitigated to less than significant if the above policies are implemented. These policies will reduce the exposure of people to noise levels in excess of established standards.

POTENTIAL IMPACT N-2: **Implementation of the General Plan 2023 could expose people to the impacts of construction noise.**

During the construction phases ~~resulting from implementation of the General Plan~~, noise from construction activities would dominate the noise environment in the immediate area of construction.

Activities involved in construction would generate noise levels ranging from 70 dB to 90 dB at a distance of 50 feet. Construction equipment operations can vary from intermittent to continuous, with multiple pieces of equipment operating concurrently. Assuming concurrent operation of multiple sources in the same area, such as a scraper, a bulldozer, a heavy truck, and a backhoe, the maximum noise level during a period of construction could be as high as 94 dBA at 50 feet from the working area. Assuming multiple sources as described above, and typical sound attenuation over distance, locations within about 800 feet of a construction site could experience noise exposures up to 70 dBA.

Construction activities would be temporary in nature, typically occurring during normal working hours. Construction noise impacts could be significant, as nighttime operations or use of unusually noisy equipment could result in annoyance or sleep disruption for nearby residences.

During construction, traffic noise in the general area would be reduced because of the reduction in speed required by working road crews. Conversely, noise levels due to vehicles leaving the construction area would be slightly higher than normal as a result of acceleration. The net effect of the accelerating and decelerating traffic upon noise would not be appreciable. The most important project-generated noise source would be truck traffic associated with the transport of heavy materials and equipment. This noise increase would be of short duration and limited primarily to daytime hours.

Level of Significance: **Potentially Significant**

Mitigation Measures:

N-2.1: The General Plan 2023 Noise Element ~~of the General Plan 2023~~ (Section 9) provides the following policy (P) to mitigate the levels of construction noise on ambient noise levels throughout the General Plan Study Area.

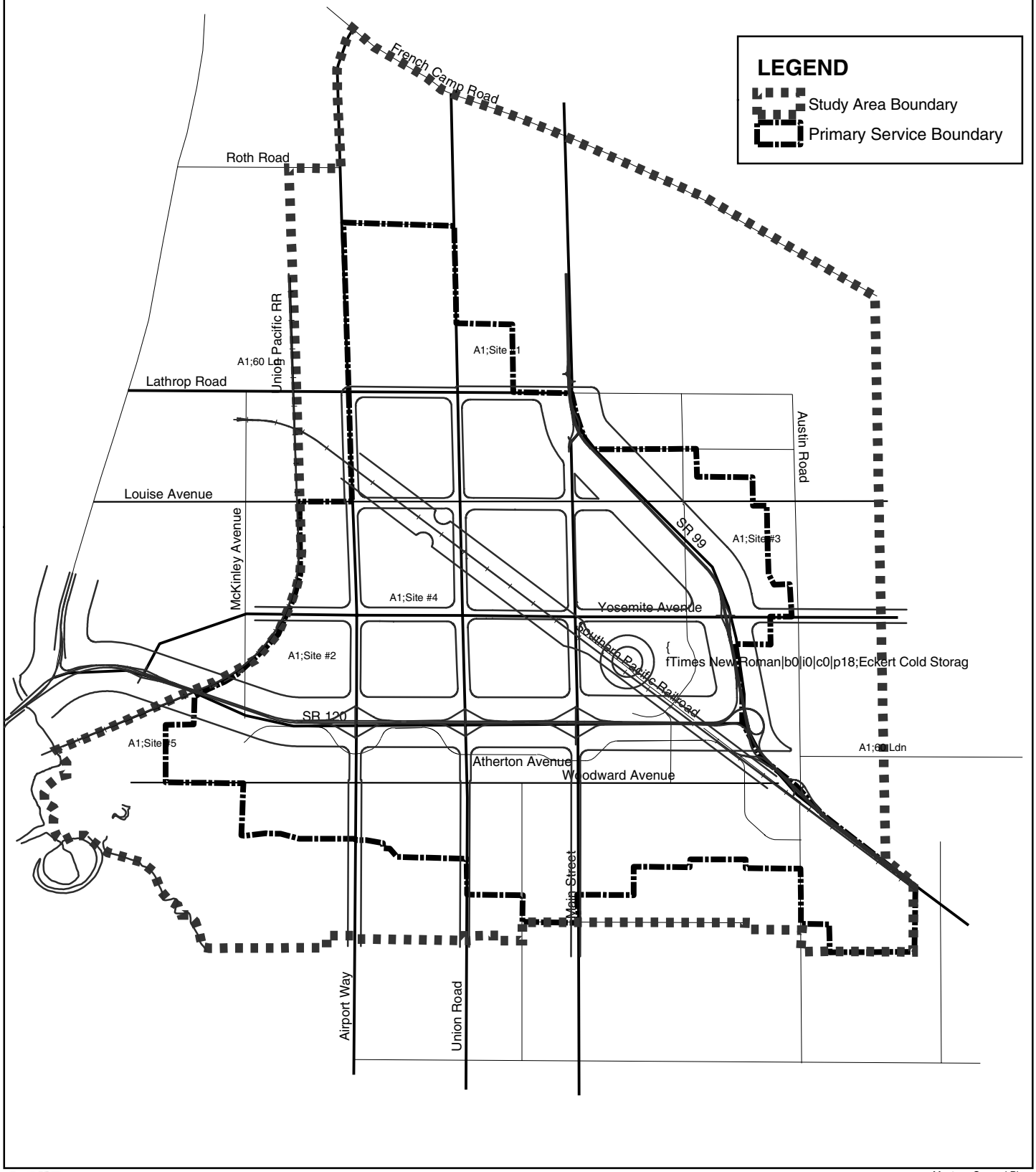
N-P-5 In accord with Table 9-2 standards the ~~The~~ City shall regulate construction-related noise ~~to reduce~~ impacts on adjacent uses.

Residual Level of Significance: **Less Than Significant With Mitigation**

The level of significance will be less than significant if the above policy is implemented. This policy will reduce the exposure of people to construction noise.

POTENTIAL IMPACT N-3: **Implementation of the General Plan 2023 could expose residents to the impact of future roadway traffic noise.**

Projected future traffic volumes on State Highways and local roads were used to predict future traffic noise impacts in Manteca. The FHWA methodology, as described in the Existing Noise Environment report, was used to make the calculations. On SR 99, SR 120 and I-5 traffic speeds less than current speed limits were assumed because the predicted level of service for these roads is D through F. Appendices A, B & C of the Noise Analysis Report (available for review at the City's Community Development Department) show input data into the model, predicted noise levels at a reference distance of 100 feet, and the distance to noise contours. Figure 12-5 shows the location of projected future 60 dB L_{dn} contours for roadways.



Manteca General Plan

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LOCATION OF PROJECTED FUTURE 60 db Ldn CONTOURS FOR ROADWAYS

May 2003

FIGURE 12-5

Source: Brown-Buntin June 2003

In general, future traffic noise levels on City roads will range from about 65-68 dB L_{dn} at a distance of 100 feet. Along SR 120 and SR99, future noise levels will range from about 75-77 dB at the same distance. Comparing these levels to existing traffic noise levels, it is apparent that traffic noise levels will increase in Manteca by about 3 dB. These changes may be smaller or greater along individual roadways.

Since the proposed noise compatibility standard is 60 dB L_{dn} in Manteca, it is apparent that traffic noise impacts could occur at many locations and that noise mitigation measures will have to be employed.

Level of Significance: **Potentially Significant**

Mitigation Measures:

N-3.1 The General Plan 2023 Noise Element ~~of the General Plan 2023~~ (Section 9) provides the following policies (P) to mitigate the levels of roadway traffic noise levels throughout the General Plan Study Area:

N-P-11 For ~~In~~ residential development ~~subdivisions~~ backing on to a freeway or railroad right-of-way, the developer shall be required to build a sound barrier wall, and provide for other appropriate mitigation measures, to satisfy the performance standards in Table 9-1 ~~in accordance with City development standards~~.

N-P-12 The City shall require new roadways to be mitigated so as to not exceed the noise levels specified in Table 9-1 (*Table 12-2 above).* Widening or other improvement projects of existing roadways shall be mitigated to the most practical extent.

Residual Level of Significance: **Less Than Significant With Mitigation**

The level of significance will be less than significant if the above policies are implemented. These policies will reduce the exposure of people to future roadway traffic noise.

POTENTIAL IMPACT N-4: **Implementation of the General Plan 2023 could expose residents to the impact of railroad noise.**

The factors that overwhelmingly determine the extent of rail noise is the number of rail operations and the presence of grade crossings along the railroad tracks. For the most part, the sound produced by an individual locomotive does not change much and therefore is not a major

factor. Train operations, however, can change depending on business conditions. Unfortunately, changes in train operations are rarely predictable or are considered to be confidential by train companies.

Grade crossings have a major effect on railroad noise impacts because all trains are required to sound their horns as the approach grade crossings. To the extent that grade crossings are abandoned, or overpasses or under passes are constructed, overall railroad noise levels will decrease.

Level of Significance: **Potentially Significant**

Mitigation Measures:

N-4.1 The Noise Element of the General Plan 2023 (Section 9) provides the following implementation measure (I) to mitigate the levels of railroad noise within the Study Area:

N-I-8 Work in cooperation with Caltrans and the Union Pacific Railroad to maintain noise level standards for both new and existing projects in compliance with Table 9-1 *(Table 12-2 above).*

Residual Level of Significance: **Less Than Significant With Mitigation**

The level of significance will be mitigated to less than significant if the above implementation measure is implemented. Working with Caltrans and Union Pacific Railroad will help reduce the exposure of people to railroad noise.

Potential Impact N-5: **Implementation of the General Plan 2023 could expose residents to the impacts of future industrial/commercial, emergency, and outdoor activity noise.**

It is not possible to predict new industrial/commercial noise impacts since a general plan update does not specify actual industries or commercial uses that will be built; nor does a general plan update specify the actual sources of noise that are often associated with industrial/commercial uses. Please refer to the list of stationary noise sources listed in Section 12.2.1 of this EIR.

Although it is not possible to predict with certainty new sources of industrial/commercial noise, it is possible that noise impacts may occur where such adjoin or are close to proposed or existing noise-sensitive uses, such as residential developments.

Level of Significance: **Potentially Significant**

Mitigation Measures:

N-5.1 The Noise Element of the General Plan 2023 (Section 9) provides the following policies (P) and implementation measures (I) to mitigate the noise levels from industrial/commercial, emergency, and outdoor activities throughout the General Plan 2023 Study Area:

N-P-2: New development of residential or other noise-sensitive land uses will not be permitted in noise-impacted areas unless effective mitigation measures are incorporated into the project design to satisfy the performance standards in Table 9-1 (*Table 12-2 above).*

N-P-4 The City shall require stationary noise sources proposed adjacent to noise sensitive uses to be mitigated so as to not exceed the noise level performance standards in Table 9-2 (*Table 12-3 above*).

N-P-7 Noise level criteria applied to land uses other than residential or other noise-sensitive uses shall be consistent with noise performance levels of Table 9-1 and Table 9-2 ~~recommendations of the *Guidelines for the Preparation and Content of Noise Element of the General Plan*~~.

N-P-13 The City shall carefully review and shall give potentially affected residents an opportunity to fully review any proposals for the establishment of helipads or heliports.

N-I-1 New development in residential areas with an actual or projected exterior noise level of greater than 60 dB Ldn will be conditioned to use mitigation measures to reduce exterior noise levels to less than or equal to 60 dB Ldn.

N-I-14 Control noise at the source through use of insulation, berms, building design and orientation, buffer space, staggered operating hours and other techniques. Use insulation, berms,

building design and orientation, buffer space, noise barriers, and other techniques to attenuate noise to acceptable levels.

Residual Level of Significance: Less Than Significant With Mitigation

The level of significance will be mitigated to less than significant if the above policies (P) and implementation measures (I) are implemented. Through enforcement of the noise standards and the use of noise attenuation measures, the exposure of people to industrial/commercial, emergency, and outdoor activity noise will be reduced or elimination.

13. POPULATION AND HOUSING

This section addresses the increase in population, and housing that is anticipated in the General Plan 2023.

13.1 EXISTING CONDITIONS

13.1.1 Population

The California Department of Finance, Demographic Research Unit estimates that the population in the City of Manteca was 57,200 as of January 2003.

The population of Manteca has significantly increased in recent years as housing prices have remained relatively affordable in the region compared to the regional housing market in the Bay Area. Table 13-1 reflects Manteca's demographic changes in the decade 1990 through 2000.

Table 13-1

Summary of Population Characteristics 1990 –2000

	1990 Census	2000 Census	Net Change
Total Population	40,773	49,258	20.8%
Total Households	13,466	16,368	21.6%
Total Housing Units	13,981	16,937	21.1%
Average Household Size	3.05	2.98	-0.1
Median Age	32.5	32.5	0.0
% Population Under 18	32.36%	31.60%	-0.8%
% Population Over 65	8.35%	9.30%	0.9%
% Population- White	76.83%	64.10%	-12.7%
% Population- Hispanic or Latino	12.68%	25.10%	12.4%
% Population- Black	1.12%	2.90%	1.8%
% Population- Asian/Pacific Islander	3.18%	3.90%	0.7%

Source: 1990 and 2000 U.S. Census

13.1.2 Housing

The availability and relative low-cost of housing in Manteca has been a major factor in population and housing growth. Many residents have found Manteca's location, climate, and

housing opportunities attractive and have relocated from Bay Area locations. This has encouraged a "bedroom community" in Manteca as many residents commute to areas west of the Altamont Pass, into the Bay Area to work.

Table 13-2 indicates the rate of housing growth in the City since 1991. The City did not differentiate between single family and multi-family dwellings until 1996. The number of permits issued for multi-family housing during that period is negligible. The rate of housing production has increased over time, but has fluctuated from year to year. The relative few building permits for multi-family housing developed during that time reflects the policies in the 1988 General Plan that emphasized construction of single family homes.

Table 13-2

Manteca Residential Building Permit History

	Building Permits Issued		
Year	**Single Family**	**Multi-Family**	**Total**
1991	N/A	N/A	73
1992	N/A	N/A	193
1993	N/A	N/A	212
1994	N/A	N/A	162
1995	N/A	N/A	244
1996	298	0	298
1997	249	0	249
1998	322	0	322
1999	627	2	629
2000	1,147	0	1147
2001	619	0	619
			4,148

Source: U.S. Census Bureau, City of Manteca Building Department

The 2000 Census reflects a community with growing housing values, low vacancy, and relatively small households. Approximately 25 percent of the housing stock in Manteca is over 30 years old (built before 1970); 23 percent built between 1970 and 1979; 29 percent built between 1980 and 1989; and 23 percent built between 1991 and 2001. These statistics reflect the rate of growth in the area during the 1980s and 1990s that continues today. It is also important to note that a significant portion (approximately 48%) of the existing housing stock will be likely to have rehabilitation needs in the next 7-10 years. Table 13-3 details a variety of 2000 Census Manteca housing characteristics, compared with the 1990 Census.

Table 13-3

Manteca Housing Characteristics

Housing Characteristic	1990	2000
Total Housing Units	13,981	16,937
Median Value	$139,400	$213,658 *(Central Valley Association of Realtors)*
Average Value	$145,828	$223,925 *(Central Valley Association of Realtors)*
Owner Occupied Units	59.69%	63%
Vacancy Rate	N/A	3.4%
Owner-Occupied Vacancy Rate	N/A	1.1%
Rental Vacancy Rate	N/A	3.1%
Average Persons per Household	3.05	2.98

Source: U.S. Census 2000, unless otherwise noted.

13.1.3 Jobs/Housing Balance

The City of Manteca is a "housing-rich" community, indicating more housing opportunities than jobs available. Many residents have moved to Manteca, searching for a lower-cost housing alternative to the Bay Area. Many of these residents have maintained their jobs in the Bay Area, choosing to commute from Manteca. The commute pattern directly affects Manteca's economy. Manteca suffers from a low daytime population, because so many residents work outside of the area. As such, their daytime activities and spending occur outside of Manteca.

13.2 REGULATORY SETTING

13.2.1 Federal

U.S. Department of Housing and Urban Development (HUD) is a cabinet-level department of the federal government responsible for housing, housing assistance, and urban development. Housing programs administered through HUD include Community Development Block Grant (CDBG), HOME, and Section 8 Rental Assistance.

13.2.2 State of California

The Department of Housing and Community Development (HCD) administers and allocates the Regional Housing Needs Assessment (RHNA) for each county. State Housing law requires SJCOG to create a plan every five years that summarizes regional housing needs for both existing conditions, as well as for a five-year planning period. This plan, known as the Regional Housing Needs Assessment (RHNA) allocates regional housing needs by income level among its members. SJCOG has determined that Manteca's current housing need as 3,104 new housing units.

13.2.3 San Joaquin County

The San Joaquin Council of Governments (SJCOG) brings together mayors, city council members, and county supervisors throughout San Joaquin County to work on regional issues. While regional transportation planning is its primary role, SJCOG also participates in housing, population statistics, airport land use, habitat and open space planning, and other regional issues. SJCOG is responsible for preparation of the Regional Housing Needs Assessment (RHNA) which determines a jurisdiction's share of regional housing growth.

13.2.4 City of Manteca

The 1988 General Plan goals and the Growth Management Ordinance regulate housing and population in Manteca.

The 1988 Manteca General Plan establishes the following goals related to population and housing:

Goal A: To provide a range of housing types, densities, designs, and prices to meet existing and projected housing needs for all economic segments of the community.

Goal B: To encourage the maintenance and continued improvement of the existing housing stock and residential neighborhoods.

Goal C: To ensure the provision of adequate services to support existing and future residential development.

Goal D: To promote equal opportunity to secure safe, sanitary, and affordable housing for everyone in the community regardless of race, sex, and other arbitrary factors.

Goal E: To encourage energy efficiency in all new and existing housing.

The Manteca Growth Management Ordinance seeks to establish a maximum population growth rate of 3.9 percent annually.

13.3 IMPACT EVALUATION CRITERIA

For the purposes of this EIR, impacts would be significant if implementation of the proposed General Plan would:

- induce substantial population growth in the area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure);
- Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere; and/or
- Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

13.4 IMPACTS AND MITIGATION

POTENTIAL IMPACT H-1: Implementation of the General Plan 2023 would increase the City's population over existing conditions.

Population in California, in general, and in the San Joaquin Valley specifically, will increase in the future for several reasons. Primarily, the increasing cost of housing in urban areas near job centers will cause consumers to look for lower cost housing in suburban communities. In addition, as technology changes, businesses have opportunities to locate in non-traditional areas such as Manteca.

Population growth is projected to continue for the near future, primarily driven by continued demand for relatively affordable housing and quality of life in Manteca. Table 13-4 indicates the San Joaquin Council of Governments projection that Manteca will grow to 86,370 by 2025, approximately the horizon of the General Plan. It is notable that the population projection for 2005 is exceeded by the Department of Finance population estimate for 2003.

Table 13-4

Population Projection

	City of Manteca	San Joaquin County
2000	49,500	566,600
2005	56,874	633,348
2010	64,248	700,095
2015	71,622	766,843
2020	77,699	821,851
2025	86,370	900,338

Source: SJCOG, Research and Forecasting Center.

Table 13-4 provides a calculation of the annual population growth that would occur at the maximum rate allowed under the Growth Management Ordinance. Under this growth rate, the population of Manteca could reach approximately 120,000 in twenty years, approximately double the current population. However, such a sustained rate of growth would be unusual for any California city and is substantially higher than the state average rate.

Table 13-5

Population Projection at 3.9% Annual Growth

Year	Population
2003	57,200
2005	61,749
2010	74,766
2015	90,528
2020	109,613
2022	118,329
2025	132,721

Source: Wade Associates, May 2003

As noted in Section 2.6, Assumptions Regarding Population Growth as a Basis for Environmental Impact Evaluation, the total of 94,378 people would be accommodated in the Primary Urban Service boundary under the assumptions established by the General Plan Steering Committee. This would equate to a population growth rate of approximately 2.7% annually, and is comparable to the SJCOG projection.

The assumptions include a Market Reserve of 20 percent. The Market Reserve is land that would be available to accommodate population growth, but is not projected to be required. It is intended to provide flexibility and choice in the residential land market in order to maintain reasonable land prices that contribute to affordable housing. Development of the Market Reserve would accommodate a population of approximately 113,254 residents in twenty years. This would be slightly less than would occur if the population grew consistently at the maximum rate allowed under the Growth Management Ordinance. Moreover, the residential designations provide a range of housing types and densities that can accommodate additional population without increasing the land area allocated to urban use. The population projection used in this Environmental Impact Report is based on the assumptions for average housing density established by the General Plan Steering Committee.

Level of Significance: Significant and Unavoidable

There are no specific mitigation measures that will reduce or eliminate the impact of increased population on Manteca and the surrounding area. However, monitoring and regulating growth to a responsible level will maintain the integrity of the community.

POTENTIAL IMPACT H-2: The number and type of dwellings will exacerbate the existing jobs and housing imbalance in the Study Area.

There is an existing jobs-housing imbalance as the job market has not expanded as quickly as the housing market. Therefore, if Manteca attracts new businesses, as described in the General Plan Economic Development Element, the jobs/housing balance should improve. The growth of the local economy and the associated development that coincides will be a beneficial impact on the City of Manteca and San Joaquin County.

Level of Significance: Potentially Significant

Mitigation Measures:

The General Plan Land Use Element establishes the mix of land uses designed to sustain a balance of jobs and housing over a period of twenty years. Implementation of goals, policies, and implementation measures as identified in the General Plan 2023 would lessen the significance of the impact.

H-2.1: The General Plan 2023 provides the following policies (P) and implementation measures (I) to assist in the mitigation of a jobs/housing imbalance by encouraging employment development in the city.

LU-P-1: The City shall promote, cooperate in, and assist in the maintenance and expansion of Manteca's industrial sector employment development within the City of Manteca and in the south San Joaquin County area

that will help reduce the home-to-work commute distance for Manteca residents.

LU-P-2: New employment centers that may include office, business-professional, research and development, and light industrial or industrial development and shall be located in areas served by full City services or served by suitable facilities approved by the City. Employment centers should be located along major arterials with easy freeway access and with access from public transit, and accessible to bicyclists and pedestrians.

LU-P-3: The City shall continue to support full development of its existing industrial park.

LU-P-4: The City shall promote the development of "clean" industries that do not create problems or pose health risks associated with water and air pollution or potential leaks or spills. However, the City will designate appropriate locations that accommodate light industrial and heavy industrial uses.

LU-P-5: Redevelopment incentives shall be used judiciously to promote industrial employment development in approved Project Areas and for projects benefiting approved Project Areas.

LU-P-6: The City shall monitor employment development to maintain the balance of residential, commercial, and industrial development.

LU-P-7: The City shall promote and plan for at least one Primary Employment Center to accommodate a variety of employment opportunities compatible with the employment skills of the Manteca resident labor force.

LU-I-1 The City shall maintain a growth management system that provides a mechanism for the annual allocation of the amount of residential, commercial, and industrial development that may occur.

LU-I-7 The City will continue to cooperate with planning efforts among local jurisdictions to minimize the impacts of growth to Manteca and in the south San Joaquin County area.

H-2.2: The General Plan 2023 Land Use designations provide an expanded range of housing densities to encourage development of a diverse mix of housing types and prices. Table 13-5 provides a comparison of the housing densities permitted in each residential category in the General Plan 2023 compared to the 1988 General Plan.

Table 13-6
Comparison of Residential Density Permitted in
Each Residential Land Use Designation
(1988 General Plan and General Plan 2023)

Land Use Designation	1988 Dwelling Units per Acre	2023 Dwelling Units per Acre
Very Low Density Residential	0.5 to 2.0	less than 2.0
Low Density Residential	2.1 to 5.0	2.1 to 8.0
Medium Density Residential	5.1 to 9.0	8.1 to 15
High Density Residential	9.1 to 17.0	15.1 to 25
Commercial Mixed Use	NA	15.1 to 25

Source: Wade Associates, May 2003

Residual Level of Significance: Less than Significant

The level of significance will be less than significant after implementation of the above goals, policies, and implementation policies.

References:

(1) E-1 Report, City/County Estimates with Annual Percent Change, January 2002 and 2003

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14. PUBLIC FACILITIES AND SERVICES

The public facilities and services issues addressed in this section include domestic water, wastewater treatment (sewer), stormwater drainage, solid waste disposal, education (schools), library, parks and recreation, police protection, and fire protection.

14.1 WATER

14.1.1 Existing Conditions

Groundwater Supply

Groundwater is presently the only source of domestic water for the City. The City operates a system of wells interconnected with a transmission/distribution pipe system. Well depths range from 155 feet to 400 feet, and individual capacities of the operating wells range from 380 gpm to 2,300 gpm. The City has abandoned six wells over time due to age and water quality problems, but has added new wells to maintain the supply. The groundwater aquifers underlying the City extend to depths in excess of 600 feet and have been identified to include four formations. In general, the underlying strata slope from the hills east of the City downward to the west. The groundwater basin safe yield was estimated in the 1985 Groundwater Study at 1.0 acre-foot per acre per year.

Area groundwater levels are buoyed by the proximity of the Delta channels to the west. Groundwater recharge comes from irrigation of agricultural lands surrounding the City and infiltration from streams flowing west out of the Sierra Nevada. This recharge occurs in areas with permeable materials which allow the infiltration of water along streams, alluvial fans and foothill areas. The Study Area includes a variety of soil types that provide percolation to groundwater. However, with no streams other than Walthall Slough, or alluvial fan conditions, there are no notable groundwater recharge areas identified within the Study Area.

Surface Water Supply

The City of Manteca is participating in the South County Surface Water Supply Project. In 1995, Manteca entered into an agreement with the South San Joaquin Irrigation District (SSJID) and the Cities of Lathrop, Tracy and Escalon to jointly study the issues and related costs associated with developing a surface water treatment plant for the affected areas. This project now includes the construction of a state-of-the-art water treatment plant at Woodward Reservoir and 40 miles of pipeline to deliver treated water to each of the partner cities, including Manteca. When complete in 2005, the South County Surface Water Supply Project will begin deliveries of treated surface water to Manteca. The City of Manteca is contracted to receive up to 11,500 acre-feet of water from this project through 2010. A subsequent phase will increase the City of Manteca water allocation to 18,500 acre feet per year. **(1)**

Conjunctive Use

The project will help preserve groundwater quality and promote regional water management planning, keeping water historically used in San Joaquin County within the County. The surface water and ground water will be applied in a conjunctive use program in which the surface water becomes the primary supply. Groundwater would then be allowed to naturally recharge and replenish the groundwater basin. Groundwater would be used as a supplemental supply. Wells would be operated only for on-going maintenance and to supplement the surface water supply during peak demand periods.

Water Storage

The City has one surface storage reservoir, a 300,000-gallon elevated tank, located the City Corporation yard between the downtown and industrial area. The tank is 30 feet high and 42 feet in diameter and is supported on top of a 100-foot high tower.

14.1.2 Service Standard

The City of Manteca Water Master Plan **(2)** and the Public Facilities Implementation Plan (PFIP) establishes the Level of Service Standard for Water.

The City of Manteca's target Level of Service (LOS) for water is to supply an average of 200 gallons per day (gpd) per person at pressures of no less than 40 pounds per square inch (psi) under average conditions, and 20 pounds per square inch under emergency and peak demand conditions. The water service standard for fire suppression is 1,250 gallons per minute (gpm) for Low Density Residential (LDR) uses, 2,500 gpm for commercial land uses, and 3,500 gpm for industrial uses. This Level of Service standard is applicable to all areas of the City that are already developed and those areas where development is planned.

14.2 WASTEWATER TREATMENT (SEWER)

14.2.1 Treatment Capacity

The City of Manteca Wastewater Quality Control Facility (WQCF) is a 6.95 million gallons per day (mgd) rated, combined biofilter-activated sludge plant. Secondary effluent is land applied during the spring and summer (flood irrigation for alfalfa production) and discharged to the San Joaquin River during the winter (October- March). Dried sludge is subsequently spread on agricultural lands adjacent to the plant site. **(3)**

The WQCF serves commercial and residential properties in Manteca (5.93 mgd) and to the City of Lathrop (1.02 mgd), and one frozen food packager (Eckert Cold Storage). Subsequent phased improvements will increase the capacity of the treatment facility to 10 mgd. These

improvements are scheduled for completion by December 2005. The existing Wastewater Quality Control Facility can ultimately be expanded to treat 25 mgd. **(4)**

14.2.2 Sewer Collection System

Generally, the land within the existing developed City has trunk sewer constructed to fully serve the expected development. A relatively small sewer service is presently partially served by an interim lift station and will require a trunk sewer to serve the entire shed. Undeveloped areas will require trunk sewers in order to develop.

The City of Manteca has set a target (PFIP) such that capacity is sought to be available to serve demand at the specific LOS but not to anticipate demand. The required timing for each public improvement is related primarily to the timing of additional development that will be served by that improvement.

The expanding areas of Manteca, for the most part, have no sewer facilities and therefore have not existing deficiencies as it relates to the LOS target. However, the infill development expected to occur may exert a demand upon the existing facilities in excess of their capacity. At the crux of this issue is the Union Road Lift Station; existing and future peak flows at the lift station; and improvements required, if any, to handle the expected greater flows. This is, however, a possible capacity problem and not a deficiency.

14.2.3 Service Standard

The City of Manteca Public Facilities Implementation Plan (PFIP) establishes the Level of Service Standard for Wastewater.

Manteca's target LOS for sewer is to collect and treat an average of 325 gallons per day per dwelling unit equivalent (due). This LOS standard is applicable both in the areas of Manteca that have already developed and in the geographic areas where development is expected.

Sewer collection dwelling unit equivalent (due) factors are calculated in the PFIP based on the relative average generation of wastewater for the various land use types. Sewer generation factors are based upon the expected building intensities and population densities. For example, the average daily generation per unit for Low Density Residential (LDR) is calculated as the product of the population per unit (3.25) times the average daily per capita generation (100 gallons). As a result, the LDR generation is 325 gallons per unit per day. Sewer flow generation factors are based upon industry standards applicable to conceptual level facilities planning and professional judgement.

14.3 STORMWATER DRAINAGE

14.3.1 Existing conditions

The South San Joaquin Irrigation District (SSJID) operates drainage facilities that pass through Manteca and carry a portion of the City's drainage. Because of topography, drainage facilities generally follow along an east-to-west alignment. In some instances where subdivisions have developed near irrigation laterals, drainage pumping stations have been installed in lieu of long trunk lines to drains. Water from the SSJID, along with drainage pumped by the City, flows west into French Camp Canal, which eventually flows into French Camp Slough. Storm drainage is gravity-discharged from the Study Area north to French Camp Canal. Existing road and railroad crossings of the Canal are, however, undersized and will require replacement to accommodate peak design flows from the Study Area. The San Joaquin Delta is the ultimate destination of drainage carried by French Camp Slough.

The concept for handling drainage is to collect, store, and meter the water into the terminal drainage conduits and channels. Individual development plans in the City are required to provide on-site detention designed to reduce the peak flow. Typically, 7 to 10 percent of the land area is required for on-site detention. The detention basins in residential subdivisions are often developed as joint use park facilities.

The capacity of the French Camp Outlet Channel and its tributary drains is the limiting factor that sets the metered flow rates. Location of the discharge along the outlet conduits and channels is not a factor affecting the hydraulic capacity requirements of the system. Therefore, regardless of position along the channel, each tributary subarea along the system is provided the same level of service.

All stormwater is to flow to retention basins in order to help control both the quality and quantity of storm runoff discharge to the main drainage system, and ultimately the San Joaquin River. **(5), (6)**

14.3.2 Service Standard

The City of Manteca Public Facilities Implementation Plan (PFIP) establishes the Level of Service Standard for Drainage.

The target Level of Service for drainage is to provide 10-year storm drainage protection for all development and to provide 100-year storm drainage protection for all structures.

14.4 SOLID WASTE DISPOSAL

14.4.1 Existing Conditions

The City of Manteca Solid Waste Division collects solid waste throughout the City and deposits it at the Lovelace Solid Waste Transfer Station. **(7)** Recyclable materials are sorted at the Lovelace facility. Green waste is delivered to the Austin Road/Forward Landfill. This landfill has a closure date of 2053 and has a remaining capacity of 1,608,752 cubic yards.

The Solid Waste Division helps to ensure that the City's residential and commercial demands are met effectively and that landfill use remains available for future generations by helping residents and businesses to recycle, compost and reduce the overall solid waste flow.

The City functions interactively with customers to remove all permissible waste and achieve the community's responsibility towards conserving resources. Manteca provides the following solid waste services:

- Residential recycling picked up on a bi-weekly schedule at no extra cost to the customer.
- Residential bi-weekly curbside pickup of compost materials.
- Leaf and Christmas tree pick up.
- Oil collection containers picked up on a weekly basis.
- Commercial recycling.
- Household Hazardous Waste collection.

Hazardous waste handling/disposal is discussed in Hazardous Materials, Section 9 of this EIR.

14.5 EDUCATION (SCHOOLS)

14.5.1 Existing Primary and Secondary Education Resources

The Manteca Unified School District (MUSD) operates twenty-eight (28) schools ranging from Kindergarten through High School; education facilities include twenty (20) elementary schools, three high schools, one adult education school, and two continuation high schools. The estimated number of students is 21,327 as of May 16, 2003. Schools follow both a traditional and year-round calendar. MUSD includes the communities of Manteca, Lathrop, French Camp, and Weston Ranch. **(8)(9)(10)**

14.5.2 Existing Post-Secondary Education Resources

There are no post-secondary campuses located in Manteca. However, post-secondary educational resources are available through distance learning and regional education. San Joaquin Delta College (Stockton) offers classes at Delta College Farm Laboratory in Manteca and the Manteca Adult School. Courses in Manteca are taught by Delta college instructors or are

provided by "distance learning" utilizing the internet, television, and video. California State University, Stanislaus also offers educational opportunities in Manteca at Manteca High School. Community colleges are located in Stockton, Merced and Modesto. There are a variety of private and specialized college opportunities nearby. California State University, Sacramento, and University of Phoenix, Sacramento, offer a university experience to Manteca residents.

14.5.3 Service Standard

The projected enrollment is based on an average number of students per dwelling unit. Table 14-1 summarizes the student yield rate as of 2003-2004.

Table 14-1

Projected Student Yield Rate

K-6	0.534 students per unit
7-8	0.147 students per unit
9-12	0.267 students per unit
Total	0.948 students per unit

Source: Student Generation Analysis, Manteca Unified School District, Public Economics, Inc. May 2003

14.6 LIBRARY

The Manteca Branch Library was constructed in 1961, and is a 14,396 square-foot facility. The Library is the information and learning center for the City of Manteca, and a service area that includes outlying unincorporated county areas. Part of the Stockton-San Joaquin County Public Library, the Manteca Branch is one of the libraries serving the southern end of San Joaquin County. The branch is located in the heart of downtown Manteca. It has served as the connection to government, business, schools, and community organizations for the residents of Manteca for over 40 years, providing meeting room space, among other services. The Library is a current depository for local government documents and ordinances. The Library and the community room have long been the unofficial center of the City of Manteca.

14.6.1 Planned Library Building Program

The current Library's size and infrastructure is inadequate to meet the modern library service needs of the community. Grant funding is currently being sought in order to build a new facility. The City of Manteca will own and maintain the new Library.

The new Branch Library will be constructed on the downtown site of the current Library, which a community assessment has shown to be the preferred location for the residents of Manteca. The new Library will include a Family Literacy Center. It will also provide easy access to computers and other electronic resources. The new facility will be 58,481 square feet, which is 3.7 times the size of the current facility. The target building completion date is March 2007.

14.6.2 Service Standard

The existing Manteca Library provides .29 square feet per capita.**(11)** The proposed new Library facility will provide an overall .69 square feet per capita of library space to a projected population of 77,699.

14.7 PARKS AND RECREATION

The City of Manteca currently provides 28 neighborhood and five (5) community parks distributed throughout the City. Many parks are co-located with a small detention basin the serves the surrounding neighborhood. Consequently, the parks are typically located within easy walking distance of the residents. The City is currently planning for a large active sports complex focusing on baseball and softball fields in conjunction with a private company, Big League Dreams.

14.7.1 Service Standard

The City has a standard of 5 acres of parkland per 1000 residents. This standard will be reviewed in the preparation of a Recreation Master Plan that will follow the adoption of the General Plan 2023.

14.8 POLICE PROTECTION

The Manteca Police Department is a full service municipal law enforcement agency with specialized assignments and recognized specialties. In addition, the Department has an active and valuable volunteer staff consisting of Police Explorers, Reserve Officers, and senior citizens who render invaluable assistance to the Department and the community. The Department provides aggressive crime prevention through neighborhood watch, proactive enforcement, community policing, and citizen involvement.

The Department currently has 58 sworn officer positions.

14.8.1 Service Standard

The City meets a standard of one sworn officer per 1000 residents.

14.9 FIRE PROTECTION

Fire protection for the City of Manteca is provided by the Manteca Fire Department (MFD). The Insurance Services Office (ISO) has rated Manteca as a Class 3 on a scale of 9. Manteca shares the second best rating in the County and is rated in the top 15% of fire departments in San Joaquin County. The most common ISO rating in San Joaquin County is 5 in developed areas where water for fire suppression is provided and 8 in undeveloped areas.

MFD's main functions are to provide fire prevention, organized and efficient response to fires, first response to hazardous materials incidents, basic level "first responder" medical response, and public fire education.

MFD responds to emergencies and calls for service from three fire stations located within the City limits. It is also the responsibility of the MFD to provide emergency medical services to customers. Medically related responses account for nearly 60 percent of all requests for service. To maintain a standard level of care, all fire personnel are trained and certified Emergency Medical Technician-1 (EMT) and EMT-D.

MFD has entered into a cooperative agreement with the Stockton Fire Department for the consolidation of emergency dispatching services.

14.9.1 Service Standard

The existing goal is to maintain as average 5-minute response time for all emergencies, and engine and ladder companies should be staffed with a minimum of 3 personnel.

14.10 NATURAL GAS AND ELECTRICITY

Natural Gas and Electricity are supplied by in the City of Manteca by Pacific Gas and Electric Company, Inc. (PG&E), a private corporation. PG&E currently owns and operates electricity and natural gas infrastructure within Manteca.

14.11 REGULATORY SETTING

14.11.1 Applicable Federal Regulation

Federal Energy Regulatory Commission (FERC)

The Federal Energy Regulatory Commission (FERC) regulates the construction of the interstate natural gas pipelines that serve California.

14.11.2 Applicable State Regulation

Solid Waste Management: California Integrated Waste Management Board (CIWMB)

The California Integrated Waste Management Act became law on January 1, 1990. This law mandates that every county and city divert twenty-five percent (25%) of its waste from landfills by 1995 and fifty percent (50%) by 2000, or face fines of $10,000 per day. The California Integrated Waste Management Board (CIWMB), administering this Law, requires each city and county to prepare an Integrated Waste Management Plan (IWMP). The IWMP must include a Source Reduction and Recycling Element (SRRE) and a Household Hazardous Waste Element (HHWE).

Fire Protection: California Occupational Safety and Health Administration (Cal/OHSA)

The California Occupational Safety and Health Administration (Cal/OHSA) requires for presence of a minimum of four firefighters before the use of respirators, which are required for entry into an enclosed space filled with harmful dusts, fogs, fumes, mists, gases, smokes, sprays, or vapors. Therefore, a minimum of four (4) firefighters are required in order to respond to most fire incidents.

California Public Utilities Commission (CPUC)

Electricity: The California Public Utilities Commission (CPUC) has permitting authority over the construction of new and expanded power plants, electric transmission lines and substations. Pursuant to CEQA, environmental analyses must be conducted before issuance of construction permits by CPUC. The CPUC Utilities Safety Branch audits utility overhead and underground electric facilities through random field inspections.

Natural Gas: The CPUC regulates local natural gas distribution facilities and services, as well as intrastate pipelines. CPUC published the California Natural Gas Infrastructure Outlook 2002-2206 Report, which concluded that PG&E's natural gas infrastructure would be sufficient through the year 2006.

California Energy Commission (CEC)

The California Energy Commission (CEC) has the statutory authority to site and license thermal power plants that are rated at 50 megawatts and larger and related transmission lines, fuel supply lines and other facilities. Pursuant to CEQA, environmental analyses are required prior to the issuance of energy facility licenses.

14.12 IMPACT EVALUATION CRITERIA

In accordance with CEQA Guidelines, Appendix G, a project would have a significant impact on the environment if it would:

1. Have insufficient water supplies available to serve the project from existing entitlements and resources, requiring expanded entitlements.

2. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

3. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

4. Exceed wastewater treatment requirements of the Regional Water Quality Control Board.

5. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effect.

6. Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs.

7. Be in noncompliance with federal, state, and local statutes and regulations related to solid waste.

8. Result in substantial adverse physical impacts associated with the provision of new or altered government 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 including schools, parks, police protection, or fire protection.

Domestic water and wastewater regulation by the Regional Water Quality Control Board (RWQCB) is further discussed in Hydrology and Water Quality, Section 10 of this EIR.

14.13 IMPACTS AND MITIGATION

POTENTIAL IMPACT PFS-1: **The General Plan 2023 would create a demand for domestic water beyond current entitlements, resulting in significant adverse effects upon the environment.**

Level of Significance: **Potentially Significant**

Water demand will increase with the planned increase in residential, commercial and industrial uses. The level of demand cannot be precisely predicted due to the to variability of water demand in non-residential uses, notably industrial, and the potential for changes in average household water use due to changes in household size and composition. Residential conservation practices, smaller residential lots and the potential to use recycled water for landscape irrigation could reduce the current level of demand for the average residential use.

Mitigation Measures:

PFS-1.1: The Public Facilities and Services Element (Section 6) of the General Plan 2023 addresses domestic water supply through the following goal, policies (P), and implementation measures (I):

Goal PF-7 Maintain an adequate level of service in the City's water system to meet the needs of existing and project development.

PF-P-4 Secure sufficient sources of water to meet the needs of the existing community and planned residential and commercial growth.

PF-P-5 The City will continue to rely principally on groundwater resources for its municipal water in the near term, but will participate in the regional improvements to deliver surface water to augment the City's groundwater supply.

PF-P-6 The City shall develop new water sources as necessary to serve new development.

PF-P-7 The City shall develop new water storage and major distribution lines as necessary to serve new development.

PF-P-9 City water services shall not be extended to unincorporated areas except in extraordinary circumstances. Existing commitments for City water service outside the City limits shall continue to be honored.

PF-P-11 The City will develop and implement water conservation measures as necessary elements of the water system.

PF-I-2 The City shall update the Public Facilities Implementation Plan regarding water supply and distribution, every five years. The update shall be reviewed annually for adequacy and consistency with the General Plan.

PF-I-3 The City shall require, as a condition of project approval, dedication of land and easements, or payment of appropriate fees and exactions, to help offset municipal costs of expansion of water treatment facilities and delivery systems.

PF-I-7 The City will encourage the use of recycled water for landscape irrigation where feasible, within the parameters of State and County Health Code and standards.

PFS-1.2: The City of Manteca Water Service Master Plan (1998) defines the future water supply, storage and delivery system for the City. The Master Plan recommends a conjunctive use of surface water from the South San Joaquin Irrigation District (SSJID) Surface Water Project to meet the future water needs of the City. SSJID plans to commence surface water supply deliveries to the City in 2005. Based on limiting average groundwater supplies to the safe yield of 1.0 acre-foot per acre per year, it is estimated that under a conjunctive use program groundwater could meet 48 percent of the City's annual water needs and surface water would meet the remaining 52 percent.

Table 14-2 presents the proposed future annual water supply distribution for the City.

Table 14-2

Conjunctive Use of Surface Water and Groundwater

Year	Annual Water Use (Acre-Feet)		
	Surface Water	Groundwater	Total
2000		12,800	12,800
2005	9,400	8,600	18,000
2010	12,700	11,800	24,500
2015	17,500	16,200	33,700
2020	21,600	19,900	41,500
2025	24,500	22,400	46,900

Source: 1998 Water Master Plan – City of Manteca

The surface water supply will be used as the base supply and groundwater facilities will be used to meet peak water demands. During winter months SSJID surface water deliveries will meet nearly the entire City's projected water demands. City wells will be utilized only as necessary to exercise wells (for operational water quality or treatment equipment maintenance considerations) or to alleviate localized low pressure wells.

The City service area for the Water Master Plan encompasses the SSJID 1991 Study Service Area which includes the existing City limits and the 2023 General Plan Study Area. The total Water Master Plan service area encompasses approximately 35,000 acres, and the General Plan Study Area encompasses 25,975 acres.

The Water Master Plan assumes that 17,620 acres will be used for residential purposes at full build out of the SSJID 1991 Study Service Area. Table 14-3 compares land use proposed in the General Plan 2023 to the Ultimate Land Use assumed in the Water Master Plan. The General Plan Land Use categories are summarized to match the land use designations in the Water Master Plan. Table 14-3 indicates that the Water Master Plan assumes substantially greater residential land use that provided in the General Plan 2023. The Water Master Plan assumes less land allocated to Commercial/Industrial use for the combined planned land use and reserve land use in the General Plan 2023.

Table 14-3

Land Use Assumptions - Water Master Plan and General Plan 2023

Land Use Category	Water Master Plan Service Area	2023 Manteca GP Land Use	2023 Manteca GP Reserve Land Use	2023 Manteca GP Total Potential Land Use
	Acres	Acres	Acres	Acres
Residential	17,620	8,569	2,515	11,084
Commercial/Industrial	3,820	3,802	1,004	4,806
Parks and Public/Quasi Public Land	960	1,267	91	1,358

Source: Wade Associates and 1998 Water Master Plan – City of Manteca, May 2003

Residual Level of Significance: Less than Significant with Mitigation

Implementation of the above goal, policies, and implementation measures, together with the City's Water Master Plan and PFIP, and continued participation in the SSJID Surface Water

Project, will help ensure that the domestic water demands for implementation of the General Plan 2023 will be met without substantial adverse effects upon the environment.

POTENTIAL IMPACT PFS-2: **The General Plan 2023 would create a demand for wastewater (sewer) treatment beyond capacity of current facilities, resulting in significant adverse effects upon the environment.**

Level of Significance: **Potentially Significant**

The city has planned for expansion of the WQCF to accommodate growth. The existing site constrains the long term expansion of the plant due to limitations on land disposal. Continued expansion on the site will depend on future improvements that rely less on land disposal methods. Such methods include improved treatment technology, use of recycled wastewater for irrigation, and management of solid waste, among other methods. The current population of 55,000 residents create a demand that is within the capacity of the treatment plant, 6.95 mgd. The planned improvements would provide 10 mgd and the ultimate planned capacity of 25 mgd would be more than sufficient to accommodate the growth planned in General Plan 2023.

Mitigation Measures:

PFS-2.1: The Public Facilities and Services Element (Section 6) of the General Plan 2023 addresses wastewater (sewer) treatment through the following goal, policies (P), and implementation measures (I):

Goal PF-8 Maintain an adequate level of service in the City's sewage collection and disposal system to meet the needs of existing and projected development.

PF-P-16 Ensure wastewater collection and treatment for all development in the City and the safe disposal of wastes.

PF-P-17 The City will maintain capacity to process combined residential, commercial, and industrial flow.

PF-P-18 The City shall develop new sewage treatment and trunk line capacity as necessary to serve new development.

PF-P-19 City sewer services will not be extended to unincorporated areas, except in extraordinary circumstances. Existing commitments for sewer service outside the City limits shall continue to be honored.

PF-P-23 The City will maintain the ability to handle peak discharge flow while meeting State Regional Water Quality Control Board Standards as established in the current NPDES Permit.

PF-I-8 The City shall update the Public Facilities Implementation Plan (PFIP) regarding wastewater collection and treatment, every five years. The update shall be reviewed annually for adequacy and consistency with the General Plan.

PF-I-10 The City will encourage and permit an industrial pretreatment program for business parks and other industrial uses in accordance with state and federal requirements.

PF-I-12 The City will promote reduced wastewater system demand through efficient water use by:

requiring water conserving design and equipment in new construction,

encouraging retrofitting with water conserving devices;

designing wastewater systems to minimize inflow and infiltration to the extent economically feasible; and

maintaining a Citywide map of all sewer collection system components and monitoring the condition of the system on a regular basis.

Residual Level of Significance: Less than Significant with Mitigation

Implementation of the above goal, policies, and implementation measures, together with the City's Sewer Master Plan and PFIP, will help ensure that the wastewater treatment demands for implementation of the General Plan 2023 will be met without substantial adverse effects upon the environment.

POTENTIAL IMPACT PFS-3: The General Plan 2023 would create a demand for stormwater drainage beyond capacity of current facilities, resulting in significant adverse effects upon the environment.

Level of Significance: Potentially Significant

The capacity of the French Camp Outlet Channel and its tributary drains is the limiting factor that sets the flow rates for drainage systems in the City.

Mitigation Measures:

PFS-3.1: The Public Facilities and Services Element (Section 6) of the General Plan 2023 addresses stormwater drainage through the following goal, policies (P), and implementation measure (I):

Goal PF-9 Maintain an adequate level of service in the City's drainage system to accommodate runoff from existing and projected development and to prevent property damage due to flooding.

PF-P-24 The City shall continue to complete gaps in the drainage system in areas of existing development.

PF-P-25 The City shall require the dedication and improvement of drainage detention basins as a condition of development approval according to the standards of the Drainage Master Plan. The responsibility for the dedication and improvement of detention basins shall be based on the prorated share of stormwater runoff resulting from each development.

PF-P-26 Storm drainage systems within new development areas shall include open drainage corridors where feasible to supplement or replace an underground piped drainage system. The drainage systems would provide for short-term stormwater detention, stormwater conveyance for stormwaters exceeding a 10-year event, stormwater quality treatment, bike and pedestrian paths, and visual open space within neighborhoods.

PF-I-13 The City shall update the Storm Drainage Master Plan and Public Facilities Implementation Plan, regarding stormwater drainage, every five years. The update shall be reviewed annually for adequacy and consistency with the General Plan.

PFS-3.2: The Public Facilities Implementation Plan (PFIP) 1993 addresses additional drainage capacity made necessary by development occurring through June 30, 2020.

All stormwater is to flow to detention basins in order to help control both the quality and quantity of storm runoff discharge to the main drainage system, and ultimately the San Joaquin

River. Detention basins are designed to temporarily hold and gradually release water for short periods not to exceed 72 hours. Retention basins do not provide for release but will allow water to percolate or evaporate within a 72-hour period.

The LOS standard is the existing standard in the areas of Manteca that have already developed and is the target standard in the areas where development is expected. The LOS targets identified should be maintained through all future development.

Residual Level of Significance: Less than Significant with Mitigation

Implementation of the above goal, policies, and implementation measure, together with the City's Storm Drainage Master Plan and PFIP, will help ensure that the stormwater drainage demands for implementation of the General Plan 2023 will be met without substantial adverse effects upon the environment.

POTENTIAL IMPACT PFS-4: The General Plan 2023 would create a demand for solid waste services beyond the capacity of current landfill facilities, resulting in significant adverse effects upon the environment.

Level of Significance: Potentially Significant

The City of Manteca utilizes the Lovelace Transfer Station to process and ship its solid waste and materials. The Lovelace Transfer Station is of regional significance in that it provides services to the majority of south San Joaquin County.

Mitigation Measures:

PFS-4.1: The Public Facilities and Services Element (Section 6) of the General Plan 2023 addresses solid waste handling and disposal through the following goals, and policies (P):

Goal PF-11 Provide for the implementation and enforcement of the provisions for the Source Reduction and Recycling Element, as mandated by the State.

Goal PF-12 Maintain efficient, effective and economical solid waste services for the residents, businesses and visitors to Manteca.

PF-P-30 The City shall support the continued use of the Lovelace Transfer Station on Lovelace Road, between Union Road and Airport Way, for the processing and shipping of solid waste materials.

As discussed above in Subsection 14.1.4, the City of Manteca Solid Waste Department currently provides household and commercial recycling, and compost material pickup, among other programs, to help reduce the City's solid waste load.

Residual Level of Significance: Less than Significant with Mitigation

Implementation of the above goal and policies, including implementation and enforcement of the Source Reduction and Recycling Element, will help ensure that solid waste disposal demands for implementation of the General Plan 2023 will be met without substantial adverse effects upon the environment.

POTENTIAL IMPACT PFS-5: The General Plan 2023 would not comply with statutes and regulations related to solid waste.

Level of Significance: Potentially Significant

Mitigation Measures:

PFS-5.1: The Public Facilities and Services Element (Section 6) of the General Plan 2023 addresses compliance with statutes and regulations related to solid waste through the following goal and policy (P):

Goal PF-11 Provide for the implementation and enforcement of the provisions for the Source Reduction and Recycling Element, as mandated by the State.

PF-P-29 The City will implement and enforce the provisions of its Source Reduction and Recycling Element.

Residual Level of Significance: Less than Significant with Mitigation

Implementation of the above goal and policy providing for the implementation and enforcement of the Source Reduction and Recycling Element will help comply with statutes and regulations related to solid waste.

POTENTIAL IMPACT PFS-6: Implementation of the General Plan 2023 would require additional facilities and LOS for police protection, fire protection, schools, and parks.

Level of Significance: Potentially Significant

Police Protection: The effect of growth from the General Plan 2023 will be an incremental increase in the number of service calls from the Manteca Police Department. The effects will be in terms of personnel requirements for training and emergency responses, and an increased need to upgrade equipment and facilities.

Fire Protection: The effect of growth from the General Plan 2023 will be an incremental increase in the number of calls for service from the MFD. The current Insurance Services Organization (ISO) level of service and other indicators of service capability will be affected as the population increases and the general character of the community changes over time. The effects will be in terms of personnel requirements for training and emergency responses, and an increased need to upgrade equipment and engines. Personnel requirements will also increase due to the Cal OSHA requirement of a minimum of four (4) firefighters to respond to most fire incidents. New fire stations will be required to maintain a standard of a maximum 5 minute response. The MFD will determine the location of these stations as growth occurs to maintain the response coverage of the urban area. Therefore, the stations will be located in urbanizing areas.

Schools: Proposed growth in the General Plan 2023 will require new K-8 and high schools. The location of these schools cannot be determined in the General Plan. The Manteca Unified School District will select the location of new schools sites based on the location of new growth and the District's site criteria.

Parks and Recreation: Based upon the standard of 5 acres of parkland per one thousand residents new neighborhood and community parkland will be required. The City Parks and Recreation Department and the Parks and Recreation Commission will establish location and site criteria in the Recreation Master Plan.

Mitigation Measures:

PFS-6.1: The Public Facilities and Services Element (Section 6) of the General Plan 2023 addresses police protection, fire protection, schools, and parks and recreation through the following goals, policies (P), and implementation measures (I):

Police Protection

PF-P-39 The City shall endeavor through adequate staffing and patrol arrangements to maintain the minimum feasible police response times for police calls.

PF-P-40 The City shall provide police services to serve the existing and projected population.

PF-P-41 The City will establish the criteria for determining the circumstances under which police service will be enhanced.

PF-I-22 The Police Department shall continuously monitor response times and report annually on the results of the monitoring.

PF-I-23 The Planning Commission and City Engineer will review proposed residential developments to evaluate the accessibility for police patrols and emergency response.

Fire Protection

PF-P-42 The City shall endeavor to maintain an overall fire insurance (ISO) rating of 4 or better.

PF-P-43 The City shall endeavor through adequate staffing and station locations to maintain the minimum feasible response time for fire and emergency calls.

PF-P-45 The City shall establish the criteria for determining the circumstances under which fire service will be enhanced.

PF-I-24 The Fire Department shall continuously monitor response times and report annually on the results of the monitoring.

PF-I-25 The Planning Commission and City Engineer will review proposed residential street patterns to evaluate the accessibility for fire engines and emergency response.

Education (Schools)

Goal PF-13 Maintain sufficient land inventory so that the Manteca Unified School District can provide for the educational needs of the Manteca residents.

PF-P-32 The City shall cooperate with the Manteca Unified School District and others in locating and reserving appropriate sites for new schools. Adequate facilities shall be planned to accommodate new residential development.

PF-P-33 The City shall cooperate with the Manteca Unified School District in their collection of school facility development fees from new development.

PF-P-34 Financing of new school facilities will be planned concurrent with new development.

PF-P-35 The City and Manteca Unified School District will work together to develop criteria for the designation of school sites and consider opportunities for reducing the cost of land for school facilities. The City will encourage the school district to comply with City standards in the design and landscaping of school facilities.

PF-P-37 The City will consider opportunities for joint-use of facilities the school district. When feasible, a joint-use agreement will be pursued to maximize public use of facilities, minimizing duplication of services provided, and facilitate shared financial and operational responsibilities.

PF-P-38 When feasible, schools will be located away from hazards of sensitive resource conservation areas, except where the proximity of resources may be of educational value and the protection of resources is reasonably assured.

PF-I-18 The City will maintain an inventory of all public lands to identify opportunities for joint-use facilities.

PF-I-19 The City shall cooperate with the Manteca Unified School District to select a suitable location for a high school south of SR-120.

PF-I-20 The City will request an annual meeting with the Administrator and the Board of Trustees of the Manteca Unifi9ed School District to review development issues and opportunities for cooperation between the school district and the City.

PF-I-21 The City will encourage the expansion of higher education program offerings and opportunities in Manteca.

Parks and Recreation

Goal PF-14 Establish and maintain a park system and recreation facilities that support economic development and residential growth in the City.

Goal PF-15 Establish and maintain a park system and recreation facilities that are suited to the needs of Manteca residents and visitors.

Goal PF-16 Promote the provision of private recreational facilities and opportunities.

Goal PF-17 Establish a recreation program that is suited to the needs and interests of all Manteca residents.

Goal PF-18 Provide a network of pedestrian and bicycle routes connecting Manteca's major open space areas and destination points.

PF-P-46 The City shall expand the community and neighborhood park system with the goal of providing neighborhood park facilities within reasonable walking distance of all City residential areas.

PF-P-47 The City shall use joint development of park and drainage detention basins in the development of neighborhood parks.

PF-P-48 The City shall cooperate with the Manteca Unified School District in opportunities for joint-use of school and park and recreation facilities.

PF-P-49 City park acquisition efforts shall be based on a goal of 5 acres of developed neighborhood and community parkland per 1,000 residents within the City limits.

PF-P-50 Neighborhood parks shall conform to the following general guidelines (specific detail and standards to be determined within the Parks and Recreation Master Plan):

- The typical minimum size shall be set to support active and passive recreation activities.
- The typical service areas for a neighborhood park is approximately ¼ mile walking distance.
- Neighborhood parks shall include a turf area above the basin flood line of sufficient area to be used for playgrounds, sports, picnic areas, and other recreational facilities.

PF-P-51 The City shall aggressively pursue State and County funding to supplement City revenues to the extent such funding is available.

PF-P-52 The City shall endeavor to identify, acquire, and develop one or more community parks as defined in the Parks and Recreation Master Plan.

PF-P-53 All new residential development will be required to pay a park acquisition and improvement fee, based on providing 5 acres per 1,000 residents, to fund system-wide improvements.

PF-P-54 The City shall require the provision of private open space and recreational facilities as part of new residential developments.

PF-P-55 The City shall not discourage the expansion of private commercial recreational facilities.

PF-P-56 The City shall develop a convenient system of pedestrian sidewalks and pathways linking City parks, major open space areas, and the downtown core.

PF-P-57 The City shall adopt a Bicycle Route Master Plan and develop a bicycle route system linking open space areas, schools, public facilities, the downtown core, and neighborhoods.

PF-I-26 The City shall adopt a Parks and Recreation Master Plan, setting out goals, policies, and standards for the location, size, and level of development of all existing and proposed parks. The Plan will establish specific development criteria for the use of neighborhood and community parks. The master plan shall cover at least the succeeding 10-year period, with greater detail devoted to improvements planned for the first five-year period.

PF-I-27 The City shall periodically review projected park development needs and plans, update cost estimates for park acquisition and development, and remaining development potential based on the General Plan.

Residual Level of Significance: Less than Significant with Mitigation

Implementation of the above goal and policies, including the Parks and Recreation Master Plan, will help ensure that police protection, fire protection, educational, and parks and recreation demands for implementation of the General Plan 2023 will be met without substantial adverse effects upon the environment.

POTENTIAL IMPACT PFS-7: The General Plan 2023 would require expanded energy sources and infrastructure for expanded urban development.

Level of Significance: Potentially Significant

Ever-increasing energy demand has been a prominent issue in recent years, as reflected in ever-increasing energy bills, black-outs, brown-outs, and scheduled outages.

Electrical and natural gas services are provided to the City of Manteca by Pacific, Gas & Electric Company, Inc., a private corporation.

Power plants, substations, and transmission lines, and natural gas transmission lines are approved by a combination of agencies, including FERC, CPUC, and CEC (discussed in Subsection 4.2 above). These agencies are exempt from following local regulations, although in practice each of these agencies consults with local jurisdictions and the public.

The CPUC published the California Natural Gas Infrastructure Outlook 2002-2206 Report, which concluded that PG&E's natural gas infrastructure would be sufficient through the year 2006

Mitigation Measures:

PFS-7.1: The General Plan 2023 Public Facilities and Services Element (Section 6) addresses electricity though the following goal, policy (P), and implementation (I) measures:

Goal PF-10	The City shall ensure adequate, reliable electric service is available to all users in the City.
PF-P-28	Cooperate with and encourage efforts to expand the opportunities for electric power service in the City.
PF-I-14	The City will consider participating on generating and/or distributing electric service within the City.
FP-I-15	The City will support energy conservation measures and innovative uses of solar energy, heat recovery, and co-generation in all structural and industrial processes.
PF-I-16	The City will confer with utility companies regarding major development plans and cooperate with planning extensions.

PFS-7.2: The General Plan 2023 Resource Conservation Element (Section 8) provides the following measures to mitigate impacts related to electricity and infrastructure expansion:

RC-I-6	The City shall implement development standards which promote energy conservation and the use of solar energy techniques for heating and cooling, including building orientation, street and lot layout, landscape placement, and protection of solar access.

RC-I-8 The City shall enforce Title 24 energy requirements (Building Code) which define construction standards that promote energy conservation.

Goal RC-3 The City shall ensure that land use and circulation improvements are coordinated to reduce the number and length of vehicles trips and thereby help conserve scare and nonrenewable energy resources.

RC-P-8 The City shall support use of alternative energy sources in new commercial, industrial and residential development.

RC-I-10 Encourage large energy users to use an energy conservation plan as part of the project review and approval process, and develop a program to monitor compliance with and effectiveness of that plan.

RC-I-11 Cooperate with other agencies and jurisdictions to expand energy conservation programs.

Residual Level of Significance: Significant and Unavoidable

The need for expanded energy sources and infrastructure is a significant impact with expanded urban development. Implementation of the above goal, policy and implementation measures will help reduce the amount of energy and infrastructure needed to serve new urban development in the City of Manteca, but not to a less-than-significant level.

References:

(1) Jim Podesta, Manteca Department of Public Works, telephone conversation, May 28, 2003

(2) City of Manteca, Water Master Plan, Kennedy/Jenks Consultants, August 1998

(3) Wastewater Quality Control Facility Master Plan – 1995 for City of Manteca Nolte and Associates, June1995

(4) Phil Govea, Manteca Department of Public Works, conversation, May 6, 2003

(5) DRAFT Storm Drainage Master Plan, City of Manteca, Carter-Burgess, June 2000

(6) Jim Podesta, Manteca Department of Public Works, telephone conversation, May 28, 2003

(7) Frederic Clark, Manteca Department of Public Works, telephone conversation, May 29, 2003

(8) Sandy Dwyer, Manteca Unified School District, conversation, October 28, 2001

(9) Manteca Unified School District Educational Specifications K-8 Elementary Schools, n.d.

(10) Manteca Unified School District, Educational Specifications 4th High School, December 1999

(11) Community Needs Assessment, Manteca Branch Library, Drew Harrington, Library Building Consulting, Revised February 2003

Additional References

(12) Steve Houx, City of Manteca Parks and Recreation Director, conversation, December 2001

(13) Robert Adams, City Manager, conversation, October 2001

(14) George Quaresma, Fire Chief, conversation, October 28, 2001 and various e-mail

(15) Charlie Halford, Police Chief, conversation, October 28, 2001

(16) Manteca City Fire Department Annual Report 2000

(17) City of Manteca Comprehensive Annual Financial Report, June 30, 2000

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15. TRAFFIC AND CIRCULATION

This section is based upon and incorporates a traffic analysis report authored by Fehr & Peers Associates, Inc., entitled "City of Manteca – General Plan Transportation Analysis, May 2003."

15.1 EXISTING CONDITIONS

15.1.1 Roadway Segments

The City of Manteca is located at the junction of State Routes 120 (SR 120) and State Routes 99 (SR 99) in San Joaquin County. State Route 99 and Interstate 5 provide regional access to Manteca from the north and the south, and State Route 120 provides regional access to Manteca from the east and west.

Travel through Manteca is handled along several two- and four-lane facilities. Major north-south routes include Airport Way, Union Road, and Manteca Road / Main Street. Major east-west routes include Lathrop Road, Louise Avenue, and Yosemite Avenue. These streets are located with approximately one mile in a square arterial grid.

One major north/south roadway is Airport Way, which extends from Lathrop Road to Woodward Avenue along the western border of the City of Manteca near the City of Lathrop. The daily volumes on Airport Way average around 9,000 vehicles per day. Airport Way is currently a two-lane roadway.

Another major north/ south roadway is Union Road that is west of Main Street. Currently, Union Road is four lanes from Lathrop Road to near State Route 120. The sections near State Route 120 extending south to the City limits are two-lane. Union Road carries an average of 15,000 vehicles per day in the City of Manteca.

Manteca Road / Main Street is one of the major north-south roadways in Manteca. A majority of Main Street has four lanes but a small two-lane segment is located at the intersection of Main Street and Yosemite Avenue in the downtown Manteca Area. The average daily volume on Main Street ranges from 15,000 to 23,000.

Other north-south roadways in the City include McKinley Avenue, Winters Drive, Elm Avenue, Fremont Avenue, and Powers Avenue. These roadways carry volumes that are 3,000 vehicles per day or less.

Yosemite Avenue is one of the major east-west roadways in the City of Manteca, with average daily volumes ranging from 11,000 to 17,000 vehicles. Yosemite Avenue serves as a major through route and provides access to recreational areas to the east of the City, such as the Yosemite National Park. Yosemite Avenue is currently a two-lane roadway.

Another major east-west roadway is Louise Avenue, which is located north of Yosemite Avenue. This roadway is currently four lanes and carries an average of 14,000 vehicles per day in the City.

The final major east-west roadway is Lathrop Road, a two-lane roadway north of Louise Avenue. This road currently carries daily volumes ranging from 10,000 to nearly 12,000.

Other east-west roadways include Northgate Drive, Crom Street, Alameda Street, Center Street, North Street, Wawona Street, and Mission Ridge Drive. These roadways generally carry daily volumes ranging from 1,000 to 2,000 vehicles. However, a daily count of 6,000 was taken on Mission Ridge Drive near Main Street and a count of 5,000 occurred on Center Street near Main Street.

Figure 15-1 illustrates the existing roadway system in the Study Area.

The average daily traffic counts were drawn from traffic counts conducted by City of Manteca Staff in 2001. Freeway traffic volumes were obtained from Caltrans. The key road segments and average daily traffic levels are shown in Table 15-1. Figure 15-2 shows the traffic volume, (the sum of vehicles traveling in both directions), on the designated roadway.

15.1.2 Intersections

Five intersection locations were identified for existing conditions analysis, as shown on Figure 15-3. Intersections were selected based on existing and projected traffic volumes through the intersections and consultation with City staff. The intersections are:

1. Lathrop Road and Airport Way;
2. Louise Avenue and Union Road;
3. Louise Avenue and Main Street;
4. Yosemite Avenue and Union Road; and
5. Yosemite Avenue and Main Street.

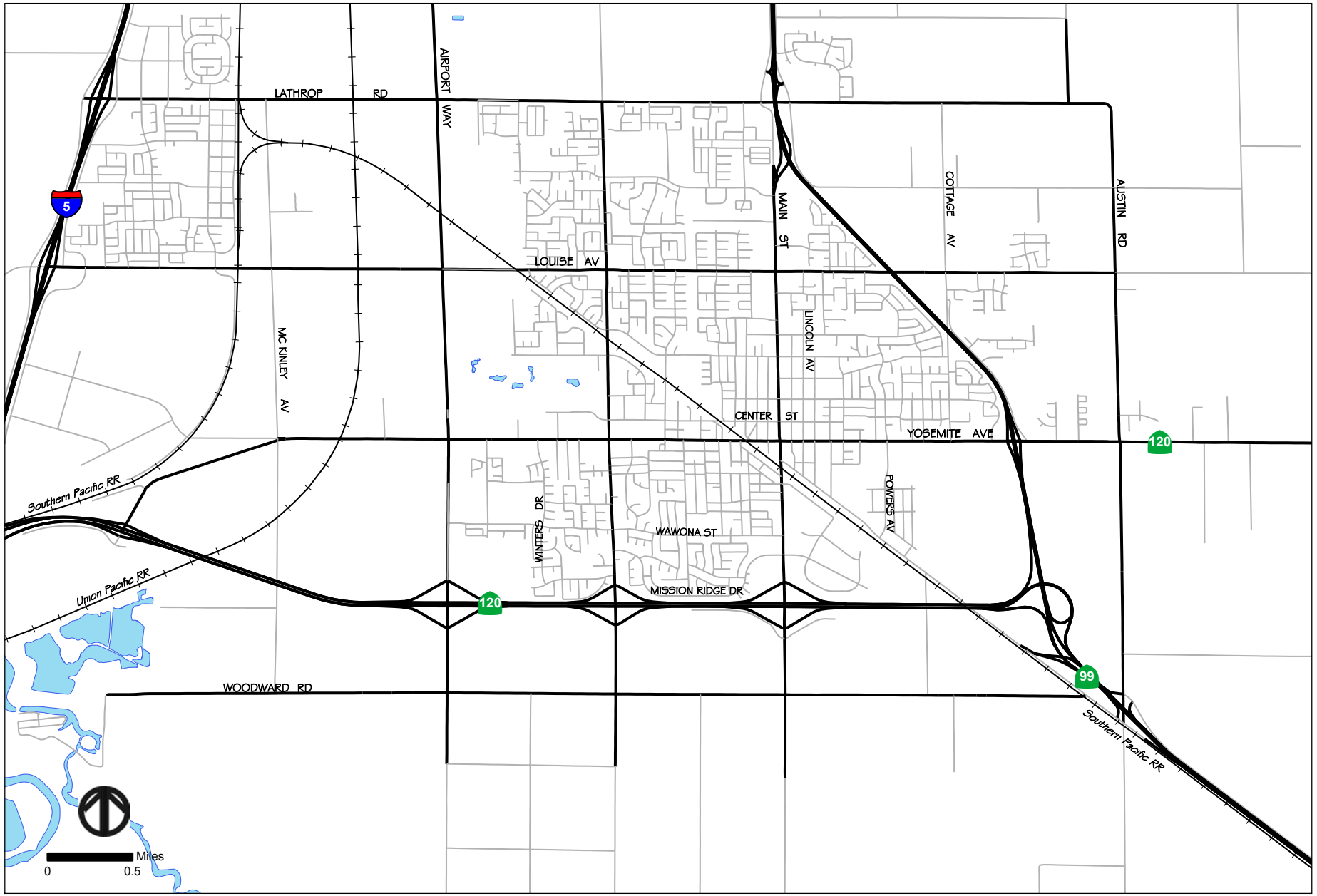
Existing turning movement counts were conducted at the five study intersections during the PM peak period (4:00 to 6:00 p.m.) in 1999 and 2001 by City of Manteca Staff. The PM peak hour period generally has the highest traffic volumes. To present a more conservative analysis, the highest counts (1999 or 2001) were used as the basis for the analysis. For each intersection count period, the one-hour with the highest traffic volumes was identified for the peak hour of analysis.

Table 15-1

Existing Traffic Volumes

Roadway	Between	1999-2001 Traffic Count
Airport Way	Lathrop to Louise	8700
	Louise to Yosemite	8900
	Yosemite to Wawona	9800
	Wawona to SR 120	9300
Union Road	Lathrop to Northgate	9500
	Northgate to Louise	12500
	Louise to Alameda	14300
	Alameda to Crom	16000
	Crom to Center	17600
	Center to Yosemite	15700
	Yosemite to Wawona	15900
	Wawona to Mission Ridge	16400
	Mission Ridge to SR 120	17100
Main Street	Northgate to Louise	20200
	Louise to Alameda	24700
	Alameda to North	18800
	North to Center	23000
	Center to Yosemite	15200
	Yosemite to SR 120	22800
	SR 120 to Woodward	6300
Woodward	Union to Main	3700
Yosemite	McKinley to Airport	11200
	Airport to Winters	14200
	Winters to Union	16800
	Union to Walnut	15400
	Walnut to Main	12200
	Main to Fremont	13200
	Fremont to Powers	16200
	Powers to Cottage Ave.	15700
	Cottage to Austin	17000
Louise Avenue	Airport to Union	10800
	Union to Elm	11800
	Elm to Main	17900
Lathrop Road	Airport to Union	10200
	Union to Main	11900

Source: Fehr & Peers, Inc. May 2003



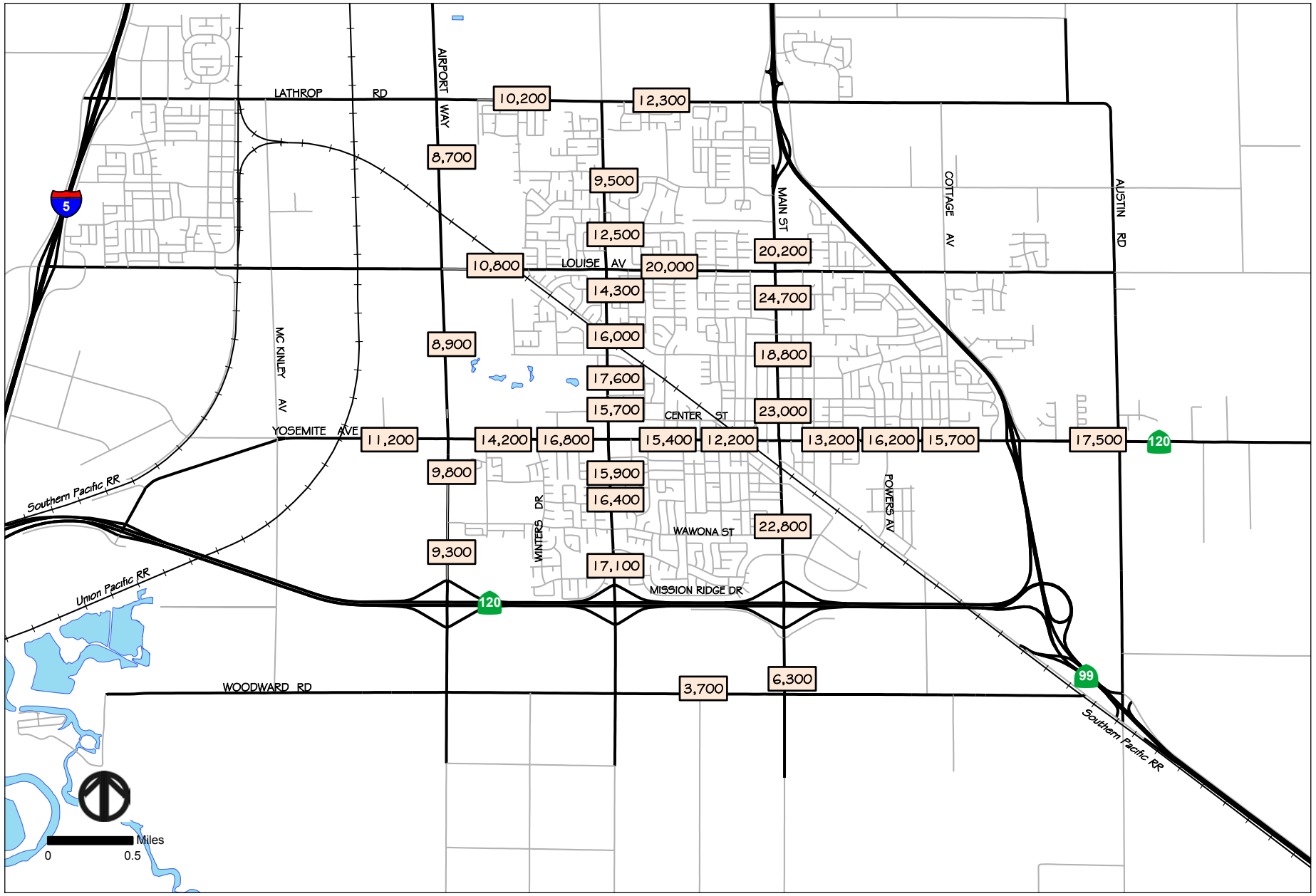
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/gis/road

EXISTING ROADWAY NETWORK

FIGURE 15-1



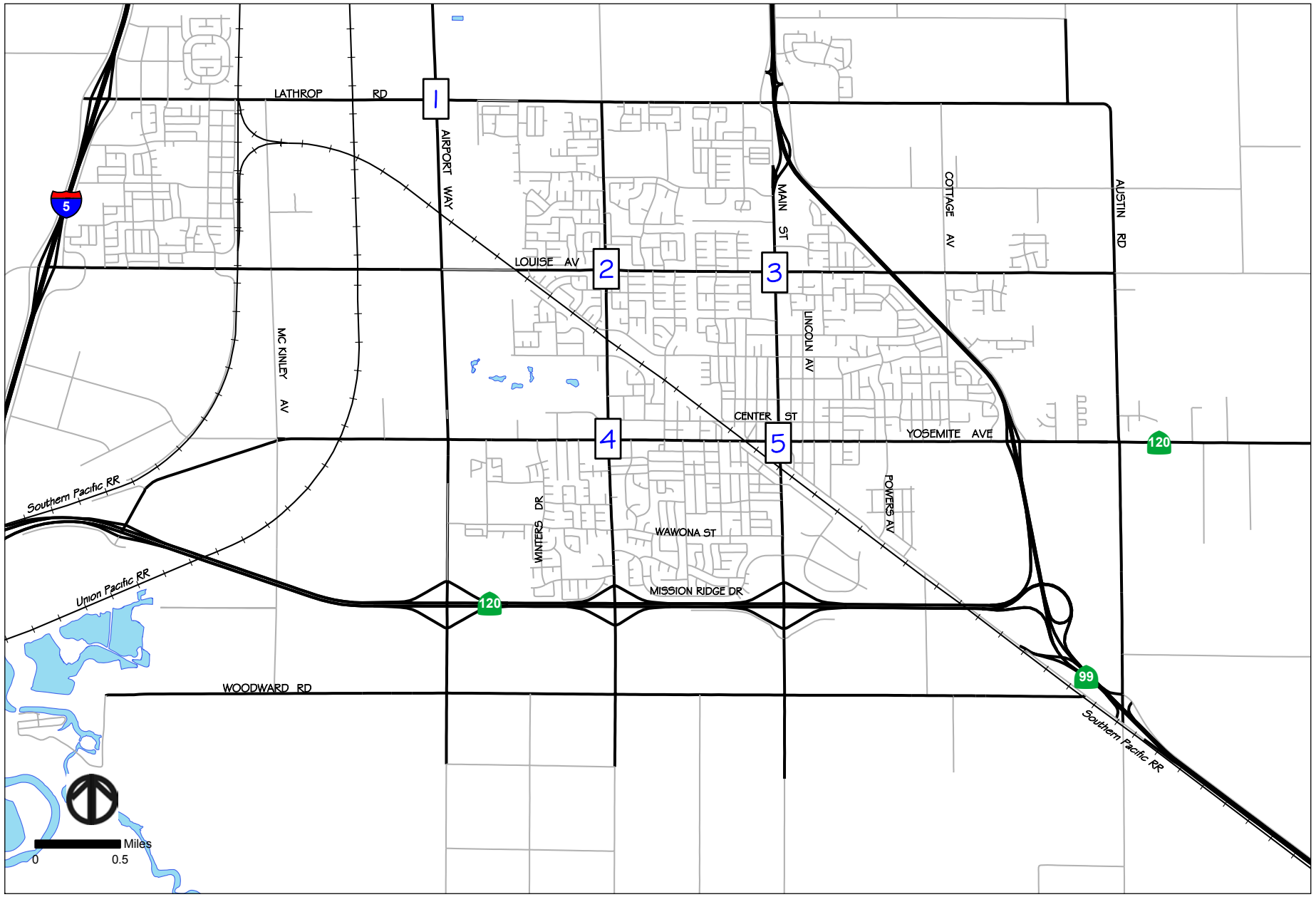
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EXISTING DAILY VOLUMES

FIGURE 15-2



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EXISTING STUDY AREA INTERSECTIONS

FIGURE 15-3

15.2 ANALYSIS METHODOLOGY

Operations of the study intersections were evaluated using level of service (LOS) calculations. Level of service criteria is discussed below with an evaluation of existing LOS standards at the four study intersections.

15.2.1 Level of Service Criteria

Transportation engineers and planners commonly use a grading system called level of service (LOS) to measure and describe the operational status of the local roadway network. Level of service is a description of an intersection's operation, ranging from LOS A (indicating free-flow traffic conditions with little or no delay) to LOS F (representing over-saturated conditions where traffic flows exceed design capacity, resulting in long queues and delays). LOS can be reported for both roadway segments and intersections. This analysis reports both the more general roadway segment LOS and the detailed intersection LOS.

Roadway Segments

Roadway segment LOS is based on the comparison of volumes against reference charts. This analysis employs reference tables developed by the authors of the Highway Capacity Manual for the Florida Department of Transportation (FDOT). FDOT reference tables are widely utilized for roadway segment analysis. They are transferable to other states and have been accepted by Caltrans. Please note that these tables provide only a generalized level of service judgment should applied when reviewing results. These tables employ assumptions regarding signal spacing, peak to daily volume ratios, roadway width, presence of turn lanes, and other factors that affect roadway operation. These LOS thresholds used in this study are shown in Table 15-2.

Table 15-2
Arterial Roadway Segment
LOS Standards (Daily Volumes)

Number of Lanes	LOS C	LOS D	LOS E
2	9,100	14,600	15,600
4	21,400	31,100	32,900
6	33,400	46,800	49,300

Source: Florida Department of Transportation, Generalized Level of Service Tables for Urbanized Areas.

The results of the roadway segment LOS analysis are shown on Table 15-3. As indicated in the table, a majority of the roadway segments operate at an acceptable LOS of C. The LOS of each roadway is also shown on Figure 15-4.

However, there are several roadway segments that operate at a deficient level currently. One segment of Yosemite Avenue operates at LOS E (Union to Walnut) and other segments operate at LOS F (Winters to Union, Fremont to Powers, Powers to Cottage, Cottage to Austin). Please note that the volumes typically exceed the thresholds by small amounts (less than 10%). Therefore, roadways may be operating closer to acceptable levels because of the generalized nature of the roadway LOS standards.

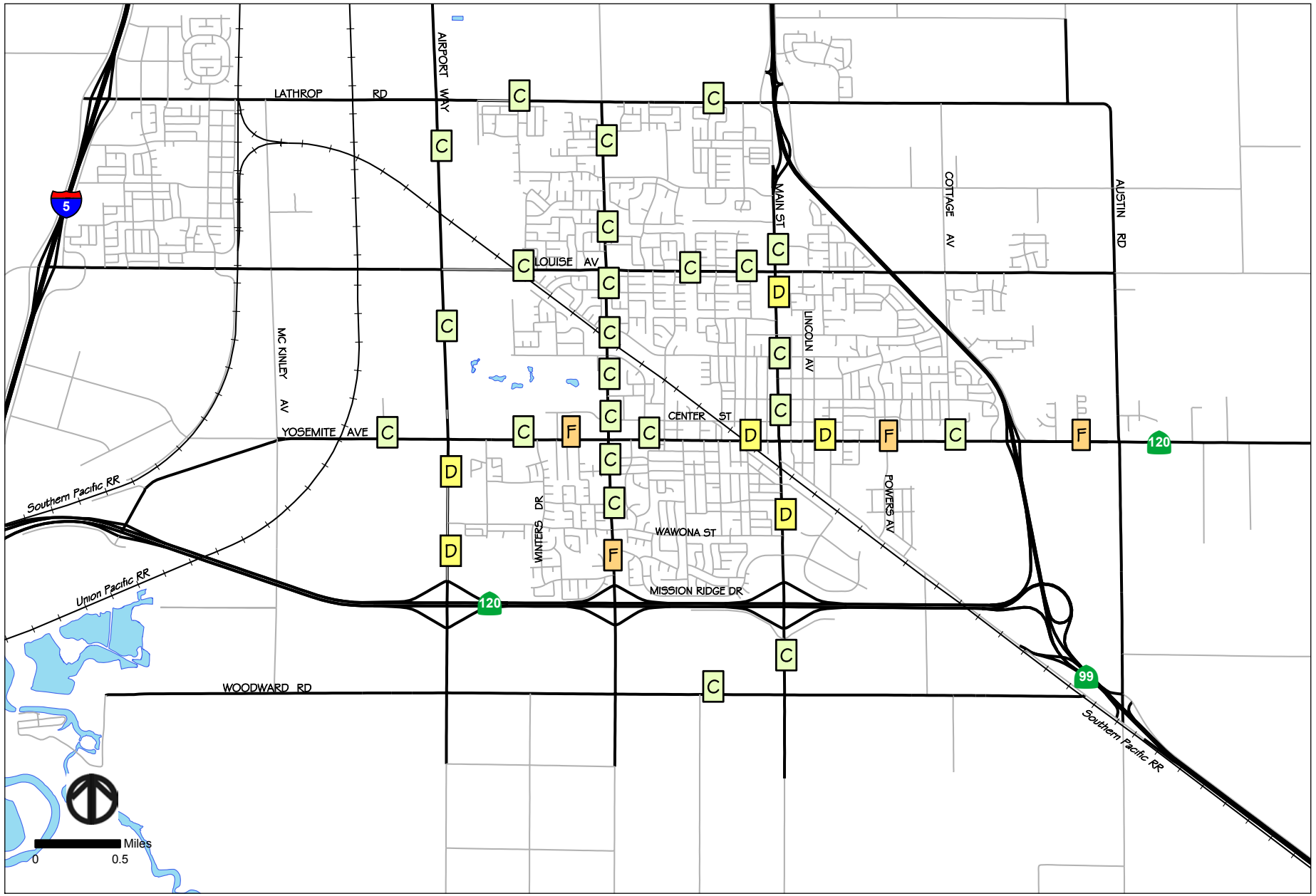
Table 15-3

Existing Traffic Volumes and LOS Results

		Existing	2001	Capacity	Capacity	Capacity		
Roadway	**Between**	**Lanes**	**Traffic Count**	**LOS C**	**LOS D**	**LOS E**	**V/C Ratio**	**LOS**
Airport Way	Lathrop to Louise	2	8700	9100	14600	15600	0.56	C
	Louise to Yosemite	2	8900	9100	14600	15600	0.57	C
	Yosemite to Wawona	2	9800	9100	14600	15600	0.63	D
	Wawona to SR 120	2	9300	9100	14600	15600	0.60	D
Union Road	Lathrop to Northgate	4	9500	21400	31100	32900	0.29	C
	Northgate to Louise	4	12500	21400	31100	32900	0.38	C
	Louise to Alameda	4	14300	21400	31100	32900	0.43	C
	Alameda to Crom	4	16000	21400	31100	32900	0.49	C
	Crom to Center	4	17600	21400	31100	32900	0.53	C
	Center to Yosemite	4	15700	21400	31100	32900	0.48	C
	Yosemite to Wawona	4	15900	21400	31100	32900	0.48	C
	Wawona to Mission Ridge	2	16400	9100	14600	15600	1.05	
	Mission Ridge to SR 120	2	17100	9100	14600	15600	1.10	
Main Street	Northgate to Louise	4	20200	21400	31100	32900	0.61	C
	Louise to Alameda	4	24700	21400	31100	32900	0.75	D
	Alameda to North	4	18800	21400	31100	32900	0.57	C
	North to Center	4	23000	21400	31100	32900	0.70	C

	Center to Yosemite	4	15200	21400	31100	32900	0.46	C
	Yosemite to SR 120	4	22800	21400	31100	32900	0.69	D
	SR 120 to Woodward	2	6300	21400	31100	32900	0.19	C
Woodward	Union to Main	2	3700	9100	14600	15600	0.24	C
Yosemite	McKinley to Airport	2	11200	9100	14600	15600	0.72	C
	Airport to Winters	2	14200	9100	14600	15600	0.91	C
	Winters to Union	2	16800	9100	14600	15600	1.08	
	Union to Walnut	4	15400	21400	31100	32900	0.47	C
	Walnut to Main	2	12200	9100	14600	15600	0.78	D
	Main to Fremont	2	13200	9100	14600	15600	0.85	D
	Fremont to Powers	2	16200	9100	14600	15600	1.04	
	Powers to Cottage Ave.	4	15700	21400	31100	32900	0.48	C
	Cottage to SR 99	4	15700	21400	31100	32900	0.48	C
	Cottage to Austin	2	17000	9100	14600	15600	1.09	
Louise Avenue	Airport to Union	4	10800	21400	31100	32900	0.33	C
	Union to Elm	4	11800	21400	31100	32900	0.36	C
	Elm to Main	4	17900	21400	31100	32900	0.54	C
Lathrop Road	Airport to Union	2	10200	21400	31100	32900	0.31	C
	Union to Main	2	11900	21400	31100	32900	0.36	C

Source: Fehr & Peers Associates, May 2003



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EXISTING ROADWAY SEGMENTS LOS

FIGURE 15-4

May 2003
/gis/LO

Signalized Intersections

At signalized intersections, traffic conditions are evaluated using the 2000 *Highway Capacity Manual* methodology. The operations analysis uses various intersection characteristics (such as traffic volumes, lane geometry, and signal phasing) to estimate the average delay experienced by motorists traveling through an intersection. Table 15-4 summarizes the relationship between delay and LOS for signalized intersections.

Table 15-4
Signalized Intersection LOS Criteria

Level of Service	Description	Average Control Delay (Seconds)
A	Operations with very low delay occurring with favorable progression and/or short cycle length.	≤ 10.0
B	Operations with low delay occurring with good progression and/or short cycle lengths.	> 10.0 to 20.0
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	> 20.0 to 35.0
D	Operations with longer delay due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	> 35.0 to 55.0
E	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered the limit of acceptable delay.	> 55.0 to 80.0
F	Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths.	> 80.0

Source: Transportation Research Board Highway Capacity Manual, 2000.

Please note that with the update of the Highway Capacity Manual in the Year 2000, the definition of delay was changed from stop delay to control delay and the LOS ranges were recalibrated to reflect this change. Therefore, previously reported delay calculations using previous methodologies cannot be compared to any future calculations. However, the LOS results are comparable. Existing

intersection conditions were evaluated for the weekday evening peak hour at the five study intersections. Table 15-5 summarizes the existing intersection analysis results. The LOS analysis results are shown in Appendix A of the *City of Manteca General Plan Transportation Analysis, Fehr & Peers, May 2003,* available for review at the City of Manteca Community Development Department.

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Table 15-5
Existing (2001) Peak Hour Level of Service

Location	Control [1]	Peak Hour	Delay[2&3]	LOS
Lathrop Road and Airport Way	Signal	PM	26.5	C
Louise Avenue and Union Road	Signal	PM	28.3	C
Louise Avenue and Main Street	Signal	PM	29.6	C
Yosemite Avenue and Union Road	Signal	PM	28.5	C
Yosemite Avenue and Main Street	Signal	PM	23.2	C

1. Signal = Signalized Intersection

2. For signalized intersections, average delay (in seconds per vehicle) calculated using the *2000 Highway Capacity Manual* methodology.

Source: Fehr & Peers Associates, 2002.

As indicated in Table 15-5, all intersections operate at an acceptable LOS C or better during the PM peak hour.

15.2.2 Transit and Park-and-Ride Facilities

The San Joaquin Regional Transit District (SJRTD) provides transit service throughout Manteca with Stockton Metropolitan Area Rapid Transit service (SMART) and County Area Transit (CAT). Manteca is also served by the Altamont Commuter Express (ACE). Figure 15- 5 highlights the corridors currently served by transit. SJRTD also provides a dial-a-ride service for the elderly and handicapped. Manteca has established one park-and-ride location on Northgate Street near the Northgate Church. This location provides access to ACE commuter rail and SMART bus lines.

SMART Route 21 is an intercity route that serves the cities of Stockton, Lodi and Manteca. Weekday service between 6:00 AM and 6:00 PM is provided on this route with headways ranging between one and two hours. In Manteca, the route serves the Doctors Hospital, Main Street and the Manteca Civic Center.

SMART Routes 53, 54 and 55 are interregional routes that serve commuters traveling between Manteca and Tracy to Lawrence Livermore and Sandia Laboratories. Three buses are provided westbound in the morning with three buses returning in the evening.

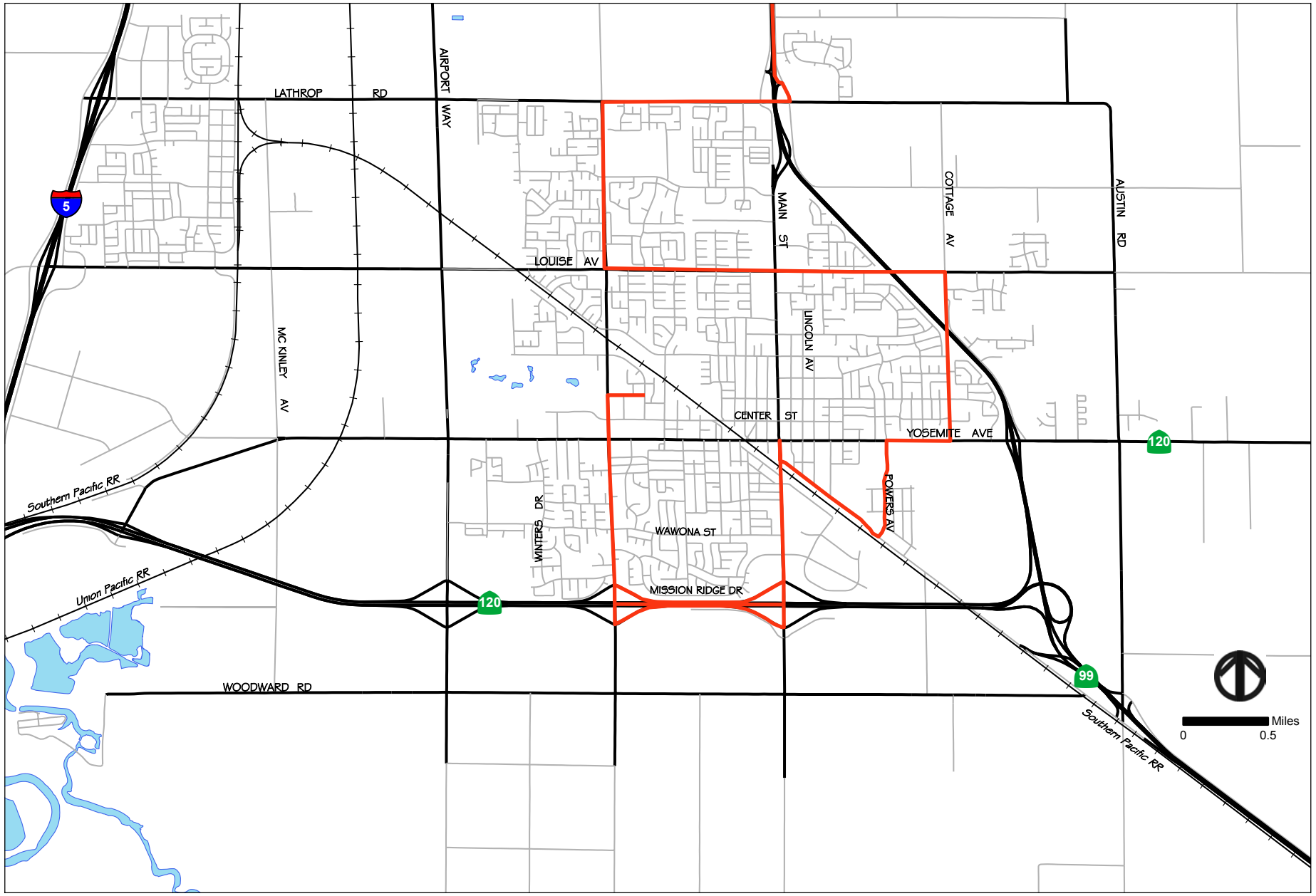
County Area Transit fixed route service provides transit service to French Camp, Lathrop and Manteca. In Manteca, the Civic Center, St. Dominic's Hospital and the Doctors Hospital are served. Connections to SMART Route 21 can be made from the CAT service line.

Altamont Commuter Express (ACE) provides commuter rail service between Stockton and San Jose. A stop is provided in Manteca on Yosemite Avenue at Shideler Parkway. Three trains are provided during the morning commute from Stockton to San Jose and three trains return in the evening.

15.2.3 Bicycles and Pedestrians

The City of Manteca has a number of bicycle facilities, including Class I (bicycle path), Class II (bicycle lane) and Class III (bicycle route) facilities. Figure 15-6 shows the extent of Manteca's bicycle routes. These facilities provide for bicycle travel throughout the city.

With respect to pedestrian circulation, most streets provide sidewalks and crosswalks are provided at major intersections.



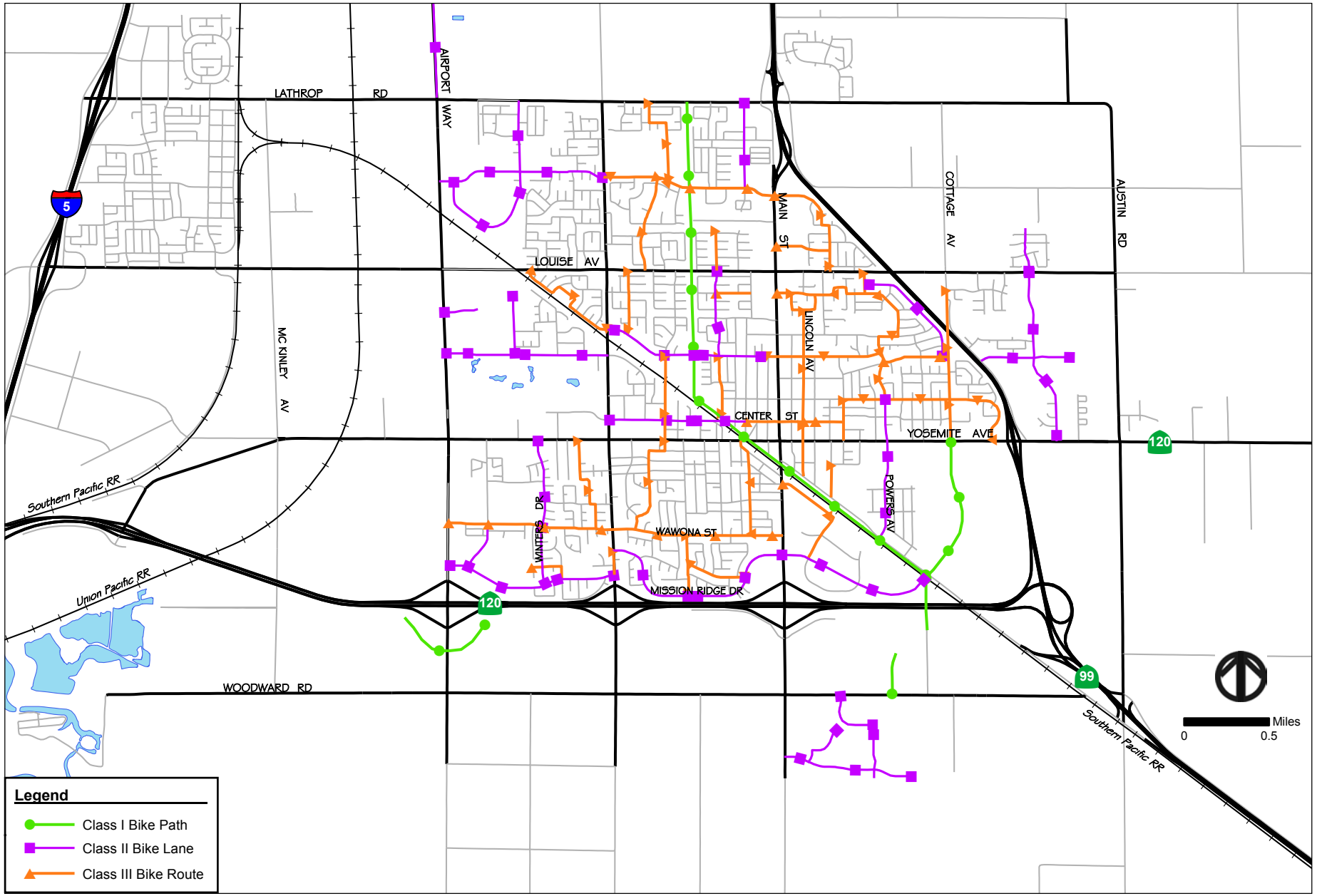
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EXISTING TRANSIT ROUTES

FIGURE 15-5



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/gis/bike

EXISTING BICYCLE NETWORK

FIGURE 15-6

15.2.4 2000 Census Journey to Work Data

The results of the 2000 Census Journey to Work analysis is presented below. This information details the mode choice for Manteca residents as well as the average travel time for the commuter trip. For comparison purposes, county, state, and national information is presented in Table 15-6.

Table 15-6

2000 Census Journey to Work Results

	Manteca	San Joaquin County	California	United States
Single Occupant Auto	76.5%	74.6%	71.8%	75.7%
Carpool	16.3%	17.0%	14.5%	12.2%
Public Transit	1.5%	1.4%	5.1%	4.7%
Bicyling	0.7%	0.7%	0.8%	0.4%
Walking	1.7%	2.3%	2.9%	2.9%
Other Means	0.6%	1.0%	1.0%	0.8%
Work at Home	2.7%	2.9%	3.8%	3.3%
Average Travel Time to Work	34.2 minutes	29.2 minutes	27.7 minutes	25.5 minutes

Source: 2000 Census, SF-3

The average travel time from home to work for Manteca residents has grown from 26 minutes in 1990 to 34 minutes in 2000, a result that is substantially higher than the average for the county, state, or nation.

One influence on this relatively higher travel time is the percentage of workers who travel one hour (60 minutes) or more. About one-quarter of the employed City residents drive more than 60 minutes to reach their place of employment. For San Joaquin County as a whole, only 15% of the residents required more than 60 minutes to reach their employment location.

The complete Census tables for the Journey to Work data are provided in Appendix B of the *City of Manteca General Plan Transportation Analysis, Fehr & Peers, May 2003,* available for review at the City of Manteca Community Development Department.

15.3 REGULATORY SETTING

This chapter addresses the regulatory setting for the City of Manteca General Plan 2023. From a transportation perspective, the major items that impact the General Plan 2023 development and evaluation include:

- San Joaquin Council of Governments' (SJCOG) Regional Transportation Plan (RTP)
- Measure K Expenditure Plan
- San Joaquin Regional Transportation Impact Fee Study
- 1988 General Plan
- 1993 Public Facilities Infrastructure Plan
- City of Manteca Bicycle Plan

15.3.1 SJCOG Regional Transportation Plan

The Regional Transportation Plan (RTP) is a twenty-year transportation plan that outlines the major transportation improvements to be completed in San Joaquin County. This plan outlines funding for highway projects, transit station and service upgrades, bicycle/pedestrian facilities, and air service enhancements. As a federally designated air quality non-attainment and maintenance area, the San Joaquin County region is required to submit a regional transportation plan every three years.

The RTP relates to the proposed General Plan 2023 in two ways. First, the RTP contains goals and policies related to transportation planning in San Joaquin County. Second, the RTP describes planned improvements affecting local and regional facilities.

Relevant RTP policies include:

- Design a transportation system that meet the travel needs of both citizens and businesses
- Design a transportation system that will improve the environment or minimize environmental impacts
- Design an efficient, safe, and economical transportation system
- Effectively implement the transportation system

The RTP also presents lists of future transportation projects prioritized based on the need, benefit, cost and available funds over the 20 year horizon. According to the RTP, expected revenues are $3.9 billion with total needs of $7 billion. Therefore, there is a funding gap of over $3 billion. This gap represents the disparity between the transportation needs of San Joaquin County and the available resources to fund transportation. Based on insufficient funds for all of the transportation needs, the potential projects are segregated into two groups. The first group, Tier 1, represents projects that can be funded within the existing revenues. The second group, Tier 2, includes projects that cannot be

funded within the current revenue projections; these projects are needed and will move onto the Tier 1 list as additional revenues are identified.

The Tier 1 transportation projects in and around the City of Manteca include:

- Widening of State Route 99 to six lanes
- Widening of State Route 120 to six lanes
- State Route 99 / State Route 120 Interchange improvements
- Route 120 / McKinley Avenue Interchange construction
- Widening of Lathrop Road to four lanes
- Widening of Louise Avenue to four lanes
- Widening of Airport Way to four lanes
- Manteca Multi-modal station

The RTP also includes funding for continued bus and Altamont Commuter Express (ACE) services that benefit City of Manteca residents as well as other residents of San Joaquin County.

15.3.2 Measure K Expenditure Plan

Measure K refers to the one-half cent sales tax measure that funds transportation projects in San Joaquin County. Measure K funds are expended on a variety of projects that include congestion relief projects (major roadway improvements), railroad crossing safety improvements, rail and bus projects, bicycle/pedestrian projects, and local street repair. As part of this last element, Measure K funds are distributed to local jurisdictions to pay for local street repair based on relative population. According to reports from SJCOG, the City of Manteca receives approximately $400,00 each year for local street repair from Measure K.

One Manteca project that was partially funded by Measure K was the Tidewater Bikeway, a 3.4-mile bicycle facility that runs along an abandoned railroad right of way. This project was completed with Measure K funds along with funding from local, state, and federal sources.

15.3.3 San Joaquin Regional Transportation Improvement Fee Study

Under the authority granted by Assembly Bill 1600, SJCOG is conducting a regional transportation fee study. As part of this study, SJCOG is conducting a nexus analysis (as required by statute) to relate the costs of future transportation improvements to the demand generated by future development. This study has not been completed as of May 2003. If completed and implemented, the regional fee program would increase the funding available for transportation projects. These regional fees would be in addition to traffic impact fees assessed by jurisdictions such as the City of Manteca.

15.3.4 1998 General Plan & General Plan Environmental Assessment

The last update to the City of Manteca General Plan was completed in 1988. As part of this update, the Goals and Policies were updated. Additionally, the Circulation Element presented the projected roadway network for the City of Manteca. This General Plan anticipated significant growth in the City of Manteca with a total of 826,600 daily trips estimated at the buildout of the General Plan.

15.3.5 1993 Public Facilities Implementation Plan and South Manteca Area General Plan Amendment

In 1993, the City of Manteca completed a Public Facilities Implementation Plan (PFIP) and a General Plan Amendment regarding the South Manteca Area. The PFIP addressed the future infrastructure needs related to the City including water, wastewater, and transportation. The General Plan Amendment for the South Manteca Area Plan outlined future development in the area south of State Route 120.

The main purpose of the PFIP was the identification of future infrastructure needs and the calculation of fees that would fund future infrastructure. Since the completion of the PFIP, the City of Manteca has collected fees from development projects, which has funded a variety of improvements in the City.

As stated previously, the City adopted a General Plan Amendment related to the South Manteca Area Plan. This Amendment modified the 1988 General Plan to allow development in the area south of State Route 120. This General Plan Amendment envisioned significant growth in this area south of Manteca. With this General Plan Amendment, the total number of daily trips anticipated for the City of Manteca was 709,800, a reduction of approximately 10-15% from the 1988 General Plan. Of this 700,000 total daily trips, nearly one-third (246,400) was anticipated to occur as a result of development south of State Route 120.

For purposes of the General Plan 2023 EIR, the *No Project Alternative* is the 1988 General Plan as modified by the 1993 General Plan Amendment.

15.4 MODEL CALIBRATION / VALIDATION

The model calibration / validation effort is detailed in the *City of Manteca General Plan Focused Model Calibration / Validation* report (August 2002) by Fehr & Peers Associates. This report in its entirety is provided as Appendix C of the *City of Manteca General Plan Transportation Analysis, Fehr & Peers, May 2003*, available for review at the City of Manteca Community Development Department.

15.5 ROADWAY IMPROVEMENTS

15.5.1 Manteca Roadways

There are two main funding sources for roadway improvements in the City of Manteca. The first funding source is SJCOG, which allocates regional transportation funds for projects throughout San Joaquin County. The second source is development fees collected through the 1993 PFIP.

The San Joaquin Council of Governments Regional Transportation Plan (SJCOG RTP) outlines projects that are funded through regional funds. These projects include Tier 1 projects (can be funded with projected revenues) and Tier 2 projects (cannot be funded with projected revenues). This analysis assumes that Tier 1 projects are implemented.

As mentioned in Chapter III, the City of Manteca finances local infrastructure needs (water, sewer, and transportation) through a fee system that was codified in the 1993 PFIP. This plan established a future infrastructure network that would be funded through fees paid by residential and commercial development. This infrastructure plan includes a future roadway network.

The improvements assumed for the roadways in Manteca are indicated in Table 15-7. For each roadway improvement, documentation is provided indicating whether that improvement is referenced in the PFIP, the RTP Tier 1 project list or both documents.

Table 15-7

2025 Assumed Roadway Improvements

Roadway	Segment	Improvement	Included in PFIP?	Included in RTP Tier 1?
McKinley Avenue	Yosemite to SR 120	Widen to four lanes	Yes	No
McKinley Avenue	SR 120 to Atherton	Widen to six lanes	Yes	No
McKinley Avenue	Atherton to Woodward	Widen to four lanes	Yes	No
Airport Way	Lathrop to Woodward Road	Widen to six lanes	Yes	Yes (four lanes only)
Union Road	Mission Ridge to SR 120	Widen to four lanes	Yes	No
Union Road	SR 120 to Atherton	Widen to six lanes	Yes	No
Union Road	Atherton to south of Woodward Road	Widen to four lanes	Yes	No
Lathrop Road	Airport to Main	Widen to four lanes	Yes [1]	Yes
Main Street	Northgate to Alameda	Widen to six lanes	Yes	No
Main Street	Alameda to North	Widen to four lanes	Yes	No
Main Street	Yosemite to Woodward	Widen to six lanes	Yes	No
Yosemite Avenue	McKinley to Union	Widen to six lanes	Yes	No
Yosemite Avenue	Union to Walnut	Widen to four lanes	Yes	No
Yosemite Avenue	Freemont to Austin	Widen to four lanes	Yes	No
Atherton (SR 120 Frontage Road)	Airport to Austin	New 4 Lane roadway (arterial)	Yes	No
Woodward Road	McKinley to Main Street	Widen to Four Lane	No	Yes
Woodward Road	Main Street to Austin	Widen to Four Lane	Yes	No
New Collector Roadway	McKinley to Austin	New 2 Lane roadway (collector)	No	No

Notes: 1- Based on personal communication with Dave Vickers (City of Manteca) regarding feasibility of improvement.

Source: Fehr & Peers Associates, May 2003

15.5.2 Regional Roadway and Interchange Improvements

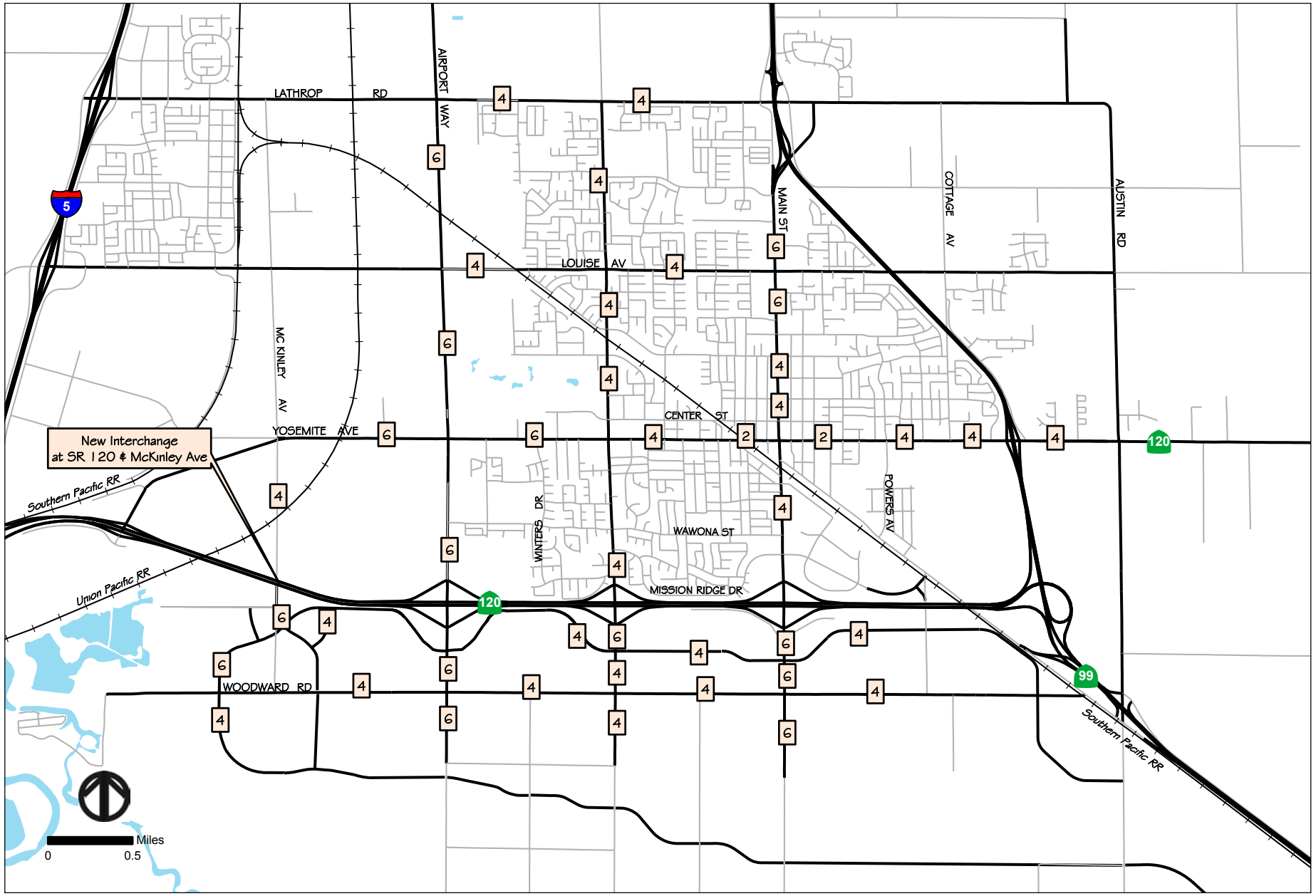
San Joaquin County has an extensive network of regional freeways and limited access facilities including Interstate 5, State Route 99, and State Route 120. State Route 99 and State Route 120 are particularly important to the City of Manteca given that these facilities border on the City and City residents and employees utilize these roadways on a daily basis. Several of the major roadways in Manteca have existing interchanges with either State Route 99 or State Route 120. As stated previously, the SJCOG regional travel demand model was utilized as the basis for the City of Manteca travel demand model. A comprehensive update of the regional transportation model was completed in 2001. For the areas outside of Manteca, no changes were made in the roadway network. For instance, it was assumed that the roadway network or improvements in Stockton and Tracy was correct.

Inside the project Study Area, the lane configurations and project improvements for State Route 99 and State Route 120 were reviewed based on the information contained in the 2001 SJCOG RTP. This review indicated the following:

- The widening of State Route 99 adjacent to the City of Manteca is included on the Tier 1 project list. This widening would widen SR 99 from the existing four lanes to six lanes through widening in the median. Please note that the Tier 2 project list includes the widening of SR 99 to 8 lanes south of the SR 99 / SR 120 interchange.
- The widening of State Route 120 adjacent to the City of Manteca is on the Tier 1 project list. This widening would extend from I-5 to State Route 99 with the widening occurring in the median.
- Improvements to the interchange at SR 99 / SR 120 are included in the Tier 1 project list.
- A new interchange would be constructed at SR 120 / McKinley Avenue.

15.5.3 Future Roadway Network

The future laneage is shown on Figure 15-7. Intersection configurations for selected intersections are provided. A map of these selected locations is included as Figure 15-8. The default roadway configuration is that there are single left turn and right turn lanes on four lane roadways with dual left turn lanes and single right turn lanes on six lane and eight lane roadways. These conceptual configurations mirror the assumed configurations developed during the 1993 PFIP.



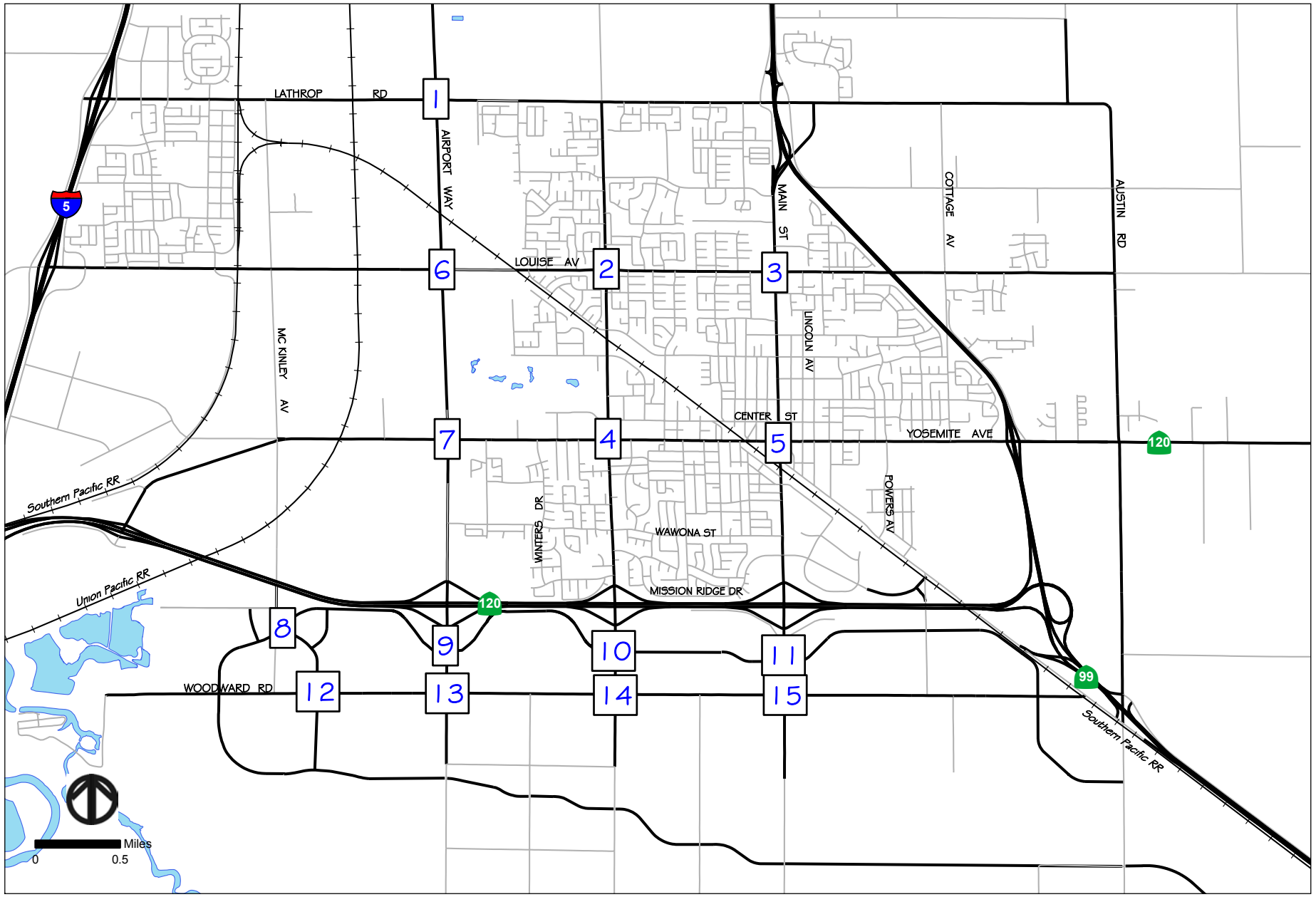
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FUTURE ROADWAY LANES

FIGURE 15-7



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FUTURE STUDY AREA INTERSECTIONS

FIGURE 15-8

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15.6 FUTURE TRAFFIC FORECASTS

This chapter discusses the project traffic volumes found on Manteca area roadways with the build-out of the General Plan 2023. This build-out scenario incorporates the land use and roadway network data contained in Section 15.5.

This sections presents the total daily trips, roadway segment volumes and the afternoon peak hour turning movements.

15.6.1 Total Daily Trips

With the proposed General Plan 2023, the total number of daily trips generated in the City of Manteca would be 1,107,208 at project buildout. This total represents an increase of 390,000 trips over the previous total under the No Project Alternative (1993 General Plan Amendment).

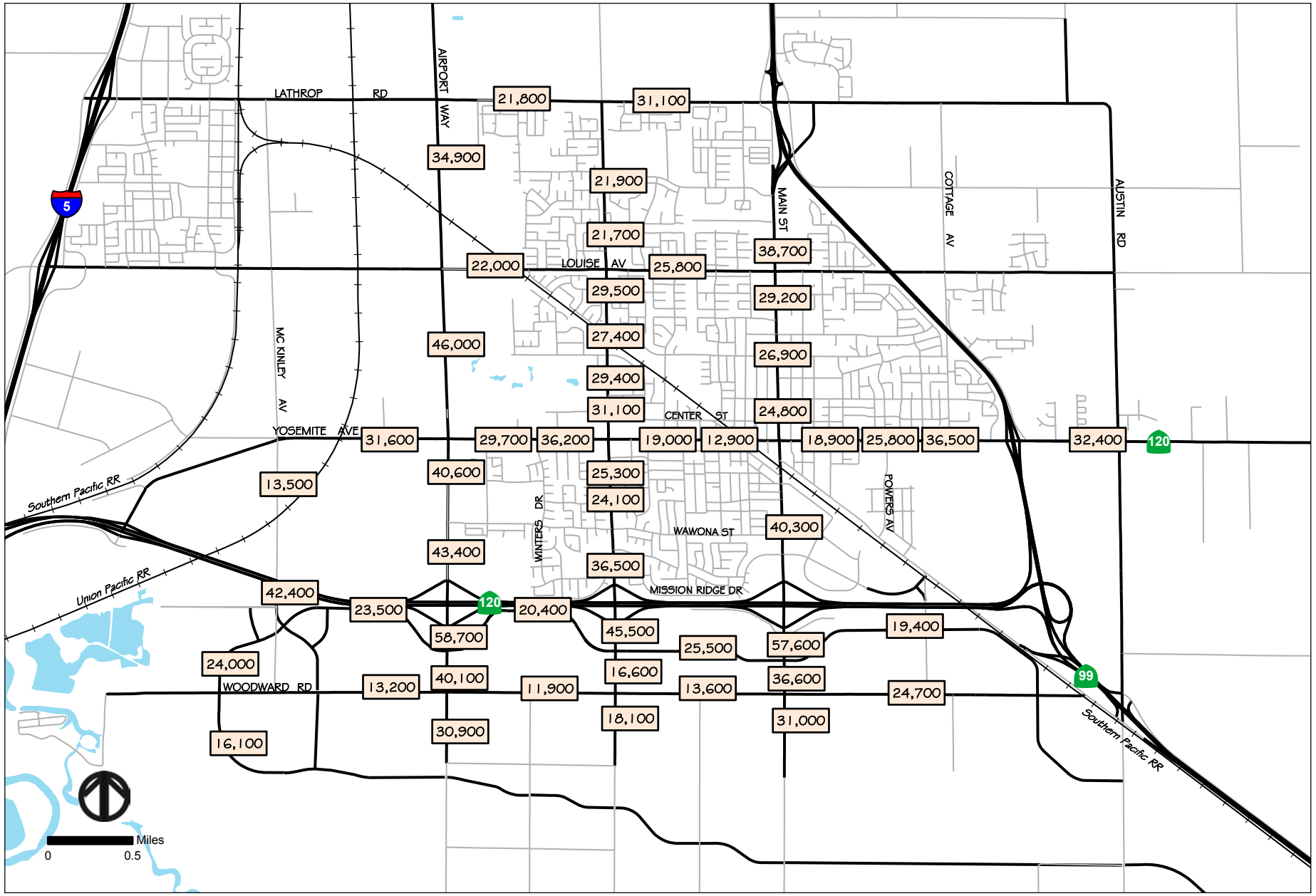
Future Segment Volumes

Figure 15-9 shows the future traffic volumes by road segment. Table 15-8 presents the future roadway segment volumes for the build out of the General Plan 2023. As shown in this table, there is significant growth in traffic volumes with the land uses included in the General Plan 2023.

Table 15-9 compares the traffic volumes to the existing traffic counts. The average increase per link is 138%, which indicates at least a doubling of traffic on City roadways by build-out of the General Plan 2023. This table also includes traffic volumes from the 1993 PFIP and South Manteca Area Plan General Plan Amendment. The average increase in these volumes is 36%. Therefore, the average roadway volume is approximately one-third more than the traffic volumes with the No Project Alternative.

Future Turn Volumes

Future turn volumes intersection locations were selected based on the five intersections analyzed under existing conditions as well as other intersections that might be impacted by future development. These volumes were developed using a variety of methods. For existing intersections for which existing turn movements are available, the furnessing process is employed which proportions the turning movements based on projected growth in traffic entering the entering on the street for which the movement begins and the growth in traffic existing on the street to which the movement is directed. When existing turning movements are not available, such as with the construction of a new roadway (Atherton), the future turning movements are directly extracted from the travel demand model.



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FUTURE DAILY VOLUMES

FIGURE 15-9

Table 15-8

Future Daily Volumes

Roadway	Between	Key Number	2025 Forecast
McKinley Avenue	Yosemite to 120	1	12400
	120 to Atherton	2	41400
	Atherton to Woodward	3	23600
	Woodward South	4	15700
Airport Way	Lathrop to Louise	5	39700
	Louise to Yosemite	6	45800
	Yosemite to Wawona	7	44700
	Wawona to SR 120	8	44700
	SR 120 to Atherton	9	59200
	Atherton to Woodward	10	39700
	Woodward South	11	29300
Union Road	Lathrop to Northgate	12	21300
	Northgate to Louise	13	21400
	Louise to Alameda	14	28800
	Alameda to Crom	15	26900
	Crom to Center	16	28900
	Center to Yosemite	17	31200
	Yosemite to Wawona	18	25100
	Wawona to Mission Ridge	19	24400
	Mission Ridge to SR 120	20	37500
	SR 120 to Atherton	21	46500
	Atherton to Woodward	22	16700
	Woodward South	23	17000
Main Street	Northgate to Louise	24	36400
	Louise to Alameda	25	27100
	Alameda to North	26	25300
	North to Center	27	22900
	Center to Yosemite	28	23600

	Yosemite to SR 120	29	42500
	SR 120 to Atherton	30	57400
	Atherton to Woodward	31	34800
	Woodward South	32	30800
Woodward	McKinley to Airport	33	16300
	Airport to Union	34	15600
	Union to Main	35	18000
	Main to Austin	36	24700
Atherton	McKinley to Airport	37	21300
	Airport to Union	38	17800
	Union to Main	39	23200
	Main to Woodward	40	20200
Yosemite	McKinley to Airport	41	26400
	Airport to Winters	42	30500
	Winters to Union	43	26700
	Union to Walnut	44	16700
	Walnut to Main	45	11700
	Main to Fremont	46	17000
	Fremont to Powers	47	23600
	Powers to Cottage Ave.	48	32400
	Cottage ro SR 99	49	36100
	SR 99 to Austin	50	31800
Louise Avenue	Airport to Union	51	21400
	Union to Elm	52	29400
	Elm to Main	53	30300
Lathrop Road	Airport to Union	54	23400
	Union to Main	55	21400

Source: Fehr & Peers Associates, May 2003

Table 15-9

Comparison of Existing to Forecast Traffic Volumes

Roadway	Between	2001 Traffic Counts	Forecasted Growth	Current General Plan	New General Plan	Percent Change
Airport Way	Lathrop to Louise	8700	359%	23000	39700	73%
	Louise to Yosemite	8900	417%	30300	45800	51%
	Yosemite to Wawona	9800	314%	22300	44700	100%
	Wawona to SR 120	9300	367%	24800	44700	80%
Union Road	Lathrop to Northgate	9500	131%	18800	21300	13%
	Northgate to Louise	12500	74%	18800	21400	14%
	Louise to Alameda	14300	106%	22600	28800	27%
	Alameda to Crom	16000	71%	22600	26900	19%
	Crom to Center	17600	67%	22600	28900	28%
	Center to Yosemite	15700	98%	22600	31200	38%
	Yosemite to Wawona	15900	59%	22600	25100	11%
	Wawona to Mission Ridge	16400	47%	22600	24400	8%
	Mission Ridge to SR 120	17100	113%	22600	37500	66%
Main Street	Northgate to Louise	20200	92%	20300	36400	79%
	Louise to Alameda	24700	18%	20300	27100	33%
	Alameda to North	18800	43%	21000	25300	20%
	North to Center	23000	8%	21000	22900	9%
	Center to Yosemite	15200	66%	21000	23600	12%
	Yosemite to SR 120	22800	77%	41920	42500	1%
	SR 120 to Woodward	6300	814%	47200	57400	22%
Woodward	Union to Main	3700	268%	6900	18000	161%
Yosemite	McKinley to Airport	11200	182%	29600	26400	-11%
	Airport to Winters	14200	109%	29300	30500	4%
	Winters to Union	16800	115%	28100	26700	-5%

	Union to Walnut	15400	23%	12900	16700	29%
	Walnut to Main	12200	6%	12600	11700	-7%
	Main to Fremont	13200	36%	10400	17000	63%
	Fremont to Powers	16200	48%	14700	23600	61%
	Powers to Cottage Ave.	15700	64%	14700	32400	120%
	Cottage to Austin	17000	115%	30000	36100	20%
Louise Avenue	Airport to Union	10800	104%	17800	21400	20%
	Union to Elm	11800	89%	18800	29400	56%
	Elm to Main	17900	44%	26200	30300	16%
Lathrop Road	Airport to Union	10200	114%	20100	23400	16%
	Union to Main	11900	161%	20900	21400	2%
Average Change Per Roadway Segment			138%			36%

Source: Fehr & Peers Associates, February 2003

15.7 IMPACT EVALUATION CRITERIA

The following specific criteria are used in conjunction with the CEQA Guidelines, Appendix G, for determining any significant adverse impacts from the project upon the environment.

1. Does the proposed General Plan 2023 meet City of Manteca LOS standards for local roadways?

For the local roadways, LOS will be assessed using a two-tier approach based on the language from the General Plan 2023 policies. First, every roadway segment must meet LOS D at a minimum. Second, one-half of the Study Area roadway segments must operate at LOS C or better in order to achieve the "LOS C Average" policy. If these two criteria are not met, then a significant impact is judged to occur.

2. Does the proposed General Plan 2023 meet City of Manteca LOS standards for intersections?

Intersection operations will be assessed using the approach outlined above. Each intersection must operate at LOS D or better. Also, one-half of the Study Area intersections must operate at LOS C or better.

3. Does the proposed General Plan 2023 meet SJCOG LOS standards for regional roadways?

LOS D is the standard for regional roadways. In terms of this analysis, regional roadways are defined to be the three freeway facilities directly adjacent to the City of Manteca (Interstate 5, State Route 99, and State Route 120). If the incremental growth in traffic from the proposed General Plan 2023

causes the traffic volumes to exceed LOS D, then a significant impact will be identified. Impacts are not identified when the roadway would exceed LOS D under the No Project condition.

4. Does the proposed General Plan 2023 conflict with regionally adopted transportation goals or policies?

A significant impact will be assessed if an element of the proposed General Plan 2023 conflicts with regional goals and policies related to transportation.

5. Does the proposed General Plan 2023 impede the operations of alternate travel modes including transit, bicycles, and pedestrians?

A significant impact will be identified if the proposed General Plan 2023 negatively impacts non-automotive modes including transit, bicycles, and pedestrians.

15.8 IMPACTS AND MITIGATION

This section presents the results of the impact analysis. This impact analysis addresses the extent to which the proposed General Plan 2023 creates significant impacts on both the local and regional roadway and transportation network. This section also addresses the extent to which the proposed General Plan 2023 may create impacts on other modes of transportation including transit, bicycles, and pedestrians.

POTENTIAL IMPACT TC-1: Planned development in the General Plan 2023 may not meet City of Manteca LOS standards for local roadways.

For analysis purposes, these roadways are limited to the major arterials within the City of Manteca. The LOS daily volume thresholds from Table 15-2 were applied to the future volumes. The results of this application are shown in Table 15-10. Figure 15-10 shows the LOS results by location.

Level of Significance: Potentially Significant

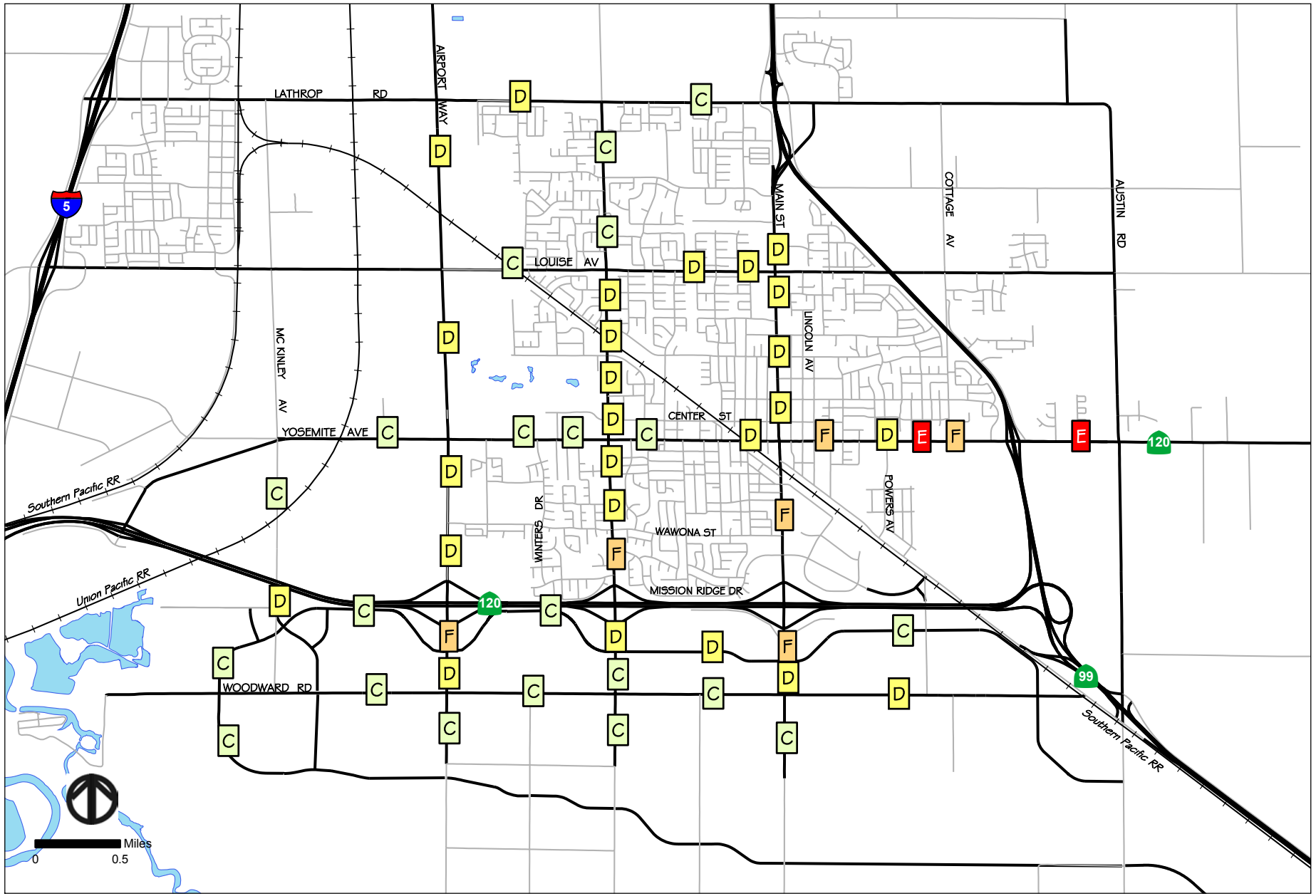
Table 15-10

Future Roadway LOS

Roadway	Between	Existing Lanes	Future Lanes	2025 Forecast	V/C Ratio	New LOS
McKinley Avenue	Yosemite to 120	2	4	12400	0.38	C
	120 to Atherton	2	6	41400	0.84	D
	Atherton to Woodward	2	6	23600	0.48	C
	Woodward South	2	4	15700	0.48	C
Airport Way	Lathrop to Louise	2	6	39700	0.81	D
	Louise to Yosemite	2	6	45800	0.93	D
	Yosemite to Wawona	2	6	44700	0.91	C
	Wawona to SR 120	2	6	44700	0.91	D
	SR 120 to Atherton	2	6	59200	1.20	F
	Atherton to Woodward	2	6	39700	0.81	D
	Woodward South	2	6	29300	0.59	C
Union Road	Lathrop to Northgate	4	4	21300	0.65	C
	Northgate to Louise	4	4	21400	0.65	C
	Louise to Alameda	4	4	28800	0.88	D
	Alameda to Crom	4	4	26900	0.82	D
	Crom to Center	4	4	28900	0.88	D
	Center to Yosemite	4	4	31200	0.95	D
	Yosemite to Wawona	4	4	25100	0.76	D
	Wawona to Mission Ridge	4	4	24400	0.74	D
	Mission Ridge to SR 120	2	4	37500	1.14	F
	SR 120 to Atherton	2	6	46500	0.94	D
	Atherton to Woodward	2	4	16700	0.51	C
	Woodward South	2	4	17000	0.52	C
Main Street	Northgate to Louise	4	6	36400	0.74	D
	Louise to Alameda	4	6	27100	0.82	D
	Alameda to North	4	4	25300	0.77	D
	North to Center	2	4	22900	0.70	D

	Center to Yosemite	4	4	23600	0.72	D
	Yosemite to SR 120	4	4	42500	1.29	F
	SR 120 to Atherton	4	6	57400	1.16	F
	Atherton to Woodward	4	6	34800	0.71	D
	Woodward South	2	6	30800	0.62	C
Woodward	McKinley to Airport	2	4	16300	0.50	C
	Airport to Union	2	4	15600	0.47	C
	Union to Main	2	4	18000	0.55	C
	Main to Austin	2	4	24700	0.75	D
Atherton	McKinley to Airport	N/A	4	21300	0.65	C
	Airport to Union	N/A	4	17800	0.54	C
	Union to Main	N/A	4	23200	0.71	D
	Main to Woodward	N/A	4	20200	0.61	C
Yosemite	McKinley to Airport	2	6	26400	0.54	C
	Airport to Winters	2	6	30500	0.62	C
	Winters to Union	2	6	26700	0.54	C
	Union to Walnut	4	4	16700	0.51	C
	Walnut to Main	2	2	11700	0.75	D
	Main to Fremont	2	2	17000	1.09	F
	Fremont to Powers	2	4	23600	0.72	D
	Powers to Cottage Ave.	4	4	32400	0.98	E
	Cottage ro SR 99	4	4	36100	1.10	F
	SR 99 to Austin	2	4	31800	0.97	E
Louise Avenue	Airport to Union	4	4	21400	0.65	C
	Union to Elm	4	4	29400	0.89	D
	Elm to Main	4	4	30300	0.92	D
Lathrop Road	Airport to Union	2	4	23400	0.71	D
	Union to Main	2	4	21400	0.65	C

Source: Fehr & Peers Associates, May 2003



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FUTURE ROADWAY LOS RESULTS

FIGURE 15-10

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Mitigation Measures:

TC-1.1: The Circulation Element (Section 4) of the General Plan 2023 includes, among others, the following policies (P) to meet the standards for local roadways:

C-P-1: The City shall strive to attain the highest possible traffic levels of service (LOS) consistent with the financial resources available and the limits of technical feasibility. The impact of new development and land use proposals on LOS should be considered in the review process.

C-P-2 Manteca's target for transportation LOS is to provide **("citywide average" removed)** LOS of C or better, and a minimum of LOS D at any individual location. LOS C, LOS D and the other Level of Service ratings as defined in current traffic engineering standards. This "LOS C average, LOS D minimum" shall be accomplished by attempting to provide LOS C at all locations, but accepting LOS D under the following circumstances:

- Where constructing facilities with enough capacity to provide LOS C is found to be unreasonably expensive. This applies to facilities, for example, on which it would cost significantly more per dwelling unit equivalent (DUE) to provide LOS C than to provide LOS D.
- Where it is difficult or impossible to maintain LOS C because surrounding facilities in other jurisdictions operate at LOS D or worse.
- Where free-flowing roadways or interchange ramps would discourage use of alternate travel modes.
- Where maintaining LOS C will be a disincentive to use of existing alternative modes or to the implementation of new transportation modes that would reduce vehicle travel.

As stated previously, the daily LOS standards are general guidelines and are not as accurate as more detailed intersection analyses. However, many of the segments exceed the LOS C threshold by 30-40%; therefore it is not likely that these impacts are within the normal tolerances of the LOS thresholds.

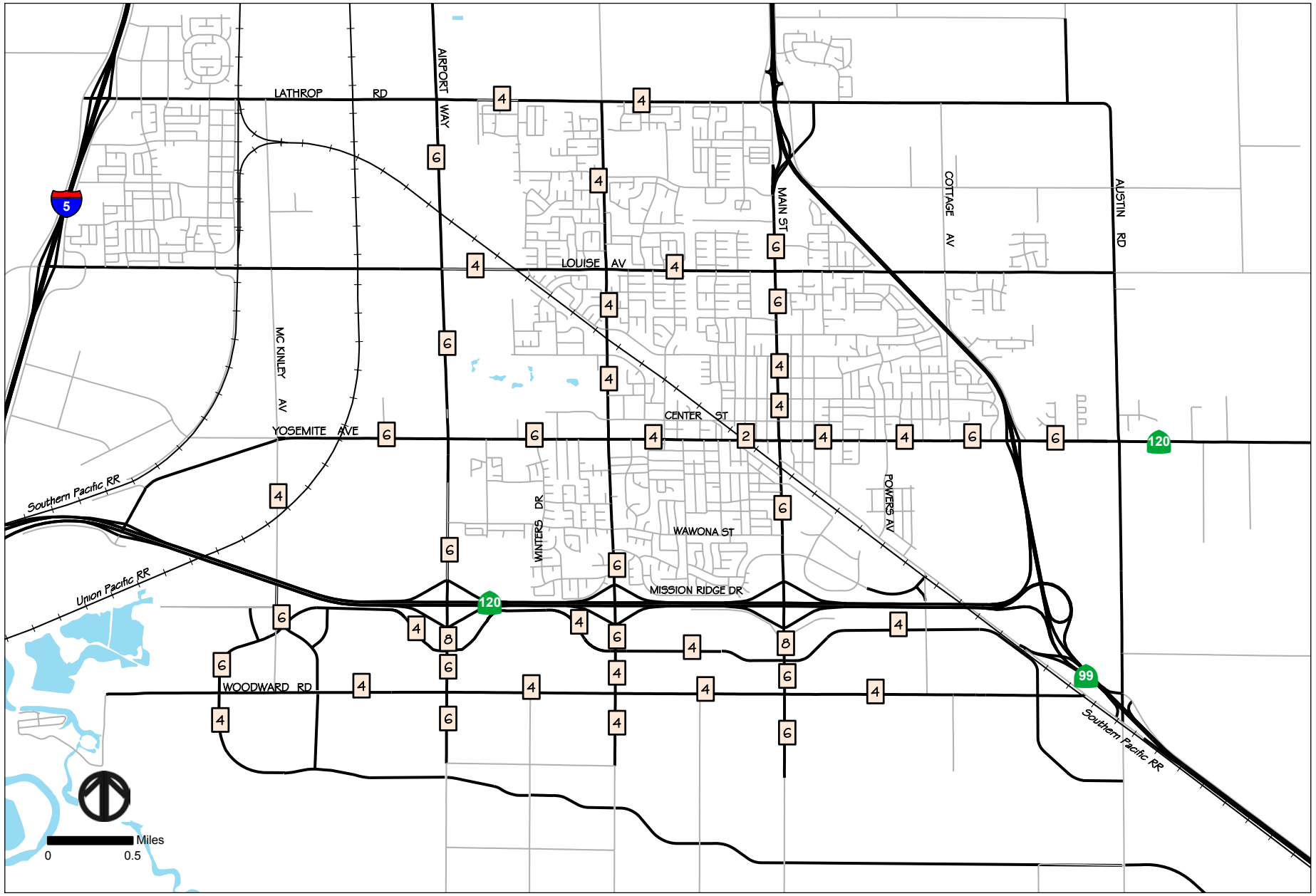
Based on the significance criteria above and the comparison to the existing 1988 General Plan, the proposed General Plan 2023 is inconsistent with the adopted goals and policies because several

segments do not meet the LOS D minimum and a majority of the roadways do not operate at LOS C (only 17 of 55 segments operate at LOS C). A total of eight segments do not meet LOS D standards.

Each of these deficient segments could be mitigated through widening each segment from its existing or projected laneage. The widening required improving the roadway segment LOS from E or F to D is listed below:

- Airport Way (SR 120 to Atherton)- Widen from six to eight lanes
- Union Road (Mission Ridge to 120)- Widen from four to six lanes
- Main Street (Yosemite to SR 120)- Widen from four to six lanes
- Main Street (SR 120 to Atherton)- Widen from six to eight lanes
- Yosemite (Main to Fremont)- Widen to 4 lanes
- Yosemite (Powers to Cottage)- Widen to 6 lanes
- Yosemite (Cottage to SR 99)- Widen to 6 lanes
- Yosemite (SR 99 to Austin)- Widen to 6 lanes

In most cases, these improvements occur in areas yet to be developed (south of State Route 120) or along roadways that will be widened (Yosemite Avenue). The one improvement that would be difficult to implement would be the widening of Yosemite to the east of Main Street. These improvements are shown on Figure 15-11.



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LANEAGE AFTER LOS D MITIGATIONS

FIGURE 15-11

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Widening the following three roadway segments will enable the proposed General Plan 2023 to meet the LOS C average on half of the roadway segments. These improvements include:

- McKinley Avenue (SR 120 to Atherton)- Widen to 8 lanes
- Airport Way (Atherton to Woodward)- Widen to 8 lanes
- Main Street (Atherton to Woodward)- Widen to 8 lanes

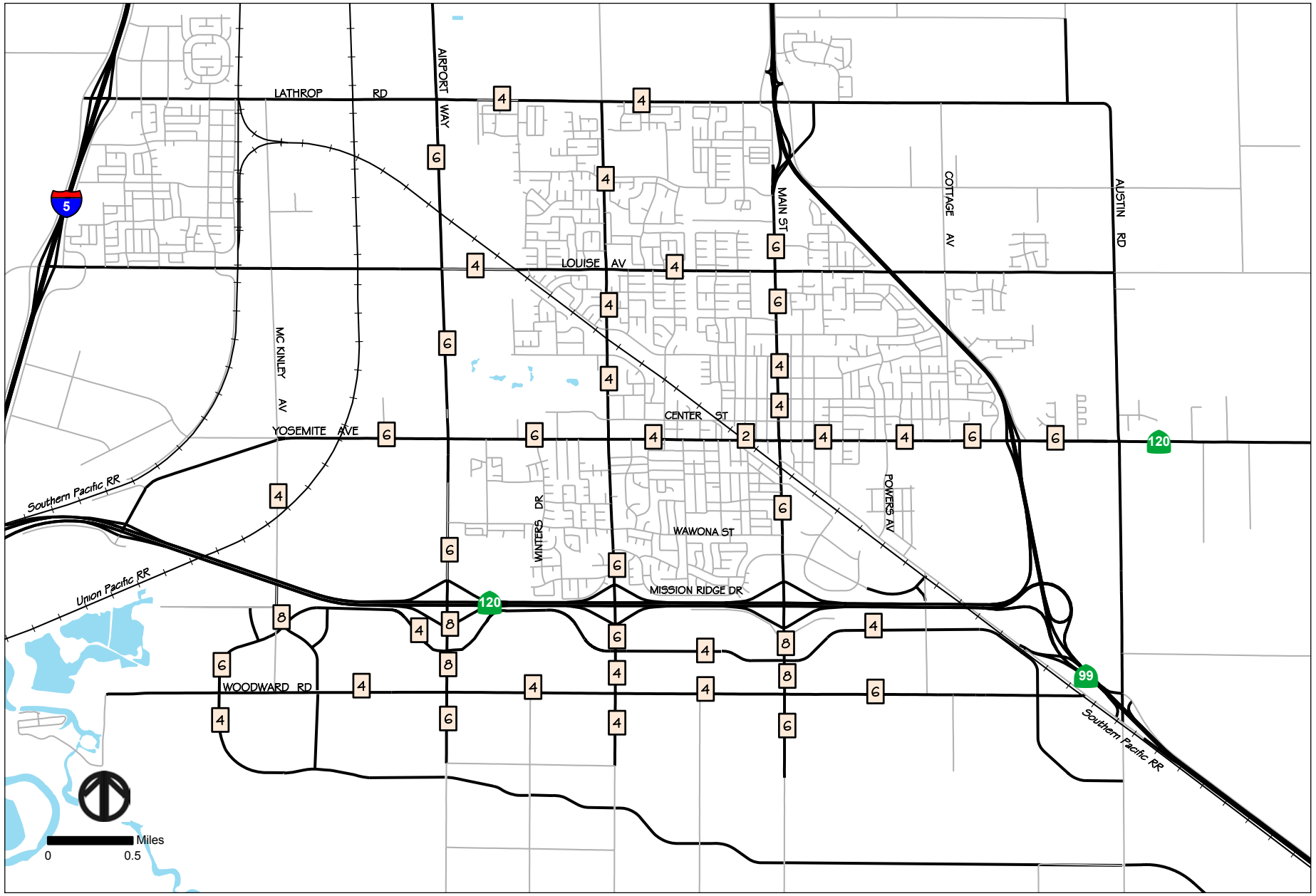
The three improvements can be considered feasible given that these roadways will be widening concurrent with the projected development of SR 120. There are no right-of-way considerations given that this land is currently unoccupied.

With this last set of roadway improvements, the proposed General Plan 2023 achieves internal consistency by having a roadway system to that matches the LOS policy in the General Plan 2023. These improvements are shown on Figure 15- 12. The LOS for these segments is shown on Table 21 in the *City of Manteca General Plan Transportation Analysis, Fehr & Peers, May 2003,* available for review at the City of Manteca Community Development Department.

Revising the LOS policy in the Circulation Element can obviate these last three roadway improvements. By removing the phrase "city-wide average", the policy would still indicate that LOS C is the target and LOS D is the minimum. Such a change in the policy would also remove any ambiguities regarding the LOS policy of the City.

Residual Level of Significance: Less Than Significant With Mitigation

Implementation of the General Plan 2023 policies, together with the traffic improvements detailed above, will help ensure that the General Plan 2023 will meet the standards for local roadways.



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LANEAGE AFTER LOS C MITIGATIONS

FIGURE 15-12

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POTENTIAL IMPACT TC-2: **Planned development in the General Plan 2023 may not meet City of Manteca LOS standards for local intersections.**

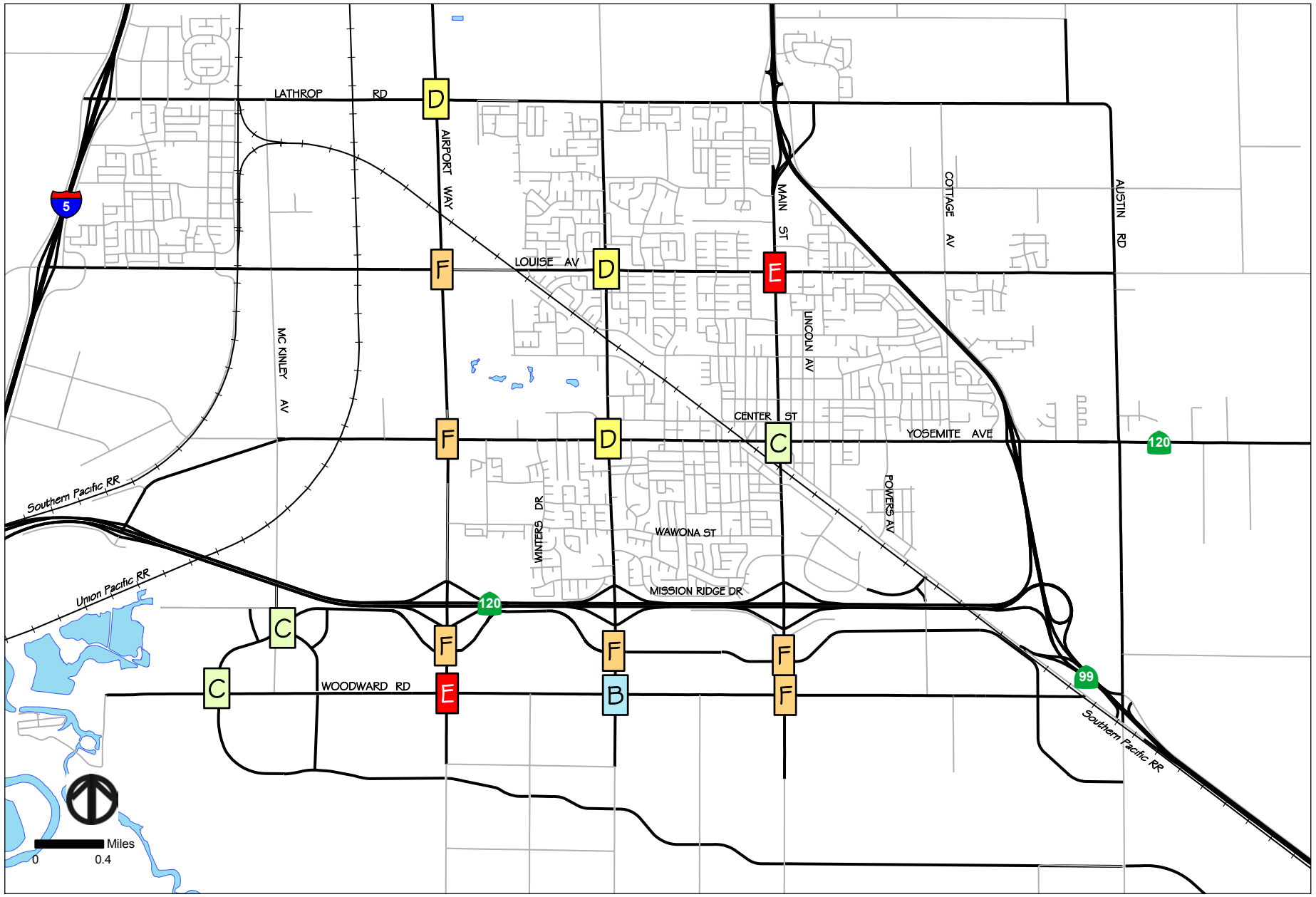
As shown in Table 15-11, eight of the fifteen Study Area intersections operate at LOS D or worse with the incremental traffic from the General Plan 2023. Mitigation includes potential changes to the operations of these intersections.

Table 15-11

2025 PM Levels of Service

Intersection	Control	PM LOS
1. Airport Way / Lathrop Road	Signalized	D
2. Union Road / Louise Avenue	Signalized	D
3. Main Street / Louise Avenue	Signalized	E
4. Union Road / Yosemite Avenue	Signalized	D
5. Main Street / Yosemite Avenue	Signalized	C
6. Airport Way / Louise Avenue	Signalized	F
7. Airport Way / Yosemite Avenue	Signalized	F
8. McKinley Avenue / Atherton	Signalized	C
9. Airport Way / Atherton	Signalized	F
10. Union Road / Atherton	Signalized	F
11. Main Street / Atherton	Signalized	F
12. McKinley Avenue / Woodward Avenue	Signalized	C
13. Airport Avenue / Woodward Avenue	Signalized	E
14. Union Road / Woodward Avenue	Signalized	B
15. Main Street / Woodward Avenue	Signalized	F

Source: Fehr & Peers Associates, May 2003



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FUTURE ROADWAY LOS RESULTS

FIGURE 15-13

May 2003
1011-1747/gis/future_study_area_LO

Level of Significance: Potentially Significant

Mitigation Measures:

TC-2.1: The Circulation Element policies (P) listed above in Potential Impact TC-1 address LOC standards, which also apply to local intersections.

TC-2.2: Improvements to the impacted intersections can allow LOS D operations or better.

As shown in Table 15-12, the fifteen Study Area intersections can be improved to allow LOS D operations or better. These improvements include any widening of the main-line segments as proposed to bring the roadway segments to LOS D and specific intersection improvements that will improve the operations of the intersection. These specific improvements include:

- Adding dual-left turn lanes on Lathrop Road at Airport Way / Lathrop Road
- Adding dual-left turn lanes on Louise Avenue at Main Street / Louise Avenue
- Adding dual-left turn lanes on Union Road and Yosemite Avenue at Union Road / Yosemite Avenue
- Adding dual-left turn lanes and dual right-turn lanes on Louise Avenue at Airport Way / Louise Avenue
- Adding dual-left turn lanes on Atherton at Airport Way / Atherton Road
- Adding dual-left turn lanes on Union Road and Atherton Road at Union Road / Atherton
- Adding dual-left turn lanes on Atherton at Main Street / Atherton Road
- Adding dual-left turn lanes on Woodward Avenue at Airport Way / Woodward Avenue
- Adding dual-left turn lanes on Woodward Avenue at Main Street / Woodward Avenue

Using the estimated turn volumes, City LOS requirements for both individual intersections and the citywide area can be satisfied with these intersection improvements. In general, these improvements are feasible given that many of the proposed roadways will be widened as part of future roadway projects envisioned by the PFIP and the RTP.

Table 15-12

2025 PM Intersection Levels of Service

Intersection	Control	PM LOS
1. Airport Way / Lathrop Road	Signalized	C
2. Union Road / Louise Avenue	Signalized	D
3. Main Street / Louise Avenue	Signalized	D
4. Union Road / Yosemite Avenue	Signalized	C
5. Main Street / Yosemite Avenue	Signalized	C
6. Airport Way / Louise Avenue	Signalized	C
7. Airport Way / Yosemite Avenue	Signalized	D
8. McKinley Avenue / Atherton	Signalized	D
9. Airport Way / Atherton	Signalized	D
10. Union Road / Atherton	Signalized	B
11. Main Street / Atherton	Signalized	D
12. McKinley Avenue / Woodward Avenue	Signalized	D
13. Airport Avenue / Woodward Avenue	Signalized	C
14. Union Road / Woodward Avenue	Signalized	B
15. Main Street / Woodward Avenue	Signalized	C

Source: Fehr & Peers Associates, May 2003

Residual Level of Significance: Less Than Significant With Mitigation

Implementation of the General Plan 2023 policies, together with the intersection improvements detailed above, the General Plan 2023 will meet the standards for local intersection.

POTENTIAL IMPACT TC-3: Planned development in the General Plan 2023 may not meet SJCOG LOS standards for regional roadways.

As stated previously, the LOS standard for regional roadways are LOS D. Generally, a majority of the regional roadway segments adjacent to the City of Manteca will operate at that level or above. Only four of the fourteen regional roadway segments will operate at LOS D or better. The future volumes for both the No Project and With Project condition are shown in Table 15-13.

Table 15-13

2025 Freeway Operations

			2025 Volumes		Capacity	Capacity	Capacity	LOS	
Freeway	**Segment**	**Lanes**	**No Project**	**With Project**	**LOS C**	**LOS D**	**LOS E**	**No Project**	**With Project**
I-5	I-205 to SR 120	8	238,000	279,000	115,300	140,200	156,000	F	F
	SR 120 to Louise	6	157,000	154,800	81,700	105,000	120,200	F	F
	Louise to Lathrop	6	152,000	153,500	81,700	105,000	120,200	F	F
	North of Lathrop	6	159,000	148,000	81,700	105,000	120,200	F	F
SR-120	I-5 to Yosemite	6	119,000	148,100	81,700	105,000	120,200	E	F
	Yosemite to McKinley	6	113,000	107,000	81,700	105,000	120,200	E	E
	McKinley to Airport	6	95,000	113,900	81,700	105,000	120,200	D	E
	Airport to Union	6	114,000	114,000	81,700	105,000	120,200	E	E
	Union to Main	6	118,000	115,000	81,700	105,000	120,200	E	E
	Main to SR 99	6	98,000	99,100	81,700	105,000	120,200	D	D
SR-99	North of Lathrop	6	92,000	100,800	81,700	105,000	120,200	D	D
	Lathrop to Yosemite	6	76,000	81,600	81,700	105,000	120,200	C	C
	Yosemite to SR 120	6	98,000	108,900	81,700	105,000	120,200	E	E
	South of SR 120	6	111,000	147,600	81,700	105,000	120,200	E	F

Source: Fehr & Peers Associates, May 2003

Level of Significance: Potentially Significant

The freeway volumes with the proposed land use in the proposed General Plan 2023 are generally equal to or higher than the volumes associated with the previous (1988) General Plan. Large differences in volumes are attributable to traffic associated with large projects included in Manteca (business park south of McKinley) and other projects included in the background. For instance, these projections include traffic from the Landmark Logistic Center (LLC), a large mixed-use project approved in the City of Lathrop.

However, many of these roadway segments will operate at deficient levels of service under both the No Project and Project Condition. However, one segment of SR-120 will operate at a worse level than the No Project Condition. This segment, McKinley to Airport, will operate at LOS E under the Project Condition (LOS D under the No Project Condition). Therefore, there is a significant impact at this location.

This is one significant impact identified on regional roadways. This impact was identified on State Route 120, for the segment from McKinley Avenue to Airport Road. One factor contributing to this impact is the access provided to a proposed business park south of McKinley Avenue. Another factor contributing to these traffic volumes are the region-wide population and employment growth. This roadway segment exceeds the LOS D threshold by approximately 8%. Please note that this impact occurs with the buildout of the General Plan 2023, which represents significant population and employment growth in the City of Manteca. This buildout scenario incorporates a worst-case significant population and employment growth, which vastly exceeds the regional forecasts. These impacts are therefore conservative and will only occur if the City meets its anticipated growth forecasts.

Given that the City lacks the resources and authority to widen State Route 120 directly, other mitigations measures are needed. Mitigations for this impact include:

Mitigation Measures:

TC-3.1: **Travel Demand Management:** The Circulation Element includes several policies (P) and implementation measures (I) aimed at encouraging alternate modes. These include:

C-I-15 The City shall establish a requirement for a transportation demand management program in any business park, industrial or commercial land use that employs more than 50 full time equivalent employees.

Transit Use: The Circulation Element encourages transit use, including the following policies (P):

C-P-49 The City shall encourage the use of local transportation services, such as jitneys, local shuttles and commuter buses.

C-P-52 The City shall promote the development of park-and-ride facilities near I-5, SR 120, and SR 99.

Bicycle/Pedestrian Use- The Circulation Element encourages bicycle/pedestrian use, including the following policy (P):

C-P-33 The City <u>shall</u> ~~should~~ establish a safe and convenient network of identified bicycle routes connecting residential areas with recreation, shopping, and employment areas within the city". By establishing

this network, the City of Manteca is encouraging bicycle use in the City. This policy is currently being implemented through ~~the update of~~ the City's Bicycle Master Plan.

Participation Regional Cost-Sharing Program: SJCOG is conducting a study regarding the implementation of a region wide traffic fee. The City of Manteca has supported this effort by participating in the study regarding this fee. The City should continue to support similar efforts to develop a mechanism to share the cost of regional transportation improvements when such an effort fairly allocates the costs and benefits of projects through an appropriate nexus-based study. These cost-sharing efforts could be addressed through both region-wide efforts and sub-regional efforts. A sub-regional cost sharing approach could consist of a program to allocate improvement costs to only a limited number of adjacent cities (Tracy, Lathrop, Manteca only) or cities utilizing a particular corridor (I-205).

Several factors contribute to this impact and other impacts on the roadways. These factors include regional population growth and a continuing travel outside of the regional for employment. By allocating significant lands for population, the City of Manteca is providing jobs for the residents of San Joaquin County, including Manteca residents.

While the proposed General Plan 2023 is increasing traffic volumes on regional roadways, the inclusion of significant employment opportunities is addressing one of the region's key transportation issues; namely the ever increasing commute required for San Joaquin County residents.

Residual Level of Significance: Less Than Significant With Mitigation

Implementation of the Circulation Element policies and implementation measures, together with continued participation in the SJCOG Regional Cost-Sharing Program, will help ensure that the General Plan 2023 will meet SJCOG LOS standards for regional roadways.

POTENTIAL IMPACT TC-4: Planned development in the General Plan 2023 could conflict with regionally adopted transportation goals and policies.

Level of Significance: Less Than Significant

As judged by the four major policies contained in the SJCOG RTP, the proposed General Plan 2023 does not conflict with the regional transportation goals and policies.

The first policy states, "Design a transportation system that meet the travel needs of both citizens and businesses". The future transportation plan contains goals and policies oriented towards all travel

modes. The proposed General Plan 2023 includes significant improvements to roadways and bicycle and pedestrian facilities. With the circulation network in the General Plan 2023, the City provides LOS D or better on all roadway segments. Therefore, the proposed General Plan 2023 generally meets the travel needs of citizens and businesses.

The second SJCOG RTP policy states, "Design a transportation system that will improve the environment or minimize environmental impacts". A majority of the proposed roadway improvements occur to existing roadways. There are minimal new roadways proposed in the General Plan 2023. These roads include Atherton (a new 4-lane arterial between SR 120 and Woodward Avenue) and an unnamed collector roadway south of Woodward Avenue. Because a majority of the road improvements occur to existing roadways, these improvements will have minimal environmental impacts.

The third major policy in the RTP states, "Design an efficient, safe, and economical transportation system". The transportation outlined in the proposed General Plan 2023 can be considered to be efficient and safe. Delay is minimized even with significant population and employment growth. Therefore, the proposed circulation plan can be considered to efficient, safe, and economical.

The final major policy in the RTP states, "Effectively implement the transportation system". The key to effectively implementing the transportation system is the City's Public Facilities Implementation Plan that assesses fees on develops. Portions of these fees are allocated to roadway improvements. Consequently, the City of Manteca has the ability to effectively implement the construction of its transportation system.

Based on the above factors, there are no contradictions between the proposed General Plan 2023 and the adopted policies of the SJCOG RTP.

Therefore, there is no significant impact.

POTENTIAL IMPACT TC-5: Planned development in the General Plan 2023 could impede the operations of alternate travel modes including transit, bicycles, and pedestrians.

Level of Significance: Less Than Significant

The General Plan 2023 Circulation Element addresses alternate modes through a variety of statements. These statements support the development and use of alternative modes include transit, bicycling, and walking. For the purposes of the EIR analysis, a significant impact is assumed to occur if the goals and policies of the General Plan 2023 impede the use of an alternate mode.

The use of transit is addressed through several goals and policies in the Proposed Circulation Element. In general, these policies encourage the use of a variety of transit systems, such as ACE and regional transit given that the establishment of a local transit system would be beyond the ability of the City

of Manteca. Please note that there is a regional study underway regarding unmet transit needs in Manteca. The San Joaquin Regional Transit District is performing this study. Because these goals and policies do not impede the use of transit, there is no significant impact.

Therefore, the Goals and Policies indicate a preference for off-street bicycle facilities as opposed to in-street bicycle lanes. These Goals and Policies conflict with statements made in the description of arterial facilities in the Circulation Element. This description states, "All new arterial streets shall be designed to provide both bike and pedestrian facilities on both sides of the street". This discrepancy is minor but should be resolved prior to publication of the General Plan 2023.

A review of the goals, policies, and implementation measures indicates that the General Plan 2023 promotes the use of bicycles and walking to the extent possible; therefore there is no significant impact.

16. ALTERNATIVES ANALYSIS

16.1 INTRODUCTION

Section 15126.6(a) of the CEQA Guidelines requires that the Lead Agency,

> *"…describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives."*

Section 15126.6(b) of the Guidelines further states that,

> *"…the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly."*

An EIR must describe a range of "reasonable" alternatives to the proposed project that could feasibly attain most of the basic objectives of the project. The feasibility of an alternative may be determined based on a variety of factors, including but not limited to, economic viability and availability of infrastructure In addition, by mandating the inclusion of a "no project" alternative, the resulting analysis is intended to provide a baseline against which project-related and alternative impacts can be evaluated. Since a comparative analysis of each alternative is required, this section provides the City's decision makers and the general public with the means to compare and select between different ways of accomplishing the project's stated objectives.

16.2 GENERAL PLAN OBJECTIVES

CEQA Guidelines, Section 15124(b), requires a statement of the objectives sought by the proposed project. The primary objective of the General Plan 2023 is to provide specific direction for the future growth and development of the City of Manteca and future annexation areas.

California law requires each city to adopt a comprehensive, long-term general plan for the physical development of the city. The general plan must be an integrated, internally consistent, and compatible statement of policies for the city. It serves as a framework for public and private development, and establishes requirements for additional planning studies where greater specificity is needed.

The general plan is the constitution for a city's development, and governs all land use regulations, including zoning.

The General Plan 2023 Introduction states the following purposes:

- To identify the community's land use, transportation, environmental, economic and social goals and policies as they relate to land use, conservation and development.

While agriculture still plays an important role in Manteca's economy, the City's economic base has become more diversified with the development of industries and the influx of Bay Area workers seeking affordable housing. This objective encompasses a jobs/housing balance, particularly the provision of jobs for the high percentage of interregional commuters who are attracted by Manteca's quality of life and relatively affordable housing. This skilled workforce, presently commuting long distances, is a resource for economic development. Due in part to the skills of the commuter workforce, Manteca will become increasingly competitive for the location of manufacturing and office uses.

- To enable the City Council and the Planning Commission to establish long-range conservation and development policies.

This objective includes the City's awareness of its quality of life value. The City's interest in conserving its natural resources, including preservation of open space and recreation areas, and the protection of natural resources, is reflected in this objective.

- To provide a basis for judging whether specific private development proposals and public projects are in harmony with these policies.

This objective includes the City's intent to equitably balance urban development and economic development with quality of life issues and the conservation of natural resources.

- To inform citizens, developers, decision makers, and other jurisdictions of the policies that will guide development and conservation within the City of Manteca.

This reflects the City's objective of developing a long range land use plan for the community.

In addition, the plan the General Plan reflects community vision and values, and the conditions that influence development of the community. These statements, along with the purposes stated above, can be viewed as the project objectives of the General Plan.

16.2.1 Logical Growth of the City

Manteca has generally grown in a compact pattern around the historic center of the City at the crossroads of Yosemite Avenue and Main Street. Residential neighborhoods have developed within boundaries established by the major streets spaced one mile apart. This General Plan directs land use to continue the historic pattern of compact urbanization. The developed portion of the City should retain its distinct, compact form with clear, well-defined edges.

16.2.2 Community Form, Scale and Identity

The community identity is established by important visual characteristics that provide cues for travelers, as well as residents.

The existing commercial core area should be retained and reinforced as the functional and social center of the City for residents. Urbanization should generally extend outward from this center.

16.2.3 Attractive, Sustainable Neighborhoods

Neighborhoods are the fundamental organizing concept for residential land use. The neighborhoods are typically not more than one mile in any dimension to provide a reasonable walking distance from any part of the neighborhood to the schools, parks, and commercial centers.

16.2.4 Support of Public Transit and Bicycle and Pedestrian Circulation

High activity areas should be located to facilitate the use of public transit.

16.2.5 Housing Opportunity

The General Plan responds to the need for diversity in housing opportunity and changes in market demand for housing types in two primary ways.

16.2.6 Employment and Economic Development

During the twenty-year horizon of this General Plan, Manteca will experience economic development that will add to and diversify the local economy. This will consist of additional growth in warehousing and distribution, but should also include significant new components, such as office and service sectors, research and development, and manufacturing.

16.2.7 Live/Work Housing

It is anticipated that the percentage of individuals working at home will increase over the next twenty years. At home workers may include telecommuters, professional services, small service businesses, mail order, and any number of other entrepreneurial endeavors. It is the intent of this General Plan to support such activities.

16.2.8 Public Services and Fiscal Stability

Growth will provide additional revenue sources, but will also place additional service burdens on the City of Manteca.

16.2.9 Access to Open Space

In the absence of natural features that could define an open space network, the General Plan encourages the creation of a network of open spaces in the storm drainage channels, and naturalized landscaping along major thoroughfares and bike paths.

16.2.10 Agricultural Productivity

The General Plan supports the existing level of agricultural production by directing development in a compact, concentric form in order to reduce the demand for new development areas.

16.3 PROJECT ALTERNATIVES

In fulfillment of the City's CEQA obligations, the City has identified a range of reasonable alternatives that accomplish the project's stated objectives, serve to satisfy specific analytical requirements (i.e. "no project" alternative), and seek to avoid or reduce the significant or potentially significant effects of the proposed project. Each of these alternatives is separately examined below.

Other alternatives identified by the City but deemed to be either infeasible or determined to be unlikely to produce a substantial reduction in any of the significant of potentially significant environmental effects identified in this EIR are specified below.

16.4 ALTERNATIVES CONSIDERED BUT SUBSEQUENTLY REJECTED

A number of project alternatives were considered and subsequently rejected by the City. The following alternatives were rejected either because these options were deemed to be infeasible, or lacked a reasonable likelihood of resulting in the avoidance or substantial reduction of the project's significant or potential significant environmental effects.

16.4.1 Alternative Site

For some projects, impacts can be avoided or reduced merely by relocating the project site (e.g., moving the project out of a sensitive resource area). In recognition of this possible impact avoidance strategy, the Guidelines contain provisions for the consideration of alternative project sites and acknowledge that in some cases there may be no feasible alternative location (Section 15126.6(f)(2)). Since the project constitutes an update to the City's 1988 General Plan, other than an alternative configuration of the Study Area, the project is required to address those areas located within both the corporate boundaries of the City and its Sphere of Influence. Although the City could formulate plans for other areas, those plans would not be binding upon those areas affected, and would not serve to further sound planning decisions for those areas under the City's current or future jurisdiction.

16.4.2 Down-Zoning Alternative

Not all properties within the City are currently developed to the maximum intensity authorized under the 1988 General Plan. As a result, one of the alternatives potentially available to the City is to "freeze" the City as it now exists and to redesignate each parcel to reflect the current land uses located thereupon. This action would reduce or eliminate the introduction of new, or the exacerbation of existing, environmental impacts associated with site intensification.

This action would, however, penalize those property owners who have not developed their properties to the intensities authorized under existing land use policies, and result in no or only limited economic use for those vacant properties within the City. Similarly, this action would not allow individual property owners to respond to existing and future market demands for new residential and non-residential uses. By creating a disincentive to private investment, the City may be establishing blighting influences within the community.

16.4.3 Modification of the Study Area

The area addressed in the General Plan 2023 includes the City's adopted corporate boundaries and immediately adjacent unincorporated areas. It has been determined that the property within this defined Study Area is impacted, positively or negatively, by actions taken by the City of Manteca.

The City could limit its planning program to only those areas within the City's existing corporate boundaries, relegating land use planning in adjoining unincorporated areas to San Joaquin County. However, the elimination of areas within the City's Sphere of Influence would constitute a regressive response to local agency planning. Although jurisdictional boundaries are easily definable, environmental impacts typically extend beyond those often-arbitrary limits. Since both existing and future land uses within the City's Sphere of Influence will continue to impact the community, sound planning necessitates the inclusion of those areas as part of this General Plan Update.

16.4.4 Market-Driven Alternative

Section 653029(a) of the California Government Code (CGC), states that a general plan shall include a land use element that "designates the proposed general distribution and general location and extent of the uses of the land for housing, business, industry, open space, including agriculture, natural resources, recreation, and enjoyment of scenic beauty, education, public buildings and grounds, solid and liquid waste disposal facilities, and other categories of public and private uses of land." The City is required to specify the location and intensity of land uses within the community.

Under a purely market-driven approach, the City would not be proactive (neither delineating the geographic areas for land use categories nor establishing standards for those areas), but would be reactive (the City would merely respond to what individual owners determine to be the appropriate land use for each parcel). It is, therefore, the marketplace rather than the City that determines how the City ultimately develops. This approach has the potential to result in the introduction of adjoining uses of different types and intensities and, therefore, create land use conflicts that could otherwise be avoided through effective planning.

16.5 ALTERNATIVES UNDER CONSIDERATION

This analysis includes three primary alternatives to the proposed project:

(1) No Project Alternatives

- No Development

- Build-Out of the 1988 General Plan

(2) Higher Density Alternative

(3) Reduced Development Alternative

16.5.1 No Project Alternatives

Two different scenarios exist under the "no project" alternative. These alternatives are described separately below:

No Project Alternative No. 1: No Development

Under this scenario, no additional dwelling units are constructed and no additional square footage of non-residential uses is added to the City. Other than maintenance, rehabilitation, and renovation activities (which are not generally defined as "projects" under CEQA), the existing status quo is maintained within the City's corporate boundaries. Since no annexation of unincorporated areas would occur, development within the Sphere of Influence would remain under the jurisdiction of San Joaquin County. It is assumed that development would continue to occur both in County areas, and within those areas located outside the corporate boundaries of the City.

This alternative is specifically mandated under the Guidelines and is posited for the sole purpose of providing a baseline against which other alternatives are considered and the comparative impacts of those alternatives can be evaluated. It is, however, unreasonable to assume that conditions within the City will be retained as the currently exist. As a result, this alternative should be considered infeasible.

No Project Alternative No. 2: Build-Out of 1988 General Plan

Under this second "no project" alternative, build-out of the Study Area would occur in accordance with those land use policies contained in the 1988 General Plan. In drawing comparisons between this alternative and other alternatives presented herein, it should be noted that the Study Area addressed in the 1988 General Plan is comparable to the Study Area now under consideration. The Study Area boundary differs primarily along the south edge.

Additional development within the Study Area, including the Sphere of Influence, can occur under the authorization of the 1988 General Plan. Based on the policies presented therein, reasonable foreseeable future growth within the community can occur in the absence of the General Plan update.

Since the retention of the existing land use policies, as presented in the 1988 General Plan, will result in incrementally less development than now proposed under the General Plan 2023, the potential project-related effects of that action will also be incrementally less than those associated with the proposed project.

It is reasonable to assume that any reduction in the number of future dwelling units or any decrease in the square footages of future non-residential uses constructed within the City will, however, translate into a corresponding increase in the number of units and square footages of other non-residential uses within the remainder of the region (i.e., if it is not built within City Limits, it will be built in surrounding County area). As a result, although development in the project planning area may be incrementally less, the cumulative impacts of this alternative are assumed to be comparable to those associated with the proposed project. In other words, the development will occur if there is a market demand. It is critical to plan for this development rather than simply allow it to occur.

16.5.2 Higher Density Alternative

This alternative allows the same population projection as the proposed project, but allocates less land area to residential land use. This alternative would result in higher density residential development.

The higher density alternative assumes that the same number of dwelling units projected in the General Plan 2023 Land Use would be developed on 20 percent less land area. For purposes of examining the effects of this alternative, Table 16-1 provides a summary of the land use and the number of dwelling units that would be allocated to each residential land use category.

Table 16-1

Calculation of High Density Alternative

A	B	C	D	E	F
Assumed Residential Density	**Proposed GP 2023**		**Dwellings**	**Reduced Land Use**	**Revised Density**
Dwellings/acre	**Land Use**	**Acres**		**Acres**	**Dwellings/acre**
20	High Density Residential	251	5,020	200.8	25
8	Medium Density Residential	359	2,872	287.2	10
5	Low Density Residential	3685	18,425	2948	6.25
1	Very Low Density Residential	248	248	198.4	1.25
		4,543	26,565	3,795	

Source: Wade Associates May 2003

In this alternative the total land area allocated to residential use has been reduced by 20 percent compared to the General Plan 2023 Land Use Map, but the total number of dwelling units remains constant. If the land area is reduced and the dwelling units remain constant, then the density must increase. In this example the land area is reduced from 4,543 acres to 3,795 acres, and the dwelling unit total remains 26,565. The residential densities increase to those shown in Column F in Table 16-1. These densities are within the range established by the General Plan 2023 Land Use Element. The densities are on the high end of the normal range for home builders in the Central Valley. However the intent behind increasing the allowable density in each range is to allow more flexibility for home builders and thereby enhance the diversity of housing types and prices available in Manteca.

The average residential density of the new residential areas in the General Plan 2023 is 5.8 dwellings per acre. The average density of the alternative land use plan is 7.0 dwelling units per acre. This density is in the range that begins to support efficient public transit. It is notable that this alternative is within the range can be achieved in the General Plan 2023 policies. The success of housing types at these densities will depend on the market acceptance.

16.5.3 Reduced Development Area Alternative

This alternative allocates the land use types and policies in the General Plan 2023 to the land area defined as the Primary Urban Service Area in the 1988 General Plan. Application of the new policies and land use in the 1988 service boundary would result in reduced development area, and less potential development than the proposed General Plan 2023.

The 1988 Primary Urban Service boundary and the proposed General Plan 2023 Primary Urban Service boundary cover similar areas, however, the 1998 Service area did not include land in the Southwest Plan Area, (west of Airport Way and south of SR 120.

Table 16-2 shows the land use that would occur under this alternative in the 1988 Primary Urban Service boundary compared to the General Plan 2023 Land Use.

Table 16-2

Alternative Land Use Within 1988 Primary Urban Service Boundary

	Total 2023 Land Use	GP2023 in 1988 Service Boundary
LAND USE	Acres	Acres
AG	3960.0	6.9
GC	672.0	599.43
NCC	491.8	396.3
CR	0.0	0
PEC	0.0	0
CMU	255.0	211.6
HI	909.9	197.2
LI	1024.1	384.5
BIP	258.0	14.8
BP	133.0	137.5
HDR (15.1 to 25 du/ac)	442.0	343.4
MDR (8.1to 15 du/ac)	546.6	379.6
LDR (2.1 to 8 du/ac)	6427.6	4307.5
VLDR (0.5 to 2 du/ac)	357.8	182.2
P/QP/Schools/Utilities	1105.9	1037.6
OS	543.0	33.6
P	518.1	456.8
Subtotal	17644.8	8688.9
Urban Uses	12623.7	8191.6

Source : Wade Associates, May 2003

The proposed General Plan 2023 Primary Urban Service boundary encompasses 13,414 acres, but this includes 1,908 in the Southwest Plan Area, as well as the Manteca Water Quality Control Facility. Therefore, the proposed Service boundary would encompass 11,506 acres compared to the 1988 Primary Urban Service boundary that encompasses 11,551 acres. If the proposed General Plan 2023 land use plan and policies were applied only to the area defined by the 1988 Primary Urban Service Boundary, the development land area would be restricted.

Under this alternative the urban land uses would be reduced from 12,623.7 acres to 8191.6 acres, a thirty-five percent (35%) reduction in the total land area allocated in the General Plan.

16.6 COMPARISON OF ALTERNATIVE PLANS

Table 16-3 provides a comparison of the land uses allocated in each alternative. The "No Growth-No Development" alternative is not included in the table because it would provide no land development at all and is not feasible.

Table 16-3

Summary of Land Use Alternatives

	Total 2023 Land Use	1988 GP	High Density	GP2023 in 1988 Service Boundary
LAND USE	**Acres**	**Acres**	**Acres**	**Acres**
AG	3960.0	1,572.3	3,960.0	6.9
GC	672.0	827.9	672.0	599.43
NCC	491.8		491.8	396.3
CR	0.0	656.3	0.0	0
PEC	0.0	1,063.0	0.0	0
CMU	255.0		255.0	211.6
HI	909.9	335.9	909.9	197.2
LI	1024.1	777.6	1,024.1	384.5
BIP	258.0		258.0	14.8
BP	133.0		133.0	137.5
HDR (15.1 to 25 du/ac)	442.0	266.9	391.0	343.4
MDR (8.1to 15 du/ac)	546.6	170.3	474.8	379.6
LDR (2.1 to 8 du/ac)	6427.6	5,481.7	5,689.7	4307.5
VLDR (0.5 to 2 du/ac)	357.8	280.0	308.2	182.2
P/QP/Schools/Utilities	1105.9	856.0	1,105.9	1037.6
OS	543.0	24.8	543.0	33.6
P	518.1	324.3	518.1	456.8
Subtotal	**17644.8**	**12,637.6**	**16734.5**	**8688.9**
Urban Uses	**12623.7**	**10,716.2**	**11713.4**	**8191.6**

Source: Wade Associates, May 2003

Table 16-3 indicates a broad range of alternatives for evaluation. Table 16-4 considers the effects of each of these alternatives in the context of the project purposes and objectives identified above.

Table 16-4

Summary of Alternatives Analysis

Criteria	Logical Growth of the City		
GP 2023 Land Use	1988 General Plan	2023 Land Use in 1988 Service Boundary	High Density
Good	Good	Good	Good
The Plan directs growth around the historic core.	The Plan directs growth around the historic core.	The Plan directs growth around the historic core.	The Plan directs growth around the historic core. This alternative would also restrict the geographic area.
Criteria	Community Form, Scale and Identity		
GP 2023 Land Use	1988 General Plan	2023 Land Use in 1988 Service Boundary	High Density
Good	Poor	Good	Good
the Plan provides direction for establishing the neighborhood scale.	The plan emphasizes single family residential with poor identity.	The plan enhances the 1988 plan by providing higher intensity land use in the core.	The plan would provide sufficient density to establish small neighborhood centers.

Criteria	**Attractive, Sustainable Neighborhoods That Support of Public Transit and Bicycle and Pedestrian Circulation**		
GP 2023 Land Use	**1988 General Plan**	**2023 Land Use in 1988 Service Boundary**	**High Density**
Good	Poor	Good	Excellent
Residential density can support of public transit by clustering higher density.	Relatively low density and poor pedestrian systems.	Higher intensity use concentrated around the core area.	Density would support public transit and pedestrian system.
Criteria	Housing Opportunity		
GP 2023 Land Use	1988 General Plan	2023 Land Use in 1988 Service Boundary	High Density
Good	Poor	Good	Excellent
Higher density and broader zoning designations allow for flexible development.	Detached single family is the dominant residential type.	Housing variety centered around the historic core area.	Density range provides opportunity for affordable housing types.
Criteria	Employment and Economic Development		
GP 2023 Land Use	1988 General Plan	2023 Land Use in 1988 Service Boundary	High Density
Good	Fair	Good	Good
Land use plan includes a mix of employment land uses.	The plan establishes the Planned Employment Center, but provided no implementation. Premature designation.	Provides same employment base as GP 2023.	Provides same employment base as GP 2023. Housing density may support more employees.

Criteria	Live/Work Housing		
GP 2023 Land Use	1988 General Plan	2023 Land Use in 1988 Service Boundary	High Density
Excellent	Poor	Excellent	Excellent
The plan provides policies and land use designations to support live/work housing.	Live/work housing was not anticipated in the 1988 plan.	The plan would provide the same land uses and policies as the GP 2023 plan.	The plan would provide the same land uses and policies as the GP 2023 plan. Higher density may create conflicts with some live/work situations.
Criteria	Access to Open Space		
GP 2023 Land Use	1988 General Plan	2023 Land Use in 1988 Service Boundary	High Density
Good	Poor	Good	Not Applicable
The plan provides policies for protecting open space and including open space corridors in urban areas.	The plan does not provide specific policies and has produced very poor access to open space.	The plan would provide the same land uses and policies as the GP 2023 plan.	The high density concept is not location specific. Higher density may include more common area open space than other land use densities.
Criteria	Agricultural Productivity		
GP 2023 Land Use	1988 General Plan	2023 Land Use in 1988 Service Boundary	High Density
Good/Fair	Fair	Good	Good
The plan provides a land use pattern that generally, but not always, directs growth away from the Prime Farmland.	The plan does not provide clear direction on avoidance of farmland.	Concentration of urban uses will reduce the land area required to accommodate the projected population.	Concentration of urban uses will reduce the land area required to accommodate the projected population.

16.7 ENVIRONMENTALLY PREFERRED ALTERNATIVE

Based on the above evaluation of the comparative merits of each alternative, and the environmental analysis of implementation of the General Plan 2023, the environmentally-superior alternative is the "High Density Alternative." This conclusion is based on the beneficial effect gained by using less land to accommodate the planned growth General Plan 2023. However, it should be noted that the density ranges described in the High Density Alternative are approximately twenty percent higher than conventional market driven housing. The General Plan 2023 encourages the use of higher densities, but the market for such housing has not been tested in the Manteca area.

The Higher Density Alternative is one of a range of possible development scenarios under the proposed General Plan 2023.

17. OTHER CEQA CONSIDERATIONS

This section addresses other California Environmental Quality Act (CEQA) considerations that are required as part of an EIR.

17.1 GROWTH INDUCING IMPACTS

The State CEQA Guidelines (§15126.2[d]) require that an EIR evaluate the growth-inducing impacts of a proposed project. Specifically, an EIR must:

> *"Discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth… Increases in the population may tax existing community service facilities, so consideration must be given to this impact. Also discuss the characteristics of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must bot be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment."*

Growth inducement, by itself, is not an environmental effect but may indirectly lead to environmental effects. Such environmental effects may include increased demand on other community and public services and infrastructure, increased traffic and noise, degradation of air or water quality, degradation or loss of plant or wildlife habitats, or conversion of agricultural and open space land to urban uses.

17.1.1 Growth Inducing Impacts of the Proposed General Plan

By definition, the General Plan is intended to provide for and address future growth in the City. However, the proposed General Plan is not proposing any specific development projects, so it would not have direct growth-inducing impacts. Indirect growth-inducing impacts would occur, however, because the land use map and designations, as well as the goals and policies, of the General Plan are designed to provide a framework to accommodate future population growth and economic growth, particularly in employment centers designed to accommodate a net influx of workers. The analysis of these indirect growth-inducing impacts for the proposed General Plan focuses on two main factors: (1) promotion of economic or population growth, and (2) elimination of obstacles to growth.

<u>Encouraging and Facilitating Other Activities</u>

This CEQA issue addresses the extent to which implementation of the General Plan 2023 would cause increased development in the area through stimulation of economic activity.

Implementation of the General Plan 2023 would directly affect growth in Manteca by allowing for construction of residential and non-residential uses. Increased employment is necessary to support increased population, so as the General Plan accommodates the expected growth to one degree or another, related job growth would result.

The General Plan 2023 is designed to promote job creation in the service, light industrial, and finance, insurance and real estate sectors in major planned employment centers. The objective of these facilities is, in part, to provide resident workers an opportunity to work in their community, thereby avoiding the long commute to work.

The land use policies encourage the development of mixed uses to promote a variety of housing and job types. The Economic Development Element goals and policies also address increasing the number of jobs in the City to help reduce vehicular trips commuting into the Silicon Valley. Indirectly, then, increases in employment and population would generate a secondary demand for other services, but could have a beneficial effect on traffic and air quality.

Removing Obstacles to Population Growth

This CEQA issue addresses the extent to which regulatory changes and/or infrastructure capacity provided to support the implementation of the General Plan, allowing additional, unforeseen development in the surrounding areas.

Whether or not growth obstacles are eliminated relates to the extent to which the proposed General Plan would increase infrastructure capacity or change the regulatory structure such that additional development in the county and region would be allowed. A physical obstacle to growth typically involves the lack of public service infrastructure or insufficient infrastructure capacity. The extension of public service infrastructure (e.g., roadways, water, and sewer lines) into areas that are not currently provided with these services would be expected to support new development. Similarly, the elimination or change to a regulatory obstacle, including existing growth and development policies, could result in new growth.

The adoption of the General Plan 2023 is a precursor to the update of the Public Facilities Implementation Plan, a Recreation Master Plan, and other City improvement plans that enable development to occur.

17.2 SIGNIFICANT ENVIRONMENTAL EFFECTS THAT CANNOT BE AVOIDED

CEQA Guidelines, Section 15126(b) states that an EIR must:

> *"Describe any significant impacts, including those which can be mitigated but not reduced to a level of insignificance."*

Those impacts, which cannot be feasibly mitigated to less-than-significant impacts, would remain as significant and unavoidable adverse impacts. The significant and unavoidable adverse impacts addressed in this EIR are listed below in Table 17-1.

Table 17-1

Significant and Unavoidable Adverse Impacts

	AESTHETICS AND VISUAL RESOURCES
POTENTIAL IMPACT AV-1:	Buildout of the proposed General Plan 2023 would degrade the existing scenic vistas found in the General Plan Study Area.
POTENTIAL IMPACT AV-2:	The existing visual character or quality of the area will be degraded.
	AGRICULTURAL RESOURCES
POTENTIAL IMPACT AG-1:	Implementation of the City of Manteca General Plan 2023 (Project) will result in conversion of Prime Farmland, Farmland of Statewide Importance, and Farmland of Local Importance to non-agricultural use.
POTENTIAL IMPACT AG-2:	Implementation of the General Plan 2023 will cause a conflict with existing zoning for agricultural use, or a Williamson Act contract.
	AIR QUALITY
POTENTIAL IMPACT AQ-2:	Implementation of the General Plan 2023 could violate air quality standards or contribute substantially to the current nonattainment status for ozone and PM10.
POTENTIAL IMPACT AQ-3:	Implementation of the General Plan 2023 would result in a cumulatively considerable net increase in ozone and PM10 air pollutants.

BIOLOGICAL RESOURCES

POTENTIAL IMPACT B-5: Impacts on biological resources from the buildout of the General Plan 2023 may be cumulatively significant. (SIGNIFICANT)

POPULATION AND HOUSING

POTENTIAL IMPACT H-1: Implementation of the General Plan 2023 would increase the City's population over existing conditions.

PUBLIC FACILITIES AND SERVICES

POTENTIAL IMPACT PFS-7: The General Plan 2023 would require expanded energy sources and infrastructure for expanded urban development.

17.3 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

Section 15126.2(c) of the State CEQA Guidelines requires that this EIR consider significant irreversible environmental changes that would be caused by the General Plan. An impact would be determined to be a significant and irreversible change in the environment if:

- development enabled by the General Plan would involve a large commitment of nonrenewable resources;
- the primary and secondary impacts of development would generally commit future generations to similar uses (e.g., a highway provides access to a previously remote area);
- development of the General Plan would involve uses in which irreversible damage could result from any potential environmental accidents associated with the plan;
- or the development of the General Plan land uses would result in an unjustified consumption of resources (e.g., the wasteful use of energy).

This EIR addresses the commitment of nonrenewable resources (e.g., development vs. retention of agricultural resources), commitment of future generations to similar uses (e.g., development of designated land uses), the potential for environmental accidents (e.g., exposure to hazards), and the consumption of energy (e.g., the use of electricity).

The implementation of the proposed General Plan would likely result in or contribute to the following irreversible environmental changes:

1. Relatively low-density (primarily residential) suburban land use patterns that would likely preclude future higher density development except where designated. This could limit opportunities for efficient, cost-effective full-service transit services.

2. Conversion of existing undeveloped land and open vistas to developed land uses, thus precluding other alternate land uses in the future, and precluding preservation of the existing land use pattern and vistas.

3. Irreversible loss of agricultural land (see Section 4.).

4. Commitment of water resources to serve development and degradation of water quality from suburban runoff (see Section 10).

5. Commitment of municipal resources to the provision of services and operations of infrastructure for future development (see Sections 14).

6. Increased ambient noise and background air emissions (Sections 12 and 5, respectively).

7. Conversion of existing habitat and irreversible loss of wildlife (see Section 6).

8. In addition to these irreversible changes, other more general irreversible changes would be expected, and the magnitude would be generally tied to population growth. General, population related, irreversible changes would include:
   - Irreversible consumption of goods and services associated with the future population.
   - Irreversible consumption of energy and natural resources associated with the future population.
   - Possible demand for and use of goods, services, and resources by the county to the exclusion of development in other locations in the region.

17.4 CUMULATIVE IMPACTS

17.4.1 Requirements for Cumulative Impact Analysis

This EIR provides an analysis of cumulative impacts of the proposed General Plan, as required by §15130 of the CEQA Guidelines (State CEQA Guidelines). Cumulative impacts are defined in State CEQA Guidelines §15355 as two or more individual effects that together create a considerable environmental impact or that compound or increase other impacts. "A cumulative impact occurs from the change in the environment, which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time" (Guidelines §15355[b]). By requiring an

evaluation of cumulative impacts, CEQA attempts to ensure that large-scale environmental impacts will not be ignored. Consistent with State CEQA Guidelines §15130(a), the discussion of cumulative impacts in this EIR focuses on significant and potentially significant cumulative impacts. According to State CEQA Guidelines §15130(b), "The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact."

All of the following elements are necessary to an adequate discussion of cumulative impacts (Guidelines §15130[b]):

> Either: (A) a list of past, present, and reasonably anticipated future projects producing related or cumulative impacts, including those projects outside the control of the agency; or: (B) a summary of projections contained in an adopted general plan or related planning document that is designed to evaluate regional or areawide conditions. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency.
>
> A summary of the expected environmental effects to be produced by those projects with specific reference to additional information stating where that information is available.
>
> A reasonable analysis of the cumulative impacts of the relevant projects. An EIR shall examine reasonable options for mitigating or avoiding any significant cumulative effects of the proposed projects.

The environmental impact analysis in this EIR is citywide in scope, so it already presents detailed analysis of environmental effects over a broad area, comprising most of the contribution relevant to cumulative environmental effects. For instance, significance conclusions and mitigation measures described for the impacts of the General Plan alternatives may also be applicable to cumulative impacts. Therefore, when warranted, cross-references to analysis or mitigation measures in Sections 3 through 15 (inclusive) are provided to avoid repetition.

17.4.2 Local and Regional Context of Cumulative Impacts

As described above, the State CEQA Guidelines identify two basic methods for establishing the cumulative environment in which the project is to be considered: the use of a list of past, present, and reasonably anticipated future projects, or the use of adopted projections from a general plan or other regional planning document. The evaluation of the cumulative environment for this EIR is based on projections in existing county-wide planning documents.

Regional Planning Documents

The regional cumulative analysis prepared covers the incorporated cities within San Joaquin County and includes the following plans:

San Joaquin County Council of Governments Regional Transportation Plan

San Joaquin County General Plan

City of Lathrop General Plan

City of Ripon General Plan

City of Stockton General Plan

Projected Growth in the South San Joaquin County Area

The County's population, housing, and employment have increased over the past decade as a result of statewide trends, the expansion of employment opportunities in the San Francisco Bay Area, and continued growth throughout the region. The following sections discuss the existing setting and future trends with regard to population, housing, and employment in San Joaquin County. **(1)**

The population in San Joaquin County increased from 480,628 persons in 1990 to 563,598 in 2000 according to the U.S. Census. This represents an increase of 17 percent over the 10-year period, and 62 percent since 1980. Most of this growth has occurred in the southern portion of the County and in the City of Stockton. That growth has been the result of dramatic job growth in Silicon Valley during the last 10 years. The City of Tracy has experienced the most dramatic growth of any jurisdiction of the County, increasing its population by over 23,000 residents or 70 percent since 1990; while, the City of Stockton experienced the largest numerical increase of almost 33,000 residents.

The south San Joaquin County area that includes the south area of Stockton, and Ripon, Lathrop, and Manteca have experienced substantial growth in population in recent decades. Population growth is driven by job growth outside of the area. Despite predictions for rapid and diversified employment growth in the Central Valley for many years, technology related employment had largely bypassed San Joaquin County in favor of areas like Sacramento. The location decisions of firms like Apple Computers, Hewlett-Packard, and Intel have demonstrated that proximity to the Silicon Valley is less important to high technology employers than access to other benefits, including a large and well educated labor force, a broad housing supply that meets the needs of both low income households and executives, and a host of recreational amenities. Central Valley cities like Manteca will need to provide similar amenities in order to compete with other employment centers in Northern California. **(2)**

Over the next 20 years, the San Joaquin area economy would likely be steered by three potential trends: 1) if transportation infrastructure capabilities continue to expand, major real estate investments will respond with growth in the high-end manufacturing sector; 2) if growth in the manufacturing sector occurs, associated R&D and administrative functions will also expand; and 3) as growth in Tri-Valley and Silicon Valley labor markets continues, residents will continue to "spillover" to San Joaquin County, increasing the number of skilled workers that will be considered in corporate location decisions.

Each of the cities in the south county area is poised to accommodate additional growth. General Plan updates are underway in Manteca, Ripon, and Stockton.

17.4.3 Assessment of Cumulative Impacts

Land Use and Housing

In the absence of a major new employment center the region is likely to continue to fulfill the role of housing workers from the Bay Area. The demand for housing remains strong. The housing market has demanded relatively large homes in residential subdivisions that consume large land areas. The cumulative effects include conversion of agricultural land.

Visual Resources

As the cities grow outward, they could ultimately connect to one another forming a contiguous urban area. Currently, the cities of Lathrop and Manteca share a common, urbanized boundary. As Ripon and Manteca continue to expand the undeveloped ground that separates them diminishes. Similarly, Stockton to the north has the potential to expand to Manteca's northern boundary. The cumulative effect could be the loss of the open agricultural land that separates the communities and contributes to each community's sense of identity and place.

Agriculture

The conversion of agricultural land to urban uses is unavoidable in the south San Joaquin area. Although the Prime Farmlands are more prevalent in other parts of the county, development in this area will inevitably impact Farmlands of Statewide Importance. The cumulative effect of incremental conversion of farmland is a continuing loss of farm operations due to the encroachment of urban uses that conflict with farm activities.

Air Quality

Air quality is inherently a regional consideration. As a non-attainment area, all incremental growth contributes to the degradation of air quality.

Biological Resources

The General Plan Study Area is within the area examined in the countywide Habitat Conservation Plan. The effects of implementing the General Plan 2023 and the other plans in the area are to further restrict the habitat options for the affected species.

Traffic and Circulation

Traffic analysis for the General Plan 2023 used the SJCOG regional traffic model. The results of that analysis reflect the cumulative effect of all traffic in the region.

References

(1) 2001 RTP Program EIR, San Joaquin Council of Governments September 2001

(2) Economic Planning Systems Draft Technical Memorandum, May 2003

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18. REPORT PREPARATION

18.1 LEAD AGENCY

City of Manteca

Community Development Department

Kyle Kollar	Community Development Director
Benjamin Cantu, Jr.	Deputy Community Development Director
Terrence Grindall, AICP	Redevelopment Manager

Public Works Department

Mike Brinton	Director
Frederic Clark	Deputy Director or Public Works, Utility Services
David Vickers	Transportation Analyst

18.2 REPORT AUTHORS

Wade Associates, Urban and Environmental Planning, Prime Contractor

David Wade, AICP	Principal-in Charge
Connie Wade	Principal Ecologist
Karen Downs	Associate Planner

Subconsultants

Brown-Buntin, Inc., Noise Analysts

Economic and Planning Associates, Inc., Economic Analysts

ECORP Consulting, Inc., Environmental Consultants

Fehr and Peers, Inc., Transportation and Traffic Analysts

Ric Windmiller, Consulting Archaeologist

18.3 AGENCIES AND ORGANIZATIONS CONTACTED

California State Department of Conservation, Division of Mines and Geology

California State Department of Fish and Game, California Natural Diversity Database (CNDDB)

California State Department of Toxic Substances Control

California State Integrated Waste Management Board

California State Central Valley Regional Water Quality Control Board

Pacific Gas and Electric Company, Inc.

San Joaquin County Council of Governments

San Joaquin County Library, Manteca Branch

San Joaquin County Public Health Services, Environmental Health Division

San Joaquin Valley Unified Air Pollution Control District

U.S. Army Corp of Engineers

U.S. Fish and Wildlife Service, Sacramento Fish and Wildlife Office

Manteca General Plan 2023
Final Environmental Impact Report

(SCH# 2002042088)

Prepared for the
City of Manteca

Prepared by
Wade Associates

Certified
October 6, 2003

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Mitigation Monitoring Program

Final Environmental Impact Report

Manteca General Plan 2023

1. Introduction

This Final Environmental Impact Report (FEIR) presents Lead Agency City of Manteca response to the comments on the Draft Environmental Impact Report (DEIR) for the Manteca General Plan 2023. The contents of this document are specified in the California Environmental Quality Act (CEQA) Guidelines, Section 15132.

Written and personally communicated comments received during the DEIR public review period are addressed. Comments were received primarily during the public review period of July 7, 2003 through August 20, 2003.

This "response to comments" document, together with the DEIR, constitute the FEIR for the Manteca General Plan 2023; the contents of the Draft Environmental Impact Report (DEIR) for the Manteca General Plan 2023, dated June 30, 2003, are incorporated by reference.

This FEIR document includes:

- List of persons, organizations, and public agencies that submitted comments on the DEIR;
- Written comments received on the DEIR;
- Comment received on the DEIR through Personal Communication;
- Lead Agency response to comments received; and
- Minor EIR Text Revisions and Staff-Initiated Text Changes

No oral comments were received on the DEIR during scheduled Public Hearings.

Summary Description of Project

The Manteca General Plan 2023 is a comprehensive update to the General Plan adopted by the City of Manteca in 1988. The General Plan includes a policy document, supplemented by technical reports on cultural resources, traffic, and noise.

The Manteca General Plan includes the seven state-mandated elements and four optional elements. The eleven total elements that comprise the General Plan are as follows:

- Land Use- establishes land use designations with types and intensities of use and sets policies and programs regarding future development of the City.
- Community Design- establishes urban design guidelines to ensure that new development is attractive and contributes to the sense of Manteca as a location.
- Circulation- contains policies for the City's roadway system, transit, pedestrian and bicycle circulation, and methods of managing transportation demand, accounting for the relationship between land use and circulation.
- Economic Development- addresses the need for Manteca to broaden its employment base to maintain the high quality of life currently enjoyed, and to implement an economic development strategy.
- Housing- includes policies and programs to increase the variety and types of housing in the City, emphasizing infill sites, increased density, and mixed uses downtown, and also includes a discussion of housing needs and programs to provide additional housing for special needs populations.
- Public Facilities and Services- discusses public facilities including domestic water, sewer, storm drainage, electricity services, solid waste, education, police protection, fire protection, and parks and recreation.
- Safety- contains policies and programs to protect the community from injury, loss of life, and property damage resulting from natural disasters and hazardous conditions.
- Resource Conservation- emphasizes the accommodation of population growth while conserving and protecting the area's natural resources and quality of life.
- Noise- identifies policies that will protect the community from noise hazards.
- Air Quality- addresses the community's need to cooperate regionally so that increased development does not further degrade the air quality.
- Administration

The General Plan 2023 provides a range of residential, commercial, industrial, business-professional and public land uses, as summarized in the table below.

GENERAL PLAN 2023 LAND USE

LAND USE		Proposed Developable Land Use	Existing Urbanized Land Use	Total 2023 Land Use
		Acres	Acres	Acres
AG	Agriculture	3956.4		3956.4
GC	General Commercial	800.6	154.0	954.6
NC	Neighborhood Commercial	-101.2	380.0	278.8
CMU	Commercial Mixed Use	233.0		233.0
HI	Heavy Industrial	758.4	194.9	953.3
LI	Light Industrial	822.3	226.0	1048.3
BIP	Business Industrial Park	233.0		233.0
BP	Business Professional	88.3		88.3
HDR	High Density Residential (15.1 to 25 du/ac)	229.8	191.0	420.8
MDR	Medium Density Residential (8.1 to 15 du/ac)	319.8	187.6	507.4
LDR	Low Density Residential (2.1 to 8 du/ac)	4021.7	2741.7	6763.4
VLDR	Very Low Density Residential (0.5 to 2 du/ac)	1189.5	109.8	1299.3
P/QP	Public/Quasi-public	336.0	788.3	1124.3
OS	Open Space	389.6	27.0	416.6
P	Park	193.9	342.4	536.3
Subtotal		12517.4	5342.7	17860.1
Urban Uses		7394.0	4973.3	12950.8

2. List of Persons, Organizations, and Public Agencies That Submitted Comments on the Draft Environmental Impact Report (DEIR) for the Manteca General Plan 2023

U.S. Army Corps of Engineers, Sacramento District

Manteca Unified School District

Crystal Quinly, Manteca Resident

City of Lathrop Community Development Dept

Georgianna Reichelt, Manteca Resident

George Dimotakis, Manteca Resident

California State Clearinghouse - Forwarding Comments Received From:

- California Department of Transportation, Division of Aeronautics
- California Department of Conservation
- California Department of Health Services

California Department of Transportation, District 10

San Joaquin County Department of Public Works

Ernie Tyhurst, Director of Planning, City of Ripon

3. Response to Written Comments

Written comments on the Draft Environmental Impact Report (DEIR) for the Manteca General Plan 2023 were received from the following persons, organizations, and public agencies. These are listed chronologically by date of the written correspondence.

1	July 29, 2003	U.S. Army Corps of Engineers, Sacramento District
2	August 6, 2203	Manteca Unified School District
3	August 18, 2203	Crystal Quinly, Manteca Resident
4	August 19, 2003	City of Lathrop Community Development Department
5	August 19, 2003	Georgianna Reichelt, Manteca Resident
6	August 20, 2003	George Dimotakis, Manteca Resident
7	August 21, 2003	California State Clearinghouse - Forwarding Comments Received From:
8	August 21, 2003	California Department of Transportation, Division of Aeronautics
9	August 21, 2003	California Department of Conservation
10	August 21, 2003	California Department of Health Services
11	August 22, 2003	California Department of Transportation, District 10
12	May 20, 2002	(Resubmitted Response to Notice of Preparation) San Joaquin County Department of Public Works

Note: Adjacent to each DEIR comment is a number that corresponds to a response included immediately after the subject letter.

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, SACRAMENTO
CORPS OF ENGINEERS
1325 J STREET
SACRAMENTO, CALIFORNIA 95814-2922

1

REPLY TO
ATTENTION OF

July 29, 2002

Regulatory Branch (200200314)

Kyle Kollar
City of Manteca
1001 W. Center Street
Manteca, California 95337-4390

Dear Mr. Kollar:

I am responding to the Draft Environmental Impact Report for Draft EIR-Manteca General Plan Update for the City of Manteca, San Joaquin County, California.

The Corps of Engineers' jurisdiction within the study area is under the authority of Section 404 of the Clean Water Act for the discharge of dredged or fill material into waters of the United States. Waters of the United States include, but are not limited to, rivers, perennial or intermittent streams, lakes, ponds, wetlands, vernal pools, marshes, wet meadows, and seeps. The Corps of Engineers also has jurisdiction under Section 10 of the Rivers and Harbors Act for any work in, over, or under, and Federally navigable waterway. Project features that result in the discharge of dredged or fill material into waters of the United States, or any work within a Federally navigable waterway, will require Department of the Army authorization prior to starting work.

Any activity which is likely to jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will destroy or adversely modify the critical habitat of such species may require consultation with the United States Fish and Wildlife Service (USFWS) or the National Marine Fisheries Service (NMFS). Any activity which may affect historic properties listed, or eligible for listing, in the National Register of Historic Places must satisfy the requirements of the National Historic Preservation Act.

The range of alternatives considered should include alternatives that avoid impacts to wetlands or other waters of the United States. These avoided areas should also include upland buffers. Every effort should be made to avoid project features which require the discharge of dredged or fill material into waters of the United States. In the event it can be clearly demonstrated there are no practicable alternatives to filling waters of the United States, mitigation plans should be developed to compensate for the unavoidable losses resulting from project implementation.

1

We have issued identification number 200200314 to this action. Please refer to this number in any future correspondence concerning this project. If you have any questions, please write to Mr. Paul Maniccia at the letterhead address, or email Paul.M.Maniccia@usace.army.mil, or telephone 916-557-6704.

Sincerely,

Nancy A. Haley
Chief, San Joaquin Valley Office

Copies Furnished:

David Wade, Wade Associates, 777 Campus Commons Road, #200, Sacramento, California 95825-8343

Comment Letter 1: Nancy A. Haley, Chief, San Joaquin Valley Office, U.S. Army Corps of Engineers, July 29, 2002

Response 1-1: There are no water bodies or streams within the General Plan Study Area. Areas identified as within Zone B (Areas between the limits of the 100-year flood and the 500-year flood) in the Federal Emergency Management Agency Flood Insurance Map, may contain areas that are periodically wetted due to surface overflow or high ground water. The General Plan Study Area is primarily urbanized or in agricultural production for row crops and/or orchards. Consequently, periodically wetted areas are limited to man-made detention basins in the city park system and the remnants of the irrigation ditch system that served the agricultural areas around the urbanized portion of the city. The General Plan Land Use Map directs growth away from the Walthall Slough and San Joaquin River area located along the west edge of the Study Area, and thereby avoids the most likely area of direct impact to wetland resources.

Any development entitled pursuant to the General Plan must comply with the Federal Clean Water Act including mitigation plans to compensate for the unavoidable losses resulting from project implementation.

DEIR Mitigation Measure B-3.1 (Page 6-26) addresses impacts to wetlands or other waters of the U.S. which might be identified within the Study Area:

"(*GP Biological Resources Implementation Measure*) BR-I-38: Until such time that a Clean Water Act regional general permit or its equivalent is issued for coverage under the SJMSCP, acquisition of a Section 404 permit by project proponents will continue to occur as required by existing regulations. Project proponents shall comply with all requirements for protecting federally protected wetlands.

If the Corps determines that there are jurisdictional waters within the Study Area, project proponents in those areas must pursue required permits. If the nationwide permit conditions cannot be met, then those projects may be authorized by other general or individual permits. The range of project alternatives must include alternatives that avoid impacts to the jurisdictional wetlands. When it can be clearly demonstrated that there are no practicable alternatives to filling these waters, mitigation plans must be developed to compensate for the project impacts."

MANTECA UNIFIED SCHOOL DISTRICT

Facilities Planning Department

P.O. Box 32, 2901 E. Louise Avenue, Manteca, CA 95336
(209) 825-3200 Extension #758 -- (209) 825-3249 Fax

August 6, 2003

Kyle Kollar
City of Manteca
Public Works
1001 W. Center Street
Manteca, CA 95336

Dear Mr. Kollar:

Subject: City of Manteca's General Plan

Enclosed are the comments from Manteca Unified School District regarding the City of Manteca's draft of their General Plan. We would appreciate you making the attached changes.

If you need additional information, please contact me at (209) 825-3200 Ext 758.

Sincerely,

MANTECA UNIFIED SCHOOL DISTRICT

Sandy Dwyer

SANDY DWYER
Administrator of Facilities Planning

SD/jm

Enclosure

BEFORE THE BOARD OF EDUCATION
OF THE MANTECA UNIFIED SCHOOL DISTRICT
OF THE COUNTY OF SAN JOAQUIN, STATE OF CALIFORNIA

RESOLUTION NO. 03/04-08

AUTHORIZING WRITTEN COMMENT TO THE CITY OF MANTECA REGARDING CITY OF MANTECA'S GENERAL PLAN

WHEREAS, the City of Manteca has requested Manteca Unified School District to review and make comments on the draft of the Manteca General Plan; and

WHEREAS, Manteca Unified School District has an interest in the policies proposed within the draft of the General Plan for the City of Manteca;

NOW, THEREFORE, BE IT RESOLVED that the Manteca Unified School District Board of Education authorize written comment to the City of Manteca draft General Plan per Exhibit "D" (in bold highlighted print) attached.

PASSED AND ADOPTED this twenty-second day of July, 2003, by the following vote of the Board of Education of the Manteca Unified School District of the County of San Joaquin, to wit:

AYES: Fichtner, Fritchen, Gutierrez, Holmes, Medeiros, Moore, Teicheira

NOES: None

ABSENT: None

ATTEST:

PAUL J. GUTIERREZ, PRESIDENT
Board of Education

JAY HOLMES, CLERK
Board of Education

PF-I-24 The Fire Department shall continuously monitor response times and report annually on the results of the monitoring.

PF-I-25 The Planning Commission and City Engineer will review proposed residential street patterns to evaluate the accessibility for fire engines and emergency response.

Education (Schools)

Goal PF-13 Provide for the educational needs of the Manteca residents.

PF-P-32 The City shall cooperate with the Manteca Unified School District and others in locating and reserving appropriate sites for new schools. Adequate facilities shall be planned to accommodate new residential development ***and endeavor to create neighborhood schools.*** 1

PF-P-33 The City shall cooperate with the Manteca Unified School District in their collection of school facility development fees from new development.

PF-P-34 Financing of new school facilities will be planned concurrent with new development.

PF-P-35 The City and Manteca Unified School District will work together to develop criteria for the designation of school sites and consider opportunities for reducing the cost of land for school facilities. The City will encourage the school district to comply with City standards in the design and landscaping of school facilities.

PF-P-36 The City will consider opportunities for joint-use of facilities ***with*** the school district. When feasible, a joint-use agreement will be pursued to maximize public use of facilities, minimizing duplication of services provided, and facilitate shared financial and operational responsibilities. 2

PF-P-37 ~~When feasible, schools will be~~ ***Schools must be*** located away from hazards of sensitive resource conservation areas, except where the proximity of resources may be of educational value and the protection of resources is reasonably assured. 3

PF-I-18 The City will maintain an inventory of all public lands to identify opportunities for joint-use facilities ***and neighborhood schools.*** 4

5

PF-I-19 The City shall cooperate with the Manteca Unified School District to select a suitable location for a high school south of SR-120 ***and to select suitable locations within new residential developments for neighborhood K-8 schools.***

PF-I-20 The City will request an annual meeting with the Administrator and the Board of Trustees of the Manteca ~~Unifi9ed~~ ***Unified*** School District to review development issues and opportunities for cooperation between the school district and the City.

PF-I-21 The City will encourage the expansion of higher education program and opportunities in Manteca.

Parks and Recreation

Goal PF-14 Establish and maintain a park system and recreation facilities that support economic development and residential growth in the City.

Goal PF-15 Establish and maintain a park system and recreation facilities that are suited to the needs of Manteca residents and visitors.

Goal PF-16 Promote the provision of private recreational facilities and opportunities.

Goal PF-17 Establish a recreation program that is suited to the needs and interests of all Manteca residents.

Goal PF-18 Provide a network of pedestrian and bicycle routes connecting Manteca's major open space areas and destination points.

PF-P-45 The City shall expand the community and neighborhood park system with the goal of providing neighborhood park facilities within reasonable walking distance of all City residential areas.

PF-P-46 The City shall use joint development of park and drainage detention basins in the development of neighborhood parks.

PF-P-47 The City shall cooperate with the Manteca Unified School District in opportunities for joint-use of school and park and recreation facilities.

PF-P-48 City park acquisition efforts shall be based on a goal of 5 acres of developed neighborhood and community parkland per 1,000 residents within the City limits.

14.4 SOLID WASTE DISPOSAL

14.4.1 Existing Conditions

The City of Manteca Solid Waste Division collects solid waste throughout the City and deposits it at the Lovelace Solid Waste Transfer Station. (7) Recyclable materials are sorted at the Lovelace facility. Green waste is delivered to the Austin Road/Forward Landfill. This landfill has a closure date of 2053 and has a remaining capacity of 1,608,752 cubic yards.

The Solid Waste Division helps to ensure that the City's residential and commercial demands are met effectively and that landfill use remains available for future generations by helping residents and businesses to recycle, compost and reduce the overall solid waste flow.

The City functions interactively with customers to remove all permissible waste and achieve the community's responsibility towards conserving resources. Manteca provides the following solid waste services:

- Residential recycling picked up on a bi-weekly schedule at no extra cost to the customer.
- Residential bi-weekly curbside pickup of compost materials.
- Leaf and Christmas tree pick up.
- Oil collection containers picked up on a weekly basis.
- Commercial recycling.
- Household Hazardous Waste collection.

Hazardous waste handling/disposal is discussed in Hazardous Materials, Section 9 of this EIR.

14.5 EDUCATION (SCHOOLS)

14.5.1 Existing Primary and Secondary Education Resources

The Manteca Unified School District (MUSD) operates ~~twenty-one (21)~~ ***twenty-eight (28)*** schools ranging from Kindergarten through High School; education facilities include ~~fifteen (15)~~ ***twenty (20)*** elementary schools, four high schools, one adult education school, and two continuation high schools. The estimated number of students is ~~19,753.~~ ***21,327 as of May 16, 2003***. Schools follow both a traditional and year-round calendar. MUSD include the communities of Manteca, Lathrop, French Camp, and Weston Ranch. (8)~~(9)~~(10)

6

14.5.2 Existing Post-Secondary Education Resources

There are no post-secondary campuses located in Manteca. However, post-secondary educational resources are available through distance learning and regional education. San Joaquin Delta College (Stockton) offers classes at Delta College Farm Laboratory in Manteca and the Manteca Adult School. Courses in Manteca are taught by Delta college instructors or are

provided by "distance learning" utilizing the internet, television, and video. California State University, Stanislaus also offers educational opportunities in Manteca at Manteca High School. Community colleges are located in Stockton, Merced and Modesto. There are a variety of private and specialized college opportunities nearby. California State University, Sacramento, and University of Phoenix, Sacramento, offer a university experience to Manteca residents.

14.5.3 Service Standard

The projected enrollment is based on an average number of students per dwelling unit. Table 14-1 summarizes the student yield rate as of ~~2000-2001.~~ *2003-2004.*

Table 14-1

Projected Student Yield Rate

~~K-6 0.485 students per unit~~	*K-6 0.534 students per unit*
~~7-8 0.139 students per unit~~	*7-8 0.147 students per unit*
~~9-12 0.295 students per unit~~	*9-12 0.267 students per unit*
	Total 0.948

Source: Student Generation Analysis, Manteca Unified School District, Public Economics, Inc. May ~~2001~~ *2003.*

14.6 LIBRARY

The Manteca Branch Library was constructed in 1961, and is a 14,396 square-foot facility. The Library is the information and learning center for the City of Manteca, and a service area that includes outlying unincorporated county areas. Part of the Stockton-San Joaquin County Public Library, the Manteca Branch is one of the libraries serving the southern end of San Joaquin County. The branch is located in the heart of downtown Manteca. It has served as the connection to government, business, schools, and community organizations for the residents of Manteca for over 40 years, providing meeting room space, among other services. The Library is a current depository for local government documents and ordinances. The Library and the community room have long been the unofficial center of the City of Manteca.

14.6.1 Planned Library Building Program

The current Library's size and infrastructure is inadequate to meet the modern library service needs of the community. Grant funding is currently being sought in order to build a new facility. The City of Manteca will own and maintain the new Library.

The new Branch Library will be constructed on the downtown site of the current Library, which a community assessment has shown to be the preferred location for the residents of Manteca. The new Library will include a Family Literacy Center. It will also provide easy access to

Fire Protection

PF-P-41 The City shall endeavor to maintain an overall fire insurance (ISO) rating of 4 or better.

PF-P-42 The City shall endeavor through adequate staffing and station locations to maintain the minimum feasible response time for fire and emergency calls.

PF-P-43 The City shall establish the criteria for determining the circumstances under which fire service ill be enhanced.

PF-I-24 The Fire Department shall continuously monitor response times and report annually on the results of the monitoring.

PF-I-25 The Planning Commission and City Engineer will review proposed residential street patterns to evaluate the accessibility for fire engines and emergency response.

Education (Schools)

Goal PF-13 Provide for the educational needs of the Manteca residents.

PF-P-32 The City shall cooperate with the Manteca Unified School District and others in locating and reserving appropriate sites for new ~~schools.~~ ***neighborhood walking distance schools.*** Adequate facilities shall be planned to accommodate new residential development.

8

PF-P-33 The City shall cooperate with the Manteca Unified School District in their collection of school facility development fees from new development.

PF-P-34 Financing of new school facilities will be planned concurrent with new development.

PF-P-35 The City and Manteca Unified School District will work together to develop criteria for the designation of school sites and consider opportunities for reducing the cost of land for school facilities. The City will encourage the school district to comply with City standards in the design and landscaping of school facilities.

Comment Letter 2: Sandy Dwyer, Administrator of Facilities Planning, Manteca Unified School District, August 6, 2003

Response 2-1: The comment is a proposed change to the draft policies of the General Plan.

Comment noted and will be referred to the Manteca City Council for consideration in the public review of the Draft General Plan.

Response 2-2: Comment noted.

Response 2-3: The comment is a proposed change to the draft policies of the General Plan.

Comment noted and will be referred to the Manteca City Council for consideration in the public review of the Draft General Plan.

Response 2-4: The comment is a proposed change to the draft policies of the General Plan.

Comment noted and will be referred to the Manteca City Council for consideration in the public review of the Draft General Plan.

Response 2-5: The comment is a proposed change to the draft policies of the General Plan.

Comment noted and will be referred to the Manteca City Council for consideration in the public review of the Draft General Plan.

Response 2-6: Comment noted.

Response 2-6: Comment noted. The Environmental Impact Report is amended to read:

Existing Primary and Secondary Education Resources

The Manteca Unified School District (MUSD) operates ~~twenty-one (21)~~ twenty-eight (28) schools ranging from Kindergarten through High School; education facilities include ~~fifteen (15)~~ twenty (20) elementary schools, three high schools, one adult education school, and two continuation high schools. The estimated number of students is ~~19,753~~ 21,327 as of May 16, 2003. Schools follow both a traditional and year-round calendar. MUSD includes the communities of Manteca, Lathrop, French Camp, and Weston Ranch. **(8)(9)(10)**

Response 2-7: Comment noted. The Environmental Impact Report is amended to read:

The projected enrollment is based on an average number of students per dwelling unit. Table 14-1 summarizes the student yield rate as of ~~2000-2001~~ 2003-2004.

TABLE** ERROR! NO TEXT OF SPECIFIED STYLE IN DOCUMENT.**-1

PROJECTED STUDENT YIELD RATE

K-6	~~0.485~~ 0.534 students per unit
7-8	~~0.139~~ 0.147 students per unit
9-12	~~0.295~~ 0.267 students per unit
TOTAL	0.948 students per unit

Source: Student Generation Analysis, Manteca Unified School District, Public Economics, Inc. May ~~2001~~ 2003

Response 2-8: The comment is a proposed change to the draft policies of the General Plan.

Comment noted and will be referred to the Manteca City Council for consideration in the public review of the Draft General Plan.

3

Post-it® Fax Note 7671	Date 8/22	# of pages ▶ 3
To Ben Carty	From Crystal Quinly	
Co./Dept.	Co.	
Phone # 825-2349	Phone # 825-7810 eves	
Fax #	Fax #	

August 18, 2003

TO: City Council, Planning Staff
City of Manteca

FROM: Crystal Quinly
2079 Goldeneye Way
Manteca, CA 95337
209-825-7810 eves.

RECEIVED
AUG 2 2 2003
Community Development Department

RE: Draft Environmental Impact Report (EIR) – City of Manteca General Plan

Upon reviewing the Draft EIR, I have several questions and comments concerning the proposed land use in the southwest section of the city. Specifically, the inconsistencies in land use goals and policies in relation to the proposed land use in the newly developed residential areas in the vicinity of Airport and Woodward Roads.

1) LU-P-15 "Higher density shall be located by the full range of urban services, along collector and arterial streets..." If the City intends to follow this policy, then shouldn't the neighborhoods developed between Airport, Atherton, and Woodward be high density? These neighborhoods are Low-density residential (LDR), not High-density residential (HDR). The draft EIR land use correctly identifies these neighborhoods as LDR, however, to the north General Commercial (GC) is planned, and along Airport and Woodward Roads, Commercial Mixed Use (CMU) is planned. The proposed land uses of placing GC and CMU next to LDR are not consistent with the policy. 1

2) LU-P-16 "The City shall promote the preservation and integrity of existing stable residential neighborhoods". The LDR homes in the Bella Vista and Meritage neighborhoods are existing (for over 3 years) and are considered by many residents to be stable. How can placing GC and CMU around three sides of these neighborhoods promote the preservation and integrity of these neighborhoods? 2

3) LU-P-24 "New commercial development shall be designed to avoid the appearance of strip development." How can proposing CMU on the west side of Airport Road from Atherton to Woodward avoid strip development? This is going to be nothing but a strip of parcels, which of course is strip development. 3

4) LU-P-27 "The City shall monitor commercial development to balance growth in residential, commercial and industrial development." What criteria is used to monitor commercial development? Certainly, placing commercial on three sides of a LDR neighborhood, resulting in an increase of noise and traffic, is not a balance to the voting citizens. 4

5) LU-P-47 "The City shall develop and apply standards for pedestrian circulation that enable residents to select a reasonably direct and safe pedestrian route to schools, parks, transit stops and commercial services." If the proposed land use of CMU and GC are approved for these areas, again with a substantial increase in traffic, how will the city enforce the above policy? Residents have already expressed concern on direct and safe pedestrian routes to schools. Even the bus stops located on Airport Rd. are not considered safe. The proposed land uses will make Airport Rd. even less safe, thereby; the proposed land uses are not consistent with the policy. 5

6) LU-I-1 "The City shall maintain a growth management system....following objectives: Preserve and protect the quality of life and character of the community." The proposed CMU and GC uses will certainly not protect the quality of life and character of the above referenced neighborhoods. How will the city ensure that this implementation policy will protect the neighborhoods from a lesser quality of life if the city leaders allow these residents to be trapped by commercial on three sides? 6

My understanding is that the issues of commercial land use along Airport Rd. from Atherton to Woodward, and the proposed CMU on Woodward and Airport Rd. have already been discussed/debated by the Planning Commission and the City Council. The Commission clearly saw that the proposed land uses were not consistent with City policies and the needs of the voting residents in those areas. As such, the Commission voted to not "zone" CMU at the Woodward and Airport Rds. Intersection. This issue was taken to the City Council who refused to vote, for or against, on the proposal for CMU. Instead, this issue was sent to the Steering Committee, who recommended CMU along Airport and at the intersection of Airport and Woodward. I understand there is an appeal process, which is why this issue was initially forwarded to the Council after the Commission denied the first request for CMU at Woodward and Airport. 7

The residents in these areas are just now becoming knowledgeable on what the City is proposing. In fact, we only found out on August 11, 2003, that there was another proposal for a developer to again try to place CMU in the wrong place. This seems like a rather devious way for a developer to work. First, try to follow the rules...to the planning commission...appeal to the council when denied...and now work behind the scenes with the Steering Committee to change the land use. This way, the neighbors are not specifically notified of a proposed land use change, because it is not a specific project within 300 feet of their property. This is only after all, the General Plan that all residents will live with. Yes, this is devious. When the residents bought the homes (and the developer, the Airport/Woodward parcel(s)), the area was zoned either LDR or was urban reserve/agricultural. To change to commercial will negatively affect the integrity and stability of the neighborhoods. 8

If the City chooses to go against the needs of these neighborhoods and against the proposed policies mentioned above, I ask for a few items to be included in any and all conditions of approvals for proposed commercial developments in those areas. First, in the CMU proposed areas, that there are no strip malls (policy), and like the conceptual drawing on page 2-6 of the Land Use Element, that the planning staff and City enforce 9

the plan. That is, CMU is for use as a public plaza, neighborhood park, and pedestrian paths (several feet off of Airport and Woodward). Also, that if the General Plan proceeds as proposed, there needs to be "a strong relationship" between the different land uses for pedestrian access and a common design theme. 9

As stated earlier, the residents are becoming knowledgeable concerning "the rules" for land use changes. We only hope that we can work behind the scenes to change the proposed land use from CMU and keep it consistent with the City policies. However, we will also work diligently within the City protocol (commission, council meetings) to be heard at the public hearings. 10

I look forward to the final EIR to ensure each question above was addressed by your consultant. I may also be contacted by phone in the evenings at 825-7810.

Thank you,

Crystle Quinn

Comment Letter 3: Crystal Quinly, Manteca Resident, August 18, 2003

Response 3-1: The proposed General Plan Policy LU-P-15 is consistent with the planning principle of locating higher intensity land uses, such as high density residential use and commercial use, where they can be easily accessed by a major transportation facility, in this case the Airport Way/SR 120 interchange. The proposed Commercial Mixed Use (CMU) designation allows for a mix of commercial, office, and apartment use. These uses are entirely consistent with the stated policy.

Response 3-2: Commercial uses, most notably the General Commercial (GC) located on the north side of Atherton Drive, can have an effect on the stability of residential areas due to traffic, noise, lights, and night-time activity. These are typically mitigated through design standards applied by the City in the review and approval process for individual development projects. The City of Manteca applies such processes through the Zoning Ordinance. The location of commercial use adjacent to a residential neighborhood does not inherently destabilize the neighborhood.

Response 3-3: The parcels in question front on the west side of Airport Way between Atherton Drive and Woodward Avenue. Consistent with the policies in the General Plan, notably LU-P-15, this location should be allocated to higher density residential use and other uses appropriate to the character of Airport Way as a major regional circulation route. The Commercial Mixed Use (CMU) designation provides for a flexible mix of uses appropriate to this location. Low Density Residential is not an appropriate use for this location. The Commercial Mixed Use designation will be implemented in the Zoning Ordinance revision that will follow adoption of the General Plan. The Zoning Ordinance revision is required to maintain consistency between the General Plan. The Commercial Mixed Use designation and subsequent zone classification standards will specifically address the design standards required to comply with LU-P-24. Therefore, the proposed use is not inconsistent with the policy.

Response 3-4: Policy LU-P-27 relates to maintaining a balance of land use city-wide to ensure that the City of Manteca sustains the fiscal capacity to provide public services, and adequate land for employment and housing development. The criteria used to monitor these components of community land use include the level of public services provided to the community, the fiscal health of the City of Manteca as evidenced in the annual budget, the availability of employment opportunities, and the availability of housing opportunities, among other factors determined by the City of Manteca.

Response 3-5: Airport Way has been identified as a major, regional circulation route for many years and the General Plan traffic analysis indicates the potential for a need to accommodate up to 8 lanes at full development of the General Plan and surrounding development. These impacts are of such magnitude that the effects of the proposed Commercial Mixed Use would not be significant. In fact, the Commercial Mixed Use designation is designed to facilitate pedestrian

traffic from the future neighborhoods to the east and west of Airport Way by providing smaller retail and service commercial uses, office use, and residential uses.

Policy LU-P-47 will be implemented in providing pedestrian and bicycle circulation from the neighborhood east of Airport Way to the neighborhood located to the east, not to the west across Airport Way. The proposed plan is consistent with and is designed to implement Policy LU-P-47.

Response 3-6: The quality of life and character of the residential neighborhoods fronting major arterial streets throughout the City can best be protected and enhanced by orienting pedestrian traffic and the activity focus of the neighborhood toward neighborhood features, such as neighborhood parks and schools, and small service commercial and retail areas. This is a fundamental principle in neighborhood design that is implemented by the design of the local circulation system and the location of neighborhood features. Airport Way will become a pedestrian barrier as growth occurs throughout the west side of the City of Manteca, and beyond the city boundaries. The Commercial Mixed Use designation on the northeast corner of Woodward Avenue and Airport Way will include the type of retail, service commercial, and office uses that are neighborhood oriented. The site is not suitable for larger scale retail uses that would tend to be auto oriented.

Response 3-7: Comment noted. The comment relates to the writer's perceived sequence of events in the preparation of the General Plan and is not an environmental issue.

Response 3-8: Comment noted. The comment relates to the commentator's perceived sequence of events in the preparation of the General Plan and is not an environmental issue.

Response 3-9: The comment is consistent with the General Plan Policy LU-P-24 and the description of the Commercial Mixed Use designation. The Commercial Mixed Use designation will be implemented with a new Commercial Mixed Use Zone Classification pursuant to adoption of the General Plan. The new zone classification must be consistent with the General Plan description of the CMU designation.

City of Lathrop
Community Development
Planning Division
(209) 858-2860, Extension 327
(209) 858-5259 Facsimile

August 19, 2003

RECEIVED
AUG 2 5 2003
Community Development Department

Kyle Kollar
Community Development Director
City of Manteca
1001 W. Center Street
Manteca, CA 95337

Subject: Manteca General Plan 2023 Draft Environmental Impact Report

Dear Mr. Kollar:

At its meeting of August 19, 2003, the City Council of the City of Lathrop reviewed the referenced Manteca General Plan 2023 Draft Environmental Impact Report (EIR) and directed staff to submit this letter in response.

The City of Lathrop is concerned about the potential impact this project will have on the City of Lathrop. We respectfully request that you address all impacts that might occur to the City of Lathrop in the EIR. Most prominently, we are concerned about the traffic impacts.

Lathrop Road and Louise Avenue are designated as major arterials in the City of Lathrop General Plan with final configuration consisting of eight lanes from Interstate-5 to Harlan Road and four lanes from Harlan Road to the Manteca City limits. In addition, a portion of each of these two Right Of Way's (ROW) are within the Manteca General Plan boundary, and Louise Avenue extends into the Manteca city limits. The Manteca General Plan EIR, however, ignores the impacts on roads that go into and through the City of Lathrop. The Manteca General Plan calls for Louise Avenue to be a four-lane road from Airport Way east through the City of Manteca. The City of Lathrop designates Louise Avenue to be a four-lane road from our city limits west to Harlan Road. The City of Manteca Draft EIR leaves that portion that is in the Manteca city limits from Airport Way west to the railroad tracks (City of Lathrop city limits) as a two-lane road. This will create an automatic bottleneck. 1

Public Works reviewed the Traffic Section of the Manteca Draft EIR for their General Plan 2023 update. The street widths proposed in the document are generally consistent with or exceed the number of lanes proposed for the City of Lathrop street system with one exception and that is Louise Avenue between Airport Way and the City of Lathrop city limits at the Union Pacific Railroad tracks. The number of lanes at the connection points between the two cities is as follows:

Street	Lathrop Number of Lanes	Manteca 2023 GP Number of Lanes
Lathrop Road	4	4
Louise Avenue	4	2
Yosemite Avenue	4	6

1

There is a reference on Page 15-44 "…..to traffic associated with large projects in Manteca (business park south of McKinley) and other projects included in the background. For instance, these projects include traffic from the Landmark Logistic Center (LLC), a large mixed-use project approved in the City of Lathrop." This project was never approved nor was an EIR ever prepared for the project.

2

Recent developments in the City of Lathrop should have been included in your traffic projections. The traffic model calibration/validation effort was detailed in the August 2002, report by Fehr and Peers Associates. Their traffic projections may not have included the River Islands, Pacific Union Homes, and TCN Properties LLP developments approved this year.

It appears that your traffic input data for the City of Lathrop is incorrect. The traffic input data does not appear to have included River Islands, Pacific Union Homes, and TCN Properties, but did include the Landmark Logistic Center (LLC), which was not approved.

Our primary concern is that access from Manteca to Interstate-5 is from Louise Avenue and Lathrop Road in Lathrop. Table 15-9 Comparison of Existing to Forecast Traffic Volumes for Airport Way between Lathrop Road to Louise Avenue has a forecasted growth of 359%. The new General Plan indicates a Traffic Volume of 39,700 on Airport Way. There are no counts provided for traffic turning west onto Louise Avenue or Lathrop Road going through the City of Lathrop to Interstate-5. In the Draft EIR all traffic is shown only going to State Route-120. This means that traffic would choose to go a greater distance to get onto State Route-120 that leads to Interstate-5, then would go directly onto Interstate-5 from Louise Avenue or Lathrop Road. However, although not shown in the EIR it is anticipated that the traffic from Manteca would, in fact, choose to utilize Lathrop Road and Louise Avenue to access Interstate-5. The actual generated traffic would result in a significant adverse impact to both the easterly and westerly direction of Louise Avenue and Lathrop Road in the City of Lathrop. Traffic generated would also result in significant impacts to the Louise Avenue/Interstate-5 and Lathrop Road/Interstate-5 on and off ramps. These impacts need to be addressed in the EIR and in the mitigation-monitoring plan.

3

Please provide me with a copy of the final environmental impact report for this project when available. In addition, please provide me with the dates of any future actions by the Planning Commission and City Council regarding the General Plan EIR.

Sincerely

Deanna D. Walsh
Principal Planner

cc: Pam Carder, City Manager
Ramon Batista, Assistant City Manager
Bruce Coleman, Community Development Director
Cary Keaten, Public Works Director
Ken Buck, Deputy Public Works Director

Comment Letter 4: Deanna Walsh, Principal Planner, City of Lathrop, August 19, 2003

Response 4-1: The analysis assumed that Louise Avenue will be four lanes extending from the City of Lathrop to Manteca. The table in the General Plan describing the lane configurations will be updated to clarify the lane assumptions.

Response 4-2: The brief list of the projects included in the analysis on Page 15-44 was not intended to be exhaustive nor solely based on approved projects in adjacent jurisdictions. The inclusion of the Landmark Logistic Center was intended to ensure that the infrastructure south of State Route 120, including the potential McKinley Avenue interchange, was sufficient for the anticipated travel demand. Generally speaking, the traffic analysis relied on the regionally prepared growth forecasts for adjacent jurisdictions. This approach is considered adequate for the purposes of CEQA given the difficulty in accurately forecasting land use in other jurisdictions.

Response 4-3: The increase in traffic in Lathrop from the incremental development should be minimal. First, a majority of the additional development occurs south of State Route 120. For example, the proposed business park south of McKinley Avenue would directly access SR 120 via a proposed interchange. This project would take access to SR 120 and I-5 without impacting the City of Lathrop. Second, the traffic volumes on roadways adjacent to Lathrop are below the capacity threshold of a four-lane facility, which is the lane configuration in Lathrop according to the City of Lathrop comments. Finally, the Manteca General Plan adds both homes and jobs. When this additional employment occurs, the traditional commuting patterns around Manteca will significantly change with less need to access Interstate 5. For these reasons, it is unlikely that the Manteca General Plan would negatively impact the City of Lathrop. Therefore, it is unnecessary to address these impacts in the EIR and to develop a mitigation-monitoring plan.

Draft EIR for General Plan

5

August 19, 2003

RECEIVED
AUG 20 2003
Community Development Department

To Whom It May Concern.

In my opinion the EIR is not responsive enough that it should be filed away and never looked at again. Nothing will be the same by the time development happens. Nothing will be mitigated. Any more pollution will happen.

1

Manteca's streets are inadequate, Manteca's sewer system is inadequate and will without a doubt run from the State or Federal Government who say people are going to pay attention the Mayor

2

3

Manteca plans to annex property only to divide the taxes. Sprawl and increased traffic. Why does Manteca want to annex blighted land?

4

Motion has an income test that could afford the homes people in the $150,000 bracket and there is no house and no balance, the buyer pay commute the rest add more tax (not mitigated) on all of the roads,

5

School are not funded and no money to build

6

Too my dad to the greatest and most dangerous as we become more dependent on imports driving up Prices Government if they want to spend money should invest in after School and homeland security roads and all the problems that come with growth,

7

The EIR to me is only empty words and until action is added for improvement it guards its footing and means nothing

8

I comment on Lathrop Rd. and Kasson Ave as far as Lathrop City as concerned - the city of Manteca has plans for that section (Grant) and they should (as Stanislaus) to do so do it as provided by the Urban Agreement. The frontage roads and Overpass must be done by June 7 2013 and if open I don't think Stanislaus changed and agreed to for the 4 stop signs both Lathrop Rd, Dufur overpass & Yosemite Blvd stops, and Roadways are closed for emergency. That good for the FEIR.

Georgeann Burkett
8605 E. Lawrence
Manteca, Ca
95337

9

Comment Letter 5: Georgianna Reichelt, Resident, August 19, 2003

Response 5-1: Comment noted.

Response 5-2: Comment noted.

Response 5-3: Comment noted.

Response 5-4: Comment noted.

Response 5-5: The General Plan includes several goals and policies designed to redress the imbalance between jobs and housing, and to increase the proportion of housing affordable to low and middle income households. The Land Use Element includes proposals that would increase the density of residential development, and thereby reduce the cost of housing.

Response 5-6: The Manteca Unified School District has provided comments on the Draft EIR and did not indicate overcrowding or the inability to fund new school construction. The General Plan includes several policies (PF-P-32 through PF-P-37) and implementation measures (PF-I-18 through PF-I-21) that require the City to cooperate with the school district in long range planning, identification of suitable school sites, and programs that fund new schools through fees on new development. Refer to Response to Comment 2 (Manteca Unified School District) for additional comments on the schools in the City and recommendations for policy amendments by the school district board.

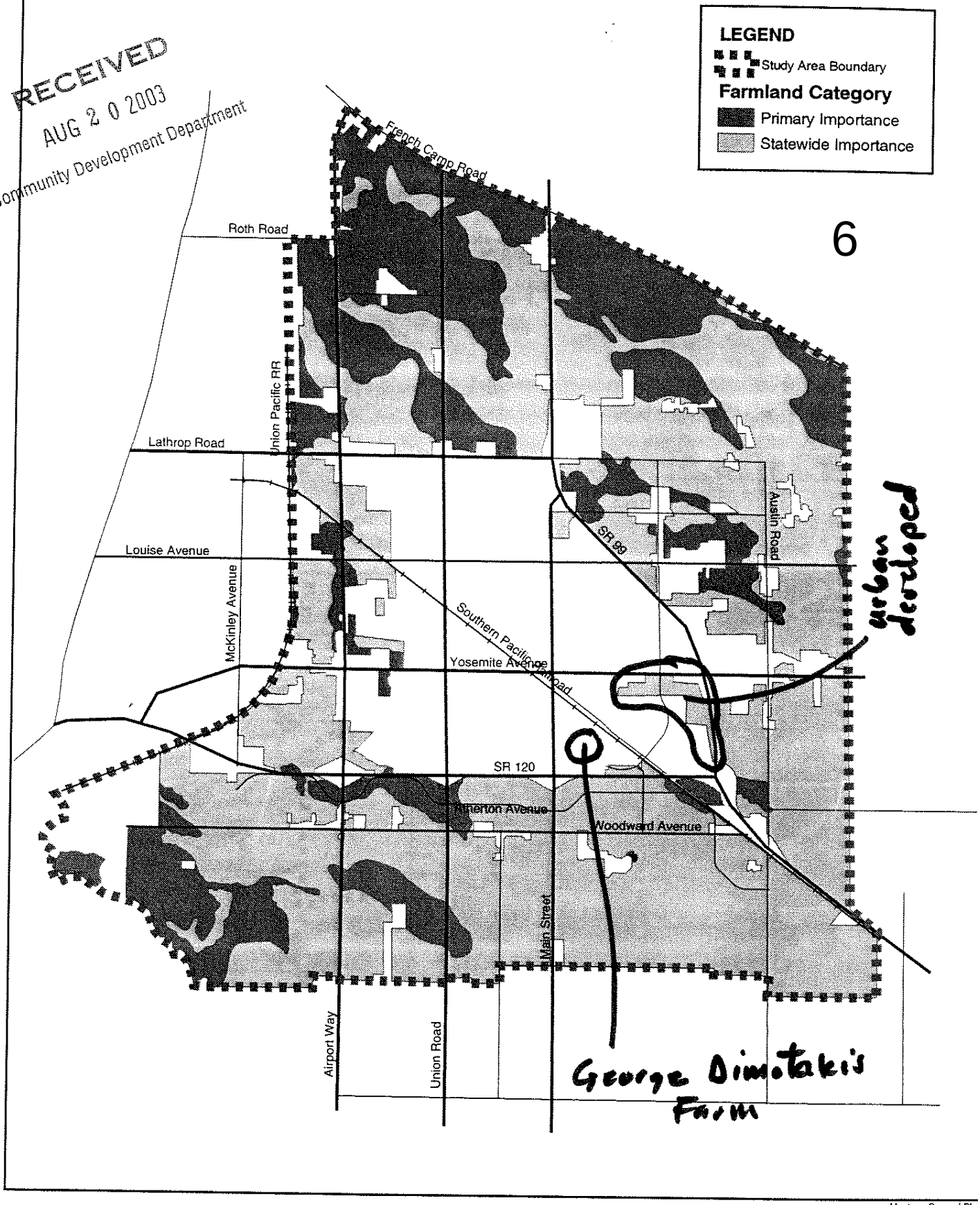
Response 5-7: The Draft EIR addresses the loss of agricultural land. Refer to Response to Comment 9 (California Department of Conservation) for additional information on this subject.

Response 5-8: Comment noted.

Response 5-9: Comment appears to relate to implementation of improvements due to a specific development agreement that precedes this General Plan update. The issue is not clear, but appears to be beyond the scope of this General Plan and the Environmental Impact Report.

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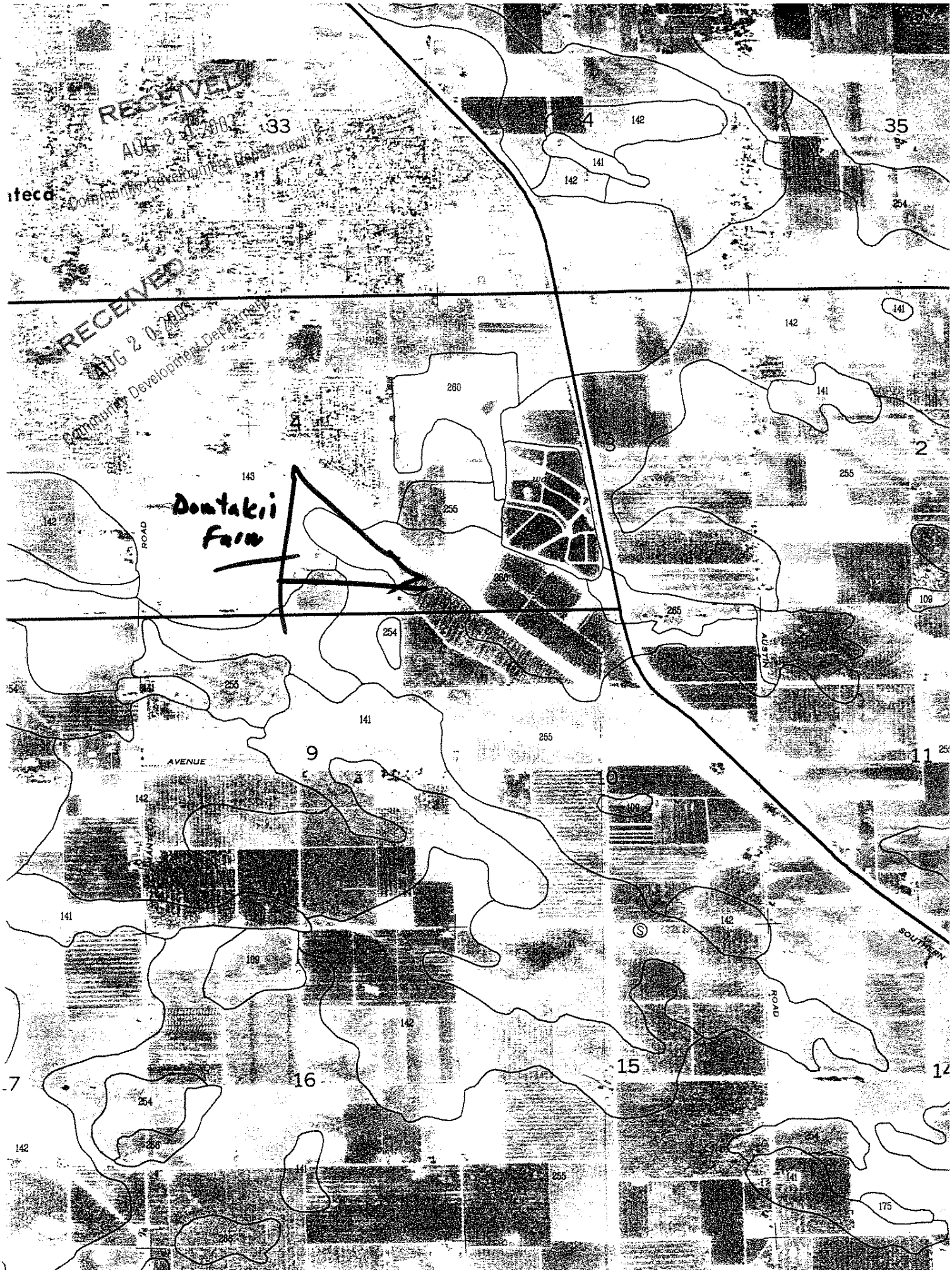
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Manteca General Pla

PRIME FARMLANDS AND FARMLANDS OF STATEWIDEIMPORTANCE IN THE STUDY AREA

May 2003

FIGURE 4-2


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Community Development Department
Dontakii
Farm
ROAD
AVENUE
AUSTIN
SOUTHERN
ROAD

Comment Letter 6: George Dimotakis, Resident, Communication to Ben Cantu August 20, 2003

Mr. Dimotakis presented Mr. Cantu with the copies of the maps on pages 32 and 33 indicating that Figure 4-2 (Prime Farmlands and Farmlands of Statewide Importance in the Study Area) is incorrect with regard to the depiction of Prime Farmland.

Response 6-1: The figure is provided by the State Department of Conservation Farmland Mapping and Monitoring Program. It identifies the areas shown in white, including the Dimotakis farm, as Urbanized. The land is in active agricultural production, but is surrounded by industrial land use on the east and west, the railroad and industrial land use to the north, and State Route 120 to the south. The map is a correct representation of the Department of Conservation FMMP map.

The presentation of this map does not affect the ability of the landowner to continue farming this land. The General Plan Land Use Map designates this land as Agriculture, and the land is within a Williamson Act Contract.

STATE OF CALIFORNIA

Governor's Office of Planning and Research

State Clearinghouse

Gray Davis
Governor

Tal Finney
Interim Director

7

August 21, 2003

Kyle Kollar
City of Manteca
1001 W. Center Street
Manteca, CA 95337

Subject: City of Manteca General Plan 2023
SCH#: 2002042088

Dear Kyle Kollar:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on August 20, 2003, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

> "A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

1

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Terry Roberts

Terry Roberts
Director, State Clearinghouse

Enclosures
cc: Resources Agency

Comment Letter 7: California State Clearinghouse - August 21, 2003

Response 7-1: Comment noted.

DEPARTMENT OF TRANSPORTATION
DIVISION OF AERONAUTICS – M.S.#40
1120 N STREET
P. O. BOX 942873
SACRAMENTO, CA 94273-0001
PHONE (916) 654-4959
FAX (916) 653-9531

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8

July 31, 2003

Mr. Kyle Kollar
City of Manteca Community Development Department
1001 W. Center Street
Manteca, CA 95337

Dear Mr. Kollar:

Re: *Draft Environmental Impact Report (DEIR) City of Manteca General Plan 2023; SCH# 2002042088*

The California Department of Transportation, Division of Aeronautics ("Department"), reviewed the above-referenced document with respect to airport-related noise and safety impacts and regional aviation land use planning issues pursuant to the California Environmental Quality Act (CEQA). The following comments are offered for your consideration.

1. The proposal is for an update to the City of Manteca General Plan. Portions of the Study Area Boundary for the General Plan appear to be within the San Joaquin County Airport Land Use Commission (ALUC) designated *Area of Influence* for Stockton Metropolitan Airport.

2. In accordance with Public Utilities Code (PUC) Section 21676, local General Plans and any amendments must be consistent with the adopted airport land use compatibility plans developed by the San Joaquin County ALUC. This requirement is necessary to ensure that General Plan policies and recommendations for noise impact assessment and land use densities are appropriate, given the nature of airport operations. In addition to submitting the proposal to the ALUC, it should also be coordinated with airport staff to ensure that the General Plan will be compatible with future as well as existing airport operations.

1

3. In addition, in accordance with CEQA, Public Resources Code 21096, the Department's Airport Land Use Planning Handbook (Handbook) must be utilized as a resource in the preparation of environmental documents for projects within an airport land use compatibility plan boundaries or if such a plan has not been adopted, within two nautical miles of an airport. The Handbook is a resource that should be applied to all public use airports. The Handbook is published on-line at http://www.dot.ca.gov/hq/planning/aeronaut/htmlfile/landuse.html.

2

4. The enclosed Federal Aviation Administration (FAA) Advisory Circular (AC150/5200-33) entitled "Hazardous Wildlife Attractants on or Near Airports" states that land use practices that attract or sustain hazardous wildlife populations

3

on or near airports can significantly increase the potential for wildlife-aircraft collisions. The FAA recommends that landfills, wastewater treatment facilities, surface mining, wetlands and other uses that have the potential to attract wildlife, be restricted in the vicinity of an airport. Also enclosed is a copy of AC 150/5200-34 entitled "Construction or Establishment of Landfills Near Public Airports." 3

5. The need for compatible and safe land uses near airports in California is both a local and a state issue. We strongly feel that the protection of airports from incompatible land use encroachment is vital to California's economic future. Airport land use commissions and airport land use compatibility plans, however, are key to protecting an airport and the people residing and working in the vicinity of an airport. 4

These comments reflect the areas of concern to the Department's Division of Aeronautics with respect to airport-related noise and safety impacts and regional airport land use planning issues. We advise you to contact our district office concerning surface transportation issues.

Thank you for the opportunity to review and comment on this proposal. If you have any questions, please call me at (916) 654-5314.

Sincerely,

Original Signed by

SANDY HESNARD
Aviation Environmental Planner

Enclosures

c: State Clearinghouse
Stockton Metro Airport
ALUC c/o San Joaquin Council of Governments

Comment Letter 8: Sandy Hesnard, Aviation Environmental Planner, Department of Transportation , Division of Aeronautics, July 31, 2003

Response 8-1: The General Plan Study Area Boundary coincides with French Camp Road on the north. This is the area within the General Plan Study Area that is nearest the Stockton Metro Airport, approximately 8000 feet from the nearest point along the airport runway. Figure 11-6, "Study Area Within the Area of Influence of the Stockton Metro Airport" is added to the Environmental Impact Report. This figure illustrates the boundary of the Area of Influence, the Conical Zone, and the Horizontal Zone as defined in the San Joaquin County Council of Governments "Airport Land Use Plan" as amended in 1993. This is the current Airport Land Use Plan that applies to the Stockton Metro Airport.

Figure 11-6 indicates that the Area of Influence generally affects that portion of the General Plan Study Area north of Lathrop Road and extending beyond the Study Area boundary to the east and west. The Conical Zone affects the Study Area in the area generally north of Lovelace Road and Roth Road, and also extends beyond the Study Area to the east and west. The Horizontal Zone is located approximately one-quarter mile along the south edge of French Camp Road at the edge of the Study Area.

The General Plan proposes no new land uses in the area affected by the Horizontal Zone or the Conical Zone. Consistent with the San Joaquin County General Plan, the 2023 General Plan proposes Agricultural Land Use in this area.

The General Plan Draft EIR was referred to the San Joaquin Council of Governments, which provides the staff to the San Joaquin County ALUC. The SJCOG did not provide any comment to the DEIR.

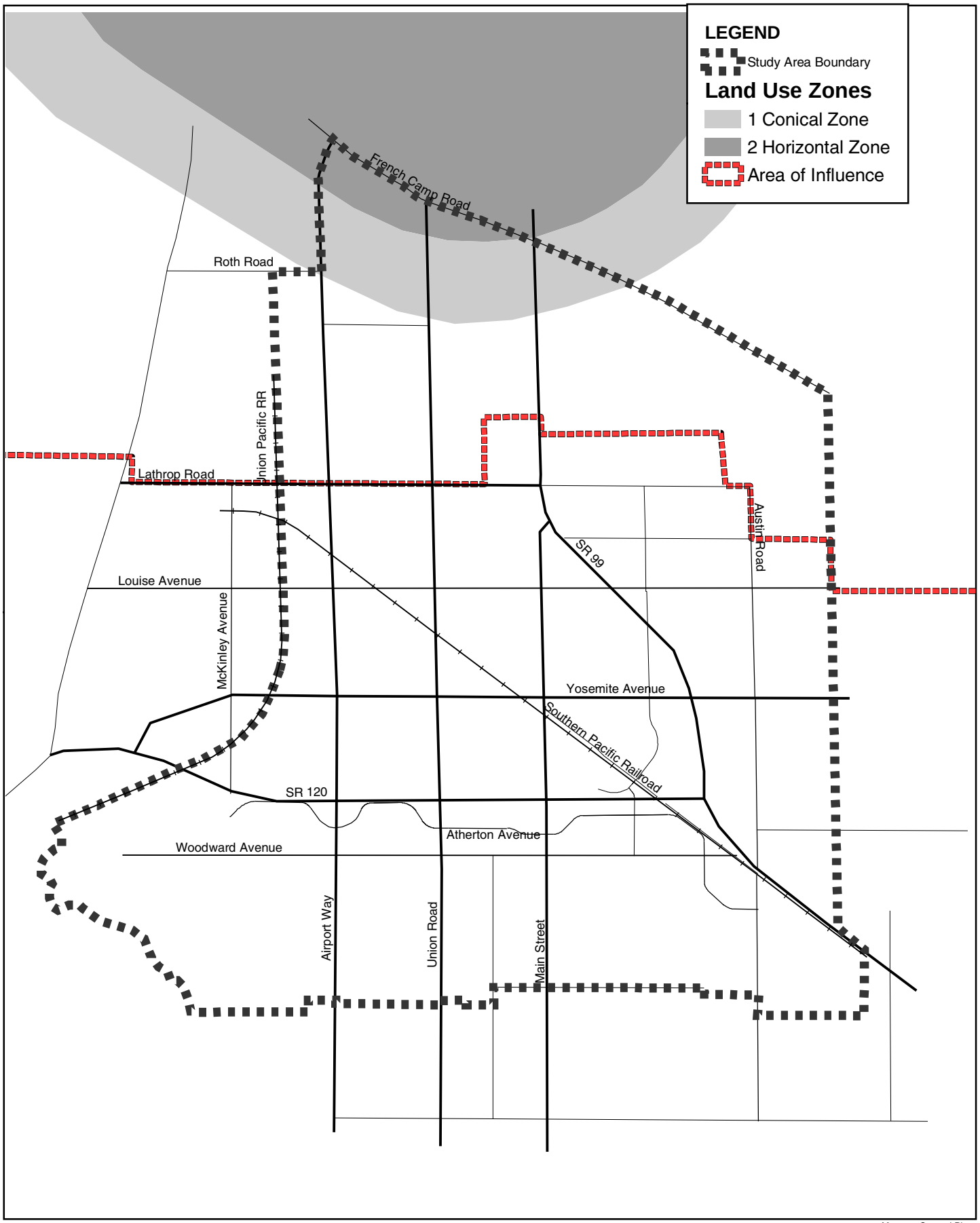
Any future urban expansion of Manteca within the Area of Influence and specifically those areas affected by the Conical Zone and the Horizontal Zone (north of Lovelace Road) would potentially impact the Stockton Metro Airport.

Mitigation Measure:

The following policies should be added to the 2023 General Plan:

LU-P-51 New residential land uses (developments with no less than 5 units) within the Stockton Metro Airport Area of Influence must have an avigation easement recorded in favor of the airport. The Deed of Avigation and Hazard Easement must be filed with the County Recorder prior to development construction.

Occupied structures must be soundproofed to reduce interior noise to 45 dB.



Manteca General Plan

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STUDY AREA WITHIN THE AREA OF INFLUENCE OF THE STOCKTON METRO AIRPORT

May 2003

FIGURE 11-6

Reflective materials are not permitted to be used in structures or signs to avoid distracting pilots.

All proposed acquisitions of property within a 2 mile radius of an airport runway for the purpose of constructing a school requires a review and approval by the State Department of Transportation, Division of Aeronautics.

No transmission which would interfere with aircraft communications or navigation are permitted. Power lines must be undergrounded if necessary to prevent hazard to aircraft.

LU-P-52 The City of Manteca shall refer all applications for development within the Stockton Metro Airport Area of Influence to the Airport Land Use Commission, and the Stockton Metro Airport.

Residual Level of Significance: Less than Significant With Mitigation

Response 8-2: The Airport Land Use Handbook was used in preparation of Draft EIR. The distance to the airport for all areas proposed for urban development is greater than 2 miles.

Response 8-3: The General Plan does not affect land uses that attract or sustain hazardous wildlife populations on or near airports. The Lovelace Solid Waste Transfer Station located on Lovelace Road is an existing facility that is not affected by the proposed 2023 General Plan.

Response 8-4: Comment noted. The Manteca 2023 General Plan includes a substantial body of policies oriented to economic development, including industrial and commercial uses that benefit from the continued successful operation of the Stockton Metro Airport.

DEPARTMENT OF CONSERVATION
STATE OF CALIFORNIA

9

August 18, 2003

DIVISION OF
LAND RESOURCE
PROTECTION

801 K STREET
SACRAMENTO
CALIFORNIA
95814

PHONE
916/324-0850

FAX
916/327-3430

INTERNET
consrv.ca.gov

GRAY DAVIS
GOVERNOR

Mr. Kyle Kollar, Director
City of Manteca
Community Development Department
1052 South Livermore Avenue
Manteca, CA 95337

Subject: City of Manteca General Plan 2023 Draft Environmental Impact Report (DEIR), - SCH# 2002042088, San Joaquin County

Dear Mr. Kollar:

The Department of Conservation's (Department) Division of Land Resource Protection (Division) has reviewed the DEIR for the referenced project. The Division monitors farmland conversion on a statewide basis and administers the California Land Conservation (Williamson) Act and other agricultural land conservation programs. We offer the following recommendations with respect to the project's impacts on agricultural land and resources.

Project Description

The proposed project is an update to the City of Manteca (City) 1988 General Plan (GP) to the year 2023. The City is located near the northern end of the San Joaquin Valley at the junction of State Routes 99 and 120 in San Joaquin County (County). The GP planned growth area contains 5,265 acres of Prime Farmland and 11,863 acres of Farmland of Statewide Importance. Build-out will convert 1,052 and 4,781 acres respectively. Williamson Act contracts cover 3,861 acres in the growth area. Converted acreage of Williamson Act land is not provided. 1

The DEIR has determined that project conversion of Prime and Important Farmland and conflicts with Williamson Act land are significant impacts. Proposed mitigation is to encourage continued agriculture pending GP development under a growth management system that avoids Prime Farmland where feasible and discourages premature development. In addition, the City will discourage cancellation of Williamson Act contracts outside the Primary Urban Services Boundary and within the GP growth area and support County agricultural zoning of designated agricultural

land within the Area Plan. The DEIR has determined that the GP will have growth-inducing and cumulative impacts but has not proposed mitigation.

Williamson Act Lands

In the interest of more completely describing impacted contract land, the Department recommends that the Final EIR (FEIR) tabulate the contracted acreage planned for conversion at build-out of the GP and denote the amount that is prime and nonprime agricultural land according to definition in Government Code §51201(c). In addition, we recommend that the following information be provided in the FEIR: 1

- As a general rule, land can be withdrawn from Williamson Act contract only through the nine-year nonrenewal process. Immediate termination via cancellation is reserved for "extraordinary", unforeseen situations (See Sierra Club v. City of Hayward (1981) 28 Cal.3d 840, 852-855). Furthermore, it has been held that "cancellation is inconsistent with the purposes of the (Williamson) Act if the objectives to be served by cancellation should have been predicted and served by nonrenewal at an earlier time, or if such objectives can be served by nonrenewal now" (Sierra Club v. City of Hayward). 2
- If cancellation is proposed, notification must be submitted to the Department prior to a board or council's consideration of a proposal for tentative cancellation (Government Code §51284.1). The board or council must consider the Department's comments prior to making a decision on the proposal. Required findings must be made by the board or council in order to approve tentative cancellation. Cancellation provisions involving Farmland Security Zone (FSZ) contracts include additional limitations. We recommend that the FEIR include discussion of how cancellations involved in this project would meet required findings. However, notification must be submitted separately from the CEQA process and CEQA documentation. (The notice should be mailed to Darryl Young, Director, Department of Conservation, c/o Division of Land Resource Protection, 801 K Street MS 13-71, Sacramento, CA 95814-3528.)
- Termination of a Williamson Act/FSZ contract by acquisition can only be accomplished by a public agency, having the power of eminent domain, for a public improvement. The Department must be notified in advance of any proposed public acquisition, and specific findings must be made (Government Code §51290 - 51292). The property must be acquired by eminent domain or in lieu of eminent domain in order to void the contract. The public agency must consider the Department's comments prior to taking action on the acquisition. School districts are precluded from acquiring land under FSZ contract. We recommend discussion in the FEIR of whether such action is envisioned by this project and how the acquisition will meet the required findings. However, notification must be submitted separately from the CEQA process and CEQA documentation to the address noted above. 3

- If land within an agricultural preserve is annexed, the City must succeed to the rights, duties, and powers of the County in administering the preserve and contracts, unless conditions specified in Government Code §51243.5 apply. The DEIR should explain how the City intends to meet its requirement. 4
- If any part of the site is to continue under contract or remain within an agricultural preserve after project completion, the FEIR should discuss the proposed uses for those lands. Uses of contracted and preserve land must meet compatibility standards identified in Government Code §51238 - 51238.3 and §51296.7. Otherwise, contract termination (see above) must occur prior to the initiation of the land use, or the preserve must be disestablished. 5
- An agricultural preserve is a zone authorized by the Williamson Act and established by the local government to designate land qualified to be placed under contact. Preserves are also intended to create a setting for contract-protected lands that is conducive to continuing agricultural use. Therefore, the uses of agricultural preserve land must be restricted by zoning or other means so as not to be incompatible with the agricultural use of contracted land within the preserve (Government Code §51230). The FEIR should also discuss any proposed general plan designation or zoning within agricultural preserves affected by the project. 6

Mitigation Measures

The Department supports the City's growth measures to encourage conservation of agricultural land. However, they do not appear to function as mitigation for the permanent loss of agricultural land as a result of GP build-out. Mitigation should be specific, measurable actions that allow monitoring to ensure their implementation and evaluation of success. A mitigation consisting only of a statement of intention or an unspecified future action may not be adequate pursuant to CEQA. In addition, all feasible mitigation should be considered. 7

The City has already committed to the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP), which offers proponents the option of contributing a fee or acreage under permanent easement to protect species habitat. Those not opting to participate in the SJMSCP must individually adhere to local, state and federal regulations requiring similar habitat mitigation. It is projected that preserve land under the SJMSCP will predominantly be agriculturally productive land that will be allowed to continue in agricultural use. Given this commitment, it appears feasible to propose a similar mitigation for projects implementing the GP's conversion of agricultural land. In some cases, the same land may function to compensate and protect species habitat and agricultural resources. The Department recommends, however, that this mitigation be required rather than voluntary for conversion of agricultural land. Projects that involve only the conversion of agricultural land and not also species habitat, for example, could avoid mitigation if participation is voluntary. We also recommend that the fee structure be revised for conversion of agricultural land 7

to be commensurate with land values in the area and that the acre-for-acre option include the requirement of equal quality of farmland.

Given the significance of agriculture to the County, the region and the State, the significance of farmland conversion by the GP and the impacts in terms of terminated Williamson Act contracts, coupled with the City's commitment to compensate the loss of important resources with permanent easements, such easement mitigation to protect agricultural resources appears warranted and feasible. The City of Lathrop has proposed similar mitigation in its DEIR for its water recycling plant expansion. 7

Thank you for the opportunity to comment on this DEIR. Pursuant to Public Resources Code §21092.5(a), the Department looks forward to receiving your response and a copy of the FEIR. If you have questions on our comments or require technical assistance or information on agricultural land conservation, please contact Bob Blanford at 801 K Street, MS 13-71, Sacramento, California 95814; or, phone (916) 327-2145.

Sincerely,

Erik Vink
Assistant Director

cc: State Clearinghouse

San Joaquin County Resource Conservation District
1222 Monaco Court, #23
Stockton, CA 95207

Comment Letter 9: Erik Vink, Assistant Director, Department of Conservation, August 18, 2003

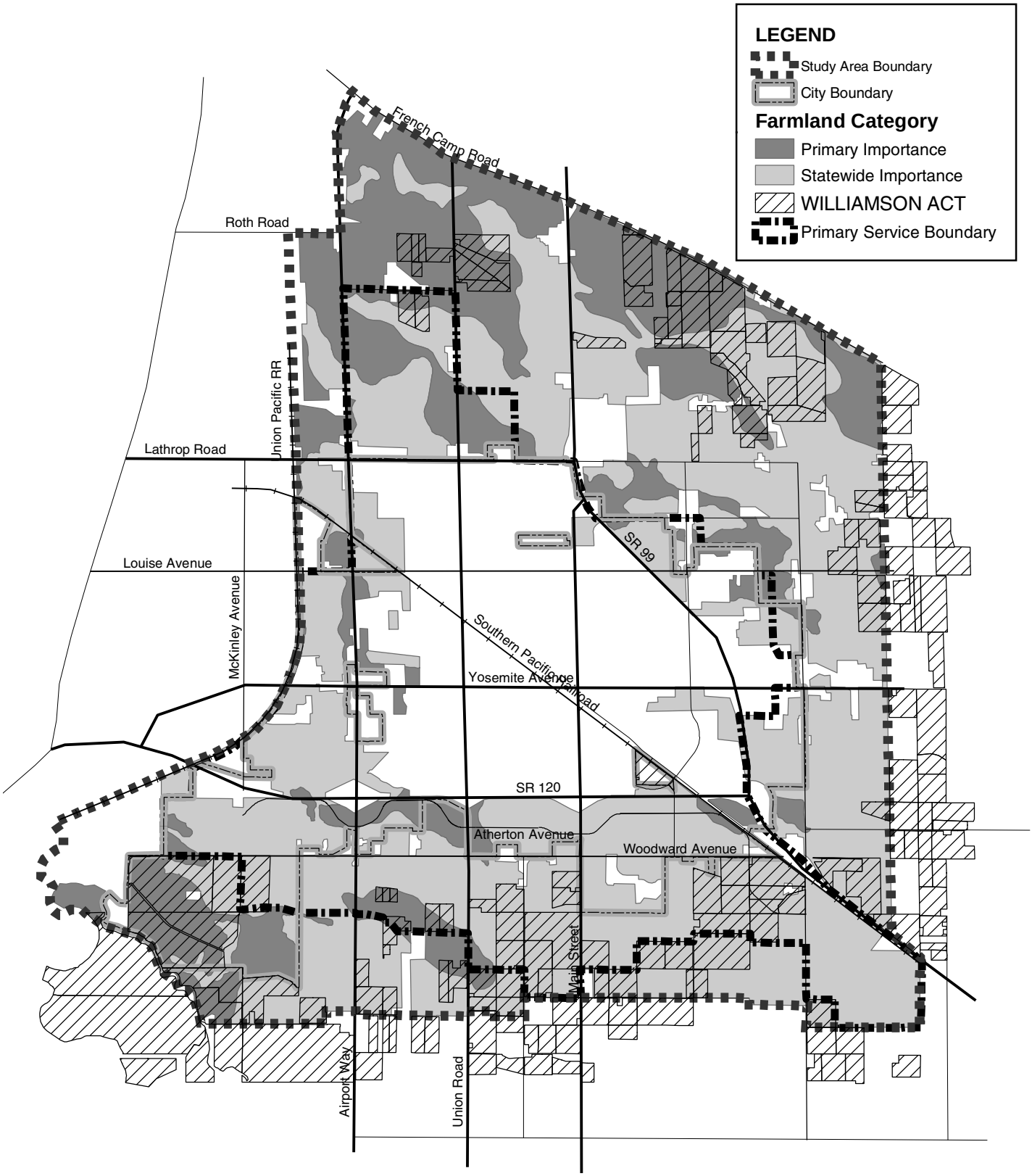
Response 9-1: The General Plan Study Area encompasses a substantial area that is not planned for urban development, but rather would remain in agricultural or urban reserve area. The Study Area encompasses a total of 5,265.1 acres of Prime Farmland and 11,863.2 acres of Farmland of Statewide Importance. However, the General Plan Land Use Map is designed to direct future urbanization away from those lands identified as Prime Farmland where feasible. Figure 4-4 illustrates that the Prime Farmlands are located to the north, east and southwest of the Primary Urban Service Boundary. Much of the Prime Farmland designation lies within areas previously urbanized. The land use within the Primary Urban Service Boundary is sufficient to meet the projected growth needs of the City of Manteca over the 20 year horizon of the 2023 General Plan.

Land within the Secondary Urban Service Boundary is designated as Agriculture or Urban Reserve. Lands in these designations are not expected to be developed within the 20 year horizon of the 2023 General Plan. The urban reserve designation is used to indicate the general direction of development for the City of Manteca, beyond 20 years. The purpose is to provide long range guidance for public infrastructure and transportation planning, and to establish the intended path of future development relative to neighboring jurisdictions. Urbanization of these reserve areas is contemplated in the General Plan in policies that allow future growth, but would require an amendment to the General Plan, or adoption of a Specific Plan and concurrent amendment to the General Plan. Both of these actions would require additional environmental analysis.

The impact on Prime Farmland is minimized by the land use design. In addition, the 2023 General Plan includes amendments to the land use designations that are designed to provide a more compact pattern of development. Specifically, the land use densities allowed in the Residential land use categories are increased compared to the 1988 General Plan.

Figure 4-5 “Prime Farmlands Within Williamson Act Contracts”, illustrates the extent of both Prime Farmland and Farmlands of Statewide Importance. Table 4-5 (DEIR ,p.4-14) indicates Full development of the Primary Service boundary beyond the land already developed in the City of Manteca would require the conversion of 1,052 acres of Prime Farmland and 4,780.9 acres of Farmland of Statewide Importance.

Response 9-2: Figure 4-5 “Prime Farmlands Within Williamson Act Contracts” illustrates the location of all Williamson Act Contracts in the Study Area relative to the Prime Farmlands and the Farmlands of Statewide Importance. In addition, Figure 4-5 illustrates the current City of Manteca boundary and the Primary Urban Service Boundary. This illustrates that the Williamson Act Contracts tend to be concentrated in the northeast, east, and south areas. The 2023 General Plan Land Use Map directs urban expansion to the south of State Route 120 and away from the Prime Farmlands.



Manteca General Plan

WADE ASSOCIATES
urban planning & design
environmental planning

PRIME FARMLANDS WITHIN WILLIAMSON ACT CONTRACTS

May 2003

FIGURE 4-5

Currently there are no Williamson Act Contracts in the incorporated boundary of the City of Manteca.

The Primary Urban Service boundary encompasses a total 946 acres within Williamson Act Contracts.

Prime Farmland within the Primary Urban Service boundary and within a Williamson Act Contract is a total of 48.9 acres.

Response 9-2: The City of Manteca has not historically undertaken cancellation of Williamson Act Contracts. Previously existing contracts have gone through the full termination period prior to development. The 2023 General Plan does not contemplate or require cancellation of contracts to meet the growth projections in a 10 year time horizon. Projected growth in the Primary Service Area Boundary would require that some Williamson Act Contracts be allowed to roll-out over a 10 year time frame. The General Plan includes several policies that encourage the continued use of agricultural land and avoid premature conversion of agricultural land. Policy RC-P-26 specifically directs the City to discourage cancellation of Williamson Act Contract in the Secondary Urban Service Boundary.

The existing Williamson Act Contract lands, with the notable exception of lands near Woodward Avenue between Union Avenue and Main Street, and near Woodward Avenue and Austin Road are located near the edge of the Study Area. Adequate land exists on lands not subject to a Williamson Act Contract in the Primary Urban Service Area to accommodate projected growth through a 20 year horizon, at the very least. Therefore, cancellation of contracts would not be required.

Response 9-3: No termination of a Williamson Act/FSZ contract by acquisition is contemplated in 2023 General Plan. There are no public facilities identified in the General Plan Land Use Map that would require acquisition of land currently in a Williamson Act contract.

Response 9-4: All lands within an Agricultural Preserve that are identified as future development area in the 2023 General Plan Land Use Map would require annexation by the City of Manteca. The City would process such annexations through the Local Agency Formation Commission (LAFCO) in a logical and consistent manner as required by LAFCO, and as established by several policies in the Land Use Element, most notably, LU-P-7. The effect of these policies and the practices of the City of Manteca is that land is annexed only as needed to accommodate planned growth.

Response 9-5: Lands that are annexed to the City for urban uses identified in the 2023 General Plan may include land that are within an Agricultural Preserve established by San Joaquin County. The General Plan policies indicate the City's intent to encourage continued agricultural activities on the adjacent lands that may be within an Agricultural Preserve. Compatibility of the proposed urban uses with the agricultural lands remaining within the Agricultural Preserve or

lands remaining under contract is a potential impact that is addressed by minimizing the extent of potential conflict and by supporting the right to farm. The City of Manteca maintains a right to farm ordinance in the Zoning Ordinance. In addition, the land use pattern promoted in the 2023 General Plan is designed to minimize potential impacts by directing growth in a compact pattern rather than allowing urbanization to sprawl over agricultural areas.

Response 9-6: Virtually all of San Joaquin County is within Agricultural Preserves. Any urban expansion will affect the agricultural preserve in the peripheral areas around the city. The City of Manteca has generally grown in a compact form that has avoided extensive or irregular development patterns extending into the surrounding agricultural lands. The proposed General Plan Land Use map follows this historic pattern, and directs growth in a pattern centered on the historic core of the city. Lands at the periphery of the urbanized area are consistently designated and zoned as Agriculture.

Response 9-7: The 2023 General Plan minimizes the impact of urbanization on agricultural land use through policies and the Land Use Map that directs growth in a compact pattern. The recommended mitigation measure is to require a fee or other program that would be similar to or an amendment to the San Joaquin County Multi-Species Habitat Conservation Plan (HCP). The City of Manteca supports this and incorporates policies and maps in the 2023 General Plan to implement this plan.

The HCP incorporates two significant features. First, it is a county-wide program that is capable of designating meaningful mitigation areas on a county-wide basis. This is exceptionally important in establishing cohesive and functional habitat preservation. Second, the HCP is directed toward mitigation of specific conditions that can be preserved through set aside of like conditions, and in some instances, by creation or restoration of like conditions.

The City of Manteca 2023 General Plan includes policies that support continued agriculture. Mitigation of conversion of agricultural land to urban use is addressed in the following measure.

Mitigation Measure:

The following policy should be added to the 2023 General Plan:

RCP-P-41 The City of Manteca will participate in a county-wide program to mitigate the conversion of Prime Farmland and Farmlands of Statewide Importance to urban uses.

10

State of California—Health and Human Services Agency
Department of Health Services

California Department of Health Services

DIANA M. BONTÁ, R.N., Dr. P.H.
Director

GRAY DAVIS
Governor

August 19, 2003

Mr. Kyle Kollar, Community Development Director
Community Development Department
City of Manteca
1001 W. Center Street
Manteca, CA 95337

MANTECA GENERAL PLAN 2023-DRAFT ENVIRONMENTAL IMPACT REPORT
SCH #2002042088

Groundwater in the area is recharged by proximity to the Delta, irrigation of agricultural land, and infiltration from streams flowing west out of the Sierra Nevada. A number of Manteca's wells have chemical contamination due to the source of recharge water. Wells 10, 13, and 18 require quarterly monitoring for DBCP and EDB; Wells 8, 9, and 23 require annual monitoring for DBCP and EDB; GAC treatment units were installed at Well 17 due to exceedance of the DBCP and EDB MCL; and Well 11 was destroyed due to a drop in yield once the EDB contaminated strata was sealed off. Wells 5, 8, 10, and 23 have had problems with nitrate being at or above the MCL; Well 5 requires weekly nitrate monitoring; Wells 8, 10, and 23 require monthly monitoring for nitrate; and Wells 9, 12, and 13 require quarterly monitoring for nitrate to track the high concentrations. Well 14 was placed on standby due to exceedance of the manganese MCL and Wells 20 and 23 have had detection of manganese at or close to the manganese MCL. Well 7 was placed on inactive status due to high uranium. Wells 9, 13-16, and 19-23 have detected arsenic at or above the Federal arsenic standard of 10 ug/l, which may require removal treatment in the future. 1

The City will be reliant on groundwater as the source of water until supplemental supply can be provided by South San Joaquin Irrigation District sometime in 2005. However, even with the supplemental supply, the City would probably remain reliant on groundwater to support future expansion. It's anticipated the City will construct a number of new wells (Wells 24, 26 or more)

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in the near future. The City was recently issued an interim permit to operate Well 23 to run until October 2003 to allow the water system to maintain a safe water production capacity during the summer months, thereby, preventing low pressure problems due to increased growth in the City and off production of Well 14. The City has problems with low pressure particularly during the summer months. 1

Based on annual reports to the Department, the population increased in 2002 by 5.6 percent from the previous year; the average water usage increased by 4 percent; and the maximum daily water usage increased by 16 percent. With anticipated development in the areas surrounding the City (Oakwood Lake development and City of Lathrop) utilizing groundwater and new well construction by the City, there may be a significant impact in the quantity and quality of the groundwater. 2

Manteca should conduct a water demand study to estimate the amount of water that would be needed in the next 20 years. The study should include information on the number of future wells needed by the City with or without supplemental surface water, an idea of new well locations, new well capacities needed, and the impact of these wells on water quality and quantity. There are a number of mitigation measures in the General Plan 2023 that would lessen the impacts to groundwater supplies. To satisfy CEQA requirements related to the well permitting process, the Department requests that an EIR be conducted that is specific for each well or an EIR that encompasses all future wells and their locations be prepared, along with a water demand study or modified this EIR to accomplish that objective. 3

Joseph O. Spano

Joseph O. Spano, P.E.
District Engineer
Drinking Water Field Operations Branch
Stockton District

A:/3910005/General Plan 2023 Draft EIR.doc

Comment Letter 10: Joseph Spano, P.E., District Engineer, Department of Health Services, August 19, 2003

Response 10-1: The South County Surface Water Supply Project EIR prepared by ESA for SSJID, includes a summary of the water demand study prepared for each city participating in the Surface Water Supply Project. This study indicates that Manteca will continue to rely on groundwater, but the surface water will allow Manteca to reduce the 1999 level of groundwater pumping by 41 percent.

The use of groundwater is one component of a conjunctive use program in which the use of surface water will allow the groundwater source to replenish from year to year. Groundwater will continue to supply the City and will be necessary to accommodate future growth. The concern raised in the letter relates to the supply and quality of groundwater to support this growth over time. With the advent of surface water supplies the City can reduce their reliance on groundwater for current urban needs and gradually increase the demand for groundwater as growth continues to increase overall demand. The impact on groundwater can therefore be addressed incrementally as growth occurs. Inadequacies in groundwater quality or availability can be monitored and the growth allowed under the General Plan can be regulated, if necessary, much as the City monitors and regulates development through the Growth Management program that is regulated by the capacity of the wastewater treatment system.

The City of Manteca monitors the production and quality of domestic water wells and periodically prepares a water system master plan to provide for the continuing water needs of the community. Specific policies and implementation measure (notably PF-I-6) require the City to monitor the quality of groundwater on an on-going basis. Following adoption of the General Plan, the City will undertake the preparation of an update of the Public Facilities Implementation Master Plan. This will include a review of water supply and demand at full development and increments of development of the General Plan. The environmental impact of the continued use of groundwater will be addressed The update of the PFIP is expected to occur in late 2003 or 2004.

Mitigation Measure:

The following policy should be added to the 2023 General Plan:

PF-P-58 The City of Manteca shall include a groundwater analysis as a technical analysis of water system capacity in the update of the Public Facilities Implementation Plan (PFIP), and shall prepare an environmental analysis in the PFIP that addresses the quality and availability of groundwater.

PF-P-59 The City of Manteca shall consider incremental increases in the demands on a groundwater supply and water quality when reviewing development applications.

DEPARTMENT OF TRANSPORTATION
P.O. BOX 2048 (1976 E. CHARTER WAY)
STOCKTON, CA 95201
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August 25, 2003

10-SJ-120, 99, I-5-PM Various
Draft Environmental Impact Report
Manteca General Plan 2023
SCH # 2002042088

Mr. Kyle Kollar
City of Manteca
Community Development Dept.
1001 W. Center Street
Manteca, CA 95337

Dear Mr. Kollar:

Thank you for the opportunity to comment on the Draft Environmental Impact Report (DEIR) for the Manteca General Plan 2023, an update of the City's General Plan. We appreciate the additional time for comment, as we did not receive the Transportation Analysis until August 1, 2003. We have circulated this plan to our various functional units and they propose the following comments:

ENVIRONMENTAL PLANNING:

Caltrans District 10 appreciates the opportunity to comment on the City of Manteca's draft General Plan. We acknowledge that each project will have a separate environmental document, with some documents possibly tiered from this general plan, to address potential environmental impacts at the project level.

For all projects that might have a significant impact on the State Transportation System, Caltrans will accommodate a scoping meeting or, as an alternative of a meeting, in some cases a comprehensive environmental document has been deemed acceptable.

Caltrans' encourages contacting the Native American Heritage Commission for the Manteca's General Plan, and all other project plans, to assist in identifying cultural concerns 1

It appears that the City of Manteca endorses future development on designated Prime Agricultural lands and establishes legal justification for the Redevelopment on 2

Agricultural lands. Although the amount of Farmland to be encroached upon is relatively small in comparison to the total Agricultural land in San Joaquin County, land use planning that "builds out" rather than "builds up" contributes to sprawl on a cumulative basis. 2

Caltrans encourages statewide land use patterns that balance the location of employment-generating uses with residential uses so that employment-related commuting is minimized. Balance in employment and residential land use patterns reduces traffic congestion, contributes to the improvement of air quality in urban areas, improves economic and housing opportunities, and reduces loss of economic productivity caused by transportation delay. We are willing to fully cooperate with local agencies to facilitate the balancing of employment-generating land uses and residential land uses with provisions of intermodal and context-sensitive transportation features to serve these uses. 3

TRAVEL FORECASTING:

Our Travel Forecasting branch has no comment, at this time.

TRAFFIC OPERATIONS:

Traffic Operations will need to review project specific traffic operational studies, comprised of traffic analysis at the ramp termini, and ramp modifications, as the projects are developed in order to determine impacts and proper mitigation to Interstate 5 and State Routes 99 and 120. 4

INTERMODAL:

As development continues, Caltrans urges the City of Manteca to plan and coordinate with local and regional public transit providers to ensure that viable public transit services are available. Construction and placement of transit services, such as park-and-ride lots, bus pull-outs, shelters, bicycle and pedestrian paths should be constructed prior to occupancy, promoting mass transit usage. 5

We suggest that the City continue to coordinate and consult with Caltrans to identify and address potential cumulative transportation impacts that may occur from this General Plan. This will assist us in ensuring that traffic safety and quality standards are maintained for the traveling public on existing and future state transportation facilities. 6

If you have any questions or would like to discuss these comments in more detail, please contact Lynn O'Connor, at (209) 948-7575 (email: loconnor@dot.ca.gov). We look forward in continuing to work with you in a cooperative manner.

Sincerely,

TOM DUMAS, Chief
Office of Intermodal Planning

c: Mr. Philip Crimmins
State Clearinghouse
P. O. 3044
Sacramento, CA 95812-3044

Comment Letter 11: Lynn O'Connor, for Tom Dumas, Chief, Office of Intermodal Planning, Department of Transportation

Response 11-1: The General Plan DEIR was submitted to the Native American Heritage Commission through the State Clearinghouse. No comments were submitted to the City.

Response 11-2: The Prime Farmland in the General Plan Study Area is generally located to the north and east, although the are lenses of Prime Farmland located in the southwest and west portions of the City, including existing urbanized areas and a portion of the SR 120 right-of-way. Therefore, complete avoidance of Prime Farmland is not practical. However, the General Plan seeks to direct future growth toward areas that have no Prime Farmland. In addition, the General Plan includes several policy statements and new and/or modified land use categories specifically to direct the growth of the City in a more compact form that can facilitate public transportation use. For example, the residential designations increase the permitted density of residential development compared to the 1988 General Plan. Please refer to the Response to Comment Letter 9.

Response 11-3: Manteca has grown as a commuter city, but the General Plan is specifically designed to redress this condition and to provide a better balance between jobs and housing within the city. This is done in two ways. First, the plan provides for more diverse housing types and prices. This enables the local work force to find housing that is compatible with the income levels associated with the current economic activity in the community and surrounding area. This will diminish the need for people to commute from farther out. Second, the General Plan provides for new employment centers in the growth areas. Over time, these areas are expected to attract new employers who will require the skills of Manteca residents who now commute to the Bay Area. This will reduce the out-commute.

Response 11-4: Comment noted.

Response 11-5: The City of Manteca has cooperated with Caltrans and the regional transportation planning agency, SJCOG, in master planning for major traffic improvements in the city and surrounding area. Policies in the plan support continuation of this cooperation.

Response 11-6: The General Plan addresses the need for inter-modal and alternative transportation as methods to reduce automobile traffic. These include community design for bicycle routes, pedestrian paths, public transit support facilities, and alternative vehicles.

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THOMAS R. FLINN
DIRECTOR

THOMAS M. GAU
DEPUTY DIRECTOR

JAMES F. PAYTON
BUSINESS ADMINISTRATOR

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May 20, 2002

Mr. Kyle Kollar
Community Development Director
1001 W. Center Street
Manteca, CA 95337

SUBJECT: EIR FOR THE CITY OF MANTECA GENERAL PLAN UPDATE

Dear Mr. Kollar:

The San Joaquin County Department of Public Works has reviewed the environmental document for the above referenced project and our concerns, recommendations, corrections are as follows: 1

> Page 9, Section VIII, Hydrology and Water Quality, Number (g)
> Prior to relocating the levee, the landowner shall obtain a State Reclamation Board Permit. The new levee shall be certified by FEMA. Reclamation District 17 shall approve the levee relocation.

Thank you for the opportunity to be heard. Should you have questions or need additional information regarding the above comments, please contact Robin Kirk, Environmental Coordinator at (209) 468-3085.

Sincerely,

Robin Kirk
Environmental Coordinator

c: Mike Callahan, Senior Civil Engineer

Comment Letter 12: Robin Kirk, Environmental Coordinator, San Joaquin County Department of Public Works, May 20, 2002

Response 12-1: The relocation of the levee along the Southwest Manteca southern boundary is not proposed in the General Plan. Such a possibility was never included in the General Plan, but was mentioned in the Notice of Preparation Initial Environmental Checklist to ensure that all possibilities might be considered. It was considered and deleted early in the process and is not part of the General Plan.

4. Response to Comment Received Through Personal Communication

Ernie Tyhurst, Director of Planning, City of Ripon

Comment 1: The DEIR should address the future growth areas between Ripon and Manteca.

Response 1: The City of Manteca and the City of Ripon are considering a Memorandum of Understanding the defines the future growth pattern in the lands between the two cities, most notably along the Highway 99 corridor. This MOU will establish the policies for future urbanization and the principles for extending public services and infrastructure to the area.

The General Plan includes several policies designed to encourage inter-jurisdictional cooperation with the County, neighboring cities, school districts and special districts.

The following mitigation measure is recommended to specifically address the land area between the City of Manteca, and the City of Ripon.

Mitigation Measure:

The following policy should be added to the 2023 General Plan:

LU-P-59 The City of Manteca shall cooperate with City of Ripon in implementing the principle points of the Memorandum of Understanding regarding future land use and public services and facilities in the area between the two cities.

Comment 2: The DEIR should address the potential for a future interchange on Highway 99 in the vicinity of Austin Road and Olive Drive.

Response 2: The following language is added to the DEIR, Section 15.5.3 Future Roadway Network.

"The major east-west road identified in the 2023 General Plan south of SR 120 will connect between the future interchange on SR 120 in the vicinity of McKinley Avenue. The east end of this road will connect to Austin Road and could be extended to a future interchange with Highway 99 in the vicinity of the Austin Road interchange and Olive Drive."

The following mitigation measure is recommended to address the opportunity to connect the east-west road to Highway 99.

Mitigation Measure:

The following policy should be added to the 2023 General Plan:

C-P-55 The City of Manteca shall cooperate with City of Ripon in identifying a suitable location for an interchange at Highway 99 connecting to major roads in Ripon and Manteca.

5. Minor EIR Text Revisions and Staff-Initiated Text Changes

The following corrections and/or clarifications have made to the Draft Environmental Impact Report (DEIR) text. These corrections include:

- minor corrections made by the EIR authors to improve writing clarity and consistency;
- corrections or clarifications requested by a specific response to comments; or
- staff-initiated text changes to update information presented in the EIR or to clarify the mitigation measure and/or policy statement presented in the DEIR.

None of these changes constitute new significant information or result in any new significant impacts of the proposed project.

~~Deleted text~~ presented in this section indicates text that has been deleted from the EIR. Text that has been added to this EIR is presented as underlined.

The revisions to the policies that provide mitigation indicate that the 2023 General Plan policy statements will be revised prior to adoption to conform to the EIR mitigation measure.

3. Aesthetics and Visual Resources

As a staff initiated text change, page 3-1, is revised as follows:

> On particularly clear days, however, there are distant views of the Sierra Nevada Mountains to the east and the Coast Range ~~Mt. Diablo Range~~ 25 miles to the west and southwest. Mt. Diablo to the northwest and Mount Boardman and Eagle Mountain ~~located~~ to the southwest are the most prominent of these background features.
>
> Manteca is surrounded by agricultural uses, primarily orchards and field crops. Although no major watercourse lies within or contiguous to Manteca, the San Joaquin River flows ~~approximately four miles to~~ along the west side of the Study Area and Walthall Slough is located along the southwest boundary of the Study Area.

As a staff initiated text change, page 3-5, is revised as follows:

> **Mitigation Measures:**
>
> **AV-1.1** The Resource Conservation Element of the proposed City of Manteca General Plan 2023 provides the following policy (P) regarding existing scenic vistas:
>
> RC-P-17 New development shall m~~M~~aximize the potential for open space and visual experiences.

AV-2.1 The proposed City of Manteca General Plan 2023 provides the following goal, policies (P) and implementation (I) measures to minimize effects to ~~maintain~~ existing visual character:

Resource Conservation Element

RC-P-15 Provide ~~Promote the provision of~~ public and private open space within urbanized parts of Manteca, in order to provide visual contrast with the built environment and to provide for the recreational needs of residents.

Community Design Element

Goal CD-11 To the extent possible, new development shall retain or incorporate ~~Retain~~ visual reminders of the agricultural heritage of the community.

CD-P-48 Allow ~~Encourage~~ use of small under-utilized or undeveloped portions of parcels for temporary, seasonal ~~of new~~ agricultural activity, such as truck farms, strawberries, and small orchards.

As a staff initiated text change, page 3-7, is revised as follows:

Mitigation Measures:

The impact of light and glare can be minimized by incorporating design features and operating requirements into new development that limit light and glare on-site.

AV-3.1: The Community Design Element of the Manteca General Plan 2023 provides the following policies ~~which may assist in the mitigation of~~ to mitigate the degradation of the existing night sky amenity in the City of Manteca:

CD-P-44: Provide minimal levels of street, parking, building, site, and public area lighting to meet safety standards and provide direction.

CD-P-45 Provide directional shielding for ~~street and parking~~ all exterior lighting to minimize the annoyance of direct or indirect glare.

CD-P-46 Provide automatic shutoff or motion sensors for lighting features in newly developed areas.

The City shall adopt light and glare standards that minimize the creation of new light source and the annoyance of direct and indirect glare.

4. Agriculture Resources

As a staff initiated text change, page 4-17, is revised as follows:

Mitigation Measures:

AG-2.1: The Resource Conservation Element of the proposed General Plan 2023 provides the following policies (P) and implementation (I) measures intended to conserve agricultural zoning within the Study Area:

RC-P-26 The City shall discourage the cancellation of Williamson Act contracts outside the Primary Urban Service Boundary line. The City will not accept for processing any application for annexation of land under Williamson Act contract when there is more than two years remaining on the contract term.

As a staff initiated text change, page 4-18, is revised as follows:

Mitigation Measures:

AG-3.1: The Resource Conservation Element of the proposed General Plan 2023 provides the following policies (P) and implementation (I) measures intended to maintain agricultural use within the Study Area:

RC-P-24 The City shall ~~endeavor to~~ ensure, in approving urban development near existing agricultural lands, that such development will not unnecessarily constrain agricultural practices or adversely affect the economic viability of nearby agricultural operations.

5. Air Quality

As a staff initiated text change, page 5-22, is revised as follows:

Mitigation Measures:

AQ-I-9 Maintain acceptable traffic levels of service (LOS~~C~~) as specified in the Circulation Element.

AQ-I-10 In new subdivisions, require the internal street system ~~design~~ to include the installation of dedicated pedestrian/bicycle pathways connecting to adjacent residential and commercial areas as well as schools, parks and recreational areas.

As a staff initiated text change, page 5-23, is revised as follows:

Mitigation Measures:

AQ-4.1: The General Plan 2023 includes the following implementation (I) measures to help reduce exposure of sensitive receptors to pollutants:

AQ-I-8 Prior to entitlement of a project that may be an air pollution point source, such as a manufacturing and extracting facility, the developer shall provide documentation that the use is located and appropriately separated from residential areas and sensitive receptors ~~Locate air pollution point sources, such as manufacturing and extracting facilities, in areas designated for industrial development and separated from residential areas and sensitive receptors~~ (e.g., homes, schools, and hospitals).

AQ-I-15 Design review criteria shall include the following considerations, at a minimum:

The developer of a sensitive air pollution point receptor shall submit documentation that the project design includes appropriate buffering ~~Establish buffer zones~~ (e.g., distance, setbacks, landscaping) ~~within residential and other sensitive receptor site plans~~ to separate the use ~~those uses~~ from highways, arterial streets, hazardous material locations and other sources of air pollution or odor.

As a staff initiated text change, page 5-24, is revised as follows:

Mitigation Measures:

AQ-5.1: The General Plan 2023 includes the following goal and policy (P) to help reduce the possibility of exposing people to objectionable odors:

Goal AQ-1: Improve Manteca's air quality by:

Minimizing public exposure to pollutants that create a public nuisance, such as unpleasant odors.

AQ-P-3 Segregate and provide buffers between land uses that typically generate hazardous or obnoxious fumes and residential or other sensitive land uses.

Residual Level of Significance: Less Than Significant with Mitigation

Implementation of the above goal will help reduce the possibility of exposing people to objectionable odors. ~~If odors do result from the proposed heavy industrial land uses, it is required that these odors be minimized.~~ While exposure to objectionable odor pollutants can be minimized through design and separation to a

less than significant level, there is no way to fully mitigate the impact due to prevailing winds, atmospheric conditions, and peripheral pollutant point sources.

6. Biological Resources

As a staff initiated text change, page 6-1, is revised as follows:

Although no major watercourse lies within the Study Area, the San Joaquin River flows ~~approximately four (4) miles to~~ along the west side of the Study Area boundary. Walthall Slough is a tributary to the river. The Slough's northern boundary is contiguous with the southwestern boundary of the Study Area.

Riparian woodland is found mainly along the San Joaquin River and Walthall Slough. Wetlands have also been identified along ~~Highway I-20~~ State Route 120 in the western portion of the Study Area. These are irrigation runoff impoundments which function as seasonal wetlands. Some of the numerous Study Area irrigation and drainage ditches and canals also support riparian vegetation.

As a staff initiated text change, page 6-10, is revised as follows:

Option 1. Pay appropriate fee.
The Plan includes a program to allocate a proportionate share of the Plan costs to those undertaking new development projects that would result in conversion of open space land, through payment of ~~the following~~ across-the-board fees (these open space land categories are further discussed below):

Category A Exempt (Urban/Developed Lands)	No Pay Zone
Category B Other Open Space (orchards, vineyards, etc.)	~~$750/per acre~~
Category C Agricultural Open Space	~~$1,500/per acre~~
Category D Natural Habitat Open Space (non-vernal pool)	~~$1,500/per acre~~
Category E Vernal Pool Conversion**:**	
Wetted Surface Area	~~$30,000/peracre~~
Upland Grassland	~~$5,000/per acre~~

As a staff initiated text change, page 6-23, is revised as follows:

Mitigation Measures:

B-1.1 The Resource Conservation Element of the proposed City of Manteca General Plan 2023 provides the following policies (P) and implementation (I) measures to protect and maintain special status species.

RC-P-29 Minimize impact of new development on native vegetation and wildlife.

RC-P-34 Protect special status species and other species that are sensitive to human activities.

RC-I-33 Project proponents who opt not to participate in the SJMSCP shall:
Satisfy applicable U.S. Endangered Species Act (ESA), California Endangered Species Act (CESA), National Environmental Policy Act (NEPA), California Environmental Quality Act (CEQA), and other applicable local, state, and federal laws and regulation provisions through consultations with the Permitting Agencies and local planning agencies.

~~For project proponents who opt against participation in the SJMSCP,~~ Provide ~~require~~ site-specific research and ground surveys for proposed development projects. This research must include a detailed inventory of all biological resources onsite, and appropriate mitigation measures for avoiding or reducing impact to these biological resources. This requirement may be waived if determined by the City that the proposed project area is already sufficiently surveyed.

As a staff initiated text change, page 6-24, is revised as follows:

A major area of riparian habitat is ~~approximately four (4) miles outside~~ located on the west side of the Study Area along the San Joaquin River. The riparian vegetation along Walthall Slough is contiguous with the southwestern Study Area boundary. This area of the proposed General Plan 2023 will be left undisturbed in open space.

RC-P-32 Condition new development in the vicinity of the San Joaquin River and Walthall Slough to ~~promote and~~ protect riparian habitat, wetlands, and other native vegetation and wildlife community.

As a staff initiated text change, page 6-25, is revised as follows:

~~RC-I-33 For project proponents who opt against participation in the SJMSCP, require site-specific research, and ground surveys for proposed development projects. This research must include a detailed inventory of all biological resources onsite, and appropriate mitigation measures for avoiding or reducing impact to these biological resources. This requirement may be waived if determined by the City that the proposed project area is already sufficiently surveyed.~~

RC-I-33 Project proponents who opt not to participate in the SJMSCP shall:
Satisfy applicable U.S. Endangered Species Act (ESA), California Endangered Species Act (CESA), National Environmental Policy Act (NEPA), California Environmental

Quality Act (CEQA), and other applicable local, state, and federal laws and regulation provisions through consultations with the Permitting Agencies and local planning agencies.

~~For project proponents who opt against participation in the SJMSCP,~~ Provide ~~require~~ site-specific research and ground surveys for proposed development projects. This research must include a detailed inventory of all biological resources onsite, and appropriate mitigation measures for avoiding or reducing impact to these biological resources. This requirement may be waived if determined by the City that the proposed project area is already sufficiently surveyed.

RC-P-29 Minimize impact of new development on native vegetation and wildlife.

RC-P-34 Protect special status species and other species that are sensitive to human activities.

As a staff initiated text change, page 6-29, is revised as follows:

RC-I-33 Project proponents who opt not to participate in the SJMSCP shall:
Satisfy applicable U.S. Endangered Species Act (ESA), California Endangered Species Act (CESA), National Environmental Policy Act (NEPA), California Environmental Quality Act (CEQA), and other applicable local, state, and federal laws and regulation provisions through consultations with the Permitting Agencies and local planning agencies.

~~For project proponents who opt against participation in the SJMSCP,~~ Provide ~~require~~ site-specific research and ground surveys for proposed development projects. This research must include a detailed inventory of all biological resources onsite, and appropriate mitigation measures for avoiding or reducing impact to these biological resources. This requirement may be waived if determined by the City that the proposed project area is already sufficiently surveyed.

Residual Level of Significance: Significant

~~Given the voluntary nature of participation in the SJMSCP, the level of significance cannot be mitigated to less than significant.~~ The SJMSCP is, in effect, a plan to mitigate both the site specific and the cumulative impacts of individual projects on biological resources within San Joaquin County. If all project proponents opted to participate in the SJMSCP, cumulative effects of the buildout of the General Plan 2023 could be mitigated to a less than significant level. However, it cannot be assumed that all project proponents will opt to participate in the SJMSCP. Any project proponent who opts against participating in the Plan will be proceeding under the "project-by-project" evaluation and

mitigation process with each permitting agency. Since project-by-project evaluation cannot reasonably foresee the overall effects on biological resources of individual projects under multiple agency control, cumulative impacts may result.

7. Cultural Resources

As a staff initiated text change, page 7-1, is revised as follows:

1. Segment of Canal T and Drainage Canal, South~~ern~~ San Joaquin Irrigation District.
2. Segment of Canal R, South~~ern~~ San Joaquin Irrigation District.
3. Segment of Drainage Canal, South~~ern~~ San Joaquin Irrigation District.

As a staff initiated text change, page 7-16, is revised as follows:

RC-P-36 The City~~ shall refer~~ shall require that the proponent of any development proposal~~s,~~ in an area with potential archaeological resources, and specifically near the San Joaquin River and Walthall Slough, and on the east side of State Highway 99 at the Louise Avenue crossing, shall consult with ~~that may adversely impact archaeological sites to~~ the California Archaeological Inventory, at Stanislaus State University to determine the potential for discovery of cultural resources, conduct a site evaluation as may be indicated, and mitigate any adverse impacts according to the recommendation of a qualified archaeologist. The survey and mitigation shall be developer funded. ~~that may adversely impact archaeological sites to the California Archaeological Inventory, Stanislaus State University~~.

RC-P-37 The City shall set as a ~~high~~ priority the protections and enhancement of Manteca's historically and architecturally significant buildings.

RC-P-38 The City shall work with property owners ~~in~~ seeking registration of historical structures as ~~State~~ Historic Landmarks or listing on the ~~Federal~~ Register of Historic Sites.

As a staff initiated text change, page 7-17, is revised as follows:

RC-I-42 The City shall continue to support the local historical society in their efforts to: ~~The City should maintain an~~ archive ~~of~~ historic information, including photographs, publications, oral histories and other materials, and make the information available to the public for viewing and research.

~~RC-I-43~~ ~~The historic archives will be compiled according to location in the City, and will be maintained in a safe environment to protect it over time.~~

RC-I-44 The City should develop policies and the means to make the information available to the public for viewing and research.

8. Geology, Soils, and Seismicity

As a staff initiated text change, page 8-14, is revised as follows:

S-P-3 The City shall ~~avoid potential~~ require new development to mitigate the potential impacts of seismic induced settlement of uncompacted fill and liquefaction (water-saturated soil) due to the presence of a high water table.

S-P-5 The City shall ~~should~~ ensure that all public facilities, such as buildings, water tanks, and reservoirs, are structurally sound and able to withstand seismic shaking and the effects of seismically induced ground failure.

SG-I-1 All new development shall comply ~~Comply~~ with the current Uniform Building Code (UBC) requirements for Seismic Zone 3, which stipulates building structural material and reinforcement.

SG-I-2 All new development shall comply ~~Comply~~ with California Health and Safety Code Section 19100 et seq. (Earthquake Protection Law), which requires that buildings be designed to resist stresses produced by natural forces caused earthquakes and wind.

As a staff initiated text change, page 8-15, is revised as follows:

RC-P-9 The City shall adopt and enforce land management standards that minimize ~~Minimize~~ soil erosion and loss of topsoil from land development activities, wind, and water flow.

RC-I-16 All new development shall comply ~~Comply~~ with the Uniform Building Code (UBC) requirements for specific site development and construction standards for specific soils types.

RC-I-17 All new development shall comply ~~Comply~~ with the Uniform Building Code (UBC), Chapter 70, regulating grading activities including drainage and erosion control.

RC-I-18 Require site-specific land management and development practices ~~survey and research~~ for proposed development projects, including appropriate mitigation measures for avoiding or reducing erosion~~, if needed~~. ~~This requirement may be waived if the City determines that the proposed project area is already sufficiently surveyed.~~

9. Hazardous Materials

As a staff initiated text change, page 9-16, is revised as follows:

Mitigation Measures:

HM-1.1 The General Plan 2023 Safety Element ~~of the City of Manteca General Plan~~ (Subsection 7~~.3~~) provides the following goal, policy (P), and implementation (I) measures to mitigate the exposure of residents to hazardous materials:

Goal S-5 The City shall protect ~~Protect~~ the health, safety, natural resources, and property through regulation of use, storage, transport, and disposal of hazardous materials.

S-I-9 The City shall require ~~Require~~ businesses that manufacture, store, use, or transport significant quantities of hazardous materials to identify annually such materials and their quantities.

S-I-10 The City shall require ~~Require~~ the submittal of lists of hazardous materials used in existing and proposed industrial and commercial businesses within the City of Manteca. The list shall be maintained through the Manteca Fire Department and updated through periodic review.

As a staff initiated text change, page 9-17, is revised as follows:

HM-2.2 The General Plan 2023 Air Quality Element (Section 10) provides the following implementation (I) measure to help reduce the exposure to hazardous materials:

AQ-I-3 Cooperate with San Joaquin County Environmental Health Department in identifying hazardous material users and in developing a hazardous materials management plan.

10. Hydrology and Water Quality

As a staff initiated text change, page 10-10, is revised as follows:

Continued use of groundwater as the City's primary source of domestic water would be a significant impact. However, the level of significance will be reduced when surface water supplies are available through the SSJID Surface Water Project. Delivery of this water is planned for 2005, well before major new development would occur under the

General Plan 2023. Even with the Surface Water project, Manteca would continue to pump groundwater water to meet the full projected demand associated with planned growth but would do so at the safe yield rate of extraction. Therefore, the impact is less than significant.

As a staff initiated text change, page 10-11, is revised as follows:

Mitigation Measure:

RC-P-4 The City shall require ~~promote~~ water conservation in both City operations and private development to minimize the need for the development of new water sources.

Development of private water wells within the city limits shall be allowed only where the City makes a finding that municipal water service is not readily and feasibly available, and such private well systems shall only be allowed to be used until such time as City water service becomes available.

As a staff initiated text change, page 10-12, is revised as follows:

S-I-6 Discourage large continuous paved areas unless provided with engineered drainage facilities.

S-I-7 Where feasible, require ~~Encourage~~ the use of pervious paving materials, such as brick or stepping stones with sand joints.

S-I-8 ~~Where feasible,~~ New development shall be required to maintain natural stream courses and adjacent habitat and combine flood control, recreation, water quality, and open space functions.

As a staff initiated text change, page 10-14, is revised as follows:

S-P-8 Cooperate with other agencies in the pursuit of ~~Pursue~~ a regional approach to flood issues.

As a staff initiated text change, page 10-15, is revised as follows:

S-P-11 Ensure that the impacts of potential flooding are adequately analyzed when considering areas for future urban expansion.

S-P-13 Non-residential development shall be anchored and flood-proofed in accord with the Federal Emergency Management Agency (FEMA) standards to prevent damage or causing damage due to a ~~from the~~ 100-year flood or, alternatively, elevated to at least one foot above the 100-year flood level.

When improvements to existing development are made costing at least 50 percent of the current market value of the structure before improvements, the structure shall be brought into compliance with FEMA standards.

S-I-4 The City shall continue to participate in the National Flood Insurance Program. To this end, the City shall ensure that local regulations are in full compliance with standards adopted by the Federal Emergency Management Agency (FEMA).

S-I-5 Provide flood warning and forecasting information to City residents.

The City shall adopt and implement local flood management development standards.

As a staff initiated text change, page 10-16, is revised as follows:

Given that the Study Area is nearly level in topography; ~~(Geology, Soils, and Seismicity, Section 8),~~ it is highly unlikely that the Study Area would be inundated by mudflows. The nearest source of possible mudflow is the San Joaquin River located at the southwesterly perimeter of the Study Area ~~four miles outside the Study Area boundary, and the Study Area is protected by a levee system~~.

11. Land Use

As a staff initiated text change, page 11-10, is revised as follows:

The SJMSCP conservation strategy relies on minimizing, mitigating, and avoiding impacts for the covered species. These strategies may directly influence land use by establishing preserve areas that would preclude future development or by constraining the potential land use. The specific features of the SJMSCP that apply to the Manteca General Plan Study Area are more fully described in Section 6.1.2 ~~11.1.2~~ of this EIR.

As a staff initiated text change, page 11-14, is revised as follows:

Mitigation Measure:

LU-4.1 The General Plan 2023 Public Facilities Element (Section 6) ~~of the General Plan 2023~~ provides the following policy (P) for reducing conflicts between residential use and the Lovelace Solid Waste Transfer Station.

PF-P-31 The City shall deny any residential or institutional uses within one half-mile of the Lovelace Transfer Station that would constrain or limit its continuation.

The City shall respond negatively to any County referral for proposed residential or institutional use within one half-mile of the Lovelace Transfer Station that would constrain or limit its continuation.

~~**LU-4.2** Before adoption of the General Plan 2023, the Land Use Map would be revised to remove any land uses that would constrain or limit the continued use of the Lovelace Transfer Station.~~

12. Noise

As a staff initiated text change, page 12-8, is revised as follows:

> *Notes:*
> *Outdoor activity areas for residential development are considered to be backyard<u>s</u>, patios <u>areas,</u> or decks of single family dwellings, and the patios<u>, balconies,</u> or common areas where people generally congregate for multi-family developments.*

As a staff initiated text change, page 12-12, is revised as follows:

Mitigation Measures:

N-1.1: The <u>General Plan 2023</u> Noise Element (Section 9) ~~of the General Plan 2023~~ provides the following policies (P) to mitigate the effects of increased noise levels in excess of established standards:

N-P-3 The City may permit the development of new noise-sensitive uses only where the noise level due to fixed (non-transportation) noise sources satisfies the noise level standards of Table 9-2 (*Table 12-3 above*). ~~Noise mitigation may be required to meet Table 9-2 performance standards.~~

As a staff initiated text change, page 12-14, is revised as follows:

During the construction phases ~~resulting from implementation of the General Plan~~, noise from construction activities would dominate the noise environment in the immediate area of construction.

As a staff initiated text change, page 12-14, is revised as follows:

Mitigation Measures:

N-2.1: The <u>General Plan 2023</u> Noise Element ~~of the General Plan 2023~~ (Section 9) provides the following policy (P) to mitigate the levels of construction noise on ambient noise levels throughout the General Plan Study Area.

N-P-5 <u>In accord with Table 9-2 standards the</u> ~~The~~ City shall regulate construction-related noise ~~to reduce~~ impacts on adjacent uses.

As a staff initiated text change, page 12-17, is revised as follows:

Mitigation Measures:

N-3.1 The General Plan 2023 Noise Element ~~of the General Plan 2023~~ (Section 9) provides the following policies (P) to mitigate the levels of roadway traffic noise levels throughout the General Plan Study Area:

N-P-11 For ~~In~~ residential development ~~subdivisions~~ backing on to a freeway or railroad right-of-way, the developer shall be required to build a sound barrier wall, and provide for other appropriate mitigation measures, to satisfy the performance standards in Table 9-1 ~~in accordance with City development standards~~.

As a staff initiated text change, page 12-19, is revised as follows:

Mitigation Measures:

N-P-7 Noise level criteria applied to land uses other than residential or other noise-sensitive uses shall be consistent with noise performance levels of Table 9-1 and Table 9-2 ~~recommendations of the *Guidelines for the Preparation and Content of Noise Element of the General Plan*~~.

N-I-14 Control noise at the source through use of insulation, berms, building design and orientation, buffer space, staggered operating hours and other techniques. Use insulation, berms, building design and orientation, buffer space, noise barriers, and other techniques to attenuate noise to acceptable levels.

14. Public Facilities and Services

As a staff initiated text change, page 14-14, is revised as follows:

Mitigation Measures:

PF-I-8 The City shall update the Public Facilities Implementation Plan (PFIP) regarding wastewater collection and treatment, every five years. The update shall be reviewed annually for adequacy and consistency with the General Plan.

As a staff initiated text change, page 14-19, is revised as follows:

PF-I-23 The Planning Commission and City Engineer will review proposed residential developments ~~street patterns~~ to evaluate the accessibility for police patrols and emergency response.

Education (Schools)

Goal PF-13 Maintain sufficient land inventory so that the Manteca Unified School District can provide ~~Provide~~ for the educational needs of the Manteca residents.

As a staff initiated text change, page 14-22, is revised as follows:

PF-P-53 The City shall require ~~promote~~ the provision of private open space and recreational facilities as part of new residential developments.

~~PF-P-55~~ ~~The City shall consider cooperative agreements with the Manteca Unified School District for the use of school facilities for City-sponsored recreation programs on a case-by-case basis.~~

PF-P-56 The City shall ~~should~~ develop a convenient system of pedestrian sidewalks and pathways linking City parks, major open space areas, and the downtown core.

PF-P-57 The City shall adopt a Bicycle Route Master Plan and develop a bicycle route system linking open space areas, schools, public facilities, the downtown core, and neighborhoods. ~~Bicycle lanes shall be included in new street widenings where the street falls within the adopted Bicycle Route Master Plan.~~

PF-I-26 The City shall adopt a ~~update the~~ Parks and Recreation Master Plan, setting out goals, policies, and standards for the location, size, and level of development of all existing and proposed parks. The Plan will establish specific development criteria for the use of neighborhood and community parks. The master plan shall cover at least the succeeding 10-year period, with greater detail devoted to improvements planned for the first five-year period.

~~PF-I-28~~ ~~The City will coordinate with the school district and other public agencies to seek joint use of public use facilities.~~

As a staff initiated text change, page 14-24, is revised as follows:

Mitigation Measures:

PFS-7.1: The General Plan 2023 Public Facilities and Services Element (Section 6) ~~of the General Plan 2023~~ addresses electricity though the following goal, policy (P), and implementation (I) measures:

Goal PF-10 The City shall ensure ~~Ensure~~ adequate, reliable electric service is available to all users in the City.

FP-I-15 The City will support ~~encourage~~ energy conservation measures and innovative uses of solar energy, heat recovery, and co-generation in all structural and industrial processes.

PF-I-16 The City will confer with utility companies regarding ~~communicate its~~ major development plans ~~with utility companies~~ and cooperate with ~~coordinate~~ planning extension of ~~these~~ utilities.

PFS-7.2: The General Plan 2023 Resource Conservation Element (Section 8) provides the following measures to mitigate impacts related to electricity and infrastructure expansion:

RC-I-6 The City shall implement development standards which promote energy conservation and the use of solar energy techniques for heating and cooling, including building orientation, street and lot layout, landscape placement, and protection of solar access.

RC-I-8 The City shall enforce Title 24 energy requirements (Building Code) which define construction standards that promote energy conservation.

Goal RC-3 The City shall ensure that land use and circulation improvements are coordinated to reduce the number and length of vehicles trips and thereby help conserve scare and nonrenewable energy resources.

RC-P-8 The City shall support use of alternative energy sources in new commercial, industrial and residential development.

RC-I-10 Encourage large energy users to use an energy conservation plan as part of the project review and approval process, and develop a program to monitor compliance with and effectiveness of that plan.

RC-I-11 Cooperate with other agencies and jurisdictions to expand energy conservation programs.

15. Traffic and Circulation

As a staff initiated text change, page 15-45, is revised as follows:

Bicycle/Pedestrian Use- The Circulation Element encourages bicycle/pedestrian use, including the following policy (P):

C-P-33 The City shall ~~should~~ establish a safe and convenient network of identified bicycle routes connecting residential areas with recreation, shopping, and employment areas within the city". By establishing this network, the City of Manteca is encouraging bicycle use in the City. This policy is currently being implemented through ~~the update of~~ the City's Bicycle Master Plan.

Manteca General Plan 2023
Draft Environmental Impact Report

(SCH# 2002042088)

Mitigation Monitoring Program

Prepared for the
City of Manteca

Prepared by
Wade Associates

Certified
October 6, 2003

Mitigation Monitoring Program

Environmental Impact Report

Manteca General Plan 2023

INTRODUCTION

Section 15097 of the California Environmental Quality Act (CEQA) Guidelines require all state and local agencies to establish monitoring or reporting programs for projects approved by a public agency whenever approval involves the adoption of either specified environmental findings related to environmental impact reports, or a "mitigated negative declaration." Where the project at issue is the adoption of a general plan or other plan-level document, the mitigation monitoring applies to policies and any other portion of the plan that is a mitigation measure or adopted alternative.

The following is the Mitigation Monitoring Program (MMP) for the City of Manteca General Plan 2023. This MMP is intended to be used by City of Manteca mitigation monitoring personnel to ensure compliance with mitigation measures during project implementation. The mitigation measures identified in this MMP were developed as part of the Environmental Impact Report (EIR) process for the General Plan 2023.

Mitigation is defined by CEQA as a measure which:

- Avoids the impact altogether by not taking a certain action or parts of an action.
- Minimizes impacts by limiting the degree or magnitude of the action and its implementation.
- Rectifies the impact by repairing, rehabilitating, or restoring the impacted environment.
- Reduces or eliminates the impact over time by preservation and maintenance operations during the life of the project.
- Compensates for the impact by replacing or providing substitute resources or environments.

The intent of the MMP is to ensure the effective implementation and enforcement of adopted mitigation measures identified for the Manteca General Plan 2023.

The following MMP Table identifies each mitigation measure, the monitoring action for the mitigation measure, the responsible party for the monitoring action, and timing of the monitoring action.

MITIGATION MONITORING PROGRAM
CITY OF MANTECA
GENERAL PLAN 2023

Mitigation Measure		Implementing Responsibility	Monitoring Responsibility	Timing
3.4 Aesthetics and Visual Resources				
	AV-1 Impacts to Exisiting Scenic Vistas			
RC-P-18	New development shall maximize the potential for open space and visual experiences	Manteca Planning	Manteca Planning	Prior to discretionary approval of development applications.
	AV-2 Impacts to Visual Character or Quality			
RC-P-16	Provide public and private open space within urbanized parts of Manteca, in order to provide visual contrast with the built environment and to provide for the recreational needs of residents.	Manteca Planning	Manteca Planning	Adoption of General Plan
CD-P-47	Allow pockets of agricultural activity to remain within the urban areas of the city where such uses are compatible with the surrounding urban use.			
CD-P-48	Allow use of small under-utilized or undeveloped portions of parcels for temporary, seasonal agricultural activity, such as truck farms, strawberries, and small orchards.			
CD-P-49	In order to establish a visual character that retains the agricultural heritage, the city will permit the use of orchard trees (or similar non-fruiting species) in landscape corridors along major streets adjacent to residential neighborhoods, in-lieu of formalized landscape. In such landscapes, the groundcover may be limited to bare earth and weed control and/or groundcovers compatible with the orchard characteristics.			
CD-I-14	Establish design guidelines for non-residential uses within 200 feet of SR 99 and SR 120. The guidelines should address the following concepts…The landscape along SR 120 and SR 99 will reflect the natural character of the region in the selection of trees and groundcover.			
	AV-3 Increased Light and Glare Impacts			
CD-P-44	Provide minimal levels of street, parking, building, site, and public area lighting to meet safety standards and provide direction.	Manteca Planning	Manteca Planning	Adoption of General Plan
CD-P-45	Provide directional shielding for all exterior lighting to minimize the annoyance of direct or indirect glare.			

Mitigation Measure		Implementing Responsibility	Monitoring Responsibility	Timing
CD-P-46	Provide automatic shutoff or motion sensors for lighting features in newly developed areas.			
	The City shall adopt light and glare standards that minimize the creation of new light source and the annoyance of direct and indirect glare.			
4.4 Agricultural Resources				
	AG-1 Farmland Conversion Impacts			
LU-P-41	The City shall encourage the continuation of agricultural uses on lands within the Primary and Secondary Urban Services. Boundary lines pending their development as urban uses consistent with the General Plan.	Manteca Planning	Manteca Planning	Adoption of General Plan
LU-I-1	The City shall maintain a growth management system that provides a mechanism for the annual allocation of the amount of occur. The growth management system shall have the following objectives: Conserveviable agricultural and open space lands.			
RC-P-19	The City shall support the continuation of agricultural uses on lands designated for urban use, until urban development is imminent.			
RC-P-20	The City shall provide an orderly and phased development pattern so that farmland is not subjected to premature development pressure.			
	AG-2 Conflicting Zoning or Williamson Act Contracts Impacts			
RC-P-23	Protect designated agricultural lands, without placing an undue burden on agricultural landowners.	Manteca Planning	Manteca Planning	Adoption of General Plan
RC-P-27	The City shall discourage the cancellation of Williamson Act contracts outside the Primary Services Boundary line. The City will not accept for processing any application for annexation of land under Williamson Act contract when there is more than two years remaining on the contract term.			
RC-I-31	Work with San Joaquin County on the following issues: • Pesticide application and types of agricultural operations adjacent to urban uses. • Support the continuation of County agricultural zoning in areas designated for agricultural land use in the Area Plan.			

Mitigation Measure		Implementing Responsibility	Monitoring Responsibility	Timing
	AG-3 Impacts From Location or Nature of GP Changes That Could Result in Farmland Conversion			
RC-P-21	In approving urban development near existing agricultural lands, the City shall take actions so that such development will not unnecessarily constrain agricultural practices or adversely affect the viability of nearby agricultural operations.	Manteca Planning	Manteca Planning	Adoption of General Plan
RC-P-24	Provide buffers at the interface of urban development and farmland in order to minimize conflicts between these uses.			
RC-P-25	The City shall ensure, in approving urban development near existing agricultural lands, that such development will not unnecessarily constrain agricultural practices or adversely affect the economic viability of nearby agricultural operations.			
RC-P-26	The City shall restrict the fragmentation of agricultural land parcels into small rural residential parcels except in areas designated for estate type development in the General Plan Land Use Diagram.			
RC-P-28	The City shall not extend water and sewer lines to premature urban development that would adversely affect agricultural operations.	Manteca Public Works	Manteca Public Works	
RC-I-30	Apply the following conditions of approval where urban development occurs next to farmland: • Require notifications in urban property deeds that agricultural operations are in the vicinity, in keeping with the City's right-to-farm ordinance; • Require adequate and secure fencing at the interface of urban and agricultural use. • Require phasing of new residential subdivisions so as to include an interim buffer between residential and agricultural use.	Manteca Planning	Manteca Planning	
RC-P-30	The City of Manteca will participate in a county-wide program to mitigate the conversion of Prime Farmland and Farmlands of Statewide Importance to urban uses.			

MITIGATION MONITORING PROGRAM
CITY OF MANTECA
GENERAL PLAN 2023

Mitigation Measure		Implementing Responsibility	Monitoring Responsibility	Timing
5.4 Air Quality				
	AQ-1 Impacts From Conflicts or Obstruction of Applicable Air Quality Plan.			
AQ-P-1	Cooperate with other agencies to develop a consistent and coordinated approach to reduction of air pollution and management of hazardous air pollutants.	Manteca Planning	Manteca Planning	Adoption of General Plan
AQ-I-1	Work with the San Joaquin Valley Air Pollution Control District (SJVAPCD) to implement the Air Quality Management Plan (AQMP). • Cooperate with the APCD to develop consistent and accurate procedures for evaluating project-specific and cumulative air quality impacts; • Cooperate with the APCD and the California Air Resources Board to develop a local airshed model; • Cooperate with the APCD in their efforts to develop a cost/benefits analysis of possible control strategies (mitigation measures to minimize short and long-term stationary and area source emissions as part of the development review process, and monitoring measures to ensure that mitigation measures are implemented.			
AQ-I-2	In accordance with CEQA, submit development proposals to the APCD for review and comment prior to decision.			
	AQ-2 Impacts From Violation of Air Quality Standards or Contribution to Current Nonattainment Status for Ozone and PM10,			
AQ-P-8	Woodburning devices shall meet current standards for controlling particulate air pollution.	Manteca Building Inspection	Manteca Building Inspection	Adoption of General Plan
AQ-P-9	Burning of any combustible material within the City will be controlled to minimize particulate air pollution.			
AQ-I-13	All residences built in a new subdivision or housing development shall be equipped with conventional heating devices with sufficient capacity to heat all areas of the building without reliance on woodburning heating devices.			
AQ-I-14	All woodburning-heating devices installed shall meet EPA standards applicable at the time of project approval.			

Mitigation Measure		Implementing Responsibility	Monitoring Responsibility	Timing
AQ-P-7	New construction will be managed to minimize fugitive dust and construction vehicle emissions.	Manteca Public Works	Manteca Public Works	Adoption of General Plan
AQ-I-4	Construction activity plans shall include and/or provide for a dust management plan to prevent fugitive dust from leaving the property boundaries and causing a public nuisance or a violation of an ambient air standard. • Project development applicants shall be responsible for ensuring that all adequate dust control measures are implemented in a timely manner during all phases of project development and construction.			
	AQ-3 Impacts From Cumulatively Considerable Net Increase in Ozone and PM10 Air Pollutants.			
AQ-P-2	Develop a land use plan that will help to reduce the need for trips and will facilitate the common use of public transportation, walking, bicycles, and alternative fuel vehicles.	Manteca Planning	Manteca Planning	Adoption of General Plan
AQ-I-4	Encourage mixed-use development that is conveniently accessible by pedestrians and public transit.			
AQ-I-5	Locate employment, school, and daily shopping destinations near residential areas.			
AQ-I-6	Locate higher density development such as multi-family housing, institutional uses, services, employment centers and retail along existing and proposed transit corridors.			
AQ-I-7	Locate public facilities in areas easily served by current and planned public transportation.	Manteca Public Works and Manteca Planning	Manteca Public Works and Manteca Planning	
AQ-P-4	Develop and maintain street systems that provide for efficient traffic flow and thereby minimize air pollution from automobile emissions.			
AQ-P-5	Develop and maintain circulation systems that provide alternatives to the automobile for transportation, including bicycles routes, pedestrian paths, bus transit, and carpooling.			
AQ-P-6	Coordinate public transportation networks, including trains, local bus service, regional bus service and rideshare facilities to provide efficient public transit service.			

Mitigation Measure		Implementing Responsibility	Monitoring Responsibility	Timing
AQ-I-9	Maintain acceptable traffic levels of service (LOS) as specified in the Circulation Element.			
AQ-I-10	In new subdivisions, require the internal street system to include the installation of dedicated pedestrian/bicycle pathways connecting to adjacent residential and commercial areas as well as schools, parks and recreational areas.			
	AQ-4 Impacts From Exposing Sensitive Receptors to Substantial Pollutant Concentrations.			
AQ-I-8	Prior to entitlement of a project that may be an air pollution point source, such as a manufacturing and extracting facility, the developer shall provide documentation that the use is located and appropriately separated from residential areas and sensitive receptors (e.g., homes, schools, and hospitals).	Project Proponent	Manteca Public Works and Manteca Planning	Prior to discretionary approval of development applications.
AQ-I-15	Design review criteria shall include the following considerations, at a minimum: The developer of a sensitive air pollution point receptor shall submit documentation that the project design includes appropriate buffering (e.g., distance, setbacks, landscaping) to separate the use from highways, arterial streets, hazardous material locations and other sources of air pollution or odor.			
	AQ-5 Impacts From Objectionable Odors Affecting a Substantial Number of People.			
AQ-P-3	Segregate and provide buffers between land uses that typically generate hazardous or obnoxious fumes and residential or other sensitive land uses.	Manteca Planning	Manteca Planning	Adoption of General Plan
6.4 Biological Resources				
	B-1 Impacts From Loss of Identified Special Status Species			
RC-I-32	Continue to support and comply with the requirements of the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) when reviewing proposed public and private land use changes.	Manteca Planning	Manteca Planning	Adoption of General Plan

Mitigation Measure		Implementing Responsibility	Monitoring Responsibility	Timing
RC-I-33	Project proponents who opt not to participate in the SJMSCP shall: • Satisfy applicable U.S. Endangered Species Act (ESA), California Endangered Species Act (CESA), National Environmental Policy Act (NEPA), California Environmental Quality Act (CEQA), and other applicable local, state, and federal laws and regulation provisions through consultations with the Permitting Agencies and local planning agencies. • Provide site-specific research and ground surveys for proposed development projects. This research must include a detailed inventory of all biological resources onsite, and appropriate mitigation measures for avoiding or reducing impact to these biological resources. This requirement may be waived if determined by the City that the proposed project area is already sufficiently surveyed.	Project Proponent		Prior to discretionary approval of development applications.
RC-P-31	Minimize impact of new development on native vegetation and wildlife.	Manteca Planning		Adoption of General Plan
RC-P-34	Protect special status species and other species that are sensitive to human activities.			
	B-2 Impacts From Loss of Riparian Habitat or Other Sensitive Natural Communities.			
RC-P-32	Condition new development in the vicinity of the San Joaquin River and Walthall Slough to protect riparian habitat, wetlands, and other native vegetation and wildlife community.	Manteca Planning	Manteca Planning	Adoption of General Plan
RC-P-36	Consider the development of new drainage channels planted with native vegetation, which would provide habitat as well as drainage.			
RC-I-32	Continue to support and comply with the requirements of the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) when reviewing proposed public and private land use changes.			

Mitigation Measure		Implementing Responsibility	Monitoring Responsibility	Timing
RC-I-33	Project proponents who opt not to participate in the SJMSCP shall: • Satisfy applicable U.S. Endangered Species Act (ESA), California Endangered Species Act (CESA), National Environmental Policy Act (NEPA), California Environmental Quality Act (CEQA), and other applicable local, state, and federal laws and regulation provisions through consultations with the Permitting Agencies and local planning agencies. • Provide site-specific research and ground surveys for proposed development projects. This research must include a detailed inventory of all biological resources onsite, and appropriate mitigation measures for avoiding or reducing impact to these biological resources. This requirement may be waived if determined by the City that the proposed project area is already sufficiently surveyed.	Project Proponent		Prior to discretionary approval of development applications.
RC-P-31	Minimize impact of new development on native vegetation and wildlife.	Manteca Planning		Adoption of General Plan
RC-P-34	Protect special status species and other species that are sensitive to human activities.			
RC-I-36	Limit the access of pedestrians and cyclists to wetland areas so that access is compatible with long-term protection of these natural resources.	Manteca Planning		Adoption of General Plan
	B-3 Impacts on Federally Protected Wetlands			
RC-I-34	Until such time that a Clean Water Act regional general permit or its equivalent is issued for coverage under the SJMSCP, acquisition of a Section 404 permit by project proponents will continue to occur as required by existing regulations. Project proponents shall comply with all requirements for protecting federally protected wetlands.	Project Proponent	Manteca Planning	Prior to discretionary approval of development applications.
	B-4 Impacts Interfering with Movement of Wildlife			
RC-I-32	Continue to support and comply with the requirements of the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP).	Manteca Planning	Manteca Planning	Adoption of General Plan

Mitigation Measure		Implementing Responsibility	Monitoring Responsibility	Timing
RC-I-33	Project proponents who opt not to participate in the SJMSCP shall: • Satisfy applicable U.S. Endangered Species Act (ESA), California Endangered Species Act (CESA), National Environmental Policy Act (NEPA), California Environmental Quality Act (CEQA), and other applicable local, state, and federal laws and regulation provisions through consultations with the Permitting Agencies and local planning agencies. • Provide site-specific research and ground surveys for proposed development projects. This research must include a detailed inventory of all biological resources onsite, and appropriate mitigation measures for avoiding or reducing impact to these biological resources. This requirement may be waived if determined by the City that the proposed project area is already sufficiently surveyed.	Project Proponent		Prior to discretionary approval of development applications.
	B-5 Cumulative Impacts on Biological Resources			
RC-I-32	Continue to support and comply with the requirements of the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) when reviewing proposed public and private land use changes.	Manteca Planning	Manteca Planning	Adoption of General Plan
RC-I-33	Project proponents who opt not to participate in the SJMSCP shall: • Satisfy applicable U.S. Endangered Species Act (ESA), California Endangered Species Act (CESA), National Environmental Policy Act (NEPA), California Environmental Quality Act (CEQA), and other applicable local, state, and federal laws and regulation provisions through consultations with the Permitting Agencies and local planning agencies. • Provide site-specific research and ground surveys for proposed development projects. This research must include a detailed inventory of all biological resources onsite, and appropriate mitigation measures for avoiding or reducing impact to these biological resources. This requirement may be waived if determined by the City that the proposed project area is already sufficiently surveyed.	Project Proponent		Prior to discretionary approval of development applications.

Mitigation Measure		Implementing Responsibility	Monitoring Responsibility	Timing
7.4 Cultural Resources				
	C-1 Impacts From Substantial Change in Cultural Resources			
RC-P-37	The City shall not knowingly approve any public or private project that may adversely affect an archaeological site without consulting the California Archaeological Inventory at Stanislaus State University, conducting a site evaluation as may be indicated, and attempting to mitigate any adverse impacts according to the recommendation of a qualified archaeologist. City implementation of this policy shall be guided by the California Environmental Quality Act (CEQA) and the National Historic Preservation Act (NHPA).	Project Proponent	Manteca Planning	Prior to discretionary approval of development applications.
RC-P-38	The City shall require that the proponent of any development proposal in an area with potential archaeological resources, and specifically near the San Joaquin River and Walthall Slough, and on the east side of State Highway 99 at the Louise Avenue crossing, shall consult with the California Archeological Inventory, Stanislaus State University to determines the potential for discovery of cultural resources, conduct a site evaluation as may be indicated, and mitigate any adverse impacts according to the recommendation of a qualified archaeologist. The survey and mitigation shall be developer funded.			
RC-P-39	The City shall set as a priority the protections and enhancement of Manteca's historically and architecturally significant buildings.	Manteca Planning		

Mitigation Measure		Implementing Responsibility	Monitoring Responsibility	Timing
RC-P-40	The City shall work with property owners seeking registration of historical structures as Historic Landmarks or listing on the Register of Historic Sites.			
RC-P-41	The City shall prepare and adopt a Historical Preservation Ordinance.			
RC-P-40	The City and Redevelopment Agency shall support the efforts of property owners to preserve and renovate historic and architecturally significant structures. Where such buildings cannot be preserved in tact, the City shall seek to preserve the building facades.			
RC-I-38	Require a records search for any proposed development project, to determine whether the site contains known archaeological, historic, or cultural resources and/or to determine the potential for discovery of additional cultural resources. This requirement may be waived if determined by the City that the proposed project area is already sufficiently surveyed.	Project Proponent		Prior to discretionary approval of development applications.

Mitigation Measure		Implementing Responsibility	Monitoring Responsibility	Timing
RC-I-39	Require that sponsors of proposed development projects on sites where probable cause for discovery of archaeological resources (as indicated by records search and where resources have been discovered in the vicinity of the project) retain a consulting archaeologist to survey the project site. If unique resources, as defined by California State law, are found, a qualified archaeologist or historian shall be called to evaluate the find and to recommend proper action. Require a monitoring plan for the project to ensure that mitigation measures are implemented.			
RC-I-40	When feasible, incorporate significant archaeological sites into open space areas.			
RC-I-41	The City should continue its inventory of all historic sites throughout the City. The inventory should contain a narrative of the significant facts regarding the historic events or persons associated with the site, and pictures of the site.	Manteca Planning		

Mitigation Measure		Implementing Responsibility	Monitoring Responsibility	Timing
RC-I-42	The City shall continue to support the local historical society in their efforts to archive historic information, including photographs, publications, oral histories and other materials. Make the information available to the public for viewing and research.			
RC-I-43	All City permits for reconstruction, modification of existing buildings will require submittal of a photograph of the existing structure or site. The intent is to create a record of the buildings in the City over time. A photograph will also be required for vacant sites that will be modified with new construction of new buildings or other above ground improvements.	Project Proponent		Prior to discretionary approval of development applications.
RC-I-44	Encourage the placement of monuments or plaques that recognize and celebrate historic sites, structures, and events.	Manteca Planning		Adoption of General Plan
RC-I-45	The City shall adopt and implement a historic building code, as authorized by state law.			
	C-2 Impacts to Human Remains			
RC-I-46	If human remains are discovered, California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the county coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code Section 5097.98. If the coroner determines that no investigation of the cause of death is required and if the remains are of Native American origin, the coroner will notify the Native American Heritage Commission, which in turn will inform a most likely descendant. The descendant will then recommend to the landowner appropriate disposition of the remains and any grave goods.	Project Proponent	Manteca Planning	Prior to discretionary approval of development applications.
8.4 Geology, Soils and Seismicity				
	GGS-2 Impacts from Exposure to Ground Shaking, Ground Failure and Landslides			
S-P-1	The City shall require preparation of geological reports and/or geological engineering reports for proposed new development located in areas of suspected significant geological hazards, including potential subsidence (collapsible surface soils) due to groundwater extraction.	Project Proponent	Manteca Planning	Prior to discretionary approval of development applications.

Mitigation Measure		Implementing Responsibility	Monitoring Responsibility	Timing
S-P-2	The City shall require new development to mitigate the potential impacts of geologic hazards through Building Plan review.		Manteca Building Department	Prior to building permit.
S-P-3	The City shall require new development to mitigate the potential impacts of seismic induced settlement of uncompacted fill and liquefaction (water-saturated soil) due to the presence of a high water table.			
S-P-4	The City shall maintain an listing of pre-1940 unreinforced masonry buildings within the city. No change in use to a higher occupancy or more intensive use shall be approved in such structures until an engineering evaluation of the structure has been conducted and any structural deficiencies corrected. The Redevelopment Agency shall be encouraged to assist property owners in reinforcing buildings.	Manteca Public Works	Manteca Public Works and Manteca Planning	Prior to discretionary approval of development applications.
S-P-5	The City shall ensure that all public facilities, such as buildings, water tanks, and reservoirs, are structurally sound and able to withstand seismic shaking and the effects of seismically induced ground failure.	Manteca Public Works	Manteca Public Works	Adoption of General Plan
S-P-6	The City shall comply with the California State seismic and building standards in the design and siting of critical facilities, including police and fire stations, school facilities, hospitals, hazardous materials manufacturing and storage facilities, and large public assembly halls.	Manteca Building Department	Manteca Building Department	
SG-I-1	All new development shall comply with the current Uniform Building Code (UBC) requirements for Seismic Zone 3, which stipulates building structural material and reinforcement.	Project Proponent		Prior to building permit.
SG-I-2	All new development shall comply with California Health and Safety Code Section 19100 et seq. (Earthquake Protection Law), which requires that buildings be designed to resist stresses produced by natural forces caused earthquakes and wind.			
SG-I-3	The City shall inventory potentially hazardous buildings within the City and adopt a mitigation program, including requirements for strengthening buildings, changing the use of the buildings to an acceptable occupancy level, or demolishing the buildings.	Manteca Building Department	Manteca Bulding Department and Manteca Planning	Adoption of General Plan
	GSS-3 Impacts From Substantial Soil Erosion			

Mitigation Measure		Implementing Responsibility	Monitoring Responsibility	Timing
RC-P-9	The City shall adopt and enforce land management standards that minimize soil erosion and loss of topsoil from land development activities, wind, and water flow.	Manteca Planning	Manteca Planning	Adoption of General Plan
RC-I-16	All new development shall comply with the Uniform Building Code (UBC) requirements for specific site development and construction standards for specific soils types.	Project Proponent	Manteca Building Department	Prior to building permit.
RC-I-17	All new development shall comply with the Uniform Building Code (UBC), Chapter 70, regulating grading activities including drainage and erosion control.			
RC-I-18	Require site-specific land management and development practices for proposed development projects, including appropriate mitigation measures for avoiding or reducing erosion.		Manteca Planning	

Mitigation Measure		Implementing Responsibility	Monitoring Responsibility	Timing
	GSS-4 Impact From Exposure to Expansive Soils			
S-P-1	The City shall require preparation of geological reports and/or geological engineering reports for proposed new development located in areas of suspected significant geological hazards, including potential subsidence (collapsible surface soils) due to groundwater extraction.	Project Proponent	Manteca Building Department	Prior to building permit.
S-P-2	The City shall require new development to mitigate the potential impacts of geologic hazards through Building Plan review.			
RC-I-16	All new development shall comply with the Uniform Building Code (UBC) requirements for specific site development and construction standards for specific soils types.			
9.4 Hazardous Materials				
	HM-1 Impacts From Exposure to Hazardous Materials			
S-P-15	The City shall maintain an awareness of hazardous materials throughout the Manteca region.	Manteca Fire Department	Manteca Fire Department	Adoption of General Plan
S-I-9	The City shall require businesses that manufacture, store, use, or transport significant quantities of hazardous materials to identify annually such materials and their quantities.			
S-I-10	The City shall require the submittal of lists of hazardous materials used in existing and proposed industrial and commercial businesses within the City of Manteca. The list shall be maintained through the Manteca Fire Department and updated through periodic review.			
	HM-2 Impacts From Exposure to Accidental Release of Hazardous Materials			
S-P-17	Within its authority, the City shall regulate the production, use, storage, and transport of hazardous materials to protect the health of Manteca residents.	Manteca Fire Department	Manteca Fire Department	Adoption of General Plan
S-I-11	Work with San Joaquin County and other public agencies to inform consumers about household use and disposal of hazardous materials.			
S-I-12	Cooperate fully with Union Pacific Railroad and other public agencies, such as the CHP, in the event of a hazardous material emergency.			

Mitigation Measure		Implementing Responsibility	Monitoring Responsibility	Timing
AQ-I-3	Cooperate with San Joaquin County Environmental Health Department in identifying hazardous material users and in developing a hazardous materials management plan.			
	HM-3 Impacts From Emissions Within 1/4 Mile of a School			
S-P-16	City approvals of all new development shall consider the potential for the production, use, storage, and transport of hazardous materials and provide for reasonable controls on such hazardous materials	Project Proponent	Manteca Fire Department	Adoption of General Plan
	HM-5 Impacts From Interference with Emergency Response of Evacuation			
S-P-18	The City shall maintain and periodically update the City Emergency Plan.	Manteca Fire Department	Manteca Fire Department	Adoption of General Plan
S-I-14	The City shall conduct periodic emergency response exercises to test the effectiveness of City emergency response procedures.			
S-I-15	The City shall review County and state emergency response procedures that must be coordinated with City procedures.			
10.4 Hydrology and Water Quality				
	HWQ-1 Impacts from Violation of Water Quality Standards or Waste Discharge Requirements			
RC-I-24	Comply with the Regional Water Control Board's regulations and standards to maintain and improve groundwater and surface water quality in Manteca.	Manteca Public Works	Manteca Public Works	Adoption of General Plan
	HWQ-2 Impacts from Depletion of Groundwater Supplies Recharge.			
RC-P-1	The City shall continue to implement water conservation standards for all commercial and industrial development, and for all existing and new residential development.	Manteca Public Works	Manteca Public Works	Adoption of General Plan
RC-P-2	The City shall explore potential uses of treated wastewater when such opportunities become available.			

Mitigation Measure		Implementing Responsibility	Monitoring Responsibility	Timing
RC-P-4	The City shall require water conservation in both City operations and private development to minimize the need for the development of new water sources.	Project Proponent	Manteca Public Works	Prior to discretionary approval of development applications.
RC-I-1	Continue to implement standards for water conserving landscape practices, including the use of drought tolerant plants, for both public and private projects.		Manteca Planning and Public Works	Prior to building permit.
RC-I-2	Continue efforts to increase public participation in water conservation.	Manteca Public Works	Manteca Public Works	Adoption of General Plan
RC-I-3	Require large commercial and industrial water users to submit a use and conservation plan as part of the project entitlement review and approval process, and develop a program to monitor compliance with and effectiveness of that plan.			Prior to building permit.
RC-I-4	Cooperate with other agencies and jurisdictions to expand water conservation programs, and to develop methods of water reuse.			Adoption of General Plan
RC-I-5	Actively pursue the use of treated wastewater in irrigation and industrial applications, including development of appropriate infrastructure.			
RC-P-13	Protect the quality of Manteca's groundwater.			
RC-P-14	Encourage participation of the County and surrounding communities in a basin-wide groundwater management study.			
RC-I-19	The City shall work with the County and surrounding communities to develop an action plan and/or to create an agency to manage and protect local and regional groundwater resources.			
RC-I-20	The City shall not approve new industrial or commercial development that has a significant potential for adversely affecting water quality in the San Joaquin River or in the area's groundwater basin.			
	HWQ-3 Impacts from Altering Existing Drainage Pattern, or Increasing Rate of Runoff.			
S-I-6	Discourage large continuous paved areas unless provided with engineered drainage facilities.	Project Proponent	Manteca Planning and Public Works	Prior to Building Permit

Mitigation Measure		Implementing Responsibility	Monitoring Responsibility	Timing
S-I-7	Where feasible, require the use of pervious paving materials, such as brick or stepping stones with sand joints.			
S-I-8	New development shall be required to maintain natural stream courses and adjacent habitat and combine flood control, recreation, water quality, and open space functions.			
	HWQ-4 Impacts from Impervious Services that would Contain Urban Contaminants.			
RC-P-12	Minimize pollution of waterways and other surface water bodies from urban runoff.	Project Proponent	Manteca Planning and Public Works	Prior to Building Permit
RC-I-22	Maintain a buffer area between waterways and urban development to protect water quality and riparian areas.			
RC-I-23	Utilize cost-effective urban runoff controls, including Best Management Practices (BMPs), to limit urban pollutants from entering the water courses.			
	HWQ-5 Impacts from Exposure to Flood Hazards of San Joaquin River 100-Year Floodplain.			
S-P-7	Regulate all uses and development in areas subject to potential flooding through zoning and other land use regulations.	Manteca Planning	Manteca Planning	Adoption of General Plan
S-P-8	Cooperate with other agencies in the pursuit of a regional approach to flood issues.	Manteca Public Works	Manteca Planning and Public Works	
S-P-9	Combine flood control, recreation, water quality, and open space functions where feasible.	Manteca Planning	Manteca Planning	Prior to discretionary approval of development applications.
S-P-10	Ensure that any existing structures subject to the 100-year flood provide adequate protection from flood hazards.			
S-P-11	Ensure that the impacts of potential flooding are adequately analyzed when considering areas for future urban expansion.			
S-P-12	New residential development, including mobile homes, shall be constructed so that the lowest floor is at least one foot above the 100-year flood level.	Project Proponent	Manteca Building Department and Manteca Planning	Prior to Building Permit

Mitigation Measure		Implementing Responsibility	Monitoring Responsibility	Timing
S-P-13	Non-residential development shall be anchored and flood-proofed in accord with the Federal Emergency Management Agency (FEMA) standards to prevent damage or causing damage due to a 100-year flood or, alternatively, elevated to at least one foot above the 100-year flood level. When improvements to existing development are made costing at least 50 percent of the current market value of the structure before improvements, the structure shall be brought into compliance with FEMA standards.			
S-I-4	The City shall continue to participate in the National Flood Insurance Program. To this end, the City shall ensure that local regulations are in full compliance with standards adopted by the Federal Emergency Management Agency (FEMA).	Manteca Public Works	Manteca Public Works	Adoption of General Plan
S-I-5	Provide flood warning and forecasting information to City residents. The City shall adopt and implement local flood management development standards.		Manteca Public Works and Manteca Planning	
12.4 Noise				
	N-1 Impacts From Exposure From Noise Exceeding Established Standards			
N-P-2	New development of residential or other noise-sensitive land uses will not be permitted in noise-impacted areas unless effective mitigation measures are incorporated into the project design to satisfy the performance standards in Table 9-1.	Manteca Planning	Manteca Planning	Prior to Building Permit
N-P-3	The City may permit the development of new noise-sensitive uses only where the noise level due to fixed (non-transportation) noise sources satisfies the noise level standards of Table 9-2.			Prior to discretionary approval of development applications.
N-P-4	The City shall require stationary noise sources proposed adjacent to noise sensitive uses to be mitigated so as to not exceed the noise level performance standards in Table 9-2.	Project Proponent		
N-P-6	Where the development of residential or other noise-sensitive land use is proposed for a noise-impacted area, an acoustical analysis is required as part of the environmental review process so that noise mitigation may be considered in the project design. The acoustical analysis shall:			

Mitigation Measure		Implementing Responsibility	Monitoring Responsibility	Timing
	• The cost of the study shall be the responsibility of the applicant.			
	• Be prepared by a qualified acoustical consultant experienced in the fields of environmental noise assessment and architectural acoustics.			
	• Include representative noise level measurements with sufficient sampling periods and locations to adequately describe local conditions and the predominant noise sources.			
	• Estimate existing and projected (20 years) noise levels in terms of the standards of Table 9-1 or Table 9-2, and compare those levels to the adopted policies of the Noise Element.			
	• Recommend appropriate mitigation measures to achieve compliance with the adopted policies and standards of the Noise Element.			
	• Estimate noise exposure after the prescribed mitigation measures have been implemented.			
	• Describe a post-project assessment program that could be used to monitor the effectiveness of the proposed mitigation measures.			
N-P-8	The City shall enforce the Sound Transmission Control Standards of the California Building Code concerning the construction of new multiple occupancy dwellings such as hotels, apartments, and condominiums.		Manteca Planning and Building Department	Prior to Building Permit
N-P-10	The Manteca Police Department shall actively enforce requirements of the California Vehicle Code relating to vehicle mufflers and modified exhaust systems.	Manteca Police	Manteca Police	Adoption of General Plan
	N-2 Impacts From Construction Noise			
N-P-5	In accord with Table 9-2 standards the City shall regulate construction-related noise impacts on adjacent uses.	Project Proponent	Manteca Planning and Public Works	Adoption of General Plan
	N-3 Impacts From Future Roadway Traffic Noise			

Mitigation Measure		Implementing Responsibility	Monitoring Responsibility	Timing
N-P-11	For residential development backing on to a freeway or railroad right-of-way, the developer shall be required to build a sound barrier wall, and provide for other appropriate mitigation measures, to satisfy the performance standards in Table 9-1.	Project Proponent	Manteca Planning	Prior to discretionary approval of development applications.
N-P-12	The City shall require new roadways to be mitigated so as to not exceed the noise levels specified in Table 9-1. Widening or other improvement projects of existing roadways shall be mitigated to the most practical extent.			
	N-4 Impacts From Railroad Noise			
N-I-8	Work in cooperation with Caltrans and the Union Pacific Railroad to maintain noise level standards for both new and existing projects in compliance with Table 9-1.	Manteca Planning	Manteca Planning	Adoption of General Plan
	N-5 Impacts From Future Industrial, Commercial, Emergency and Outdoor Activity Noise			
N-P-2	New development of residential or other noise-sensitive land uses will not be permitted in noise-impacted areas unless effective mitigation measures are incorporated into the project design to satisfy the performance standards in Table 9-1.	Project Proponent	Manteca Planning	Prior to Building Permit
N-P-4	The City shall require stationary noise sources proposed adjacent to noise sensitive uses to be mitigated so as to not exceed the noise level performance standards in Table 9-2.			Prior to discretionary approval of development applications.
N-P-7	Noise level criteria applied to land uses other than residential or other noise-sensitive uses shall be consistent with noise performance levels of Table 9-1 and Table 9-2.	Manteca Planning		Adoption of General Plan
N-P-13	The City shall carefully review and shall give potentially affected residents an opportunity to fully review any proposals for the establishment of helipads or heliports.			
N-I-1	New development in residential areas with an actual or projected exterior noise level of greater than 60 dB Ldn will be conditioned to use mitigation measures to reduce exterior noise levels to less than or equal to 60 dB Ldn	Project Proponent		Prior to discretionary approval of development applications.

Mitigation Measure		Implementing Responsibility	Monitoring Responsibility	Timing
N-I-14	Control noise at the source through use of insulation, berms, building design and orientation, buffer space, staggered operating hours and other techniques. Use insulation, berms, building design and orientation, buffer space, noise barriers, and other techniques to attenuate noise to acceptable levels.			
13.4 Population and Housing				
	H-2 Impacts From Existing Jobs/Housing Imbalance			
LU-P-1	The City shall promote, cooperate in, and assist in the maintenance and expansion of Manteca's industrial sector employment development within the City of Manteca and in the south San Joaquin County area that will help reduce the home-to-work commute distance for Manteca residents.	Manteca Planning	Manteca Planning	Adoption of General Plan
LU-P-2	New employment centers may include office, business-professional, research and development, and light industrial or industrial development and shall be located in areas served by full City services or served by suitable facilities approved by the City. Employment centers should be located along major arterials with easy freeway access and with access from public transit, and accessible to bicyclists and pedestrians.			
LU-P-3	The City shall continue to support full development of its existing industrial park.			
LU-P-4	The City shall promote the development of "clean" industries that do not create problems or pose health risks associated with water and air pollution or potential leaks or spills. However, the City will designate appropriate locations that accommodate light industrial and heavy industrial uses.			
LU-P-5	Redevelopment incentives shall be used judiciously to promote industrial employment development in approved Project Areas and for projects benefiting approved Project Areas.			
LU-P-6	The City shall monitor employment development to maintain the balance of residential, commercial, and industrial development.			

Mitigation Measure		Implementing Responsibility	Monitoring Responsibility	Timing
LU-P-7	The City shall promote and plan for at least one Primary Employment Center to accommodate a variety of employment opportunities compatible with the employment skills of the Manteca resident labor force.			
	LU-5 Impacts From Proximity to the Stockton Airport			
LU-P-51	New residential land uses (developments with no less than 5 units) within the Stockton Metro Airport Area of Influence must have an avigation easement recorded in favor of the airport. The Deed of Avigation and Hazard Easement must be filed with the County Recorder prior to development construction.	Manteca Planning	Manteca Planning	Adoption of General Plan
	Occupied structures must be soundproofed to reduce interior noise to 45 dB.			
	Reflective materials are not permitted to be used in structures or signs to avoid distracting pilots.			
	All proposed acquisitions of property within a 2 mile radius of an airport runway for the purpose of constructing a school requires a review and approval by the State Department of Transportation, Division of Aeronautics.			
	No transmission which would interfere with aircraft communications or navigation are permitted. Power lines must be under grounded if necessary to prevent hazard to aircraft.			
LU-P-52	The City of Manteca shall refer all applications for development within the Stockton Metro Airport Area of Influence to the Airport Land Use Commission, and the Stockton Metro Airport.			
	LU-6 Impacts From Future Urbanization Adjacent to Ripon			
LU-P-54	The City of Manteca shall cooperate with City of Ripon in implementing the principle points of the Memorandum of Understanding regarding future land use and public services and facilities in the area between the two cities.	Manteca Planning	Manteca Planning	Adoption of General Plan
14.13 Public Facilities and Services				

Mitigation Measure		Implementing Responsibility	Monitoring Responsibility	Timing
	PFS-1 Impacts From Domestic Water Demand			
PF-P-4	Secure sufficient sources of water to meet the needs of the existing community and planned residential and commercial growth.	Manteca Public Works	Manteca Public Works	Adoption of General Plan
PF-P-5	The City will continue to rely principally on groundwater resources for its municipal water in the near term, but will participate in the regional improvements to deliver surface water to augment the City's groundwater supply.			
PF-P-6	The City shall develop new water sources as necessary to serve new development.			
PF-P-7	The City shall develop new water storage and major distribution lines as necessary to serve new development.			
PF-P-9	City water services shall not be extended to unincorporated areas except in extraordinary circumstances. Existing commitments for City water service outside the City limits shall continue to be honored.			
PF-P-11	The City will develop and implement water conservation measures as necessary elements of the water system.			
PF-I-2	The City shall update the Public Facilities Implementation Plan (PFIP) regarding water supply and distribution, every five years. The update shall be reviewed annually for adequacy and consistency with the General Plan.			
PF-I-3	The City shall require, as a condition of project approval, dedication of land and easements, or payment of appropriate fees and exactions, to help offset municipal costs of expansion of water treatment facilities and delivery systems.	Project Proponent	Manteca Planning	Prior to discretionary approval of development applications.
PF-I-7	The City will encourage the use of recycled water for landscape irrigation where feasible, within the parameters of State and County Health Code and standards.		Manteca Public Works	
PF-P-16	The City of Manteca shall include a groundwater analysis as a technical analysis of water system capacity in the update of the Public Facilities Implementation Plan (PFIP), and shall prepare an environmental analysis in the PFIP that addresses the quality and availability of groundwater.			

Mitigation Measure		Implementing Responsibility	Monitoring Responsibility	Timing
PF-P-17	The City of Manteca shall consider incremental increases in the demands on a groundwater supply and water quality when reviewing development applications.			
	PFS-2 Impacts From Wastewater or Sewer Treatment Increase			
PF-P-18	Ensure wastewater collection and treatment for all development in the City and the safe disposal of wastes.	Manteca Public Works	Manteca Public Works	Adoption of General Plan
PF-P-19	The City will maintain capacity to process combined residential, commercial, and industrial flow.			
PF-P-20	The City shall develop new sewage treatment and trunk line capacity as necessary to serve new development.			
PF-P-21	City sewer services will not be extended to unincorporated areas, except in extraordinary circumstances. Existing City commitments for sewer service outside the City limits shall continue to be honored.			
PF-P-25	The City will maintain the ability to handle peak discharge flow while meeting State Regional Water Quality Control Board Standards as established in the current NPDES Permit.			
PF-I-8	The City shall update the Public Facilities Implementation Plan (PFIP) regarding wastewater collection and treatment, every five years. The update shall be reviewed annually for adequacy and consistency with the General Plan.			
PF-I-10	The City will encourage and permit an industrial pretreatment program for business parks and other industrial uses in accordance with state and federal requirements.			
PF-I-12	The City will promote reduced wastewater system demand through efficient water use by:			
	• requiring water conserving design and equipment in new construction;			
	• encouraging retrofitting with water conserving devices;			
	• designing wastewater systems to minimize inflow and infiltration to the extent economically feasible; and			
	• maintaining a Citywide map of all sewer collection system components and monitoring the condition of the system on a regular basis			
	PFS-3 Impacts From Demands for Increased Stormwater Drainage			

Mitigation Measure		Implementing Responsibility	Monitoring Responsibility	Timing
PF-P-26	The City shall continue to complete gaps in the drainage system in areas of existing development.	Manteca Public Works	Manteca Public Works	Adoption of General Plan
PF-P-27	The City shall require the dedication and improvement of drainage detention basins as a condition of development approval according to the standards of the Drainage Master Plan. The responsibility for the dedication and improvement of detention basins shall be based on the prorated share of stormwater runoff resulting from each development.	Project Proponent		Prior to discretionary approval of development applications.
PF-P-28	Storm drainage systems within new development areas shall include open drainage corridors where feasible to supplement or replace an underground piped drainage system. The drainage systems would provide for short-term stormwater detention, stormwater conveyance for stormwaters exceeding a 10-year event, stormwater quality treatment, bike and pedestrian paths, and visual open space within neighborhoods.			
PF-I-13	The City shall update the Storm Drainage Master Plan and Public Facilities Implementation Plan (PFIP), regarding storm water drainage, every five years. The update shall be reviewed annually for adequacy and consistency with the General Plan.	Manteca Public Works		Adoption of General Plan
	PFS-4 Impacts From Increased Demand for Solid Waste Services			
P-F-P-32	The City shall support the continued use of the Lovelace Transfer Station on Lovelace Road, between Union Road and Airport Way, for the processing and shipping of solid waste materials.	Manteca Planning	Manteca Planning	Adoption of General Plan
	PFS-5 Impacts From Non-compliance with Regulations Regarding Solid Waste			
PF-P-31	The City will implement and enforce the provisions of its Source Reduction and Recycling Element.	Manteca Public Works	Manteca Public Works	Adoption of General Plan
	PFS-6 Impacts From Increased City Services			
PF-P-37	The City shall endeavor through adequate staffing and patrol arrangements to maintain the minimum feasible police response times for police calls.	Manteca Police	Manteca Police	Adoption of General Plan
PF-P-38	The City shall provide police services to serve the existing and projected population.			
PF-P-39	The City will establish the criteria for determining the circumstances under which police service will be enhanced.			

Mitigation Measure		Implementing Responsibility	Monitoring Responsibility	Timing
PF-I-22	The Police Department shall continuously monitor response times and report annually on the results of the monitoring.			
PF-I-23	The Planning Commission and City Engineer will review proposed residential developments to evaluate the accessibility for police patrols and emergency response.	Project Proponent	Manteca Planning	Prior to discretionary approval of development applications.
PF-P-40	The City shall endeavor to maintain an overall fire insurance (ISO) rating of 4 or better.	Manteca Fire	Manteca Fire	Adoption of General Plan
PF-P-41	The City shall endeavor through adequate staffing and station locations to maintain the minimum feasible response time for fire and emergency calls.			
PF-P-45	The City shall establish the criteria for determining the circumstances under which fire service will be enhanced.			
PF-I-24	The Fire Department shall continuously monitor response times and report annually on the results of the monitoring.			
PF-I-25	The Planning Commission and City Engineer will review proposed residential developments to evaluate the accessibility for fire engines and emergency response.	Manteca Planning, Manteca Public Works,and Manteca Fire	Manteca Planning and Manteca PublicWords	
PF-P-32	The City shall cooperate with the Manteca Unified School District and others in locating and reserving appropriate sites for new neighborhood walking distance schools. Adequate facilities shall be planned to accommodate new residential development and endeavor to create neighborhood schools.	Manteca Planning	Manteca Planning	
PF-P-34	The City shall cooperate with the Manteca Unified School District in their collection of school facility development fees from new development.			
PF-P-35	Financing of new school facilities will be planned concurrent with new development.			

Mitigation Measure		Implementing Responsibility	Monitoring Responsibility	Timing
PF-P-36	The City and Manteca Unified School District will work together to develop criteria for the designation of school sites and consider opportunities for reducing the cost of land for school facilities. The City will encourage the school district to comply with City standards in the design and landscaping of school facilities.			
PF-P-37	The City will consider opportunities for joint-use of facilities the school district. When feasible, a joint-use agreement will be pursued to maximize public use of facilities, minimizing duplication of services provided, and facilitate shared financial and operational responsibilities.			
PF-P-38	Schools must be located away from hazards of sensitive resource conservation areas, except where the proximity of resources may be of educational value and the protection of resources is reasonably assured.			
PF-I-18	The City will maintain an inventory of all public lands to identify opportunities for joint-use facilities.			
PF-I-19	The City shall cooperate with the Manteca Unified School District to select a suitable location for a high school south of SR-120.			
PF-I-20	The City will request an annual meeting with the Administrator and the Board of Trustees of the Manteca Unified School District to review development issues and opportunities for cooperation between the school district and the City.	Manteca Administrator	Manteca Administrator	
PF-I-21	The City will encourage the expansion of higher education program offerings and opportunities in Manteca.	Manteca Planning	Manteca Planning	
PF-P-46	The City shall expand the community and neighborhood park system with the goal of providing neighborhood park facilities within reasonable walking distance of all City residential areas.			
PF-P-47	The City shall use joint development of park and drainage detention basins in the development of neighborhood parks.	Project Proponent	Manteca Parks and Manteca Planning	Prior to discretionary approval of development applications.

Mitigation Measure		Implementing Responsibility	Monitoring Responsibility	Timing
PF-P-48	The City shall cooperate with the Manteca Unified School District in opportunities for joint-use of school and park and recreation facilities.	Manteca Parks and Manteca Planning		Adoption of General Plan
PF-P-49	City park acquisition efforts shall be based on a goal of 5 acres of developed neighborhood and community parkland per 1,000 residents within the City limits.			Prior to discretionary approval of development applications.
PF-P-50	Neighborhood parks shall conform to the following general guidelines (specific detail and standards to be determined within the Parks and Recreation Master Plan):			
	• The typical minimum size shall be set to support active and passive recreation activities.			
	• The typical service areas for a neighborhood park is approximately ¼ mile walking distance.			
	• Neighborhood parks shall include a turf area above the basin flood line of sufficient area to be used for playgrounds, sports, picnic areas, and other recreational facilities.			
PF-P-51	The City shall aggressively pursue State and County funding to supplement City revenues to the extent such funding is available.			Adoption of General Plan
PF-P-52	The City shall endeavor to identify, acquire, and develop one or more community parks as defined in the Parks and Recreation Master Plan.			
PF-P-53	All new residential development will be required to pay a park acquisition and improvement fee, based on providing 5 acres per 1,000 residents, to fund system-wide improvements.	Project Proponent		Prior to discretionary approval of development applications.
PF-P-54	The City shall require the provision of private open space and recreational facilities as part of new residential developments.			
PF-P-55	The City shall not discourage the expansion of private commercial recreational facilities.	Manteca Parks and Manteca Planning		
PF-P-56	The City shall develop a convenient system of pedestrian sidewalks and pathways linking City parks, major open space areas, and the downtown core.	Project Proponent	Manteca Planning	

Mitigation Measure		Implementing Responsibility	Monitoring Responsibility	Timing
PF-P-579	The City shall adopt a Bicycle Route Master Plan and develop a bicycle route system linking open space areas, schools, public facilities, the downtown core, and neighborhoods.	Manteca Public Works	Manteca Public Works	Adoption of General Plan
PF-I-26	The City shall adopt a Parks and Recreation Master Plan, setting out goals, policies, and standards for the location, size, and level of development of all existing and proposed parks. The Plan will establish specific development criteria for the use of neighborhood and community parks. The master plan shall cover at least the succeeding 10-year period, with greater detail devoted to improvements planned for the first five-year period.	Manteca Parks	Manteca Parks	
PF-I-27	The City shall periodically review projected park development needs and plans, update cost estimates for park acquisition and development, and remaining development potential based on the General Plan.			
	PFS-7 Impacts From Expanded Energy Sources and Infrastructure			
PF-P-30	Cooperate with and encourage efforts to expand the opportunities for electric power service in the City.	Manteca Public Works	Manteca Public Works	Adoption of General Plan
PF-I-14	The City will consider participating on generating and/or distributing electric service within the City.			
PF-I-15	The City will support energy conservation measures and innovative uses of solar energy, heat recovery, and co-generation in all structural and industrial processes.			
PF-I-16	The City will confer with utility companies regarding major development plans and cooperate with planning extension of utilities.			
RC-I-6	The City shall implement development standards which promote energy conservation and the use of solar energy techniques for heating and cooling, including building orientation, street and lot layout, landscape placement, and protection of solar access.	Project Proponent	Manteca Planning	
RC-I-8	The City shall enforce Title 24 energy requirements (Building Code) which define construction standards that promote energy conservation.		Manteca Building Department	Prior to Building Permit
RC-P-9	The City shall support use of alternative energy sources in new commercial, industrial and residential development.		Manteca Planning	

Mitigation Measure		Implementing Responsibility	Monitoring Responsibility	Timing
RC-I-10	Encourage large energy users to use an energy conservation plan as part of the project review and approval process, and develop a program to monitor compliance with and effectiveness of that plan.			Prior to discretionary approval of development applications.
RC-I-11	Cooperate with other agencies and jurisdictions to expand energy conservation programs.	Manteca Planning		Adoption of General Plan
15.8 Traffic and Circulation				
	TC-1 Impacts From Exceeding LOS Standards For Roadways			
C-P-1	The City shall strive to attain the highest possible traffic levels of service (LOS) consistent with the financial resources available and the limits of technical feasibility. The impact of new development and land use proposals on LOS should be considered in the review process.	Project Proponent	Manteca Planning/ Manteca Public Works	Prior to discretionary approval of development applications.
C-P-2	Manteca's target for transportation LOS is to provide **("citywide average" removed)** LOS of C or better, and a minimum of LOS D at any individual location. LOS C, LOS D and the other Level of Service ratings as defined in current traffic engineering standards. This "LOS C average, LOS D minimum" shall be accomplished by attempting to provide LOS C at all locations, but accepting LOS D under the following circumstances:	Manteca Planning/ Manteca Public Works		Adoption of General Plan
	▪ Where constructing facilities with enough capacity to provide LOS C is found to be unreasonably expensive. This applies to facilities, for example, on which it would cost significantly more per dwelling unit equivalent (DUE) to provide LOS C than to provide LOS D.			
	▪ Where it is difficult or impossible to maintain LOS C because surrounding facilities in other jurisdictions operate at LOS D or worse.			
	▪ Where free-flowing roadways or interchange ramps would discourage use of alternate travel modes.			
	▪ Where maintaining LOS C will be a disincentive to use of existing alternative modes or to the implementation of new transportation modes that would reduce vehicle travel.			
	TC-2 Impacts From Exceeding LOS Standards For Intersections			
TC-2.1	The General Plan 2023 Circulation Element policies (P) listed above in Potential Impact TC-1 address LOS standards, which also apply to local intersections	Manteca Public Works	Manteca Public Works	Adoption of General Plan

Mitigation Measure		Implementing Responsibility	Monitoring Responsibility	Timing
TC-2.2	Improvements to the impacted intersections can allow LOS D operations or better.			
	These specific improvements include:			
	▪ Adding dual-left turn lanes on Lathrop Road at Airport Way / Lathrop Road			
	▪ Adding dual-left turn lanes on Louise Avenue at Main Street / Louise Avenue			
	▪ Adding dual-left turn lanes on Union Road and Yosemite Avenue at Union Road / Yosemite Avenue			
	▪ Adding dual-left turn lanes and dual right-turn lanes on Louise Avenue at Airport Way / Louise Avenue			
	▪ Adding dual-left turn lanes on Atherton at Airport Way / Atherton Road			
	▪ Adding dual-left turn lanes on Union Road and Atherton Road at Union Road / Atherton			
	▪ Adding dual-left turn lanes on Atherton at Main Street / Atherton Road			
	▪ Adding dual-left turn lanes on Woodward Avenue at Airport Way / Woodward Avenue			
	▪ Adding dual-left turn lanes on Woodward Avenue at Main Street / Woodward Avenue			
	TC-3 Impacts From Exceeding SJCOG Standards for Regional Roadways.			
C-I-15	The City shall establish a requirement for a transportation demand management program in any business park, industrial or commercial land use that employs more than 50 full time equivalent employees.	Project Proponent	Manteca Public Works	Prior to discretionary approval of development applications.
C-P-49	The City shall encourage the use of local transportation services, such as jitneys, local shuttles and commuter buses.	Manteca Public Works		Adoption of General Plan
C-P-52	The City shall promote the development of park-and-ride facilities near I-5, SR 120, and SR 99.			

Mitigation Measure		Implementing Responsibility	Monitoring Responsibility	Timing
C-P-33	The City shall establish a safe and convenient network of identified bicycle routes connecting residential areas with recreation, shopping, and employment areas within the city. By establishing this network, the City of Manteca is encouraging bicycle use in the City. This policy is currently being implemented through -the City's Bicycle Master Plan.	Project Proponent		Prior to discretionary approval of development applications.
C-P-55	The City of Manteca shall cooperate with City of Ripon in identifying a suitable location for an interchange at Highway 99 connecting to major roads in Ripon and Manteca.	Manteca Public Works		Adoption of General Plan

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Appendix C:
Air Quality Supporting Information

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Appendix B: Air Quality Supporting Information

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Manteca Marketplace @ Main Project CalEEMod Notes

Note 1. Land uses and sizes associated with development of the proposed project are drawn from correspondence with the Project Applicant, as well as the following site plans:

- API ARCHITECTURE PLUS INC., dated 1-31-22

The 10.5 acres of development is modeled with the following land uses:

Recreational > Fast Food Restaurant with Drive Thru > 9 x 1000sqft = Proposed 3 fast food restaurants

Retail > Automobile Care Center > 3.6 x 1000sqft = Proposed car wash structure

Retail > Hardware/Paint Store > 38 x 1000sqft = Proposed hardware store

Retail > Strip Mall > 12.5 x 1000sqft = Proposed retail shops

Retail > Supermarket > 50.07 x 1000sqft = Proposed grocery store

Recreational > City Park > 2.29 acres = Landscaping for project

Parking > Parking Lot > 244 x 1000sqft = Balance of site

Offsite development proposed to be included as part of the construction of the project includes sidewalks and road frontage improvements, meridian landscaping, and the expansion of a detention basin at Terra Bella Park. These land uses are represented in the model as follows:

Recreational > City Park > 0.21 acres = Offsite landscaping

Recreational > City Park > 4.37 acres = Expansion of Offsite Detention Basin (worst case assumption based on acreage of entire existing basin to ensure conservative modeling, disturbed area may be significantly less)

Parking > Other Non-asphalt surfaces > 0.07 acres = Offsite trenching/grading for drainage from project site to proposed detention basin

Parking > Parking Lot > 19.97 x 1000sqft = Offsite road frontage paving

Parking > Other Non-asphalt surfaces > 6.06 x 1000sqft = Offsite sidewalks

Existing land use at the project site includes a single-family house of 3,100 square feet.

Note 2. According to information provided by the Project Applicant, construction of the project is anticipated to start in June 2022. CalEEMod default construction activity dates were adjusted to reflect this information. CalEEMod defaults were used for the construction phase durations and equipment list.

SJAPCD Rule 4601 was included as part of both construction and operational “unmitigated” models to limit architectural coating to 50g/L.

Note 3. According to information provided by the Project Applicant, approximately 20,000 cubic yards (CY) of material would be imported to the project site, and approximately 16,000 CY of material would be exported.

Note 4. Kittelson & Associates, Inc. produced a Transportation Impact Analysis (TIA) for the proposed project, dated March 16, 2022, that analyzes the trip generation rates for the proposed project. As contained therein, the project would generate an estimated 13,585 net new project trips. The vehicle trips generated by the proposed project were adjusted in the operational models to match the estimated daily vehicle trips disclosed in the TIA. The CalEEMod fleet mix defaults were maintained in the model.

Note 5. San Joaquin Valley Air Pollution Control District (SJVAPCD) *Regulation VIII (Fugitive PM_{10} Prohibition)* was applied to the model, which the project is required to comply with, and which is also required under the General Plan FEIR MM AQ-I-4. To represent this in the modeling, the model was adjusted to include watering of exposed areas at minimum twice per day and limiting construction vehicle speeds to 15 miles per hour on unpaved roads.

Note 6. During the proposed project operational models for Business As Usual modeling, and for the model for 2030 operational models, all construction emission sources were reduced to zero to separate modeled construction and operational emission results. Only emissions from the proposed project site, and not from the off-site project improvements proposed at Terra Bella Park, were included in the operational models.

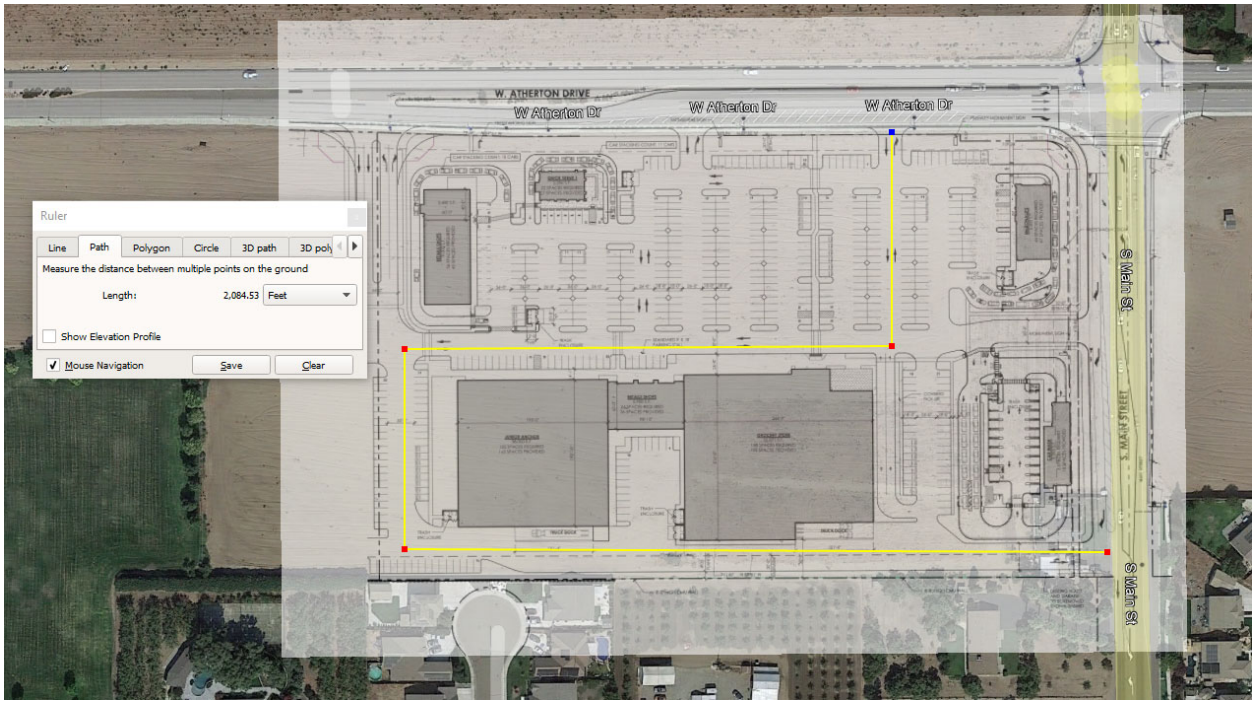
Note 7. For the 2030 operational models, construction emission factors, such as off-road equipment, dust from Material Movement, Demolition, Trips and VMT related to construction are reduced to zero to isolate 2030 operational output results.

Note 8. For the 2030 operational models, PG&E's 2030 CO_2 intensity factor is derived from an assumed 2030 power mix based on equal proportions of generation sources in 2019. The only factor that has been uniquely adjusted for 2030 is the change of eligible renewable energy sources total proportion from 33% to 60% to comply with Senate Bill 100's 2030 performance goals. Based on known factors for PG&E's 2019 CO2 intensity factor, a proximate CO2 intensity factor of 184 pounds per megawatt-hour delivered was identified for 2030. Similarly, for the Business As Usual (BAU) analysis base-line modeling in 2005, the PG&E CO_2 intensity factor was adjusted to 427 lb/MMWhr, which was the intensity factor included in the PG&E GHG Emission Factor Guidance for the year 2013, and was selected as a conservative proxy for the BAU analysis. Please see PG&E Intensity Factors in this Appendix for more information.

Note 9. For the localized pollutant analysis, construction emission factors, such as off-road equipment, dust from Material Movement, Demolition, Trips and VMT related to construction are reduced to zero to isolate on-site 2023 operational output results.

Note 10. In addition to the trip generation rate adjustments detailed in Note 4, during the localized pollutant analysis an estimated trip length of 2,100 feet was used to determine the maximum length a vehicle could travel on the project site. This trip length, as shown below, is the longest distance a vehicle could travel on the project site. In addition, primary trips

were changed to 100 percent and all other trips were reduced to 0 to model a scenario where all vehicle trips would only occur on-site.



CalEEMod Default Trip Rates (TR)

VehicleTripsLandUseSubType	Metric	WD_TR	ST_TR	SU_TR
Automobile Care Center	1000sqft	23.72	23.72	11.88
City Park	Acre	0.78	1.96	2.19
Fast Food Restaurant with Drive Thr	1000sqft	470.95	616.12	472.58
Hardware/Paint Store	1000sqft	9.14	9.14	9.14
Other Non-Asphalt Surfaces	1000sqft	0	0	0
Parking Lot	1000sqft	0	0	0
Strip Mall	1000sqft	44.32	42.04	20.43
Supermarket	1000sqft	106.78	177.62	166.47

Adjusted Trip Rate (Adjusted to credit for internal capture)

VehicleTripsLandUseSubType	Metric	WD_TR	ST_TR	SU_TR
Automobile Care Center	1000sqft	891	891	446.25
City Park	Acre	0	0	0
Fast Food Restaurant with Drive Thr	1000sqft	451.93	595.62	456.86
Hardware/Paint Store	1000sqft	93.13	114.48	83.65
Other Non-Asphalt Surfaces	1000sqft	0.00	0.00	0.00
Parking Lot	1000sqft	0.00	0.00	0.00
Strip Mall	1000sqft	93.13	114.48	83.65
Supermarket	1000sqft	93.13	114.48	83.65

Calculations

Proposed Use		Total Trips	# Internal Capture Trips (from TIA)	% Internal Capture
Shopping Plaza w/ Supermarket	9,730	9,730	140	1.44%
Fast-Food Restaurant w/ DT (NE Building)	2,058	4,208	140	3.33%
Fast-Food Restaurant w/ DT (NC Building)	1,028			
Fast-Food Restaurant w/ DT (NW Building)	1,122			
Automated Car Wash[1]	891	891	0	Not adjusted

Trip Rate (Adjusted to credit for internal capture)

Land Use	ITE Code	Units	Daily (weekday	Adjusted	Saturday	Adjusted	Sunday	Adjusted
Shopping Plaza w/ Supermarket	821	1,000 SF	94.49	93.13	116.15	114.48	84.87	83.65
Fast-Food Restaurant w/ DT	934	1,000 SF	467.48	451.93	616.12	595.62	472.58	456.86

Annual Project Construction Emissions Unmitigated

Model File: Manteca Marketplace at Main - San Joaquin County, Annual
Timestamp: Date: 3/26/2022 4:03 PM

Year	Activity	ROG	NO_x	CO	SO_x	PM_{10} (Total)	$PM_{2.5}$ (Total)
	on site	0.03	0.26	0.21	0.00	0.01	0.01
	off site	0.00	0.00	0.00	0.00	0.00	0.00
2022	**Main Site Demolition**	**0.03**	**0.26**	**0.21**	**0.00**	**0.01**	**0.01**
	on site	0.02	0.17	0.10	0.00	0.05	0.03
	off site	0.00	0.00	0.00	0.00	0.00	0.00
2022	**Site Preparation**	**0.02**	**0.17**	**0.10**	**0.00**	**0.05**	**0.03**
	on site	0.05	0.58	0.44	0.00	0.09	0.05
	off site	0.01	0.35	0.07	0.00	0.04	0.01
2022	**Grading**	**0.06**	**0.93**	**0.51**	**0.00**	**0.13**	**0.06**
	on site	0.08	0.73	0.76	0.00	0.04	0.04
	off site	0.04	0.23	0.29	0.00	0.10	0.03
2022	**Building Construction**	**0.12**	**0.95**	**1.05**	**0.00**	**0.14**	**0.06**
	on site	0.16	1.49	1.68	0.00	0.07	0.07
	off site	0.07	0.41	0.57	0.00	0.22	0.06
2023	**Building Construction**	**0.23**	**1.90**	**2.25**	**0.01**	**0.29**	**0.13**
	on site	0.02	0.10	0.15	0.00	0.01	0.00
	off site	0.00	0.00	0.00	0.00	0.00	0.00
2023	**Paving**	**0.02**	**0.10**	**0.15**	**0.00**	**0.01**	**0.01**
	on site	0.28	0.01	0.02	0.00	0.00	0.00
	off site	0.00	0.00	0.01	0.00	0.00	0.00
2023	**Architectural Coating**	**0.28**	**0.01**	**0.03**	**0.00**	**0.00**	**0.00**
	on site	0.03	0.26	0.21	0.00	0.01	0.01
	off site	0.00	0.00	0.00	0.00	0.00	0.00
2022	**Off-site Demolition**	**0.03**	**0.26**	**0.21**	**0.00**	**0.01**	**0.01**
	on site	0.01	0.08	0.05	0.00	0.03	0.02
	off site	0.00	0.00	0.00	-	0.00	0.00
2022	**Site Preparation**	**0.01**	**0.08**	**0.05**	**0.00**	**0.03**	**0.02**
	on site	0.01	0.08	0.06	0.00	0.02	0.01
	off site	0.00	0.00	0.00	-	0.00	0.00
2022	**Grading**	**0.01**	**0.08**	**0.06**	**0.00**	**0.02**	**0.01**
	on site	0.10	0.94	0.98	0.00	0.05	0.05
	off site	0.02	0.12	0.15	0.00	0.05	0.02
2022	**Building Construction**	**0.12**	**1.05**	**1.13**	**0.00**	**0.10**	**0.06**
	on site	0.09	0.79	0.89	0.00	0.04	0.04
	off site	0.01	0.09	0.12	0.00	0.05	0.01
2023	**Building Construction**	**0.10**	**0.88**	**1.02**	**0.00**	**0.09**	**0.05**
	on site	0.01	0.08	0.11	0.00	0.00	0.00
	off site	0.00	0.00	0.00	0.00	0.00	0.00
2023	**Paving**	**0.01**	**0.08**	**0.11**	**0.00**	**0.01**	**0.00**
	on site	0.00	0.01	0.02	0.00	0.00	0.00
	off site	0.00	0.00	0.00	0.00	0.00	0.00
2023	**Architectural Coating**	**0.00**	**0.01**	**0.02**	**0.00**	**0.00**	**0.00**
	Total Emissions (tons/year)	1.03	6.77	6.90	0.02	0.89	0.46
	SJVAPCD Threshold (tons/year)	**10**	**10**	**100**	**27**	**15**	**15**
	Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

*Note: All zeros displayed in the above table represent emission values which are below 0.005 tons per year and have subsequently rounded down. All true zero values

Project Operational Emissions Summary

Manteca Marketplace at Main - San Joaquin County, Annual
CalEEMod Run: Annual Date: 3/26/2022 4:03 PM

Emissions Source	ROG	NO_x	CO	SO_x	PM_{10} (Total)	$PM_{2.5}$ (Total)
	Tons per Year					
Area	0.49	0.00	0.00	0.00	0.00	0.00
Energy	0.02	0.17	0.15	0.00	0.01	0.01
Mobile	6.20	7.06	42.98	0.08	7.31	2.00
Waste	0.00	0.00	0.00	0.00	0.00	0.00
Water	0.00	0.00	0.00	0.00	0.00	0.00
Total	**6.71**	**7.24**	**43.13**	**0.08**	**7.32**	**2.01**
SJVAPCD Significance Thresholds	10	10	100	27	15	15
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Maximum On-site Daily Air Pollutant Emissions

Model File: Manteca Marketplace at Main - San Joaquin County, Summer
Timestamp: Date: 3/26/2022 3:13 PM

Summer Construction Maximum Daily Emissions (lbs/day)

Year	Activity	ROG	NO_x	CO	SO_x	PM_{10} (Total)	$PM_{2.5}$ (Total)
	on site	2.64	25.72	20.59	0.04	1.31	1.17
	off site	0.06	0.13	0.44	0.00	0.14	0.04
2022	**Demolition**	**2.70**	**25.85**	**21.03**	**0.04**	**1.45**	**1.20**
	on site	3.17	33.08	19.70	0.04	10.46	6.03
	off site	0.06	0.04	0.50	0.00	0.15	0.04
2022	**Site Preparation**	**3.23**	**33.12**	**20.20**	**0.04**	**10.61**	**6.07**
	on site	3.62	38.84	29.04	0.06	5.86	3.16
	off site	0.65	22.05	4.87	0.09	3.02	0.99
2022	**Grading**	**4.28**	**60.89**	**33.91**	**0.16**	**8.88**	**4.15**
	on site	1.71	15.62	16.36	0.03	0.81	0.76
	off site	0.87	4.67	6.71	0.03	2.22	0.64
2022	**Building Construction**	**2.58**	**20.29**	**23.08**	**0.06**	**3.03**	**1.40**
	on site	1.57	14.38	16.24	0.03	0.70	0.66
	off site	0.73	3.77	6.05	0.03	2.20	0.62
2023	**Building Construction**	**2.30**	**18.16**	**22.30**	**0.06**	**2.90**	**1.27**
	on site	1.83	10.19	14.58	0.02	0.51	0.47
	off site	0.05	0.03	0.38	0.00	0.12	0.03
2023	**Paving**	**1.88**	**10.22**	**14.97**	**0.02**	**0.63**	**0.50**
	on site	28.30	1.30	1.81	0.00	0.07	0.07
	off site	0.13	0.07	0.99	0.00	0.32	0.09
2023	**Architectural Coating**	**28.43**	**1.37**	**2.80**	**0.01**	**0.39**	**0.16**
	on site	2.64	25.72	20.59	0.04	1.24	1.16
	off site	0.05	0.03	0.42	0.00	0.12	0.03
2022	**Offsite Demolition**	**2.69**	**25.75**	**21.01**	**0.04**	**1.37**	**1.19**
	on site	3.17	33.08	19.70	0.04	10.46	6.03
	off site	0.06	0.04	0.50	0.00	0.15	0.04
2022	**Site Preparation**	**3.23**	**33.12**	**20.20**	**0.04**	**10.61**	**6.07**
	on site	1.95	20.86	15.27	0.03	4.13	2.41
	off site	0.05	0.03	0.42	0.00	0.12	0.03
2022	**Grading**	**2.00**	**20.89**	**15.69**	**0.03**	**4.25**	**2.44**
	on site	1.71	15.62	16.36	0.03	0.81	0.76
	off site	0.36	1.85	2.74	0.01	0.91	0.26
2022	**Building Construction**	**2.06**	**17.47**	**19.10**	**0.04**	**1.71**	**1.02**
	on site	1.57	14.38	16.24	0.03	0.70	0.66
	off site	0.30	1.50	2.47	0.01	0.89	0.25
2023	**Building Construction**	**1.87**	**15.88**	**18.72**	**0.04**	**1.59**	**0.91**
	on site	0.92	8.79	12.19	0.02	0.44	0.40
	off site	0.07	0.03	0.51	0.00	0.17	0.04
2023	**Paving**	**0.98**	**8.83**	**12.70**	**0.02**	**0.60**	**0.45**
	on site	0.26	1.30	1.81	0.00	0.07	0.07
	off site	0.05	0.03	0.41	0.00	0.13	0.04
2023	**Architectural Coating**	**0.32**	**1.33**	**2.22**	**0.00**	**0.20**	**0.11**

*Note: All zeros displayed in the above table represent emission values which are below 0.005 tons per year and have subsequently rounded down. All true zero values

Winter Construction Maximum Daily Emissions (lbs/day)

Year	Activity	ROG	NO_x	CO	SO_x	PM_{10} (Total)	$PM_{2.5}$ (Total)
	on site	2.64	25.72	20.59	0.04	1.31	1.17
	off site	0.05	0.15	0.40	0.00	0.14	0.04
2022	**Demolition**	**2.69**	**25.87**	**20.99**	**0.04**	**1.45**	**1.20**
	on site	3.17	33.08	19.70	0.04	10.46	6.03
	off site	0.06	0.04	0.45	0.00	0.15	0.04
2022	**Site Preparation**	**3.23**	**33.13**	**20.15**	**0.04**	**10.61**	**6.07**
	on site	3.62	38.84	29.04	0.06	5.86	3.16
	off site	0.63	23.54	4.91	0.09	3.02	0.99
2022	**Grading**	**4.25**	**62.38**	**33.95**	**0.16**	**8.88**	**4.15**
	on site	1.71	15.62	16.36	0.03	0.81	0.76
	off site	0.82	5.04	6.18	0.03	2.22	0.64
2022	**Building Construction**	**2.53**	**20.65**	**22.55**	**0.06**	**3.03**	**1.40**
	on site	1.57	14.38	16.24	0.03	0.70	0.66
	off site	0.69	4.08	5.59	0.03	2.20	0.62
2023	**Building Construction**	**2.26**	**18.47**	**21.83**	**0.06**	**2.90**	**1.27**
	on site	1.83	10.19	14.58	0.02	0.51	0.47
	off site	0.05	0.03	0.34	0.00	0.12	0.03
2023	**Paving**	**1.88**	**10.22**	**14.93**	**0.02**	**0.63**	**0.50**
	on site	28.30	1.30	1.81	0.00	0.07	0.07
	off site	0.12	0.08	0.89	0.00	0.32	0.09
2023	**Architectural Coating**	**28.42**	**1.39**	**2.70**	**0.01**	**0.39**	**0.16**
	on site	2.64	25.72	20.59	0.04	1.24	1.16
	off site	0.05	0.04	0.38	0.00	0.12	0.03
2022	**Demolition**	**2.69**	**25.76**	**20.97**	**0.04**	**1.37**	**1.19**
	on site	3.17	33.08	19.70	0.04	10.46	6.03
	off site	0.06	0.04	0.45	0.00	0.15	0.04
2022	**Site Preparation**	**3.23**	**33.13**	**20.15**	**0.04**	**10.61**	**6.07**
	on site	1.95	20.86	15.27	0.03	4.13	2.41
	off site	0.05	0.04	0.38	0.00	0.12	0.03
2022	**Grading**	**2.00**	**20.89**	**15.65**	**0.03**	**4.25**	**2.44**
	on site	1.71	15.62	16.36	0.03	0.81	0.76
	off site	0.34	2.00	2.52	0.01	0.91	0.26
2022	**Building Construction**	**2.04**	**17.61**	**18.88**	**0.04**	**1.71**	**1.02**
	on site	1.57	14.38	16.24	0.03	0.70	0.66
	off site	0.28	1.62	2.28	0.01	0.89	0.25
2023	**Building Construction**	**1.85**	**16.01**	**18.52**	**0.04**	**1.59**	**0.91**
	on site	0.92	8.79	12.19	0.02	0.44	0.40
	off site	0.06	0.04	0.46	0.00	0.17	0.04
2023	**Paving**	**0.98**	**8.83**	**12.65**	**0.02**	**0.60**	**0.45**
	on site	0.26	1.30	1.81	0.00	0.07	0.07
	off site	0.05	0.03	0.37	0.00	0.13	0.04
2023	**Architectural Coating**	**0.31**	**1.34**	**2.18**	**0.00**	**0.20**	**0.11**

*Note: All zeros displayed in the above table represent emission values which are below 0.005 tons per year and have subsequently rounded down. All true zero values

Maximum Daily Construction Emissions Between Summer and Winter (lbs/day)

Year	Activity	ROG	NO_x	CO	SO_x	PM_{10} (Total)	$PM_{2.5}$ (Total)
	on site	2.64	25.72	20.59	0.04	1.31	1.17
	off site	0.06	0.15	0.44	0.00	0.14	0.04
2022	**Demolition**	**2.70**	**25.87**	**21.03**	**0.04**	**1.45**	**1.20**
	on site	3.17	33.08	19.70	0.04	10.46	6.03
	off site	0.06	0.04	0.50	0.00	0.15	0.04
2022	**Site Preparation**	**3.23**	**33.13**	**20.20**	**0.04**	**10.61**	**6.07**
	on site	3.62	38.84	29.04	0.06	5.86	3.16
	off site	0.65	23.54	4.87	0.09	3.02	0.99
2022	**Grading**	**4.28**	**62.38**	**33.91**	**0.16**	**8.88**	**4.15**
	on site	1.71	15.62	16.36	0.03	0.81	0.76
	off site	0.87	5.04	6.71	0.03	2.22	0.64
2022	**Building Construction**	**2.58**	**20.65**	**23.08**	**0.06**	**3.03**	**1.40**
	on site	1.57	14.38	16.24	0.03	0.70	0.66
	off site	0.73	4.08	6.05	0.03	2.20	0.62
2023	**Building Construction**	**2.30**	**18.47**	**22.30**	**0.06**	**2.90**	**1.27**
	on site	1.83	10.19	14.58	0.02	0.51	0.47
	off site	0.05	0.03	0.38	0.00	0.12	0.03
2023	**Paving**	**1.88**	**10.22**	**14.97**	**0.02**	**0.63**	**0.50**
	on site	28.30	1.30	1.81	0.00	0.07	0.07
	off site	0.13	0.08	0.99	0.00	0.32	0.09
2023	**Architectural Coating**	**28.43**	**1.39**	**2.80**	**0.01**	**0.39**	**0.16**
	on site	2.64	25.72	20.59	0.04	1.24	1.16
	off site	0.05	0.04	0.42	0.00	0.12	0.03
2022	**Demolition**	**2.69**	**25.76**	**21.01**	**0.04**	**1.37**	**1.19**
	on site	3.17	33.08	19.70	0.04	10.46	6.03
	off site	0.06	0.04	0.50	0.00	0.15	0.04
2022	**Site Preparation**	**3.23**	**33.13**	**20.20**	**0.04**	**10.61**	**6.07**
	on site	1.95	20.86	15.27	0.03	4.13	2.41
	off site	0.05	0.04	0.42	0.00	0.12	0.03
2022	**Grading**	**2.00**	**20.89**	**15.69**	**0.03**	**4.25**	**2.44**
	on site	1.71	15.62	16.36	0.03	0.81	0.76
	off site	0.36	2.00	2.74	0.01	0.91	0.26
2022	**Building Construction**	**2.06**	**17.61**	**19.10**	**0.04**	**1.71**	**1.02**
	on site	1.57	14.38	16.24	0.03	0.70	0.66
	off site	0.30	1.62	2.47	0.01	0.89	0.25
2023	**Building Construction**	**1.87**	**16.01**	**18.72**	**0.04**	**1.59**	**0.91**
	on site	0.92	8.79	12.19	0.02	0.44	0.40
	off site	0.07	0.04	0.51	0.00	0.17	0.04
2023	**Paving**	**0.98**	**8.83**	**12.70**	**0.02**	**0.60**	**0.45**
	on site	0.26	1.30	1.81	0.00	0.07	0.07
	off site	0.05	0.03	0.41	0.00	0.13	0.04
2023	**Architectural Coating**	**0.32**	**1.34**	**2.22**	**0.00**	**0.20**	**0.11**
	Season	**Summer**	**Winter**	**Summer**	**Summer**	**Both**	**Both**

*Note: All zeros displayed in the above table represent emission values which are below 0.005 tons per year and have subsequently rounded down. All true zero values

Maximum On-site Operational Emissions Summary

LST, Manteca Marketplace at Main - San Joaquin County, Summer
Date: 3/26/2022 4:04 PM

Emissions Source	ROG	NO_x	CO	SO_x	PM_{10} (Total)	$PM_{2.5}$ (Total)
	lbs per day					
Area	2.67	0.00	0.04	0.00	0.00	0.00
Energy	0.11	0.96	0.80	0.01	0.07	0.07
Mobile	35.03	30.55	208.42	0.43	49.39	13.38
Total	**37.81**	**31.51**	**209.26**	**0.44**	**49.46**	**13.45**
SJVAPCD Significance Thresholds (lbs per day)	100	100	100	100	100	100
Exceeds Threshold?	**No**	**No**	**Yes**	**No**	**No**	**No**

LST, Manteca Marketplace at Main - San Joaquin County, Winter
Date: 3/26/2022 4:07 PM

Emissions Source	ROG	NO_x	CO	SO_x	PM_{10} (Total)	$PM_{2.5}$ (Total)
	lbs per day					
Area	2.67	0.00	0.04	0.00	0.00	0.00
Energy	0.11	0.96	0.80	0.01	0.07	0.07
Mobile	26.38	34.45	230.72	0.40	49.39	13.38
Total	**29.15**	**35.41**	**231.56**	**0.41**	**49.46**	**13.45**
SJVAPCD Significance Thresholds (lbs per day)	100	100	100	100	100	100
Exceeds Threshold?	**No**	**No**	**Yes**	**No**	**No**	**No**

Maximum On-site Operational Emissions Summary

Emissions Source	ROG	NO_x	CO	SO_x	PM_{10} (Total)	$PM_{2.5}$ (Total)
	lbs per day					
Area	2.67	0.00	0.04	0.00	0.00	0.00
Energy	0.11	0.96	0.80	0.01	0.07	0.07
Mobile	35.03	34.45	230.72	0.40	49.39	13.38
Total	**37.81**	**35.41**	**231.56**	**0.41**	**49.46**	**13.45**
Season	Summer	Winter	Winter	Both	Both	Both
SJVAPCD Significance Thresholds (lbs per day)	100	100	100	100	100	100
Exceeds Threshold?	**No**	**No**	**Yes**	**No**	**No**	**No**

Manteca Marketplace at Main - San Joaquin County, Annual

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

Manteca Marketplace at Main

San Joaquin County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	6.06	1000sqft	0.14	6,061.00	0
Parking Lot	244.68	1000sqft	5.62	244,677.00	0
Parking Lot	19.97	1000sqft	0.46	19,972.00	0
City Park	2.29	Acre	2.29	99,752.40	0
City Park	0.21	Acre	0.21	9,147.60	0
Fast Food Restaurant with Drive Thru	9.00	1000sqft	0.21	9,000.00	0
Automobile Care Center	3.60	1000sqft	0.08	3,596.00	0
Hardware/Paint Store	38.00	1000sqft	0.87	38,000.00	0
Strip Mall	12.50	1000sqft	0.29	12,500.00	0
Supermarket	50.07	1000sqft	1.15	50,071.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	51
Climate Zone	2			**Operational Year**	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Note 1

Construction Phase - Note 2

Manteca Marketplace at Main - San Joaquin County, Annual

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

Demolition - Note 1

Grading - Note 3

Architectural Coating - Note 2

Vehicle Trips - Note 4

Area Coating - Note 2

Construction Off-road Equipment Mitigation - Note 5

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	50.00
tblArchitecturalCoating	EF_Parking	150.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	150.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	50
tblAreaCoating	Area_EF_Nonresidential_Interior	150	50
tblAreaCoating	Area_EF_Parking	150	50
tblAreaCoating	Area_EF_Residential_Exterior	150	50
tblAreaCoating	Area_EF_Residential_Interior	150	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblGrading	MaterialExported	0.00	16,000.00
tblGrading	MaterialImported	0.00	20,000.00
tblLandUse	LandUseSquareFeet	6,060.00	6,061.00
tblLandUse	LandUseSquareFeet	19,970.00	19,972.00
tblLandUse	LandUseSquareFeet	244,680.00	244,677.00
tblLandUse	LandUseSquareFeet	3,600.00	3,596.00
tblLandUse	LandUseSquareFeet	50,070.00	50,071.00
tblVehicleTrips	ST_TR	23.72	891.00
tblVehicleTrips	ST_TR	1.96	0.00

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

tblVehicleTrips	ST_TR	616.12	595.62
tblVehicleTrips	ST_TR	9.14	114.48
tblVehicleTrips	ST_TR	42.04	114.48
tblVehicleTrips	ST_TR	177.62	114.48
tblVehicleTrips	SU_TR	11.88	446.25
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	472.58	456.86
tblVehicleTrips	SU_TR	9.14	83.65
tblVehicleTrips	SU_TR	20.43	83.65
tblVehicleTrips	SU_TR	166.47	83.65
tblVehicleTrips	WD_TR	23.72	891.00
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	470.95	451.93
tblVehicleTrips	WD_TR	9.14	93.13
tblVehicleTrips	WD_TR	44.32	93.13
tblVehicleTrips	WD_TR	106.78	93.13

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.2232	2.3068	1.8650	5.6200e-003	0.3812	0.0888	0.4700	0.1443	0.0828	0.2271	0.0000	511.9076	511.9076	0.0708	0.0343	523.9051
2023	0.5337	2.0149	2.4304	6.1600e-003	0.2221	0.0814	0.3035	0.0603	0.0766	0.1369	0.0000	555.0221	555.0221	0.0685	0.0282	565.1319

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

Maximum	**0.5337**	**2.3068**	**2.4304**	**6.1600e-003**	**0.3812**	**0.0888**	**0.4700**	**0.1443**	**0.0828**	**0.2271**	**0.0000**	**555.0221**	**555.0221**	**0.0708**	**0.0343**	**565.1319**

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	0.2232	2.3068	1.8650	5.6200e-003	0.2489	0.0888	0.3377	0.0860	0.0828	0.1688	0.0000	511.9073	511.9073	0.0708	0.0343	523.9048
2023	0.5337	2.0149	2.4304	6.1600e-003	0.2221	0.0814	0.3035	0.0603	0.0766	0.1369	0.0000	555.0218	555.0218	0.0685	0.0282	565.1316
Maximum	**0.5337**	**2.3068**	**2.4304**	**6.1600e-003**	**0.2489**	**0.0888**	**0.3377**	**0.0860**	**0.0828**	**0.1688**	**0.0000**	**555.0218**	**555.0218**	**0.0708**	**0.0343**	**565.1316**

	ROG	NOx	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

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

Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**21.93**	**0.00**	**17.10**	**28.48**	**0.00**	**16.01**	**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	**6-1-2022**	**8-31-2022**	1.5101	1.5101
2	**9-1-2022**	**11-30-2022**	0.7500	0.7500
3	**12-1-2022**	**2-28-2023**	0.6934	0.6934
4	**3-1-2023**	**5-31-2023**	0.6753	0.6753
5	**6-1-2023**	**8-31-2023**	0.6723	0.6723
6	**9-1-2023**	**9-30-2023**	0.2192	0.2192
		Highest	1.5101	1.5101

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	0.4889	3.0000e-005	3.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.9000e-003	6.9000e-003	2.0000e-005	0.0000	7.3600e-003
Energy	0.0192	0.1748	0.1468	1.0500e-003		0.0133	0.0133		0.0133	0.0133	0.0000	463.9050	463.9050	0.0479	8.8500e-003	467.7414
Mobile	6.1997	7.0607	42.9820	0.0771	7.2388	0.0686	7.3074	1.9358	0.0642	2.0000	0.0000	7,129.6454	7,129.6454	0.6152	0.4746	7,286.4685
Waste						0.0000	0.0000		0.0000	0.0000	169.4041	0.0000	169.4041	10.0115	0.0000	419.6914
Water						0.0000	0.0000		0.0000	0.0000	4.1190	8.3925	12.5115	0.4244	0.0102	26.1478
Total	**6.7079**	**7.2355**	**43.1324**	**0.0782**	**7.2388**	**0.0819**	**7.3207**	**1.9358**	**0.0775**	**2.0132**	**173.5231**	**7,601.9499**	**7,775.4729**	**11.0991**	**0.4936**	**8,200.0564**

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

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	0.4889	3.0000e-005	3.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.9000e-003	6.9000e-003	2.0000e-005	0.0000	7.3600e-003
Energy	0.0192	0.1748	0.1468	1.0500e-003		0.0133	0.0133		0.0133	0.0133	0.0000	463.9050	463.9050	0.0479	8.8500e-003	467.7414
Mobile	6.1997	7.0607	42.9820	0.0771	7.2388	0.0686	7.3074	1.9358	0.0642	2.0000	0.0000	7,129.6454	7,129.6454	0.6152	0.4746	7,286.4685
Waste						0.0000	0.0000		0.0000	0.0000	169.4041	0.0000	169.4041	10.0115	0.0000	419.6914
Water						0.0000	0.0000		0.0000	0.0000	4.1190	8.3925	12.5115	0.4244	0.0102	26.1478
Total	**6.7079**	**7.2355**	**43.1324**	**0.0782**	**7.2388**	**0.0819**	**7.3207**	**1.9358**	**0.0775**	**2.0132**	**173.5231**	**7,601.9499**	**7,775.4729**	**11.0991**	**0.4936**	**8,200.0564**

	ROG	NOx	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	6/1/2022	6/28/2022	5	20	
2	Site Preparation	Site Preparation	6/29/2022	7/12/2022	5	10	
3	Grading	Grading	7/13/2022	8/23/2022	5	30	

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

4	Building Construction	Building Construction	8/24/2022	10/17/2023	5	300	
5	Paving	Paving	10/18/2023	11/14/2023	5	20	
6	Architectural Coating	Architectural Coating	11/15/2023	12/12/2023	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 90

Acres of Paving: 6.22

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 169,754; Non-Residential Outdoor: 56,585; Striped Parking Area: 16,243 (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
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
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	14.00	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	4,500.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	197.00	81.00	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	39.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 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					1.5500e-003	0.0000	1.5500e-003	2.3000e-004	0.0000	2.3000e-004	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

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

Total	**0.0264**	**0.2572**	**0.2059**	**3.9000e-004**	**1.5500e-003**	**0.0124**	**0.0140**	**2.3000e-004**	**0.0116**	**0.0118**	**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	3.0000e-005	1.0700e-003	2.0000e-004	0.0000	1.2000e-004	1.0000e-005	1.3000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.4141	0.4141	0.0000	7.0000e-005	0.4335
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	4.7000e-004	3.3000e-004	3.7300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9702	0.9702	3.0000e-005	3.0000e-005	0.9797
Total	**5.0000e-004**	**1.4000e-003**	**3.9300e-003**	**1.0000e-005**	**1.3100e-003**	**2.0000e-005**	**1.3300e-003**	**3.5000e-004**	**2.0000e-005**	**3.6000e-004**	**0.0000**	**1.3842**	**1.3842**	**3.0000e-005**	**1.0000e-004**	**1.4132**

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

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					7.0000e-004	0.0000	7.0000e-004	1.1000e-004	0.0000	1.1000e-004	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**	**7.0000e-004**	**0.0124**	**0.0131**	**1.1000e-004**	**0.0116**	**0.0117**	**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	3.0000e-005	1.0700e-003	2.0000e-004	0.0000	1.2000e-004	1.0000e-005	1.3000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.4141	0.4141	0.0000	7.0000e-005	0.4335
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	4.7000e-004	3.3000e-004	3.7300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9702	0.9702	3.0000e-005	3.0000e-005	0.9797
Total	**5.0000e-004**	**1.4000e-003**	**3.9300e-003**	**1.0000e-005**	**1.3100e-003**	**2.0000e-005**	**1.3300e-003**	**3.5000e-004**	**2.0000e-005**	**3.6000e-004**	**0.0000**	**1.3842**	**1.3842**	**3.0000e-005**	**1.0000e-004**	**1.4132**

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	2.8000e-004	2.0000e-004	2.2400e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5821	0.5821	2.0000e-005	2.0000e-005	0.5878
Total	**2.8000e-004**	**2.0000e-004**	**2.2400e-003**	**1.0000e-005**	**7.2000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.5821**	**0.5821**	**2.0000e-005**	**2.0000e-005**	**0.5878**

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

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	2.8000e-004	2.0000e-004	2.2400e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5821	0.5821	2.0000e-005	2.0000e-005	0.5878
Total	**2.8000e-004**	**2.0000e-004**	**2.2400e-003**	**1.0000e-005**	**7.2000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.5821**	**0.5821**	**2.0000e-005**	**2.0000e-005**	**0.5878**

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					0.1407	0.0000	0.1407	0.0552	0.0000	0.0552	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0544	0.5827	0.4356	9.3000e-004		0.0245	0.0245		0.0226	0.0226	0.0000	81.8019	81.8019	0.0265	0.0000	82.4633
Total	**0.0544**	**0.5827**	**0.4356**	**9.3000e-004**	**0.1407**	**0.0245**	**0.1652**	**0.0552**	**0.0226**	**0.0778**	**0.0000**	**81.8019**	**81.8019**	**0.0265**	**0.0000**	**82.4633**

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	8.5900e-003	0.3453	0.0653	1.3800e-003	0.0384	3.4700e-003	0.0418	0.0106	3.3200e-003	0.0139	0.0000	133.0864	133.0864	9.3000e-004	0.0209	139.3473
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	9.5000e-004	6.6000e-004	7.4600e-003	2.0000e-005	2.3900e-003	1.0000e-005	2.4000e-003	6.4000e-004	1.0000e-005	6.5000e-004	0.0000	1.9403	1.9403	6.0000e-005	6.0000e-005	1.9594
Total	**9.5400e-003**	**0.3460**	**0.0727**	**1.4000e-003**	**0.0408**	**3.4800e-003**	**0.0442**	**0.0112**	**3.3300e-003**	**0.0145**	**0.0000**	**135.0267**	**135.0267**	**9.9000e-004**	**0.0210**	**141.3068**

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

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					0.0633	0.0000	0.0633	0.0248	0.0000	0.0248	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0544	0.5827	0.4356	9.3000e-004		0.0245	0.0245		0.0226	0.0226	0.0000	81.8018	81.8018	0.0265	0.0000	82.4632
Total	**0.0544**	**0.5827**	**0.4356**	**9.3000e-004**	**0.0633**	**0.0245**	**0.0878**	**0.0248**	**0.0226**	**0.0474**	**0.0000**	**81.8018**	**81.8018**	**0.0265**	**0.0000**	**82.4632**

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	8.5900e-003	0.3453	0.0653	1.3800e-003	0.0384	3.4700e-003	0.0418	0.0106	3.3200e-003	0.0139	0.0000	133.0864	133.0864	9.3000e-004	0.0209	139.3473
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	9.5000e-004	6.6000e-004	7.4600e-003	2.0000e-005	2.3900e-003	1.0000e-005	2.4000e-003	6.4000e-004	1.0000e-005	6.5000e-004	0.0000	1.9403	1.9403	6.0000e-005	6.0000e-005	1.9594
Total	**9.5400e-003**	**0.3460**	**0.0727**	**1.4000e-003**	**0.0408**	**3.4800e-003**	**0.0442**	**0.0112**	**3.3300e-003**	**0.0145**	**0.0000**	**135.0267**	**135.0267**	**9.9000e-004**	**0.0210**	**141.3068**

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	0.0793	0.7261	0.7609	1.2500e-003		0.0376	0.0376		0.0354	0.0354	0.0000	107.7522	107.7522	0.0258	0.0000	108.3976
Total	**0.0793**	**0.7261**	**0.7609**	**1.2500e-003**		**0.0376**	**0.0376**		**0.0354**	**0.0354**	**0.0000**	**107.7522**	**107.7522**	**0.0258**	**0.0000**	**108.3976**

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	7.9400e-003	0.2077	0.0573	7.9000e-004	0.0249	2.2800e-003	0.0272	7.1900e-003	2.1800e-003	9.3700e-003	0.0000	75.4028	75.4028	5.4000e-004	0.0114	78.8215
Worker	0.0290	0.0202	0.2279	6.5000e-004	0.0730	3.8000e-004	0.0734	0.0194	3.5000e-004	0.0198	0.0000	59.2477	59.2477	1.9500e-003	1.7900e-003	59.8311
Total	**0.0369**	**0.2278**	**0.2851**	**1.4400e-003**	**0.0979**	**2.6600e-003**	**0.1005**	**0.0266**	**2.5300e-003**	**0.0291**	**0.0000**	**134.6505**	**134.6505**	**2.4900e-003**	**0.0132**	**138.6526**

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

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	0.0793	0.7261	0.7609	1.2500e-003		0.0376	0.0376		0.0354	0.0354	0.0000	107.7521	107.7521	0.0258	0.0000	108.3975
Total	**0.0793**	**0.7261**	**0.7609**	**1.2500e-003**		**0.0376**	**0.0376**		**0.0354**	**0.0354**	**0.0000**	**107.7521**	**107.7521**	**0.0258**	**0.0000**	**108.3975**

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	7.9400e-003	0.2077	0.0573	7.9000e-004	0.0249	2.2800e-003	0.0272	7.1900e-003	2.1800e-003	9.3700e-003	0.0000	75.4028	75.4028	5.4000e-004	0.0114	78.8215
Worker	0.0290	0.0202	0.2279	6.5000e-004	0.0730	3.8000e-004	0.0734	0.0194	3.5000e-004	0.0198	0.0000	59.2477	59.2477	1.9500e-003	1.7900e-003	59.8311
Total	**0.0369**	**0.2278**	**0.2851**	**1.4400e-003**	**0.0979**	**2.6600e-003**	**0.1005**	**0.0266**	**2.5300e-003**	**0.0291**	**0.0000**	**134.6505**	**134.6505**	**2.4900e-003**	**0.0132**	**138.6526**

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

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1628	1.4888	1.6813	2.7900e-003		0.0724	0.0724		0.0682	0.0682	0.0000	239.9179	239.9179	0.0571	0.0000	241.3447
Total	**0.1628**	**1.4888**	**1.6813**	**2.7900e-003**		**0.0724**	**0.0724**		**0.0682**	**0.0682**	**0.0000**	**239.9179**	**239.9179**	**0.0571**	**0.0000**	**241.3447**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.8400e-003	0.3709	0.1092	1.6800e-003	0.0554	2.3700e-003	0.0578	0.0160	2.2700e-003	0.0183	0.0000	161.5245	161.5245	8.0000e-004	0.0244	168.8214
Worker	0.0592	0.0392	0.4638	1.3900e-003	0.1624	8.0000e-004	0.1632	0.0432	7.4000e-004	0.0439	0.0000	127.6196	127.6196	3.8900e-003	3.6600e-003	128.8085
Total	**0.0681**	**0.4101**	**0.5730**	**3.0700e-003**	**0.2178**	**3.1700e-003**	**0.2210**	**0.0592**	**3.0100e-003**	**0.0622**	**0.0000**	**289.1442**	**289.1442**	**4.6900e-003**	**0.0281**	**297.6300**

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

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	0.1628	1.4888	1.6813	2.7900e-003		0.0724	0.0724		0.0682	0.0682	0.0000	239.9176	239.9176	0.0571	0.0000	241.3444
Total	**0.1628**	**1.4888**	**1.6813**	**2.7900e-003**		**0.0724**	**0.0724**		**0.0682**	**0.0682**	**0.0000**	**239.9176**	**239.9176**	**0.0571**	**0.0000**	**241.3444**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.8400e-003	0.3709	0.1092	1.6800e-003	0.0554	2.3700e-003	0.0578	0.0160	2.2700e-003	0.0183	0.0000	161.5245	161.5245	8.0000e-004	0.0244	168.8214
Worker	0.0592	0.0392	0.4638	1.3900e-003	0.1624	8.0000e-004	0.1632	0.0432	7.4000e-004	0.0439	0.0000	127.6196	127.6196	3.8900e-003	3.6600e-003	128.8085
Total	**0.0681**	**0.4101**	**0.5730**	**3.0700e-003**	**0.2178**	**3.1700e-003**	**0.2210**	**0.0592**	**3.0100e-003**	**0.0622**	**0.0000**	**289.1442**	**289.1442**	**4.6900e-003**	**0.0281**	**297.6300**

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

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0103	0.1019	0.1458	2.3000e-004		5.1000e-003	5.1000e-003		4.6900e-003	4.6900e-003	0.0000	20.0269	20.0269	6.4800e-003	0.0000	20.1888
Paving	7.9600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0183**	**0.1019**	**0.1458**	**2.3000e-004**		**5.1000e-003**	**5.1000e-003**		**4.6900e-003**	**4.6900e-003**	**0.0000**	**20.0269**	**20.0269**	**6.4800e-003**	**0.0000**	**20.1888**

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	4.4000e-004	2.9000e-004	3.4100e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9389	0.9389	3.0000e-005	3.0000e-005	0.9476
Total	**4.4000e-004**	**2.9000e-004**	**3.4100e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9389**	**0.9389**	**3.0000e-005**	**3.0000e-005**	**0.9476**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0103	0.1019	0.1458	2.3000e-004		5.1000e-003	5.1000e-003		4.6900e-003	4.6900e-003	0.0000	20.0268	20.0268	6.4800e-003	0.0000	20.1888
Paving	7.9600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0183**	**0.1019**	**0.1458**	**2.3000e-004**		**5.1000e-003**	**5.1000e-003**		**4.6900e-003**	**4.6900e-003**	**0.0000**	**20.0268**	**20.0268**	**6.4800e-003**	**0.0000**	**20.1888**

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	4.4000e-004	2.9000e-004	3.4100e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9389	0.9389	3.0000e-005	3.0000e-005	0.9476
Total	**4.4000e-004**	**2.9000e-004**	**3.4100e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9389**	**0.9389**	**3.0000e-005**	**3.0000e-005**	**0.9476**

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

3.7 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	0.2811					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	**0.2830**	**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	1.1300e-003	7.5000e-004	8.8700e-003	3.0000e-005	3.1100e-003	2.0000e-005	3.1200e-003	8.3000e-004	1.0000e-005	8.4000e-004	0.0000	2.4410	2.4410	7.0000e-005	7.0000e-005	2.4638
Total	**1.1300e-003**	**7.5000e-004**	**8.8700e-003**	**3.0000e-005**	**3.1100e-003**	**2.0000e-005**	**3.1200e-003**	**8.3000e-004**	**1.0000e-005**	**8.4000e-004**	**0.0000**	**2.4410**	**2.4410**	**7.0000e-005**	**7.0000e-005**	**2.4638**

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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	0.2811					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	**0.2830**	**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	1.1300e-003	7.5000e-004	8.8700e-003	3.0000e-005	3.1100e-003	2.0000e-005	3.1200e-003	8.3000e-004	1.0000e-005	8.4000e-004	0.0000	2.4410	2.4410	7.0000e-005	7.0000e-005	2.4638
Total	**1.1300e-003**	**7.5000e-004**	**8.8700e-003**	**3.0000e-005**	**3.1100e-003**	**2.0000e-005**	**3.1200e-003**	**8.3000e-004**	**1.0000e-005**	**8.4000e-004**	**0.0000**	**2.4410**	**2.4410**	**7.0000e-005**	**7.0000e-005**	**2.4638**

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	6.1997	7.0607	42.9820	0.0771	7.2388	0.0686	7.3074	1.9358	0.0642	2.0000	0.0000	7,129.6454	7,129.6454	0.6152	0.4746	7,286.4685
Unmitigated	6.1997	7.0607	42.9820	0.0771	7.2388	0.0686	7.3074	1.9358	0.0642	2.0000	0.0000	7,129.6454	7,129.6454	0.6152	0.4746	7,286.4685

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	3,207.60	3,207.60	1606.50	2,967,510	2,967,510
City Park	0.00	0.00	0.00		
City Park	0.00	0.00	0.00		
Fast Food Restaurant with Drive Thru	4,067.37	5,360.58	4111.74	3,978,779	3,978,779
Hardware/Paint Store	3,538.94	4,350.24	3178.70	5,242,034	5,242,034
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Strip Mall	1,164.13	1,431.00	1045.63	1,825,434	1,825,434
Supermarket	4,663.02	5,732.01	4188.36	5,400,495	5,400,495
Total	16,641.05	20,081.43	14,130.92	19,414,253	19,414,253

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

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
Automobile Care Center	9.50	7.30	7.30	33.00	48.00	19.00	21	51	28
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Fast Food Restaurant with Drive	9.50	7.30	7.30	2.20	78.80	19.00	29	21	50
Hardware/Paint Store	9.50	7.30	7.30	13.60	67.40	19.00	45	29	26
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15
Supermarket	9.50	7.30	7.30	6.50	74.50	19.00	34	30	36

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.003707
City Park	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.003707
Fast Food Restaurant with Drive Thru	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.003707
Hardware/Paint Store	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.003707
Other Non-Asphalt Surfaces	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.003707
Parking Lot	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.003707
Strip Mall	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.003707
Supermarket	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.003707

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	273.6114	273.6114	0.0443	5.3700e-003	276.3169
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	273.6114	273.6114	0.0443	5.3700e-003	276.3169
NaturalGas Mitigated	0.0192	0.1748	0.1468	1.0500e-003		0.0133	0.0133		0.0133	0.0133	0.0000	190.2936	190.2936	3.6500e-003	3.4900e-003	191.4245
NaturalGas Unmitigated	0.0192	0.1748	0.1468	1.0500e-003		0.0133	0.0133		0.0133	0.0133	0.0000	190.2936	190.2936	3.6500e-003	3.4900e-003	191.4245

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					
Automobile Care Center	66346.2	3.6000e-004	3.2500e-003	2.7300e-003	2.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004	0.0000	3.5405	3.5405	7.0000e-005	6.0000e-005	3.5615
City Park	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
Fast Food Restaurant with Drive Thru	981090	5.2900e-003	0.0481	0.0404	2.9000e-004		3.6600e-003	3.6600e-003		3.6600e-003	3.6600e-003	0.0000	52.3547	52.3547	1.0000e-003	9.6000e-004	52.6658
Hardware/Paint Store	440040	2.3700e-003	0.0216	0.0181	1.3000e-004		1.6400e-003	1.6400e-003		1.6400e-003	1.6400e-003	0.0000	23.4822	23.4822	4.5000e-004	4.3000e-004	23.6218
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	144750	7.8000e-004	7.1000e-003	5.9600e-003	4.0000e-005		5.4000e-004	5.4000e-004		5.4000e-004	5.4000e-004	0.0000	7.7244	7.7244	1.5000e-004	1.4000e-004	7.7703
Supermarket	1.93374e+006	0.0104	0.0948	0.0796	5.7000e-004		7.2000e-003	7.2000e-003		7.2000e-003	7.2000e-003	0.0000	103.1918	103.1918	1.9800e-003	1.8900e-003	103.8051
Total		**0.0192**	**0.1748**	**0.1468**	**1.0500e-003**		**0.0133**	**0.0133**		**0.0133**	**0.0133**	**0.0000**	**190.2937**	**190.2937**	**3.6500e-003**	**3.4800e-003**	**191.4245**

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

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					
Automobile Care Center	66346.2	3.6000e-004	3.2500e-003	2.7300e-003	2.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004	0.0000	3.5405	3.5405	7.0000e-005	6.0000e-005	3.5615
City Park	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
Fast Food Restaurant with Drive Thru	981090	5.2900e-003	0.0481	0.0404	2.9000e-004		3.6600e-003	3.6600e-003		3.6600e-003	3.6600e-003	0.0000	52.3547	52.3547	1.0000e-003	9.6000e-004	52.6658
Hardware/Paint Store	440040	2.3700e-003	0.0216	0.0181	1.3000e-004		1.6400e-003	1.6400e-003		1.6400e-003	1.6400e-003	0.0000	23.4822	23.4822	4.5000e-004	4.3000e-004	23.6218
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	144750	7.8000e-004	7.1000e-003	5.9600e-003	4.0000e-005		5.4000e-004	5.4000e-004		5.4000e-004	5.4000e-004	0.0000	7.7244	7.7244	1.5000e-004	1.4000e-004	7.7703
Supermarket	1.93374e+006	0.0104	0.0948	0.0796	5.7000e-004		7.2000e-003	7.2000e-003		7.2000e-003	7.2000e-003	0.0000	103.1918	103.1918	1.9800e-003	1.8900e-003	103.8051
Total		**0.0192**	**0.1748**	**0.1468**	**1.0500e-003**		**0.0133**	**0.0133**		**0.0133**	**0.0133**	**0.0000**	**190.2937**	**190.2937**	**3.6500e-003**	**3.4800e-003**	**191.4245**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
Automobile Care Center	29774.9		2.7549	4.5000e-004	5.0000e-005	2.7821
City Park	0		0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant with Drive Thru	276300		25.5643	4.1400e-003	5.0000e-004	25.8171
Hardware/Paint Store	432060		39.9758	6.4700e-003	7.8000e-004	40.3711
Other Non-Asphalt Surfaces	0		0.0000	0.0000	0.0000	0.0000
Parking Lot	6990.2		0.6468	1.0000e-004	1.0000e-005	0.6532
Parking Lot	85636.9		7.9235	1.2800e-003	1.6000e-004	8.0018
Strip Mall	142125		13.1499	2.1300e-003	2.6000e-004	13.2800
Supermarket	1.98431e+006		183.5962	0.0297	3.6000e-003	185.4116
Total			**273.6114**	**0.0443**	**5.3600e-003**	**276.3169**

Mitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
Automobile Care Center	29774.9		2.7549	4.5000e-004	5.0000e-005	2.7821
City Park	0		0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant with Drive Thru	276300		25.5643	4.1400e-003	5.0000e-004	25.8171
Hardware/Paint Store	432060		39.9758	6.4700e-003	7.8000e-004	40.3711
Other Non-Asphalt Surfaces	0		0.0000	0.0000	0.0000	0.0000
Parking Lot	6990.2		0.6468	1.0000e-004	1.0000e-005	0.6532
Parking Lot	85636.9		7.9235	1.2800e-003	1.6000e-004	8.0018
Strip Mall	142125		13.1499	2.1300e-003	2.6000e-004	13.2800
Supermarket	1.98431e+006		183.5962	0.0297	3.6000e-003	185.4116
Total			**273.6114**	**0.0443**	**5.3600e-003**	**276.3169**

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	0.4889	3.0000e-005	3.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.9000e-003	6.9000e-003	2.0000e-005	0.0000	7.3600e-003
Unmitigated	0.4889	3.0000e-005	3.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.9000e-003	6.9000e-003	2.0000e-005	0.0000	7.3600e-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	0.0281					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4605					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.3000e-004	3.0000e-005	3.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.9000e-003	6.9000e-003	2.0000e-005	0.0000	7.3600e-003
Total	**0.4889**	**3.0000e-005**	**3.5500e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**6.9000e-003**	**6.9000e-003**	**2.0000e-005**	**0.0000**	**7.3600e-003**

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

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	0.0281					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4605					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.3000e-004	3.0000e-005	3.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.9000e-003	6.9000e-003	2.0000e-005	0.0000	7.3600e-003
Total	**0.4889**	**3.0000e-005**	**3.5500e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**6.9000e-003**	**6.9000e-003**	**2.0000e-005**	**0.0000**	**7.3600e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

		Total CO2	CH4	N2O	CO2e
Category	tons/yr	MT/yr			
Mitigated		12.5115	0.4244	0.0102	26.1478
Unmitigated		12.5115	0.4244	0.0102	26.1478

Manteca Marketplace at Main - San Joaquin County, Annual

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

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

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
Automobile Care Center	0.338692 / 0.207585		0.3442	0.0111	2.7000e-004	0.7001
City Park	0 / 2.9787		0.9646	1.6000e-004	2.0000e-005	0.9741
Fast Food Restaurant with Drive Thru	2.7318 / 0.17437		2.2908	0.0893	2.1300e-003	5.1566
Hardware/Paint Store	2.81476 / 1.72517		2.8609	0.0920	2.2000e-003	5.8187
Other Non-Asphalt Surfaces	0 / 0		0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0		0.0000	0.0000	0.0000	0.0000
Strip Mall	0.925907 / 0.567491		0.9411	0.0303	7.3000e-004	1.9140
Supermarket	6.17204 / 0.190888		5.1099	0.2016	4.8100e-003	11.5841
Total			**12.5115**	**0.4244**	**0.0102**	**26.1477**

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

Mitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
Automobile Care Center	0.338692 / 0.207585		0.3442	0.0111	2.7000e-004	0.7001
City Park	0 / 2.9787		0.9646	1.6000e-004	2.0000e-005	0.9741
Fast Food Restaurant with Drive Thru	2.7318 / 0.17437		2.2908	0.0893	2.1300e-003	5.1566
Hardware/Paint Store	2.81476 / 1.72517		2.8609	0.0920	2.2000e-003	5.8187
Other Non-Asphalt Surfaces	0 / 0		0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0		0.0000	0.0000	0.0000	0.0000
Strip Mall	0.925907 / 0.567491		0.9411	0.0303	7.3000e-004	1.9140
Supermarket	6.17204 / 0.190888		5.1099	0.2016	4.8100e-003	11.5841
Total			**12.5115**	**0.4244**	**0.0102**	**26.1477**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

Manteca Marketplace at Main - San Joaquin County, Annual

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

		Total CO2	CH4	N2O	CO2e
	tons/yr	MT/yr			
Mitigated		169.4041	10.0115	0.0000	419.6914
Unmitigated		169.4041	10.0115	0.0000	419.6914

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

8.2 Waste by Land Use

Unmitigated

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
Automobile Care Center	13.75		2.7911	0.1650	0.0000	6.9149
City Park	0.21		0.0426	2.5200e-003	0.0000	0.1056
Fast Food Restaurant with Drive Thru	103.67		21.0441	1.2437	0.0000	52.1358
Hardware/Paint Store	421.39		85.5384	5.0552	0.0000	211.9177
Other Non-Asphalt Surfaces	0		0.0000	0.0000	0.0000	0.0000
Parking Lot	0		0.0000	0.0000	0.0000	0.0000
Strip Mall	13.13		2.6653	0.1575	0.0000	6.6031
Supermarket	282.39		57.3226	3.3877	0.0000	142.0144
Total			**169.4041**	**10.0115**	**0.0000**	**419.6914**

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

Mitigated

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
Automobile Care Center	13.75		2.7911	0.1650	0.0000	6.9149
City Park	0.21		0.0426	2.5200e-003	0.0000	0.1056
Fast Food Restaurant with Drive Thru	103.67		21.0441	1.2437	0.0000	52.1358
Hardware/Paint Store	421.39		85.5384	5.0552	0.0000	211.9177
Other Non-Asphalt Surfaces	0		0.0000	0.0000	0.0000	0.0000
Parking Lot	0		0.0000	0.0000	0.0000	0.0000
Strip Mall	13.13		2.6653	0.1575	0.0000	6.6031
Supermarket	282.39		57.3226	3.3877	0.0000	142.0144
Total			**169.4041**	**10.0115**	**0.0000**	**419.6914**

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

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

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Manteca Marketplace at Main - San Joaquin County, Summer

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

Manteca Marketplace at Main

San Joaquin County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	6.06	1000sqft	0.14	6,061.00	0
Parking Lot	244.68	1000sqft	5.62	244,677.00	0
Parking Lot	19.97	1000sqft	0.46	19,972.00	0
City Park	2.29	Acre	2.29	99,752.40	0
City Park	0.21	Acre	0.21	9,147.60	0
Fast Food Restaurant with Drive Thru	9.00	1000sqft	0.21	9,000.00	0
Automobile Care Center	3.60	1000sqft	0.08	3,596.00	0
Hardware/Paint Store	38.00	1000sqft	0.87	38,000.00	0
Strip Mall	12.50	1000sqft	0.29	12,500.00	0
Supermarket	50.07	1000sqft	1.15	50,071.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	51
Climate Zone	2			**Operational Year**	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Note 1

Construction Phase - Note 2

Manteca Marketplace at Main - San Joaquin County, Summer

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

Demolition - Note 1

Grading - Note 3

Architectural Coating - Note 2

Vehicle Trips - Note 4

Area Coating - Note 2

Construction Off-road Equipment Mitigation - Note 5

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	50.00
tblArchitecturalCoating	EF_Parking	150.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	150.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	50
tblAreaCoating	Area_EF_Nonresidential_Interior	150	50
tblAreaCoating	Area_EF_Parking	150	50
tblAreaCoating	Area_EF_Residential_Exterior	150	50
tblAreaCoating	Area_EF_Residential_Interior	150	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblGrading	MaterialExported	0.00	16,000.00
tblGrading	MaterialImported	0.00	20,000.00
tblLandUse	LandUseSquareFeet	6,060.00	6,061.00
tblLandUse	LandUseSquareFeet	19,970.00	19,972.00
tblLandUse	LandUseSquareFeet	244,680.00	244,677.00
tblLandUse	LandUseSquareFeet	3,600.00	3,596.00
tblLandUse	LandUseSquareFeet	50,070.00	50,071.00
tblVehicleTrips	ST_TR	23.72	891.00
tblVehicleTrips	ST_TR	1.96	0.00

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

tblVehicleTrips	ST_TR	616.12	595.62
tblVehicleTrips	ST_TR	9.14	114.48
tblVehicleTrips	ST_TR	42.04	114.48
tblVehicleTrips	ST_TR	177.62	114.48
tblVehicleTrips	SU_TR	11.88	446.25
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	472.58	456.86
tblVehicleTrips	SU_TR	9.14	83.65
tblVehicleTrips	SU_TR	20.43	83.65
tblVehicleTrips	SU_TR	166.47	83.65
tblVehicleTrips	WD_TR	23.72	891.00
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	470.95	451.93
tblVehicleTrips	WD_TR	9.14	93.13
tblVehicleTrips	WD_TR	44.32	93.13
tblVehicleTrips	WD_TR	106.78	93.13

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	4.2769	60.8918	33.9089	0.1558	19.8049	1.8669	21.4182	10.1417	1.7260	11.6259	0.0000	15,942.9035	15,942.9035	2.0173	1.5419	16,452.8107
2023	28.4278	18.1596	22.2982	0.0577	2.1672	0.7304	2.8976	0.5873	0.6874	1.2747	0.0000	5,741.1601	5,741.1601	0.7170	0.2963	5,845.8545

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

Maximum	**28.4278**	**60.8918**	**33.9089**	**0.1558**	**19.8049**	**1.8669**	**21.4182**	**10.1417**	**1.7260**	**11.6259**	**0.0000**	**15,942.9035**	**15,942.9035**	**2.0173**	**1.5419**	**16,452.8107**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	4.2769	60.8918	33.9089	0.1558	8.9935	1.8669	10.6068	4.5853	1.7260	6.0696	0.0000	15,942.9035	15,942.9035	2.0173	1.5419	16,452.8107
2023	28.4278	18.1596	22.2982	0.0577	2.1672	0.7304	2.8976	0.5873	0.6874	1.2747	0.0000	5,741.1601	5,741.1601	0.7170	0.2963	5,845.8545
Maximum	**28.4278**	**60.8918**	**33.9089**	**0.1558**	**8.9935**	**1.8669**	**10.6068**	**4.5853**	**1.7260**	**6.0696**	**0.0000**	**15,942.9035**	**15,942.9035**	**2.0173**	**1.5419**	**16,452.8107**

	ROG	NOx	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

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

Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**49.20**	**0.00**	**44.46**	**51.79**	**0.00**	**43.07**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.6810	3.6000e-004	0.0394	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0846	0.0846	2.2000e-004		0.0901
Energy	0.1054	0.9578	0.8046	5.7500e-003		0.0728	0.0728		0.0728	0.0728		1,149.3854	1,149.3854	0.0220	0.0211	1,156.2156
Mobile	49.9250	43.3404	280.2046	0.5369	49.1197	0.4516	49.5713	13.1029	0.4226	13.5256		54,674.3803	54,674.3803	4.0449	3.3016	55,759.3754
Total	**52.7113**	**44.2986**	**281.0487**	**0.5427**	**49.1197**	**0.5246**	**49.6442**	**13.1029**	**0.4955**	**13.5985**		**55,823.8503**	**55,823.8503**	**4.0671**	**3.3227**	**56,915.6811**

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

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.6810	3.6000e-004	0.0394	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0846	0.0846	2.2000e-004		0.0901
Energy	0.1054	0.9578	0.8046	5.7500e-003		0.0728	0.0728		0.0728	0.0728		1,149.3854	1,149.3854	0.0220	0.0211	1,156.2156
Mobile	49.9250	43.3404	280.2046	0.5369	49.1197	0.4516	49.5713	13.1029	0.4226	13.5256		54,674.3803	54,674.3803	4.0449	3.3016	55,759.3754
Total	**52.7113**	**44.2986**	**281.0487**	**0.5427**	**49.1197**	**0.5246**	**49.6442**	**13.1029**	**0.4955**	**13.5985**		**55,823.8503**	**55,823.8503**	**4.0671**	**3.3227**	**56,915.6811**

	ROG	NOx	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	6/1/2022	6/28/2022	5	20	
2	Site Preparation	Site Preparation	6/29/2022	7/12/2022	5	10	
3	Grading	Grading	7/13/2022	8/23/2022	5	30	
4	Building Construction	Building Construction	8/24/2022	10/17/2023	5	300	
5	Paving	Paving	10/18/2023	11/14/2023	5	20	

6	Architectural Coating	Architectural Coating	11/15/2023	12/12/2023	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 90

Acres of Paving: 6.22

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 169,754; Non-Residential Outdoor: 56,585; Striped Parking Area: 16,243 (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
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

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

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	14.00	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	4,500.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	197.00	81.00	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	39.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1550	0.0000	0.1550	0.0235	0.0000	0.0235			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553		3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**0.1550**	**1.2427**	**1.3976**	**0.0235**	**1.1553**	**1.1787**		**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.7100e-003	0.1027	0.0201	4.3000e-004	0.0123	1.0800e-003	0.0133	3.3600e-003	1.0300e-003	4.3900e-003		45.6286	45.6286	3.2000e-004	7.1800e-003	47.7752
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0533	0.0300	0.4190	1.1400e-003	0.1232	6.3000e-004	0.1239	0.0327	5.8000e-004	0.0333		115.4571	115.4571	3.3400e-003	3.0300e-003	116.4447
Total	**0.0560**	**0.1327**	**0.4391**	**1.5700e-003**	**0.1355**	**1.7100e-003**	**0.1372**	**0.0360**	**1.6100e-003**	**0.0377**		**161.0856**	**161.0856**	**3.6600e-003**	**0.0102**	**164.2199**

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0697	0.0000	0.0697	0.0106	0.0000	0.0106			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553	0.0000	3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**0.0697**	**1.2427**	**1.3124**	**0.0106**	**1.1553**	**1.1658**	**0.0000**	**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.7100e-003	0.1027	0.0201	4.3000e-004	0.0123	1.0800e-003	0.0133	3.3600e-003	1.0300e-003	4.3900e-003		45.6286	45.6286	3.2000e-004	7.1800e-003	47.7752
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0533	0.0300	0.4190	1.1400e-003	0.1232	6.3000e-004	0.1239	0.0327	5.8000e-004	0.0333		115.4571	115.4571	3.3400e-003	3.0300e-003	116.4447
Total	**0.0560**	**0.1327**	**0.4391**	**1.5700e-003**	**0.1355**	**1.7100e-003**	**0.1372**	**0.0360**	**1.6100e-003**	**0.0377**		**161.0856**	**161.0856**	**3.6600e-003**	**0.0102**	**164.2199**

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	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**19.6570**	**1.6126**	**21.2696**	**10.1025**	**1.4836**	**11.5860**		**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0639	0.0360	0.5028	1.3700e-003	0.1479	7.5000e-004	0.1486	0.0392	6.9000e-004	0.0399		138.5485	138.5485	4.0000e-003	3.6400e-003	139.7337
Total	**0.0639**	**0.0360**	**0.5028**	**1.3700e-003**	**0.1479**	**7.5000e-004**	**0.1486**	**0.0392**	**6.9000e-004**	**0.0399**		**138.5485**	**138.5485**	**4.0000e-003**	**3.6400e-003**	**139.7337**

Manteca Marketplace at Main - San Joaquin County, Summer

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.8457	0.0000	8.8457	4.5461	0.0000	4.5461			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**8.8457**	**1.6126**	**10.4582**	**4.5461**	**1.4836**	**6.0297**	**0.0000**	**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0639	0.0360	0.5028	1.3700e-003	0.1479	7.5000e-004	0.1486	0.0392	6.9000e-004	0.0399		138.5485	138.5485	4.0000e-003	3.6400e-003	139.7337
Total	**0.0639**	**0.0360**	**0.5028**	**1.3700e-003**	**0.1479**	**7.5000e-004**	**0.1486**	**0.0392**	**6.9000e-004**	**0.0399**		**138.5485**	**138.5485**	**4.0000e-003**	**3.6400e-003**	**139.7337**

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	lb/day										lb/day					
Fugitive Dust					9.3807	0.0000	9.3807	3.6806	0.0000	3.6806			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**9.3807**	**1.6349**	**11.0156**	**3.6806**	**1.5041**	**5.1847**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5810	22.0084	4.3088	0.0922	2.6270	0.2312	2.8581	0.7203	0.2212	0.9415		9,777.5502	9,777.5502	0.0686	1.5378	10,237.5353
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0710	0.0400	0.5586	1.5200e-003	0.1643	8.3000e-004	0.1651	0.0436	7.7000e-004	0.0444		153.9427	153.9427	4.4500e-003	4.0500e-003	155.2596
Total	**0.6520**	**22.0483**	**4.8674**	**0.0937**	**2.7913**	**0.2320**	**3.0233**	**0.7639**	**0.2220**	**0.9859**		**9,931.4929**	**9,931.4929**	**0.0730**	**1.5419**	**10,392.7949**

Manteca Marketplace at Main - San Joaquin County, Summer

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.2213	0.0000	4.2213	1.6563	0.0000	1.6563			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**4.2213**	**1.6349**	**5.8562**	**1.6563**	**1.5041**	**3.1604**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5810	22.0084	4.3088	0.0922	2.6270	0.2312	2.8581	0.7203	0.2212	0.9415		9,777.5502	9,777.5502	0.0686	1.5378	10,237.5353
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0710	0.0400	0.5586	1.5200e-003	0.1643	8.3000e-004	0.1651	0.0436	7.7000e-004	0.0444		153.9427	153.9427	4.4500e-003	4.0500e-003	155.2596
Total	**0.6520**	**22.0483**	**4.8674**	**0.0937**	**2.7913**	**0.2320**	**3.0233**	**0.7639**	**0.2220**	**0.9859**		**9,931.4929**	**9,931.4929**	**0.0730**	**1.5419**	**10,392.7949**

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

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1732	4.2767	1.2124	0.0169	0.5489	0.0490	0.5979	0.1581	0.0468	0.2049		1,786.8194	1,786.8194	0.0128	0.2707	1,867.7976
Worker	0.6997	0.3938	5.5025	0.0150	1.6183	8.2200e-003	1.6265	0.4293	7.5600e-003	0.4368		1,516.3359	1,516.3359	0.0438	0.0399	1,529.3071
Total	**0.8728**	**4.6704**	**6.7148**	**0.0319**	**2.1672**	**0.0572**	**2.2244**	**0.5873**	**0.0544**	**0.6417**		**3,303.1553**	**3,303.1553**	**0.0566**	**0.3105**	**3,397.1047**

Manteca Marketplace at Main - San Joaquin County, Summer

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1732	4.2767	1.2124	0.0169	0.5489	0.0490	0.5979	0.1581	0.0468	0.2049		1,786.8194	1,786.8194	0.0128	0.2707	1,867.7976
Worker	0.6997	0.3938	5.5025	0.0150	1.6183	8.2200e-003	1.6265	0.4293	7.5600e-003	0.4368		1,516.3359	1,516.3359	0.0438	0.0399	1,529.3071
Total	**0.8728**	**4.6704**	**6.7148**	**0.0319**	**2.1672**	**0.0572**	**2.2244**	**0.5873**	**0.0544**	**0.6417**		**3,303.1553**	**3,303.1553**	**0.0566**	**0.3105**	**3,397.1047**

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

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0882	3.4312	1.0391	0.0163	0.5489	0.0229	0.5718	0.1581	0.0219	0.1799		1,718.9212	1,718.9212	8.5700e-003	0.2598	1,796.5409
Worker	0.6414	0.3436	5.0151	0.0145	1.6183	7.7400e-003	1.6261	0.4293	7.1200e-003	0.4364		1,467.0290	1,467.0290	0.0391	0.0366	1,478.9075
Total	**0.7296**	**3.7747**	**6.0542**	**0.0308**	**2.1672**	**0.0306**	**2.1979**	**0.5873**	**0.0290**	**0.6163**		**3,185.9502**	**3,185.9502**	**0.0476**	**0.2963**	**3,275.4484**

Manteca Marketplace at Main - San Joaquin County, Summer

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0882	3.4312	1.0391	0.0163	0.5489	0.0229	0.5718	0.1581	0.0219	0.1799		1,718.9212	1,718.9212	8.5700e-003	0.2598	1,796.5409
Worker	0.6414	0.3436	5.0151	0.0145	1.6183	7.7400e-003	1.6261	0.4293	7.1200e-003	0.4364		1,467.0290	1,467.0290	0.0391	0.0366	1,478.9075
Total	**0.7296**	**3.7747**	**6.0542**	**0.0308**	**2.1672**	**0.0306**	**2.1979**	**0.5873**	**0.0290**	**0.6163**		**3,185.9502**	**3,185.9502**	**0.0476**	**0.2963**	**3,275.4484**

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

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.7965					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.8292**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0488	0.0262	0.3819	1.1100e-003	0.1232	5.9000e-004	0.1238	0.0327	5.4000e-004	0.0332		111.7027	111.7027	2.9700e-003	2.7900e-003	112.6072
Total	**0.0488**	**0.0262**	**0.3819**	**1.1100e-003**	**0.1232**	**5.9000e-004**	**0.1238**	**0.0327**	**5.4000e-004**	**0.0332**		**111.7027**	**111.7027**	**2.9700e-003**	**2.7900e-003**	**112.6072**

Manteca Marketplace at Main - San Joaquin County, Summer

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.7965					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.8292**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0488	0.0262	0.3819	1.1100e-003	0.1232	5.9000e-004	0.1238	0.0327	5.4000e-004	0.0332		111.7027	111.7027	2.9700e-003	2.7900e-003	112.6072
Total	**0.0488**	**0.0262**	**0.3819**	**1.1100e-003**	**0.1232**	**5.9000e-004**	**0.1238**	**0.0327**	**5.4000e-004**	**0.0332**		**111.7027**	**111.7027**	**2.9700e-003**	**2.7900e-003**	**112.6072**

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

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	28.1092					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**28.3009**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1270	0.0680	0.9928	2.8700e-003	0.3204	1.5300e-003	0.3219	0.0850	1.4100e-003	0.0864		290.4271	290.4271	7.7300e-003	7.2400e-003	292.7786
Total	**0.1270**	**0.0680**	**0.9928**	**2.8700e-003**	**0.3204**	**1.5300e-003**	**0.3219**	**0.0850**	**1.4100e-003**	**0.0864**		**290.4271**	**290.4271**	**7.7300e-003**	**7.2400e-003**	**292.7786**

Manteca Marketplace at Main - San Joaquin County, Summer

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	28.1092					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**28.3009**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1270	0.0680	0.9928	2.8700e-003	0.3204	1.5300e-003	0.3219	0.0850	1.4100e-003	0.0864		290.4271	290.4271	7.7300e-003	7.2400e-003	292.7786
Total	**0.1270**	**0.0680**	**0.9928**	**2.8700e-003**	**0.3204**	**1.5300e-003**	**0.3219**	**0.0850**	**1.4100e-003**	**0.0864**		**290.4271**	**290.4271**	**7.7300e-003**	**7.2400e-003**	**292.7786**

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	49.9250	43.3404	280.2046	0.5369	49.1197	0.4516	49.5713	13.1029	0.4226	13.5256		54,674.3803	54,674.3803	4.0449	3.3016	55,759.3754
Unmitigated	49.9250	43.3404	280.2046	0.5369	49.1197	0.4516	49.5713	13.1029	0.4226	13.5256		54,674.3803	54,674.3803	4.0449	3.3016	55,759.3754

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	3,207.60	3,207.60	1606.50	2,967,510	2,967,510
City Park	0.00	0.00	0.00		
City Park	0.00	0.00	0.00		
Fast Food Restaurant with Drive Thru	4,067.37	5,360.58	4111.74	3,978,779	3,978,779
Hardware/Paint Store	3,538.94	4,350.24	3178.70	5,242,034	5,242,034
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Strip Mall	1,164.13	1,431.00	1045.63	1,825,434	1,825,434
Supermarket	4,663.02	5,732.01	4188.36	5,400,495	5,400,495
Total	16,641.05	20,081.43	14,130.92	19,414,253	19,414,253

Manteca Marketplace at Main - San Joaquin County, Summer

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

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
Automobile Care Center	9.50	7.30	7.30	33.00	48.00	19.00	21	51	28
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Fast Food Restaurant with Drive	9.50	7.30	7.30	2.20	78.80	19.00	29	21	50
Hardware/Paint Store	9.50	7.30	7.30	13.60	67.40	19.00	45	29	26
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15
Supermarket	9.50	7.30	7.30	6.50	74.50	19.00	34	30	36

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.003707
City Park	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.003707
Fast Food Restaurant with Drive Thru	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.003707
Hardware/Paint Store	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.003707
Other Non-Asphalt Surfaces	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.003707
Parking Lot	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.003707
Strip Mall	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.003707
Supermarket	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.003707

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Manteca Marketplace at Main - San Joaquin County, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1054	0.9578	0.8046	5.7500e-003		0.0728	0.0728		0.0728	0.0728		1,149.3854	1,149.3854	0.0220	0.0211	1,156.2156
NaturalGas Unmitigated	0.1054	0.9578	0.8046	5.7500e-003		0.0728	0.0728		0.0728	0.0728		1,149.3854	1,149.3854	0.0220	0.0211	1,156.2156

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Automobile Care Center	181.77	1.9600e-003	0.0178	0.0150	1.1000e-004		1.3500e-003	1.3500e-003		1.3500e-003	1.3500e-003		21.3848	21.3848	4.1000e-004	3.9000e-004	21.5118
City Park	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
Fast Food Restaurant with Drive Thru	2687.92	0.0290	0.2635	0.2214	1.5800e-003		0.0200	0.0200		0.0200	0.0200		316.2256	316.2256	6.0600e-003	5.8000e-003	318.1048
Hardware/Paint Store	1205.59	0.0130	0.1182	0.0993	7.1000e-004		8.9800e-003	8.9800e-003		8.9800e-003	8.9800e-003		141.8340	141.8340	2.7200e-003	2.6000e-003	142.6769
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	396.575	4.2800e-003	0.0389	0.0327	2.3000e-004		2.9500e-003	2.9500e-003		2.9500e-003	2.9500e-003		46.6559	46.6559	8.9000e-004	8.6000e-004	46.9332
Supermarket	5297.92	0.0571	0.5194	0.4363	3.1200e-003		0.0395	0.0395		0.0395	0.0395		623.2851	623.2851	0.0120	0.0114	626.9890
Total		**0.1054**	**0.9578**	**0.8046**	**5.7500e-003**		**0.0728**	**0.0728**		**0.0728**	**0.0728**		**1,149.3854**	**1,149.3854**	**0.0220**	**0.0211**	**1,156.2156**

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

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Automobile Care Center	0.18177	1.9600e-003	0.0178	0.0150	1.1000e-004		1.3500e-003	1.3500e-003		1.3500e-003	1.3500e-003		21.3848	21.3848	4.1000e-004	3.9000e-004	21.5118
City Park	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
Fast Food Restaurant with Drive Thru	2.68792	0.0290	0.2635	0.2214	1.5800e-003		0.0200	0.0200		0.0200	0.0200		316.2256	316.2256	6.0600e-003	5.8000e-003	318.1048
Hardware/Paint Store	1.20559	0.0130	0.1182	0.0993	7.1000e-004		8.9800e-003	8.9800e-003		8.9800e-003	8.9800e-003		141.8340	141.8340	2.7200e-003	2.6000e-003	142.6769
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.396575	4.2800e-003	0.0389	0.0327	2.3000e-004		2.9500e-003	2.9500e-003		2.9500e-003	2.9500e-003		46.6559	46.6559	8.9000e-004	8.6000e-004	46.9332
Supermarket	5.29792	0.0571	0.5194	0.4363	3.1200e-003		0.0395	0.0395		0.0395	0.0395		623.2851	623.2851	0.0120	0.0114	626.9890
Total		**0.1054**	**0.9578**	**0.8046**	**5.7500e-003**		**0.0728**	**0.0728**		**0.0728**	**0.0728**		**1,149.3854**	**1,149.3854**	**0.0220**	**0.0211**	**1,156.2156**

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	lb/day										lb/day					
Mitigated	2.6810	3.6000e-004	0.0394	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0846	0.0846	2.2000e-004		0.0901
Unmitigated	2.6810	3.6000e-004	0.0394	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0846	0.0846	2.2000e-004		0.0901

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1540					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.5233					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.6500e-003	3.6000e-004	0.0394	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0846	0.0846	2.2000e-004		0.0901
Total	**2.6810**	**3.6000e-004**	**0.0394**	**0.0000**		**1.4000e-004**	**1.4000e-004**		**1.4000e-004**	**1.4000e-004**		**0.0846**	**0.0846**	**2.2000e-004**		**0.0901**

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

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1540					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.5233					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.6500e-003	3.6000e-004	0.0394	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0846	0.0846	2.2000e-004		0.0901
Total	**2.6810**	**3.6000e-004**	**0.0394**	**0.0000**		**1.4000e-004**	**1.4000e-004**		**1.4000e-004**	**1.4000e-004**		**0.0846**	**0.0846**	**2.2000e-004**		**0.0901**

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Manteca Marketplace at Main - San Joaquin County, Winter

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

Manteca Marketplace at Main

San Joaquin County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	6.06	1000sqft	0.14	6,061.00	0
Parking Lot	244.68	1000sqft	5.62	244,677.00	0
Parking Lot	19.97	1000sqft	0.46	19,972.00	0
City Park	2.29	Acre	2.29	99,752.40	0
City Park	0.21	Acre	0.21	9,147.60	0
Fast Food Restaurant with Drive Thru	9.00	1000sqft	0.21	9,000.00	0
Automobile Care Center	3.60	1000sqft	0.08	3,596.00	0
Hardware/Paint Store	38.00	1000sqft	0.87	38,000.00	0
Strip Mall	12.50	1000sqft	0.29	12,500.00	0
Supermarket	50.07	1000sqft	1.15	50,071.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	51
Climate Zone	2			**Operational Year**	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Note 1

Construction Phase - Note 2

Manteca Marketplace at Main - San Joaquin County, Winter

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

Demolition - Note 1

Grading - Note 3

Architectural Coating - Note 2

Vehicle Trips - Note 4

Area Coating - Note 2

Construction Off-road Equipment Mitigation - Note 5

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	50.00
tblArchitecturalCoating	EF_Parking	150.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	150.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	50
tblAreaCoating	Area_EF_Nonresidential_Interior	150	50
tblAreaCoating	Area_EF_Parking	150	50
tblAreaCoating	Area_EF_Residential_Exterior	150	50
tblAreaCoating	Area_EF_Residential_Interior	150	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblGrading	MaterialExported	0.00	16,000.00
tblGrading	MaterialImported	0.00	20,000.00
tblLandUse	LandUseSquareFeet	6,060.00	6,061.00
tblLandUse	LandUseSquareFeet	19,970.00	19,972.00
tblLandUse	LandUseSquareFeet	244,680.00	244,677.00
tblLandUse	LandUseSquareFeet	3,600.00	3,596.00
tblLandUse	LandUseSquareFeet	50,070.00	50,071.00
tblVehicleTrips	ST_TR	23.72	891.00
tblVehicleTrips	ST_TR	1.96	0.00

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

tblVehicleTrips	ST_TR	616.12	595.62
tblVehicleTrips	ST_TR	9.14	114.48
tblVehicleTrips	ST_TR	42.04	114.48
tblVehicleTrips	ST_TR	177.62	114.48
tblVehicleTrips	SU_TR	11.88	446.25
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	472.58	456.86
tblVehicleTrips	SU_TR	9.14	83.65
tblVehicleTrips	SU_TR	20.43	83.65
tblVehicleTrips	SU_TR	166.47	83.65
tblVehicleTrips	WD_TR	23.72	891.00
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	470.95	451.93
tblVehicleTrips	WD_TR	9.14	93.13
tblVehicleTrips	WD_TR	44.32	93.13
tblVehicleTrips	WD_TR	106.78	93.13

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	4.2524	62.3832	33.9520	0.1557	19.8049	1.8672	21.4182	10.1417	1.7263	11.6259	0.0000	15,934.2599	15,934.2599	2.0169	1.5434	16,444.6233
2023	28.4200	18.4693	21.8332	0.0563	2.1672	0.7304	2.8977	0.5873	0.6875	1.2748	0.0000	5,602.9840	5,602.9840	0.7174	0.3021	5,709.5081

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

Maximum	**28.4200**	**62.3832**	**33.9520**	**0.1557**	**19.8049**	**1.8672**	**21.4182**	**10.1417**	**1.7263**	**11.6259**	**0.0000**	**15,934.2599**	**15,934.2599**	**2.0169**	**1.5434**	**16,444.6233**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	4.2524	62.3832	33.9520	0.1557	8.9935	1.8672	10.6068	4.5853	1.7263	6.0696	0.0000	15,934.2599	15,934.2599	2.0169	1.5434	16,444.6233
2023	28.4200	18.4693	21.8332	0.0563	2.1672	0.7304	2.8977	0.5873	0.6875	1.2748	0.0000	5,602.9840	5,602.9840	0.7174	0.3021	5,709.5081
Maximum	**28.4200**	**62.3832**	**33.9520**	**0.1557**	**8.9935**	**1.8672**	**10.6068**	**4.5853**	**1.7263**	**6.0696**	**0.0000**	**15,934.2599**	**15,934.2599**	**2.0169**	**1.5434**	**16,444.6233**

	ROG	NOx	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

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

Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**49.20**	**0.00**	**44.46**	**51.79**	**0.00**	**43.07**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.6810	3.6000e-004	0.0394	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0846	0.0846	2.2000e-004		0.0901
Energy	0.1054	0.9578	0.8046	5.7500e-003		0.0728	0.0728		0.0728	0.0728		1,149.3854	1,149.3854	0.0220	0.0211	1,156.2156
Mobile	39.0015	49.2333	307.0954	0.4999	49.1197	0.4523	49.5720	13.1029	0.4233	13.5262		50,930.3379	50,930.3379	4.8930	3.5941	52,123.7118
Total	**41.7878**	**50.1914**	**307.9394**	**0.5057**	**49.1197**	**0.5252**	**49.6449**	**13.1029**	**0.4962**	**13.5991**		**52,079.8078**	**52,079.8078**	**4.9152**	**3.6152**	**53,280.0175**

Manteca Marketplace at Main - San Joaquin County, Winter

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

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.6810	3.6000e-004	0.0394	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0846	0.0846	2.2000e-004		0.0901
Energy	0.1054	0.9578	0.8046	5.7500e-003		0.0728	0.0728		0.0728	0.0728		1,149.3854	1,149.3854	0.0220	0.0211	1,156.2156
Mobile	39.0015	49.2333	307.0954	0.4999	49.1197	0.4523	49.5720	13.1029	0.4233	13.5262		50,930.3379	50,930.3379	4.8930	3.5941	52,123.7118
Total	**41.7878**	**50.1914**	**307.9394**	**0.5057**	**49.1197**	**0.5252**	**49.6449**	**13.1029**	**0.4962**	**13.5991**		**52,079.8078**	**52,079.8078**	**4.9152**	**3.6152**	**53,280.0175**

	ROG	NOx	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	6/1/2022	6/28/2022	5	20	
2	Site Preparation	Site Preparation	6/29/2022	7/12/2022	5	10	
3	Grading	Grading	7/13/2022	8/23/2022	5	30	
4	Building Construction	Building Construction	8/24/2022	10/17/2023	5	300	
5	Paving	Paving	10/18/2023	11/14/2023	5	20	

6	Architectural Coating	Architectural Coating	11/15/2023	12/12/2023	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 90

Acres of Paving: 6.22

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 169,754; Non-Residential Outdoor: 56,585; Striped Parking Area: 16,243 (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
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

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

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	14.00	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	4,500.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	197.00	81.00	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	39.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1550	0.0000	0.1550	0.0235	0.0000	0.0235			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553		3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**0.1550**	**1.2427**	**1.3976**	**0.0235**	**1.1553**	**1.1787**		**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

Manteca Marketplace at Main - San Joaquin County, Winter

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.6200e-003	0.1096	0.0206	4.3000e-004	0.0123	1.0800e-003	0.0133	3.3600e-003	1.0300e-003	4.4000e-003		45.6577	45.6577	3.2000e-004	7.1800e-003	47.8056
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0498	0.0363	0.3751	1.0300e-003	0.1232	6.3000e-004	0.1239	0.0327	5.8000e-004	0.0333		104.2886	104.2886	3.7700e-003	3.4500e-003	105.4118
Total	**0.0525**	**0.1460**	**0.3957**	**1.4600e-003**	**0.1355**	**1.7100e-003**	**0.1372**	**0.0360**	**1.6100e-003**	**0.0377**		**149.9464**	**149.9464**	**4.0900e-003**	**0.0106**	**153.2174**

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0697	0.0000	0.0697	0.0106	0.0000	0.0106			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553	0.0000	3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**0.0697**	**1.2427**	**1.3124**	**0.0106**	**1.1553**	**1.1658**	**0.0000**	**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.6200e-003	0.1096	0.0206	4.3000e-004	0.0123	1.0800e-003	0.0133	3.3600e-003	1.0300e-003	4.4000e-003		45.6577	45.6577	3.2000e-004	7.1800e-003	47.8056
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0498	0.0363	0.3751	1.0300e-003	0.1232	6.3000e-004	0.1239	0.0327	5.8000e-004	0.0333		104.2886	104.2886	3.7700e-003	3.4500e-003	105.4118
Total	**0.0525**	**0.1460**	**0.3957**	**1.4600e-003**	**0.1355**	**1.7100e-003**	**0.1372**	**0.0360**	**1.6100e-003**	**0.0377**		**149.9464**	**149.9464**	**4.0900e-003**	**0.0106**	**153.2174**

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	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**19.6570**	**1.6126**	**21.2696**	**10.1025**	**1.4836**	**11.5860**		**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0598	0.0436	0.4501	1.2400e-003	0.1479	7.5000e-004	0.1486	0.0392	6.9000e-004	0.0399		125.1464	125.1464	4.5300e-003	4.1400e-003	126.4941
Total	**0.0598**	**0.0436**	**0.4501**	**1.2400e-003**	**0.1479**	**7.5000e-004**	**0.1486**	**0.0392**	**6.9000e-004**	**0.0399**		**125.1464**	**125.1464**	**4.5300e-003**	**4.1400e-003**	**126.4941**

Manteca Marketplace at Main - San Joaquin County, Winter

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.8457	0.0000	8.8457	4.5461	0.0000	4.5461			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**8.8457**	**1.6126**	**10.4582**	**4.5461**	**1.4836**	**6.0297**	**0.0000**	**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0598	0.0436	0.4501	1.2400e-003	0.1479	7.5000e-004	0.1486	0.0392	6.9000e-004	0.0399		125.1464	125.1464	4.5300e-003	4.1400e-003	126.4941
Total	**0.0598**	**0.0436**	**0.4501**	**1.2400e-003**	**0.1479**	**7.5000e-004**	**0.1486**	**0.0392**	**6.9000e-004**	**0.0399**		**125.1464**	**125.1464**	**4.5300e-003**	**4.1400e-003**	**126.4941**

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	lb/day										lb/day					
Fugitive Dust					9.3807	0.0000	9.3807	3.6806	0.0000	3.6806			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**9.3807**	**1.6349**	**11.0156**	**3.6806**	**1.5041**	**5.1847**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5612	23.4913	4.4103	0.0922	2.6270	0.2315	2.8584	0.7203	0.2215	0.9418		9,783.7978	9,783.7978	0.0677	1.5388	10,244.0585
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0664	0.0484	0.5001	1.3800e-003	0.1643	8.3000e-004	0.1651	0.0436	7.7000e-004	0.0444		139.0515	139.0515	5.0300e-003	4.6000e-003	140.5490
Total	**0.6276**	**23.5398**	**4.9104**	**0.0936**	**2.7913**	**0.2323**	**3.0236**	**0.7639**	**0.2223**	**0.9862**		**9,922.8493**	**9,922.8493**	**0.0727**	**1.5434**	**10,384.6075**

Manteca Marketplace at Main - San Joaquin County, Winter

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.2213	0.0000	4.2213	1.6563	0.0000	1.6563			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**4.2213**	**1.6349**	**5.8562**	**1.6563**	**1.5041**	**3.1604**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5612	23.4913	4.4103	0.0922	2.6270	0.2315	2.8584	0.7203	0.2215	0.9418		9,783.7978	9,783.7978	0.0677	1.5388	10,244.0585
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0664	0.0484	0.5001	1.3800e-003	0.1643	8.3000e-004	0.1651	0.0436	7.7000e-004	0.0444		139.0515	139.0515	5.0300e-003	4.6000e-003	140.5490
Total	**0.6276**	**23.5398**	**4.9104**	**0.0936**	**2.7913**	**0.2323**	**3.0236**	**0.7639**	**0.2223**	**0.9862**		**9,922.8493**	**9,922.8493**	**0.0727**	**1.5434**	**10,384.6075**

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

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1690	4.5588	1.2555	0.0169	0.5489	0.0491	0.5980	0.1581	0.0470	0.2050		1,788.3751	1,788.3751	0.0126	0.2711	1,869.4819
Worker	0.6544	0.4771	4.9261	0.0136	1.6183	8.2200e-003	1.6265	0.4293	7.5600e-003	0.4368		1,369.6574	1,369.6574	0.0495	0.0453	1,384.4076
Total	**0.8234**	**5.0359**	**6.1816**	**0.0305**	**2.1672**	**0.0573**	**2.2245**	**0.5873**	**0.0545**	**0.6418**		**3,158.0325**	**3,158.0325**	**0.0621**	**0.3165**	**3,253.8895**

Manteca Marketplace at Main - San Joaquin County, Winter

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1690	4.5588	1.2555	0.0169	0.5489	0.0491	0.5980	0.1581	0.0470	0.2050		1,788.3751	1,788.3751	0.0126	0.2711	1,869.4819
Worker	0.6544	0.4771	4.9261	0.0136	1.6183	8.2200e-003	1.6265	0.4293	7.5600e-003	0.4368		1,369.6574	1,369.6574	0.0495	0.0453	1,384.4076
Total	**0.8234**	**5.0359**	**6.1816**	**0.0305**	**2.1672**	**0.0573**	**2.2245**	**0.5873**	**0.0545**	**0.6418**		**3,158.0325**	**3,158.0325**	**0.0621**	**0.3165**	**3,253.8895**

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

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0831	3.6684	1.0743	0.0163	0.5489	0.0230	0.5719	0.1581	0.0220	0.1800		1,722.1938	1,722.1938	8.3200e-003	0.2605	1,800.0158
Worker	0.6019	0.4160	4.5149	0.0131	1.6183	7.7400e-003	1.6261	0.4293	7.1200e-003	0.4364		1,325.5803	1,325.5803	0.0444	0.0416	1,339.0863
Total	**0.6850**	**4.0844**	**5.5892**	**0.0294**	**2.1672**	**0.0307**	**2.1979**	**0.5873**	**0.0291**	**0.6164**		**3,047.7741**	**3,047.7741**	**0.0527**	**0.3021**	**3,139.1021**

Manteca Marketplace at Main - San Joaquin County, Winter

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0831	3.6684	1.0743	0.0163	0.5489	0.0230	0.5719	0.1581	0.0220	0.1800		1,722.1938	1,722.1938	8.3200e-003	0.2605	1,800.0158
Worker	0.6019	0.4160	4.5149	0.0131	1.6183	7.7400e-003	1.6261	0.4293	7.1200e-003	0.4364		1,325.5803	1,325.5803	0.0444	0.0416	1,339.0863
Total	**0.6850**	**4.0844**	**5.5892**	**0.0294**	**2.1672**	**0.0307**	**2.1979**	**0.5873**	**0.0291**	**0.6164**		**3,047.7741**	**3,047.7741**	**0.0527**	**0.3021**	**3,139.1021**

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

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.7965					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.8292**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0458	0.0317	0.3438	1.0000e-003	0.1232	5.9000e-004	0.1238	0.0327	5.4000e-004	0.0332		100.9325	100.9325	3.3800e-003	3.1700e-003	101.9609
Total	**0.0458**	**0.0317**	**0.3438**	**1.0000e-003**	**0.1232**	**5.9000e-004**	**0.1238**	**0.0327**	**5.4000e-004**	**0.0332**		**100.9325**	**100.9325**	**3.3800e-003**	**3.1700e-003**	**101.9609**

Manteca Marketplace at Main - San Joaquin County, Winter

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.7965					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.8292**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0458	0.0317	0.3438	1.0000e-003	0.1232	5.9000e-004	0.1238	0.0327	5.4000e-004	0.0332		100.9325	100.9325	3.3800e-003	3.1700e-003	101.9609
Total	**0.0458**	**0.0317**	**0.3438**	**1.0000e-003**	**0.1232**	**5.9000e-004**	**0.1238**	**0.0327**	**5.4000e-004**	**0.0332**		**100.9325**	**100.9325**	**3.3800e-003**	**3.1700e-003**	**101.9609**

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

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	28.1092					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**28.3009**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1192	0.0824	0.8938	2.6000e-003	0.3204	1.5300e-003	0.3219	0.0850	1.4100e-003	0.0864		262.4245	262.4245	8.7900e-003	8.2300e-003	265.0983
Total	**0.1192**	**0.0824**	**0.8938**	**2.6000e-003**	**0.3204**	**1.5300e-003**	**0.3219**	**0.0850**	**1.4100e-003**	**0.0864**		**262.4245**	**262.4245**	**8.7900e-003**	**8.2300e-003**	**265.0983**

Manteca Marketplace at Main - San Joaquin County, Winter

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	28.1092					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**28.3009**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1192	0.0824	0.8938	2.6000e-003	0.3204	1.5300e-003	0.3219	0.0850	1.4100e-003	0.0864		262.4245	262.4245	8.7900e-003	8.2300e-003	265.0983
Total	**0.1192**	**0.0824**	**0.8938**	**2.6000e-003**	**0.3204**	**1.5300e-003**	**0.3219**	**0.0850**	**1.4100e-003**	**0.0864**		**262.4245**	**262.4245**	**8.7900e-003**	**8.2300e-003**	**265.0983**

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	39.0015	49.2333	307.0954	0.4999	49.1197	0.4523	49.5720	13.1029	0.4233	13.5262		50,930.3379	50,930.3379	4.8930	3.5941	52,123.7118
Unmitigated	39.0015	49.2333	307.0954	0.4999	49.1197	0.4523	49.5720	13.1029	0.4233	13.5262		50,930.3379	50,930.3379	4.8930	3.5941	52,123.7118

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	3,207.60	3,207.60	1606.50	2,967,510	2,967,510
City Park	0.00	0.00	0.00		
City Park	0.00	0.00	0.00		
Fast Food Restaurant with Drive Thru	4,067.37	5,360.58	4111.74	3,978,779	3,978,779
Hardware/Paint Store	3,538.94	4,350.24	3178.70	5,242,034	5,242,034
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Strip Mall	1,164.13	1,431.00	1045.63	1,825,434	1,825,434
Supermarket	4,663.02	5,732.01	4188.36	5,400,495	5,400,495
Total	16,641.05	20,081.43	14,130.92	19,414,253	19,414,253

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

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
Automobile Care Center	9.50	7.30	7.30	33.00	48.00	19.00	21	51	28
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Fast Food Restaurant with Drive	9.50	7.30	7.30	2.20	78.80	19.00	29	21	50
Hardware/Paint Store	9.50	7.30	7.30	13.60	67.40	19.00	45	29	26
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15
Supermarket	9.50	7.30	7.30	6.50	74.50	19.00	34	30	36

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.003707
City Park	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.003707
Fast Food Restaurant with Drive Thru	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.003707
Hardware/Paint Store	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.003707
Other Non-Asphalt Surfaces	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.003707
Parking Lot	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.003707
Strip Mall	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.003707
Supermarket	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.003707

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Manteca Marketplace at Main - San Joaquin County, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1054	0.9578	0.8046	5.7500e-003		0.0728	0.0728		0.0728	0.0728		1,149.3854	1,149.3854	0.0220	0.0211	1,156.2156
NaturalGas Unmitigated	0.1054	0.9578	0.8046	5.7500e-003		0.0728	0.0728		0.0728	0.0728		1,149.3854	1,149.3854	0.0220	0.0211	1,156.2156

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Automobile Care Center	181.77	1.9600e-003	0.0178	0.0150	1.1000e-004		1.3500e-003	1.3500e-003		1.3500e-003	1.3500e-003		21.3848	21.3848	4.1000e-004	3.9000e-004	21.5118
City Park	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
Fast Food Restaurant with Drive Thru	2687.92	0.0290	0.2635	0.2214	1.5800e-003		0.0200	0.0200		0.0200	0.0200		316.2256	316.2256	6.0600e-003	5.8000e-003	318.1048
Hardware/Paint Store	1205.59	0.0130	0.1182	0.0993	7.1000e-004		8.9800e-003	8.9800e-003		8.9800e-003	8.9800e-003		141.8340	141.8340	2.7200e-003	2.6000e-003	142.6769
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	396.575	4.2800e-003	0.0389	0.0327	2.3000e-004		2.9500e-003	2.9500e-003		2.9500e-003	2.9500e-003		46.6559	46.6559	8.9000e-004	8.6000e-004	46.9332
Supermarket	5297.92	0.0571	0.5194	0.4363	3.1200e-003		0.0395	0.0395		0.0395	0.0395		623.2851	623.2851	0.0120	0.0114	626.9890
Total		**0.1054**	**0.9578**	**0.8046**	**5.7500e-003**		**0.0728**	**0.0728**		**0.0728**	**0.0728**		**1,149.3854**	**1,149.3854**	**0.0220**	**0.0211**	**1,156.2156**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Automobile Care Center	0.18177	1.9600e-003	0.0178	0.0150	1.1000e-004		1.3500e-003	1.3500e-003		1.3500e-003	1.3500e-003		21.3848	21.3848	4.1000e-004	3.9000e-004	21.5118
City Park	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
Fast Food Restaurant with Drive Thru	2.68792	0.0290	0.2635	0.2214	1.5800e-003		0.0200	0.0200		0.0200	0.0200		316.2256	316.2256	6.0600e-003	5.8000e-003	318.1048
Hardware/Paint Store	1.20559	0.0130	0.1182	0.0993	7.1000e-004		8.9800e-003	8.9800e-003		8.9800e-003	8.9800e-003		141.8340	141.8340	2.7200e-003	2.6000e-003	142.6769
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.396575	4.2800e-003	0.0389	0.0327	2.3000e-004		2.9500e-003	2.9500e-003		2.9500e-003	2.9500e-003		46.6559	46.6559	8.9000e-004	8.6000e-004	46.9332
Supermarket	5.29792	0.0571	0.5194	0.4363	3.1200e-003		0.0395	0.0395		0.0395	0.0395		623.2851	623.2851	0.0120	0.0114	626.9890
Total		**0.1054**	**0.9578**	**0.8046**	**5.7500e-003**		**0.0728**	**0.0728**		**0.0728**	**0.0728**		**1,149.3854**	**1,149.3854**	**0.0220**	**0.0211**	**1,156.2156**

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	lb/day										lb/day					
Mitigated	2.6810	3.6000e-004	0.0394	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0846	0.0846	2.2000e-004		0.0901
Unmitigated	2.6810	3.6000e-004	0.0394	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0846	0.0846	2.2000e-004		0.0901

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1540					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.5233					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.6500e-003	3.6000e-004	0.0394	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0846	0.0846	2.2000e-004		0.0901
Total	**2.6810**	**3.6000e-004**	**0.0394**	**0.0000**		**1.4000e-004**	**1.4000e-004**		**1.4000e-004**	**1.4000e-004**		**0.0846**	**0.0846**	**2.2000e-004**		**0.0901**

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

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1540					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.5233					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.6500e-003	3.6000e-004	0.0394	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		0.0846	0.0846	2.2000e-004		0.0901
Total	**2.6810**	**3.6000e-004**	**0.0394**	**0.0000**		**1.4000e-004**	**1.4000e-004**		**1.4000e-004**	**1.4000e-004**		**0.0846**	**0.0846**	**2.2000e-004**		**0.0901**

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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

Manteca Marketplace at Main

San Joaquin County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	244.68	1000sqft	5.62	244,677.00	0
City Park	2.29	Acre	2.29	99,752.40	0
Fast Food Restaurant with Drive Thru	9.00	1000sqft	0.21	9,000.00	0
Automobile Care Center	3.60	1000sqft	0.08	3,596.00	0
Hardware/Paint Store	38.00	1000sqft	0.87	38,000.00	0
Strip Mall	12.50	1000sqft	0.29	12,500.00	0
Supermarket	50.07	1000sqft	1.15	50,071.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	51
Climate Zone	2			**Operational Year**	2030
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	184	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Note 8

Land Use - Note 1

Construction Phase - Note 7

Demolition -

Grading - Note 10

Vehicle Trips - Note 4

Manteca Marketplace at Main - San Joaquin County, Annual

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

Area Coating - Note 2

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	50
tblAreaCoating	Area_EF_Nonresidential_Interior	150	50
tblAreaCoating	Area_EF_Parking	150	50
tblAreaCoating	Area_EF_Residential_Exterior	150	50
tblAreaCoating	Area_EF_Residential_Interior	150	50
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	300.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	30.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	10.00	0.00
tblConstructionPhase	PhaseEndDate	12/12/2023	11/14/2023
tblConstructionPhase	PhaseEndDate	10/17/2023	8/23/2022
tblConstructionPhase	PhaseEndDate	6/28/2022	5/31/2022
tblConstructionPhase	PhaseEndDate	8/23/2022	7/12/2022
tblConstructionPhase	PhaseEndDate	11/14/2023	10/17/2023
tblConstructionPhase	PhaseEndDate	7/12/2022	6/28/2022
tblLandUse	LandUseSquareFeet	244,680.00	244,677.00
tblLandUse	LandUseSquareFeet	3,600.00	3,596.00
tblLandUse	LandUseSquareFeet	50,070.00	50,071.00
tblProjectCharacteristics	CO2IntensityFactor	203.98	184
tblVehicleTrips	ST_TR	23.72	891.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	616.12	595.62
tblVehicleTrips	ST_TR	9.14	114.48
tblVehicleTrips	ST_TR	42.04	114.48

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

tblVehicleTrips	ST_TR	177.62	114.48
tblVehicleTrips	SU_TR	11.88	446.25
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	472.58	456.86
tblVehicleTrips	SU_TR	9.14	83.65
tblVehicleTrips	SU_TR	20.43	83.65
tblVehicleTrips	SU_TR	166.47	83.65
tblVehicleTrips	WD_TR	23.72	891.00
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	470.95	451.93
tblVehicleTrips	WD_TR	9.14	93.13
tblVehicleTrips	WD_TR	44.32	93.13
tblVehicleTrips	WD_TR	106.78	93.13

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2023	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2023	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

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					

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

Area	0.4870	3.0000e-005	3.2900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.4400e-003	6.4400e-003	2.0000e-005	0.0000	6.8500e-003
Energy	0.0192	0.1748	0.1468	1.0500e-003		0.0133	0.0133		0.0133	0.0133	0.0000	436.5212	436.5212	0.0478	8.8400e-003	440.3511
Mobile	4.2639	4.9587	32.2110	0.0621	7.2300	0.0492	7.2792	1.9321	0.0460	1.9781	0.0000	5,743.0668	5,743.0668	0.4193	0.3623	5,861.5069
Waste						0.0000	0.0000		0.0000	0.0000	169.4021	0.0000	169.4021	10.0114	0.0000	419.6864
Water						0.0000	0.0000		0.0000	0.0000	4.1190	7.4974	11.6164	0.4244	0.0102	25.2518
Total	**4.7700**	**5.1335**	**32.3611**	**0.0632**	**7.2300**	**0.0625**	**7.2925**	**1.9321**	**0.0593**	**1.9914**	**173.5210**	**6,187.0918**	**6,360.6128**	**10.9029**	**0.3813**	**6,746.8031**

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

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	0.4870	3.0000e-005	3.2900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.4400e-003	6.4400e-003	2.0000e-005	0.0000	6.8500e-003
Energy	0.0192	0.1748	0.1468	1.0500e-003		0.0133	0.0133		0.0133	0.0133	0.0000	436.5212	436.5212	0.0478	8.8400e-003	440.3511
Mobile	4.2639	4.9587	32.2110	0.0621	7.2300	0.0492	7.2792	1.9321	0.0460	1.9781	0.0000	5,743.0668	5,743.0668	0.4193	0.3623	5,861.5069
Waste						0.0000	0.0000		0.0000	0.0000	169.4021	0.0000	169.4021	10.0114	0.0000	419.6864
Water						0.0000	0.0000		0.0000	0.0000	4.1190	7.4974	11.6164	0.4244	0.0102	25.2518
Total	**4.7700**	**5.1335**	**32.3611**	**0.0632**	**7.2300**	**0.0625**	**7.2925**	**1.9321**	**0.0593**	**1.9914**	**173.5210**	**6,187.0918**	**6,360.6128**	**10.9029**	**0.3813**	**6,746.8031**

	ROG	NOx	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	6/1/2022	5/31/2022	5	0	
2	Site Preparation	Site Preparation	6/29/2022	6/28/2022	5	0	
3	Grading	Grading	7/13/2022	7/12/2022	5	0	

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4	Building Construction	Building Construction	8/24/2022	8/23/2022	5	0	
5	Paving	Paving	10/18/2023	10/17/2023	5	0	
6	Architectural Coating	Architectural Coating	11/15/2023	11/14/2023	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 5.62

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 169,752; Non-Residential Outdoor: 56,584; Striped Parking Area: 14,681 (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
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
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	0.00	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	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	182.00	75.00	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	36.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

3.7 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	4.2639	4.9587	32.2110	0.0621	7.2300	0.0492	7.2792	1.9321	0.0460	1.9781	0.0000	5,743.0668	5,743.0668	0.4193	0.3623	5,861.5069
Unmitigated	4.2639	4.9587	32.2110	0.0621	7.2300	0.0492	7.2792	1.9321	0.0460	1.9781	0.0000	5,743.0668	5,743.0668	0.4193	0.3623	5,861.5069

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	3,207.60	3,207.60	1606.50	2,967,510	2,967,510
City Park	0.00	0.00	0.00		
Fast Food Restaurant with Drive Thru	4,067.37	5,360.58	4111.74	3,978,779	3,978,779
Hardware/Paint Store	3,538.94	4,350.24	3178.70	5,242,034	5,242,034
Parking Lot	0.00	0.00	0.00		
Strip Mall	1,164.13	1,431.00	1045.63	1,825,434	1,825,434
Supermarket	4,663.02	5,732.01	4188.36	5,400,495	5,400,495
Total	16,641.05	20,081.43	14,130.92	19,414,253	19,414,253

4.3 Trip Type Information

	Miles	Trip %	Trip Purpose %

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

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
Automobile Care Center	9.50	7.30	7.30	33.00	48.00	19.00	21	51	28
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Fast Food Restaurant with Drive	9.50	7.30	7.30	2.20	78.80	19.00	29	21	50
Hardware/Paint Store	9.50	7.30	7.30	13.60	67.40	19.00	45	29	26
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15
Supermarket	9.50	7.30	7.30	6.50	74.50	19.00	34	30	36

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.560100	0.053949	0.173371	0.131047	0.021297	0.005494	0.012620	0.016451	0.000441	0.000312	0.021225	0.001008	0.002685
City Park	0.560100	0.053949	0.173371	0.131047	0.021297	0.005494	0.012620	0.016451	0.000441	0.000312	0.021225	0.001008	0.002685
Fast Food Restaurant with Drive Thru	0.560100	0.053949	0.173371	0.131047	0.021297	0.005494	0.012620	0.016451	0.000441	0.000312	0.021225	0.001008	0.002685
Hardware/Paint Store	0.560100	0.053949	0.173371	0.131047	0.021297	0.005494	0.012620	0.016451	0.000441	0.000312	0.021225	0.001008	0.002685
Parking Lot	0.560100	0.053949	0.173371	0.131047	0.021297	0.005494	0.012620	0.016451	0.000441	0.000312	0.021225	0.001008	0.002685
Strip Mall	0.560100	0.053949	0.173371	0.131047	0.021297	0.005494	0.012620	0.016451	0.000441	0.000312	0.021225	0.001008	0.002685
Supermarket	0.560100	0.053949	0.173371	0.131047	0.021297	0.005494	0.012620	0.016451	0.000441	0.000312	0.021225	0.001008	0.002685

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

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

Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	246.2275	246.2275	0.0442	5.3500e-003	248.9267
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	246.2275	246.2275	0.0442	5.3500e-003	248.9267
NaturalGas Mitigated	0.0192	0.1748	0.1468	1.0500e-003		0.0133	0.0133		0.0133	0.0133	0.0000	190.2936	190.2936	3.6500e-003	3.4900e-003	191.4245
NaturalGas Unmitigated	0.0192	0.1748	0.1468	1.0500e-003		0.0133	0.0133		0.0133	0.0133	0.0000	190.2936	190.2936	3.6500e-003	3.4900e-003	191.4245

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					
Automobile Care Center	66346.2	3.6000e-004	3.2500e-003	2.7300e-003	2.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004	0.0000	3.5405	3.5405	7.0000e-005	6.0000e-005	3.5615
City Park	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
Fast Food Restaurant with Drive Thru	981090	5.2900e-003	0.0481	0.0404	2.9000e-004		3.6600e-003	3.6600e-003		3.6600e-003	3.6600e-003	0.0000	52.3547	52.3547	1.0000e-003	9.6000e-004	52.6658
Hardware/Paint Store	440040	2.3700e-003	0.0216	0.0181	1.3000e-004		1.6400e-003	1.6400e-003		1.6400e-003	1.6400e-003	0.0000	23.4822	23.4822	4.5000e-004	4.3000e-004	23.6218
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	144750	7.8000e-004	7.1000e-003	5.9600e-003	4.0000e-005		5.4000e-004	5.4000e-004		5.4000e-004	5.4000e-004	0.0000	7.7244	7.7244	1.5000e-004	1.4000e-004	7.7703
Supermarket	1.93374e+006	0.0104	0.0948	0.0796	5.7000e-004		7.2000e-003	7.2000e-003		7.2000e-003	7.2000e-003	0.0000	103.1918	103.1918	1.9800e-003	1.8900e-003	103.8051
Total		**0.0192**	**0.1748**	**0.1468**	**1.0500e-003**		**0.0133**	**0.0133**		**0.0133**	**0.0133**	**0.0000**	**190.2937**	**190.2937**	**3.6500e-003**	**3.4800e-003**	**191.4245**

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

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					
Automobile Care Center	66346.2	3.6000e-004	3.2500e-003	2.7300e-003	2.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004	0.0000	3.5405	3.5405	7.0000e-005	6.0000e-005	3.5615
City Park	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
Fast Food Restaurant with Drive Thru	981090	5.2900e-003	0.0481	0.0404	2.9000e-004		3.6600e-003	3.6600e-003		3.6600e-003	3.6600e-003	0.0000	52.3547	52.3547	1.0000e-003	9.6000e-004	52.6658
Hardware/Paint Store	440040	2.3700e-003	0.0216	0.0181	1.3000e-004		1.6400e-003	1.6400e-003		1.6400e-003	1.6400e-003	0.0000	23.4822	23.4822	4.5000e-004	4.3000e-004	23.6218
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	144750	7.8000e-004	7.1000e-003	5.9600e-003	4.0000e-005		5.4000e-004	5.4000e-004		5.4000e-004	5.4000e-004	0.0000	7.7244	7.7244	1.5000e-004	1.4000e-004	7.7703
Supermarket	1.93374e+006	0.0104	0.0948	0.0796	5.7000e-004		7.2000e-003	7.2000e-003		7.2000e-003	7.2000e-003	0.0000	103.1918	103.1918	1.9800e-003	1.8900e-003	103.8051
Total		**0.0192**	**0.1748**	**0.1468**	**1.0500e-003**		**0.0133**	**0.0133**		**0.0133**	**0.0133**	**0.0000**	**190.2937**	**190.2937**	**3.6500e-003**	**3.4800e-003**	**191.4245**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
Automobile Care Center	29774.9		2.4850	4.5000e-004	5.0000e-005	2.5123
City Park	0		0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant with Drive Thru	276300		23.0603	4.1400e-003	5.0000e-004	23.3131
Hardware/Paint Store	432060		36.0602	6.4700e-003	7.8000e-004	36.4555
Parking Lot	85636.9		7.1474	1.2800e-003	1.6000e-004	7.2257
Strip Mall	142125		11.8619	2.1300e-003	2.6000e-004	11.9919
Supermarket	1.98431e+006		165.6128	0.0297	3.6000e-003	167.4282
Total			**246.2275**	**0.0442**	**5.3500e-003**	**248.9266**

Mitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
Automobile Care Center	29774.9		2.4850	4.5000e-004	5.0000e-005	2.5123
City Park	0		0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant with Drive Thru	276300		23.0603	4.1400e-003	5.0000e-004	23.3131
Hardware/Paint Store	432060		36.0602	6.4700e-003	7.8000e-004	36.4555
Parking Lot	85636.9		7.1474	1.2800e-003	1.6000e-004	7.2257
Strip Mall	142125		11.8619	2.1300e-003	2.6000e-004	11.9919
Supermarket	1.98431e+006		165.6128	0.0297	3.6000e-003	167.4282
Total			**246.2275**	**0.0442**	**5.3500e-003**	**248.9266**

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	0.4870	3.0000e-005	3.2900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.4400e-003	6.4400e-003	2.0000e-005	0.0000	6.8500e-003
Unmitigated	0.4870	3.0000e-005	3.2900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.4400e-003	6.4400e-003	2.0000e-005	0.0000	6.8500e-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	0.0279					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4587					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.0000e-004	3.0000e-005	3.2900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.4400e-003	6.4400e-003	2.0000e-005	0.0000	6.8500e-003
Total	**0.4870**	**3.0000e-005**	**3.2900e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**6.4400e-003**	**6.4400e-003**	**2.0000e-005**	**0.0000**	**6.8500e-003**

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

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	0.0279					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4587					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.0000e-004	3.0000e-005	3.2900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.4400e-003	6.4400e-003	2.0000e-005	0.0000	6.8500e-003
Total	**0.4870**	**3.0000e-005**	**3.2900e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**6.4400e-003**	**6.4400e-003**	**2.0000e-005**	**0.0000**	**6.8500e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

		Total CO2	CH4	N2O	CO2e
Category	tons/yr	MT/yr			
Mitigated		11.6164	0.4244	0.0102	25.2518
Unmitigated		11.6164	0.4244	0.0102	25.2518

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

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
Automobile Care Center	0.338692 / 0.207585		0.3211	0.0111	2.7000e-004	0.6770
City Park	0 / 2.72849		0.7970	1.4000e-004	2.0000e-005	0.8058
Fast Food Restaurant with Drive Thru	2.7318 / 0.17437		2.1513	0.0893	2.1300e-003	5.0172
Hardware/Paint Store	2.81476 / 1.72517		2.6681	0.0920	2.2000e-003	5.6259
Parking Lot	0 / 0		0.0000	0.0000	0.0000	0.0000
Strip Mall	0.925907 / 0.567491		0.8777	0.0303	7.3000e-004	1.8506
Supermarket	6.17204 / 0.190888		4.8012	0.2016	4.8100e-003	11.2754
Total			**11.6164**	**0.4244**	**0.0102**	**25.2518**

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

Mitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
Automobile Care Center	0.338692 / 0.207585		0.3211	0.0111	2.7000e-004	0.6770
City Park	0 / 2.72849		0.7970	1.4000e-004	2.0000e-005	0.8058
Fast Food Restaurant with Drive Thru	2.7318 / 0.17437		2.1513	0.0893	2.1300e-003	5.0172
Hardware/Paint Store	2.81476 / 1.72517		2.6681	0.0920	2.2000e-003	5.6259
Parking Lot	0 / 0		0.0000	0.0000	0.0000	0.0000
Strip Mall	0.925907 / 0.567491		0.8777	0.0303	7.3000e-004	1.8506
Supermarket	6.17204 / 0.190888		4.8012	0.2016	4.8100e-003	11.2754
Total			**11.6164**	**0.4244**	**0.0102**	**25.2518**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

		Total CO2	CH4	N2O	CO2e

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

	tons/yr	MT/yr			
Mitigated		169.4021	10.0114	0.0000	419.6864
Unmitigated		169.4021	10.0114	0.0000	419.6864

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

8.2 Waste by Land Use

Unmitigated

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
Automobile Care Center	13.75		2.7911	0.1650	0.0000	6.9149
City Park	0.2		0.0406	2.4000e-003	0.0000	0.1006
Fast Food Restaurant with Drive Thru	103.67		21.0441	1.2437	0.0000	52.1358
Hardware/Paint Store	421.39		85.5384	5.0552	0.0000	211.9177
Parking Lot	0		0.0000	0.0000	0.0000	0.0000
Strip Mall	13.13		2.6653	0.1575	0.0000	6.6031
Supermarket	282.39		57.3226	3.3877	0.0000	142.0144
Total			**169.4021**	**10.0114**	**0.0000**	**419.6864**

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

Mitigated

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
Automobile Care Center	13.75		2.7911	0.1650	0.0000	6.9149
City Park	0.2		0.0406	2.4000e-003	0.0000	0.1006
Fast Food Restaurant with Drive Thru	103.67		21.0441	1.2437	0.0000	52.1358
Hardware/Paint Store	421.39		85.5384	5.0552	0.0000	211.9177
Parking Lot	0		0.0000	0.0000	0.0000	0.0000
Strip Mall	13.13		2.6653	0.1575	0.0000	6.6031
Supermarket	282.39		57.3226	3.3877	0.0000	142.0144
Total			**169.4021**	**10.0114**	**0.0000**	**419.6864**

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

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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

Manteca Marketplace at Main

San Joaquin County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	0.07	Acre	0.07	3,049.20	0
City Park	4.37	Acre	4.37	190,357.20	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	51
Climate Zone	2			**Operational Year**	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Note 2

Construction Off-road Equipment Mitigation -

Area Mitigation - Note 2

Vehicle Trips - Note 6

Consumer Products - Note 6

Area Coating - Note 6

Landscape Equipment - Note 6

Water And Wastewater - Note 6

Solid Waste - Note 6

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

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	1	0
tblAreaCoating	Area_Nonresidential_Interior	2	0
tblAreaCoating	Area_Parking	183	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	150	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	150	50
tblAreaMitigation	UseLowVOCPaintParkingValue	150	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	150	50
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	150	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblLandscapeEquipment	NumberSummerDays	180	0
tblSolidWaste	SolidWasteGenerationRate	0.38	0.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	WD_TR	0.78	0.00
tblWater	OutdoorWaterUseRate	5,206,773.50	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

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

Year	tons/yr										MT/yr					
2022	0.1647	1.4774	1.4545	2.9800e-003	0.1309	0.0701	0.2010	0.0535	0.0657	0.1192	0.0000	263.3267	263.3267	0.0503	6.8300e-003	266.6184
2023	0.1129	0.9691	1.1511	2.3600e-003	0.0497	0.0437	0.0934	0.0135	0.0411	0.0546	0.0000	208.3533	208.3533	0.0362	5.9900e-003	211.0413
Maximum	**0.1647**	**1.4774**	**1.4545**	**2.9800e-003**	**0.1309**	**0.0701**	**0.2010**	**0.0535**	**0.0657**	**0.1192**	**0.0000**	**263.3267**	**263.3267**	**0.0503**	**6.8300e-003**	**266.6184**

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	0.1647	1.4774	1.4545	2.9800e-003	0.0883	0.0701	0.1584	0.0320	0.0657	0.0977	0.0000	263.3265	263.3265	0.0503	6.8300e-003	266.6182
2023	0.1129	0.9691	1.1511	2.3600e-003	0.0497	0.0437	0.0934	0.0135	0.0411	0.0546	0.0000	208.3531	208.3531	0.0362	5.9900e-003	211.0411
Maximum	**0.1647**	**1.4774**	**1.4545**	**2.9800e-003**	**0.0883**	**0.0701**	**0.1584**	**0.0320**	**0.0657**	**0.0977**	**0.0000**	**263.3265**	**263.3265**	**0.0503**	**6.8300e-003**	**266.6182**

	ROG	NOx	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

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

Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**23.59**	**0.00**	**14.47**	**32.00**	**0.00**	**12.33**	**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	**6-1-2022**	**8-31-2022**	0.7849	0.7849
2	**9-1-2022**	**11-30-2022**	0.6374	0.6374
3	**12-1-2022**	**2-28-2023**	0.5939	0.5939
4	**3-1-2023**	**5-31-2023**	0.5845	0.5845
5	**6-1-2023**	**8-31-2023**	0.1190	0.1190
		Highest	0.7849	0.7849

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	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	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	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**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

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	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	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	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	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	6/1/2022	6/28/2022	5	20	
2	Site Preparation	Site Preparation	6/29/2022	7/5/2022	5	5	
3	Grading	Grading	7/6/2022	7/15/2022	5	8	

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

4	Building Construction	Building Construction	7/16/2022	6/2/2023	5	230	
5	Paving	Paving	6/3/2023	6/28/2023	5	18	
6	Architectural Coating	Architectural Coating	6/29/2023	7/24/2023	5	18	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 8

Acres of Paving: 0.07

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 2; Non-Residential Outdoor: 1; Striped Parking Area: 183 (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	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	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	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
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	0.00	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	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	81.00	32.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	16.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 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

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

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	4.7000e-004	3.3000e-004	3.7300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9702	0.9702	3.0000e-005	3.0000e-005	0.9797
Total	**4.7000e-004**	**3.3000e-004**	**3.7300e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9702**	**0.9702**	**3.0000e-005**	**3.0000e-005**	**0.9797**

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

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	4.7000e-004	3.3000e-004	3.7300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9702	0.9702	3.0000e-005	3.0000e-005	0.9797
Total	**4.7000e-004**	**3.3000e-004**	**3.7300e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9702**	**0.9702**	**3.0000e-005**	**3.0000e-005**	**0.9797**

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					0.0491	0.0000	0.0491	0.0253	0.0000	0.0253	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.9300e-003	0.0827	0.0492	1.0000e-004		4.0300e-003	4.0300e-003		3.7100e-003	3.7100e-003	0.0000	8.3599	8.3599	2.7000e-003	0.0000	8.4274
Total	**7.9300e-003**	**0.0827**	**0.0492**	**1.0000e-004**	**0.0491**	**4.0300e-003**	**0.0532**	**0.0253**	**3.7100e-003**	**0.0290**	**0.0000**	**8.3599**	**8.3599**	**2.7000e-003**	**0.0000**	**8.4274**

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	1.4000e-004	1.0000e-004	1.1200e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.2911	0.2911	1.0000e-005	1.0000e-005	0.2939
Total	**1.4000e-004**	**1.0000e-004**	**1.1200e-003**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**0.2911**	**0.2911**	**1.0000e-005**	**1.0000e-005**	**0.2939**

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

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					0.0221	0.0000	0.0221	0.0114	0.0000	0.0114	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.9300e-003	0.0827	0.0492	1.0000e-004		4.0300e-003	4.0300e-003		3.7100e-003	3.7100e-003	0.0000	8.3598	8.3598	2.7000e-003	0.0000	8.4274
Total	**7.9300e-003**	**0.0827**	**0.0492**	**1.0000e-004**	**0.0221**	**4.0300e-003**	**0.0261**	**0.0114**	**3.7100e-003**	**0.0151**	**0.0000**	**8.3598**	**8.3598**	**2.7000e-003**	**0.0000**	**8.4274**

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	1.4000e-004	1.0000e-004	1.1200e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.2911	0.2911	1.0000e-005	1.0000e-005	0.2939
Total	**1.4000e-004**	**1.0000e-004**	**1.1200e-003**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**0.2911**	**0.2911**	**1.0000e-005**	**1.0000e-005**	**0.2939**

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					0.0283	0.0000	0.0283	0.0137	0.0000	0.0137	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.7900e-003	0.0834	0.0611	1.2000e-004		3.7600e-003	3.7600e-003		3.4600e-003	3.4600e-003	0.0000	10.4219	10.4219	3.3700e-003	0.0000	10.5062
Total	**7.7900e-003**	**0.0834**	**0.0611**	**1.2000e-004**	**0.0283**	**3.7600e-003**	**0.0321**	**0.0137**	**3.4600e-003**	**0.0172**	**0.0000**	**10.4219**	**10.4219**	**3.3700e-003**	**0.0000**	**10.5062**

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	1.9000e-004	1.3000e-004	1.4900e-003	0.0000	4.8000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.3881	0.3881	1.0000e-005	1.0000e-005	0.3919
Total	**1.9000e-004**	**1.3000e-004**	**1.4900e-003**	**0.0000**	**4.8000e-004**	**0.0000**	**4.8000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.3881**	**0.3881**	**1.0000e-005**	**1.0000e-005**	**0.3919**

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

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					0.0128	0.0000	0.0128	6.1600e-003	0.0000	6.1600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.7900e-003	0.0834	0.0611	1.2000e-004		3.7600e-003	3.7600e-003		3.4600e-003	3.4600e-003	0.0000	10.4219	10.4219	3.3700e-003	0.0000	10.5062
Total	**7.7900e-003**	**0.0834**	**0.0611**	**1.2000e-004**	**0.0128**	**3.7600e-003**	**0.0165**	**6.1600e-003**	**3.4600e-003**	**9.6200e-003**	**0.0000**	**10.4219**	**10.4219**	**3.3700e-003**	**0.0000**	**10.5062**

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	1.9000e-004	1.3000e-004	1.4900e-003	0.0000	4.8000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.3881	0.3881	1.0000e-005	1.0000e-005	0.3919
Total	**1.9000e-004**	**1.3000e-004**	**1.4900e-003**	**0.0000**	**4.8000e-004**	**0.0000**	**4.8000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.3881**	**0.3881**	**1.0000e-005**	**1.0000e-005**	**0.3919**

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	0.1024	0.9369	0.9818	1.6200e-003		0.0485	0.0485		0.0457	0.0457	0.0000	139.0352	139.0352	0.0333	0.0000	139.8679
Total	**0.1024**	**0.9369**	**0.9818**	**1.6200e-003**		**0.0485**	**0.0485**		**0.0457**	**0.0457**	**0.0000**	**139.0352**	**139.0352**	**0.0333**	**0.0000**	**139.8679**

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	4.0500e-003	0.1059	0.0292	4.0000e-004	0.0127	1.1600e-003	0.0139	3.6700e-003	1.1100e-003	4.7800e-003	0.0000	38.4371	38.4371	2.7000e-004	5.8300e-003	40.1798
Worker	0.0154	0.0107	0.1209	3.4000e-004	0.0387	2.0000e-004	0.0389	0.0103	1.9000e-004	0.0105	0.0000	31.4332	31.4332	1.0300e-003	9.5000e-004	31.7427
Total	**0.0194**	**0.1166**	**0.1501**	**7.4000e-004**	**0.0514**	**1.3600e-003**	**0.0528**	**0.0140**	**1.3000e-003**	**0.0153**	**0.0000**	**69.8703**	**69.8703**	**1.3000e-003**	**6.7800e-003**	**71.9225**

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

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	0.1024	0.9369	0.9818	1.6200e-003		0.0485	0.0485		0.0457	0.0457	0.0000	139.0350	139.0350	0.0333	0.0000	139.8677
Total	**0.1024**	**0.9369**	**0.9818**	**1.6200e-003**		**0.0485**	**0.0485**		**0.0457**	**0.0457**	**0.0000**	**139.0350**	**139.0350**	**0.0333**	**0.0000**	**139.8677**

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	4.0500e-003	0.1059	0.0292	4.0000e-004	0.0127	1.1600e-003	0.0139	3.6700e-003	1.1100e-003	4.7800e-003	0.0000	38.4371	38.4371	2.7000e-004	5.8300e-003	40.1798
Worker	0.0154	0.0107	0.1209	3.4000e-004	0.0387	2.0000e-004	0.0389	0.0103	1.9000e-004	0.0105	0.0000	31.4332	31.4332	1.0300e-003	9.5000e-004	31.7427
Total	**0.0194**	**0.1166**	**0.1501**	**7.4000e-004**	**0.0514**	**1.3600e-003**	**0.0528**	**0.0140**	**1.3000e-003**	**0.0153**	**0.0000**	**69.8703**	**69.8703**	**1.3000e-003**	**6.7800e-003**	**71.9225**

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

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0865	0.7912	0.8934	1.4800e-003		0.0385	0.0385		0.0362	0.0362	0.0000	127.4926	127.4926	0.0303	0.0000	128.2508
Total	**0.0865**	**0.7912**	**0.8934**	**1.4800e-003**		**0.0385**	**0.0385**		**0.0362**	**0.0362**	**0.0000**	**127.4926**	**127.4926**	**0.0303**	**0.0000**	**128.2508**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8600e-003	0.0779	0.0229	3.5000e-004	0.0116	5.0000e-004	0.0121	3.3600e-003	4.8000e-004	3.8400e-003	0.0000	33.9098	33.9098	1.7000e-004	5.1300e-003	35.4417
Worker	0.0129	8.5600e-003	0.1013	3.0000e-004	0.0355	1.8000e-004	0.0357	9.4300e-003	1.6000e-004	9.6000e-003	0.0000	27.8842	27.8842	8.5000e-004	8.0000e-004	28.1440
Total	**0.0148**	**0.0864**	**0.1243**	**6.5000e-004**	**0.0471**	**6.8000e-004**	**0.0478**	**0.0128**	**6.4000e-004**	**0.0134**	**0.0000**	**61.7941**	**61.7941**	**1.0200e-003**	**5.9300e-003**	**63.5857**

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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	0.0865	0.7912	0.8934	1.4800e-003		0.0385	0.0385		0.0362	0.0362	0.0000	127.4925	127.4925	0.0303	0.0000	128.2507
Total	**0.0865**	**0.7912**	**0.8934**	**1.4800e-003**		**0.0385**	**0.0385**		**0.0362**	**0.0362**	**0.0000**	**127.4925**	**127.4925**	**0.0303**	**0.0000**	**128.2507**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8600e-003	0.0779	0.0229	3.5000e-004	0.0116	5.0000e-004	0.0121	3.3600e-003	4.8000e-004	3.8400e-003	0.0000	33.9098	33.9098	1.7000e-004	5.1300e-003	35.4417
Worker	0.0129	8.5600e-003	0.1013	3.0000e-004	0.0355	1.8000e-004	0.0357	9.4300e-003	1.6000e-004	9.6000e-003	0.0000	27.8842	27.8842	8.5000e-004	8.0000e-004	28.1440
Total	**0.0148**	**0.0864**	**0.1243**	**6.5000e-004**	**0.0471**	**6.8000e-004**	**0.0478**	**0.0128**	**6.4000e-004**	**0.0134**	**0.0000**	**61.7941**	**61.7941**	**1.0200e-003**	**5.9300e-003**	**63.5857**

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

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.2600e-003	0.0791	0.1097	1.7000e-004		3.9200e-003	3.9200e-003		3.6200e-003	3.6200e-003	0.0000	14.7407	14.7407	4.6300e-003	0.0000	14.8565
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.2600e-003**	**0.0791**	**0.1097**	**1.7000e-004**		**3.9200e-003**	**3.9200e-003**		**3.6200e-003**	**3.6200e-003**	**0.0000**	**14.7407**	**14.7407**	**4.6300e-003**	**0.0000**	**14.8565**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2000e-004	3.5000e-004	4.0900e-003	1.0000e-005	1.4300e-003	1.0000e-005	1.4400e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.1266	1.1266	3.0000e-005	3.0000e-005	1.1371
Total	**5.2000e-004**	**3.5000e-004**	**4.0900e-003**	**1.0000e-005**	**1.4300e-003**	**1.0000e-005**	**1.4400e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.1266**	**1.1266**	**3.0000e-005**	**3.0000e-005**	**1.1371**

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.2600e-003	0.0791	0.1097	1.7000e-004		3.9200e-003	3.9200e-003		3.6200e-003	3.6200e-003	0.0000	14.7407	14.7407	4.6300e-003	0.0000	14.8565
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.2600e-003**	**0.0791**	**0.1097**	**1.7000e-004**		**3.9200e-003**	**3.9200e-003**		**3.6200e-003**	**3.6200e-003**	**0.0000**	**14.7407**	**14.7407**	**4.6300e-003**	**0.0000**	**14.8565**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2000e-004	3.5000e-004	4.0900e-003	1.0000e-005	1.4300e-003	1.0000e-005	1.4400e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.1266	1.1266	3.0000e-005	3.0000e-005	1.1371
Total	**5.2000e-004**	**3.5000e-004**	**4.0900e-003**	**1.0000e-005**	**1.4300e-003**	**1.0000e-005**	**1.4400e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.1266**	**1.1266**	**3.0000e-005**	**3.0000e-005**	**1.1371**

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

3.7 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	6.5000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7200e-003	0.0117	0.0163	3.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004	0.0000	2.2979	2.2979	1.4000e-004	0.0000	2.3014
Total	**2.3700e-003**	**0.0117**	**0.0163**	**3.0000e-005**		**6.4000e-004**	**6.4000e-004**		**6.4000e-004**	**6.4000e-004**	**0.0000**	**2.2979**	**2.2979**	**1.4000e-004**	**0.0000**	**2.3014**

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	4.2000e-004	2.8000e-004	3.2800e-003	1.0000e-005	1.1500e-003	1.0000e-005	1.1500e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	0.9013	0.9013	3.0000e-005	3.0000e-005	0.9097
Total	**4.2000e-004**	**2.8000e-004**	**3.2800e-003**	**1.0000e-005**	**1.1500e-003**	**1.0000e-005**	**1.1500e-003**	**3.0000e-004**	**1.0000e-005**	**3.1000e-004**	**0.0000**	**0.9013**	**0.9013**	**3.0000e-005**	**3.0000e-005**	**0.9097**

Manteca Marketplace at Main - San Joaquin County, Annual

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

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	6.5000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7200e-003	0.0117	0.0163	3.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004	0.0000	2.2979	2.2979	1.4000e-004	0.0000	2.3014
Total	**2.3700e-003**	**0.0117**	**0.0163**	**3.0000e-005**		**6.4000e-004**	**6.4000e-004**		**6.4000e-004**	**6.4000e-004**	**0.0000**	**2.2979**	**2.2979**	**1.4000e-004**	**0.0000**	**2.3014**

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	4.2000e-004	2.8000e-004	3.2800e-003	1.0000e-005	1.1500e-003	1.0000e-005	1.1500e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	0.9013	0.9013	3.0000e-005	3.0000e-005	0.9097
Total	**4.2000e-004**	**2.8000e-004**	**3.2800e-003**	**1.0000e-005**	**1.1500e-003**	**1.0000e-005**	**1.1500e-003**	**3.0000e-004**	**1.0000e-005**	**3.1000e-004**	**0.0000**	**0.9013**	**0.9013**	**3.0000e-005**	**3.0000e-005**	**0.9097**

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
City Park	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	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
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
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

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.003707
Other Non-Asphalt Surfaces	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.003707

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					
City Park	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
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	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
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	tons/yr	MT/yr			
City Park	0		0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
City Park	0		0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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
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

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	0.0000	0.0000	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

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	0.0000	0.0000	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**

7.0 Water Detail

7.1 Mitigation Measures Water

		Total CO2	CH4	N2O	CO2e
Category	tons/yr	MT/yr			
Mitigated		0.0000	0.0000	0.0000	0.0000
Unmitigated		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

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
City Park	0 / 0		0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0		0.0000	0.0000	0.0000	0.0000
Total			**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

Mitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
City Park	0 / 0		0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

		Total CO2	CH4	N2O	CO2e
	tons/yr	MT/yr			
Mitigated		0.0000	0.0000	0.0000	0.0000
Unmitigated		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

8.2 Waste by Land Use

Unmitigated

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
City Park	0		0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
City Park	0		0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

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

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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

Manteca Marketplace at Main

San Joaquin County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	0.07	Acre	0.07	3,049.20	0
City Park	4.37	Acre	4.37	190,357.20	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	51
Climate Zone	2			**Operational Year**	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Note 2

Construction Off-road Equipment Mitigation -

Area Mitigation - Note 2

Vehicle Trips - Note 6

Consumer Products - Note 6

Area Coating - Note 6

Landscape Equipment - Note 6

Water And Wastewater - Note 6

Solid Waste - Note 6

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

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	1	0
tblAreaCoating	Area_Nonresidential_Interior	2	0
tblAreaCoating	Area_Parking	183	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	150	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	150	50
tblAreaMitigation	UseLowVOCPaintParkingValue	150	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	150	50
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	150	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblLandscapeEquipment	NumberSummerDays	180	0
tblSolidWaste	SolidWasteGenerationRate	0.38	0.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	WD_TR	0.78	0.00
tblWater	OutdoorWaterUseRate	5,206,773.50	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

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

Year	lb/day										lb/day					
2022	3.2341	33.1195	21.0130	0.0400	19.8049	1.6133	21.4182	10.1417	1.4843	11.6259	0.0000	3,883.7056	3,883.7056	1.1962	0.1233	3,936.3290
2023	1.8713	15.8817	18.7166	0.0393	0.8823	0.7120	1.5942	0.2389	0.6700	0.9089	0.0000	3,837.4846	3,837.4846	0.6273	0.1177	3,888.2293
Maximum	**3.2341**	**33.1195**	**21.0130**	**0.0400**	**19.8049**	**1.6133**	**21.4182**	**10.1417**	**1.4843**	**11.6259**	**0.0000**	**3,883.7056**	**3,883.7056**	**1.1962**	**0.1233**	**3,936.3290**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	3.2341	33.1195	21.0130	0.0400	8.9935	1.6133	10.6068	4.5853	1.4843	6.0696	0.0000	3,883.7056	3,883.7056	1.1962	0.1233	3,936.3290
2023	1.8713	15.8817	18.7166	0.0393	0.8823	0.7120	1.5942	0.2389	0.6700	0.9089	0.0000	3,837.4846	3,837.4846	0.6273	0.1177	3,888.2293
Maximum	**3.2341**	**33.1195**	**21.0130**	**0.0400**	**8.9935**	**1.6133**	**10.6068**	**4.5853**	**1.4843**	**6.0696**	**0.0000**	**3,883.7056**	**3,883.7056**	**1.1962**	**0.1233**	**3,936.3290**

	ROG	NOx	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

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

Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**52.26**	**0.00**	**46.98**	**53.53**	**0.00**	**44.33**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	4.0000e-005	0.0000	4.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.7000e-004	9.7000e-004	0.0000		1.0400e-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
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.0000e-005**	**0.0000**	**4.5000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**9.7000e-004**	**9.7000e-004**	**0.0000**	**0.0000**	**1.0400e-003**

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

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	4.0000e-005	0.0000	4.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.7000e-004	9.7000e-004	0.0000		1.0400e-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
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.0000e-005**	**0.0000**	**4.5000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**9.7000e-004**	**9.7000e-004**	**0.0000**	**0.0000**	**1.0400e-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	6/1/2022	6/28/2022	5	20	
2	Site Preparation	Site Preparation	6/29/2022	7/5/2022	5	5	
3	Grading	Grading	7/6/2022	7/15/2022	5	8	
4	Building Construction	Building Construction	7/16/2022	6/2/2023	5	230	
5	Paving	Paving	6/3/2023	6/28/2023	5	18	

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

6	Architectural Coating	Architectural Coating	6/29/2023	7/24/2023	5	18	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 8

Acres of Paving: 0.07

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 2; Non-Residential Outdoor: 1; Striped Parking Area: 183 (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	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38

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

Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
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	0.00	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	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	81.00	32.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	16.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553		3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**		**1.2427**	**1.2427**		**1.1553**	**1.1553**		**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

Manteca Marketplace at Main - San Joaquin County, Summer

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0533	0.0300	0.4190	1.1400e-003	0.1232	6.3000e-004	0.1239	0.0327	5.8000e-004	0.0333		115.4571	115.4571	3.3400e-003	3.0300e-003	116.4447
Total	**0.0533**	**0.0300**	**0.4190**	**1.1400e-003**	**0.1232**	**6.3000e-004**	**0.1239**	**0.0327**	**5.8000e-004**	**0.0333**		**115.4571**	**115.4571**	**3.3400e-003**	**3.0300e-003**	**116.4447**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553	0.0000	3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**		**1.2427**	**1.2427**		**1.1553**	**1.1553**	**0.0000**	**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0533	0.0300	0.4190	1.1400e-003	0.1232	6.3000e-004	0.1239	0.0327	5.8000e-004	0.0333		115.4571	115.4571	3.3400e-003	3.0300e-003	116.4447
Total	**0.0533**	**0.0300**	**0.4190**	**1.1400e-003**	**0.1232**	**6.3000e-004**	**0.1239**	**0.0327**	**5.8000e-004**	**0.0333**		**115.4571**	**115.4571**	**3.3400e-003**	**3.0300e-003**	**116.4447**

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	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**19.6570**	**1.6126**	**21.2696**	**10.1025**	**1.4836**	**11.5860**		**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

Manteca Marketplace at Main - San Joaquin County, Summer

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0639	0.0360	0.5028	1.3700e-003	0.1479	7.5000e-004	0.1486	0.0392	6.9000e-004	0.0399		138.5485	138.5485	4.0000e-003	3.6400e-003	139.7337
Total	**0.0639**	**0.0360**	**0.5028**	**1.3700e-003**	**0.1479**	**7.5000e-004**	**0.1486**	**0.0392**	**6.9000e-004**	**0.0399**		**138.5485**	**138.5485**	**4.0000e-003**	**3.6400e-003**	**139.7337**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.8457	0.0000	8.8457	4.5461	0.0000	4.5461			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**8.8457**	**1.6126**	**10.4582**	**4.5461**	**1.4836**	**6.0297**	**0.0000**	**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0639	0.0360	0.5028	1.3700e-003	0.1479	7.5000e-004	0.1486	0.0392	6.9000e-004	0.0399		138.5485	138.5485	4.0000e-003	3.6400e-003	139.7337
Total	**0.0639**	**0.0360**	**0.5028**	**1.3700e-003**	**0.1479**	**7.5000e-004**	**0.1486**	**0.0392**	**6.9000e-004**	**0.0399**		**138.5485**	**138.5485**	**4.0000e-003**	**3.6400e-003**	**139.7337**

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	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656		2,872.0464	2,872.0464	0.9289		2,895.2684
Total	**1.9486**	**20.8551**	**15.2727**	**0.0297**	**7.0826**	**0.9409**	**8.0234**	**3.4247**	**0.8656**	**4.2903**		**2,872.0464**	**2,872.0464**	**0.9289**		**2,895.2684**

Manteca Marketplace at Main - San Joaquin County, Summer

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0533	0.0300	0.4190	1.1400e-003	0.1232	6.3000e-004	0.1239	0.0327	5.8000e-004	0.0333		115.4571	115.4571	3.3400e-003	3.0300e-003	116.4447
Total	**0.0533**	**0.0300**	**0.4190**	**1.1400e-003**	**0.1232**	**6.3000e-004**	**0.1239**	**0.0327**	**5.8000e-004**	**0.0333**		**115.4571**	**115.4571**	**3.3400e-003**	**3.0300e-003**	**116.4447**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1872	0.0000	3.1872	1.5411	0.0000	1.5411			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656	0.0000	2,872.0464	2,872.0464	0.9289		2,895.2684
Total	**1.9486**	**20.8551**	**15.2727**	**0.0297**	**3.1872**	**0.9409**	**4.1280**	**1.5411**	**0.8656**	**2.4067**	**0.0000**	**2,872.0464**	**2,872.0464**	**0.9289**		**2,895.2684**

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0533	0.0300	0.4190	1.1400e-003	0.1232	6.3000e-004	0.1239	0.0327	5.8000e-004	0.0333		115.4571	115.4571	3.3400e-003	3.0300e-003	116.4447
Total	**0.0533**	**0.0300**	**0.4190**	**1.1400e-003**	**0.1232**	**6.3000e-004**	**0.1239**	**0.0327**	**5.8000e-004**	**0.0333**		**115.4571**	**115.4571**	**3.3400e-003**	**3.0300e-003**	**116.4447**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Manteca Marketplace at Main - San Joaquin County, Summer

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0684	1.6895	0.4790	6.6700e-003	0.2169	0.0193	0.2362	0.0624	0.0185	0.0809		705.9040	705.9040	5.0600e-003	0.1069	737.8954
Worker	0.2877	0.1619	2.2624	6.1700e-003	0.6654	3.3800e-003	0.6688	0.1765	3.1100e-003	0.1796		623.4681	623.4681	0.0180	0.0164	628.8014
Total	**0.3561**	**1.8514**	**2.7414**	**0.0128**	**0.8823**	**0.0227**	**0.9050**	**0.2389**	**0.0216**	**0.2605**		**1,329.3720**	**1,329.3720**	**0.0231**	**0.1233**	**1,366.6968**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0684	1.6895	0.4790	6.6700e-003	0.2169	0.0193	0.2362	0.0624	0.0185	0.0809		705.9040	705.9040	5.0600e-003	0.1069	737.8954
Worker	0.2877	0.1619	2.2624	6.1700e-003	0.6654	3.3800e-003	0.6688	0.1765	3.1100e-003	0.1796		623.4681	623.4681	0.0180	0.0164	628.8014
Total	**0.3561**	**1.8514**	**2.7414**	**0.0128**	**0.8823**	**0.0227**	**0.9050**	**0.2389**	**0.0216**	**0.2605**		**1,329.3720**	**1,329.3720**	**0.0231**	**0.1233**	**1,366.6968**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Manteca Marketplace at Main - San Joaquin County, Summer

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0349	1.3555	0.4105	6.4200e-003	0.2169	9.0400e-003	0.2259	0.0624	8.6500e-003	0.0711		679.0800	679.0800	3.3900e-003	0.1026	709.7446
Worker	0.2637	0.1413	2.0621	5.9700e-003	0.6654	3.1800e-003	0.6686	0.1765	2.9300e-003	0.1794		603.1947	603.1947	0.0161	0.0150	608.0787
Total	**0.2986**	**1.4968**	**2.4726**	**0.0124**	**0.8823**	**0.0122**	**0.8945**	**0.2389**	**0.0116**	**0.2505**		**1,282.2746**	**1,282.2746**	**0.0195**	**0.1177**	**1,317.8233**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0349	1.3555	0.4105	6.4200e-003	0.2169	9.0400e-003	0.2259	0.0624	8.6500e-003	0.0711		679.0800	679.0800	3.3900e-003	0.1026	709.7446
Worker	0.2637	0.1413	2.0621	5.9700e-003	0.6654	3.1800e-003	0.6686	0.1765	2.9300e-003	0.1794		603.1947	603.1947	0.0161	0.0150	608.0787
Total	**0.2986**	**1.4968**	**2.4726**	**0.0124**	**0.8823**	**0.0122**	**0.8945**	**0.2389**	**0.0116**	**0.2505**		**1,282.2746**	**1,282.2746**	**0.0195**	**0.1177**	**1,317.8233**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9181	8.7903	12.1905	0.0189		0.4357	0.4357		0.4025	0.4025		1,805.4304	1,805.4304	0.5673		1,819.6122
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9181**	**8.7903**	**12.1905**	**0.0189**		**0.4357**	**0.4357**		**0.4025**	**0.4025**		**1,805.4304**	**1,805.4304**	**0.5673**		**1,819.6122**

Manteca Marketplace at Main - San Joaquin County, Summer

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0651	0.0349	0.5092	1.4700e-003	0.1643	7.9000e-004	0.1651	0.0436	7.2000e-004	0.0443		148.9370	148.9370	3.9700e-003	3.7100e-003	150.1429
Total	**0.0651**	**0.0349**	**0.5092**	**1.4700e-003**	**0.1643**	**7.9000e-004**	**0.1651**	**0.0436**	**7.2000e-004**	**0.0443**		**148.9370**	**148.9370**	**3.9700e-003**	**3.7100e-003**	**150.1429**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9181	8.7903	12.1905	0.0189		0.4357	0.4357		0.4025	0.4025	0.0000	1,805.4304	1,805.4304	0.5673		1,819.6122
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9181**	**8.7903**	**12.1905**	**0.0189**		**0.4357**	**0.4357**		**0.4025**	**0.4025**	**0.0000**	**1,805.4304**	**1,805.4304**	**0.5673**		**1,819.6122**

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0651	0.0349	0.5092	1.4700e-003	0.1643	7.9000e-004	0.1651	0.0436	7.2000e-004	0.0443		148.9370	148.9370	3.9700e-003	3.7100e-003	150.1429
Total	**0.0651**	**0.0349**	**0.5092**	**1.4700e-003**	**0.1643**	**7.9000e-004**	**0.1651**	**0.0436**	**7.2000e-004**	**0.0443**		**148.9370**	**148.9370**	**3.9700e-003**	**3.7100e-003**	**150.1429**

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0718					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**0.2635**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

Manteca Marketplace at Main - San Joaquin County, Summer

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0521	0.0279	0.4073	1.1800e-003	0.1314	6.3000e-004	0.1321	0.0349	5.8000e-004	0.0354		119.1496	119.1496	3.1700e-003	2.9700e-003	120.1143
Total	**0.0521**	**0.0279**	**0.4073**	**1.1800e-003**	**0.1314**	**6.3000e-004**	**0.1321**	**0.0349**	**5.8000e-004**	**0.0354**		**119.1496**	**119.1496**	**3.1700e-003**	**2.9700e-003**	**120.1143**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0718					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**0.2635**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0521	0.0279	0.4073	1.1800e-003	0.1314	6.3000e-004	0.1321	0.0349	5.8000e-004	0.0354		119.1496	119.1496	3.1700e-003	2.9700e-003	120.1143
Total	**0.0521**	**0.0279**	**0.4073**	**1.1800e-003**	**0.1314**	**6.3000e-004**	**0.1321**	**0.0349**	**5.8000e-004**	**0.0354**		**119.1496**	**119.1496**	**3.1700e-003**	**2.9700e-003**	**120.1143**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

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

Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	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
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.003707
Other Non-Asphalt Surfaces	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.003707

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

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

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4.0000e-005	0.0000	4.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.7000e-004	9.7000e-004	0.0000		1.0400e-003
Unmitigated	4.0000e-005	0.0000	4.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.7000e-004	9.7000e-004	0.0000		1.0400e-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	lb/day										lb/day					
Architectural Coating	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
Landscaping	4.0000e-005	0.0000	4.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.7000e-004	9.7000e-004	0.0000		1.0400e-003
Total	**4.0000e-005**	**0.0000**	**4.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**9.7000e-004**	**9.7000e-004**	**0.0000**		**1.0400e-003**

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

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-005	0.0000	4.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.7000e-004	9.7000e-004	0.0000		1.0400e-003
Total	**4.0000e-005**	**0.0000**	**4.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**9.7000e-004**	**9.7000e-004**	**0.0000**		**1.0400e-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

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Manteca Marketplace at Main - San Joaquin County, Winter

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

Manteca Marketplace at Main

San Joaquin County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	0.07	Acre	0.07	3,049.20	0
City Park	4.37	Acre	4.37	190,357.20	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	51
Climate Zone	2			**Operational Year**	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Note 2

Construction Off-road Equipment Mitigation -

Area Mitigation - Note 2

Vehicle Trips - Note 6

Consumer Products - Note 6

Area Coating - Note 6

Landscape Equipment - Note 6

Water And Wastewater - Note 6

Solid Waste - Note 6

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

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	1	0
tblAreaCoating	Area_Nonresidential_Interior	2	0
tblAreaCoating	Area_Parking	183	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	150	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	150	50
tblAreaMitigation	UseLowVOCPaintParkingValue	150	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	150	50
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	150	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblLandscapeEquipment	NumberSummerDays	180	0
tblSolidWaste	SolidWasteGenerationRate	0.38	0.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	WD_TR	0.78	0.00
tblWater	OutdoorWaterUseRate	5,206,773.50	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

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

Year	lb/day										lb/day					
2022	3.2299	33.1271	20.9692	0.0399	19.8049	1.6133	21.4182	10.1417	1.4843	11.6259	0.0000	3,851.0698	3,851.0698	1.1967	0.1258	3,878.5038
2023	1.8531	16.0052	18.5248	0.0388	0.8823	0.7120	1.5942	0.2389	0.6700	0.9090	0.0000	3,780.6183	3,780.6183	0.6294	0.1200	3,832.1122
Maximum	**3.2299**	**33.1271**	**20.9692**	**0.0399**	**19.8049**	**1.6133**	**21.4182**	**10.1417**	**1.4843**	**11.6259**	**0.0000**	**3,851.0698**	**3,851.0698**	**1.1967**	**0.1258**	**3,878.5038**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	3.2299	33.1271	20.9692	0.0399	8.9935	1.6133	10.6068	4.5853	1.4843	6.0696	0.0000	3,851.0698	3,851.0698	1.1967	0.1258	3,878.5038
2023	1.8531	16.0052	18.5248	0.0388	0.8823	0.7120	1.5942	0.2389	0.6700	0.9090	0.0000	3,780.6183	3,780.6183	0.6294	0.1200	3,832.1122
Maximum	**3.2299**	**33.1271**	**20.9692**	**0.0399**	**8.9935**	**1.6133**	**10.6068**	**4.5853**	**1.4843**	**6.0696**	**0.0000**	**3,851.0698**	**3,851.0698**	**1.1967**	**0.1258**	**3,878.5038**

	ROG	NOx	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

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

Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**52.26**	**0.00**	**46.98**	**53.53**	**0.00**	**44.33**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	4.0000e-005	0.0000	4.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.7000e-004	9.7000e-004	0.0000		1.0400e-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
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.0000e-005**	**0.0000**	**4.5000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**9.7000e-004**	**9.7000e-004**	**0.0000**	**0.0000**	**1.0400e-003**

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

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	4.0000e-005	0.0000	4.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.7000e-004	9.7000e-004	0.0000		1.0400e-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
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.0000e-005**	**0.0000**	**4.5000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**9.7000e-004**	**9.7000e-004**	**0.0000**	**0.0000**	**1.0400e-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	6/1/2022	6/28/2022	5	20	
2	Site Preparation	Site Preparation	6/29/2022	7/5/2022	5	5	
3	Grading	Grading	7/6/2022	7/15/2022	5	8	
4	Building Construction	Building Construction	7/16/2022	6/2/2023	5	230	
5	Paving	Paving	6/3/2023	6/28/2023	5	18	

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

6	Architectural Coating	Architectural Coating	6/29/2023	7/24/2023	5	18	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 8

Acres of Paving: 0.07

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 2; Non-Residential Outdoor: 1; Striped Parking Area: 183 (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	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38

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

Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
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	0.00	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	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	81.00	32.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	16.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553		3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**		**1.2427**	**1.2427**		**1.1553**	**1.1553**		**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

Manteca Marketplace at Main - San Joaquin County, Winter

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0498	0.0363	0.3751	1.0300e-003	0.1232	6.3000e-004	0.1239	0.0327	5.8000e-004	0.0333		104.2886	104.2886	3.7700e-003	3.4500e-003	105.4118
Total	**0.0498**	**0.0363**	**0.3751**	**1.0300e-003**	**0.1232**	**6.3000e-004**	**0.1239**	**0.0327**	**5.8000e-004**	**0.0333**		**104.2886**	**104.2886**	**3.7700e-003**	**3.4500e-003**	**105.4118**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553	0.0000	3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**		**1.2427**	**1.2427**		**1.1553**	**1.1553**	**0.0000**	**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0498	0.0363	0.3751	1.0300e-003	0.1232	6.3000e-004	0.1239	0.0327	5.8000e-004	0.0333		104.2886	104.2886	3.7700e-003	3.4500e-003	105.4118
Total	**0.0498**	**0.0363**	**0.3751**	**1.0300e-003**	**0.1232**	**6.3000e-004**	**0.1239**	**0.0327**	**5.8000e-004**	**0.0333**		**104.2886**	**104.2886**	**3.7700e-003**	**3.4500e-003**	**105.4118**

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	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**19.6570**	**1.6126**	**21.2696**	**10.1025**	**1.4836**	**11.5860**		**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

Manteca Marketplace at Main - San Joaquin County, Winter

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0598	0.0436	0.4501	1.2400e-003	0.1479	7.5000e-004	0.1486	0.0392	6.9000e-004	0.0399		125.1464	125.1464	4.5300e-003	4.1400e-003	126.4941
Total	**0.0598**	**0.0436**	**0.4501**	**1.2400e-003**	**0.1479**	**7.5000e-004**	**0.1486**	**0.0392**	**6.9000e-004**	**0.0399**		**125.1464**	**125.1464**	**4.5300e-003**	**4.1400e-003**	**126.4941**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.8457	0.0000	8.8457	4.5461	0.0000	4.5461			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**8.8457**	**1.6126**	**10.4582**	**4.5461**	**1.4836**	**6.0297**	**0.0000**	**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0598	0.0436	0.4501	1.2400e-003	0.1479	7.5000e-004	0.1486	0.0392	6.9000e-004	0.0399		125.1464	125.1464	4.5300e-003	4.1400e-003	126.4941
Total	**0.0598**	**0.0436**	**0.4501**	**1.2400e-003**	**0.1479**	**7.5000e-004**	**0.1486**	**0.0392**	**6.9000e-004**	**0.0399**		**125.1464**	**125.1464**	**4.5300e-003**	**4.1400e-003**	**126.4941**

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	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656		2,872.0464	2,872.0464	0.9289		2,895.2684
Total	**1.9486**	**20.8551**	**15.2727**	**0.0297**	**7.0826**	**0.9409**	**8.0234**	**3.4247**	**0.8656**	**4.2903**		**2,872.0464**	**2,872.0464**	**0.9289**		**2,895.2684**

Manteca Marketplace at Main - San Joaquin County, Winter

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0498	0.0363	0.3751	1.0300e-003	0.1232	6.3000e-004	0.1239	0.0327	5.8000e-004	0.0333		104.2886	104.2886	3.7700e-003	3.4500e-003	105.4118
Total	**0.0498**	**0.0363**	**0.3751**	**1.0300e-003**	**0.1232**	**6.3000e-004**	**0.1239**	**0.0327**	**5.8000e-004**	**0.0333**		**104.2886**	**104.2886**	**3.7700e-003**	**3.4500e-003**	**105.4118**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1872	0.0000	3.1872	1.5411	0.0000	1.5411			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656	0.0000	2,872.0464	2,872.0464	0.9289		2,895.2684
Total	**1.9486**	**20.8551**	**15.2727**	**0.0297**	**3.1872**	**0.9409**	**4.1280**	**1.5411**	**0.8656**	**2.4067**	**0.0000**	**2,872.0464**	**2,872.0464**	**0.9289**		**2,895.2684**

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0498	0.0363	0.3751	1.0300e-003	0.1232	6.3000e-004	0.1239	0.0327	5.8000e-004	0.0333		104.2886	104.2886	3.7700e-003	3.4500e-003	105.4118
Total	**0.0498**	**0.0363**	**0.3751**	**1.0300e-003**	**0.1232**	**6.3000e-004**	**0.1239**	**0.0327**	**5.8000e-004**	**0.0333**		**104.2886**	**104.2886**	**3.7700e-003**	**3.4500e-003**	**105.4118**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Manteca Marketplace at Main - San Joaquin County, Winter

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0668	1.8010	0.4960	6.6800e-003	0.2169	0.0194	0.2363	0.0624	0.0186	0.0810		706.5186	706.5186	4.9700e-003	0.1071	738.5607
Worker	0.2691	0.1962	2.0255	5.5700e-003	0.6654	3.3800e-003	0.6688	0.1765	3.1100e-003	0.1796		563.1586	563.1586	0.0204	0.0186	569.2234
Total	**0.3358**	**1.9972**	**2.5215**	**0.0123**	**0.8823**	**0.0228**	**0.9050**	**0.2389**	**0.0217**	**0.2606**		**1,269.6772**	**1,269.6772**	**0.0253**	**0.1258**	**1,307.7842**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0668	1.8010	0.4960	6.6800e-003	0.2169	0.0194	0.2363	0.0624	0.0186	0.0810		706.5186	706.5186	4.9700e-003	0.1071	738.5607
Worker	0.2691	0.1962	2.0255	5.5700e-003	0.6654	3.3800e-003	0.6688	0.1765	3.1100e-003	0.1796		563.1586	563.1586	0.0204	0.0186	569.2234
Total	**0.3358**	**1.9972**	**2.5215**	**0.0123**	**0.8823**	**0.0228**	**0.9050**	**0.2389**	**0.0217**	**0.2606**		**1,269.6772**	**1,269.6772**	**0.0253**	**0.1258**	**1,307.7842**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Manteca Marketplace at Main - San Joaquin County, Winter

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0328	1.4493	0.4244	6.4300e-003	0.2169	9.0700e-003	0.2259	0.0624	8.6700e-003	0.0711		680.3729	680.3729	3.2900e-003	0.1029	711.1174
Worker	0.2475	0.1711	1.8564	5.3900e-003	0.6654	3.1800e-003	0.6686	0.1765	2.9300e-003	0.1794		545.0355	545.0355	0.0183	0.0171	550.5888
Total	**0.2803**	**1.6203**	**2.2808**	**0.0118**	**0.8823**	**0.0123**	**0.8945**	**0.2389**	**0.0116**	**0.2505**		**1,225.4084**	**1,225.4084**	**0.0216**	**0.1200**	**1,261.7061**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0328	1.4493	0.4244	6.4300e-003	0.2169	9.0700e-003	0.2259	0.0624	8.6700e-003	0.0711		680.3729	680.3729	3.2900e-003	0.1029	711.1174
Worker	0.2475	0.1711	1.8564	5.3900e-003	0.6654	3.1800e-003	0.6686	0.1765	2.9300e-003	0.1794		545.0355	545.0355	0.0183	0.0171	550.5888
Total	**0.2803**	**1.6203**	**2.2808**	**0.0118**	**0.8823**	**0.0123**	**0.8945**	**0.2389**	**0.0116**	**0.2505**		**1,225.4084**	**1,225.4084**	**0.0216**	**0.1200**	**1,261.7061**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9181	8.7903	12.1905	0.0189		0.4357	0.4357		0.4025	0.4025		1,805.4304	1,805.4304	0.5673		1,819.6122
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9181**	**8.7903**	**12.1905**	**0.0189**		**0.4357**	**0.4357**		**0.4025**	**0.4025**		**1,805.4304**	**1,805.4304**	**0.5673**		**1,819.6122**

Manteca Marketplace at Main - San Joaquin County, Winter

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0611	0.0422	0.4584	1.3300e-003	0.1643	7.9000e-004	0.1651	0.0436	7.2000e-004	0.0443		134.5767	134.5767	4.5100e-003	4.2200e-003	135.9479
Total	**0.0611**	**0.0422**	**0.4584**	**1.3300e-003**	**0.1643**	**7.9000e-004**	**0.1651**	**0.0436**	**7.2000e-004**	**0.0443**		**134.5767**	**134.5767**	**4.5100e-003**	**4.2200e-003**	**135.9479**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9181	8.7903	12.1905	0.0189		0.4357	0.4357		0.4025	0.4025	0.0000	1,805.4304	1,805.4304	0.5673		1,819.6122
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9181**	**8.7903**	**12.1905**	**0.0189**		**0.4357**	**0.4357**		**0.4025**	**0.4025**	**0.0000**	**1,805.4304**	**1,805.4304**	**0.5673**		**1,819.6122**

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0611	0.0422	0.4584	1.3300e-003	0.1643	7.9000e-004	0.1651	0.0436	7.2000e-004	0.0443		134.5767	134.5767	4.5100e-003	4.2200e-003	135.9479
Total	**0.0611**	**0.0422**	**0.4584**	**1.3300e-003**	**0.1643**	**7.9000e-004**	**0.1651**	**0.0436**	**7.2000e-004**	**0.0443**		**134.5767**	**134.5767**	**4.5100e-003**	**4.2200e-003**	**135.9479**

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0718					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**0.2635**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

Manteca Marketplace at Main - San Joaquin County, Winter

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0489	0.0338	0.3667	1.0700e-003	0.1314	6.3000e-004	0.1321	0.0349	5.8000e-004	0.0354		107.6613	107.6613	3.6100e-003	3.3800e-003	108.7583
Total	**0.0489**	**0.0338**	**0.3667**	**1.0700e-003**	**0.1314**	**6.3000e-004**	**0.1321**	**0.0349**	**5.8000e-004**	**0.0354**		**107.6613**	**107.6613**	**3.6100e-003**	**3.3800e-003**	**108.7583**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0718					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**0.2635**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0489	0.0338	0.3667	1.0700e-003	0.1314	6.3000e-004	0.1321	0.0349	5.8000e-004	0.0354		107.6613	107.6613	3.6100e-003	3.3800e-003	108.7583
Total	**0.0489**	**0.0338**	**0.3667**	**1.0700e-003**	**0.1314**	**6.3000e-004**	**0.1321**	**0.0349**	**5.8000e-004**	**0.0354**		**107.6613**	**107.6613**	**3.6100e-003**	**3.3800e-003**	**108.7583**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

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

Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	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
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.003707
Other Non-Asphalt Surfaces	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.003707

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

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

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4.0000e-005	0.0000	4.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.7000e-004	9.7000e-004	0.0000		1.0400e-003
Unmitigated	4.0000e-005	0.0000	4.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.7000e-004	9.7000e-004	0.0000		1.0400e-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	lb/day										lb/day					
Architectural Coating	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
Landscaping	4.0000e-005	0.0000	4.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.7000e-004	9.7000e-004	0.0000		1.0400e-003
Total	**4.0000e-005**	**0.0000**	**4.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**9.7000e-004**	**9.7000e-004**	**0.0000**		**1.0400e-003**

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

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-005	0.0000	4.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		9.7000e-004	9.7000e-004	0.0000		1.0400e-003
Total	**4.0000e-005**	**0.0000**	**4.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**9.7000e-004**	**9.7000e-004**	**0.0000**		**1.0400e-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

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Manteca Marketplace at Main - San Joaquin County, Summer

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

Manteca Marketplace at Main

San Joaquin County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	244.68	1000sqft	5.62	244,677.00	0
City Park	2.29	Acre	2.29	99,752.40	0
Fast Food Restaurant with Drive Thru	9.00	1000sqft	0.21	9,000.00	0
Automobile Care Center	3.60	1000sqft	0.08	3,596.00	0
Hardware/Paint Store	38.00	1000sqft	0.87	38,000.00	0
Strip Mall	12.50	1000sqft	0.29	12,500.00	0
Supermarket	50.07	1000sqft	1.15	50,071.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	51
Climate Zone	2			**Operational Year**	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Note 8

Land Use - Note 1

Construction Phase - Note 9

Demolition -

Grading - Note 7

Architectural Coating -

Manteca Marketplace at Main - San Joaquin County, Summer

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

Vehicle Trips - Note 10

Area Coating - Note 2

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	50
tblAreaCoating	Area_EF_Nonresidential_Interior	150	50
tblAreaCoating	Area_EF_Residential_Exterior	150	50
tblAreaCoating	Area_EF_Residential_Interior	150	50
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	300.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	30.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	10.00	0.00
tblLandUse	LandUseSquareFeet	244,680.00	244,677.00
tblLandUse	LandUseSquareFeet	3,600.00	3,596.00
tblLandUse	LandUseSquareFeet	50,070.00	50,071.00
tblVehicleTrips	CC_TL	7.30	0.40
tblVehicleTrips	CC_TL	7.30	0.40
tblVehicleTrips	CC_TL	7.30	0.40
tblVehicleTrips	CC_TL	7.30	0.40
tblVehicleTrips	CC_TL	7.30	0.40
tblVehicleTrips	CNW_TL	7.30	0.40
tblVehicleTrips	CNW_TL	7.30	0.40
tblVehicleTrips	CNW_TL	7.30	0.40
tblVehicleTrips	CNW_TL	7.30	0.40
tblVehicleTrips	CNW_TL	7.30	0.40
tblVehicleTrips	CW_TL	9.50	0.40
tblVehicleTrips	CW_TL	9.50	0.40

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

tblVehicleTrips	CW_TL	9.50	0.40
tblVehicleTrips	CW_TL	9.50	0.40
tblVehicleTrips	CW_TL	9.50	0.40
tblVehicleTrips	DV_TP	51.00	0.00
tblVehicleTrips	DV_TP	21.00	0.00
tblVehicleTrips	DV_TP	29.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	DV_TP	30.00	0.00
tblVehicleTrips	PB_TP	28.00	0.00
tblVehicleTrips	PB_TP	50.00	0.00
tblVehicleTrips	PB_TP	26.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PB_TP	36.00	0.00
tblVehicleTrips	PR_TP	21.00	100.00
tblVehicleTrips	PR_TP	29.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	PR_TP	34.00	100.00
tblVehicleTrips	ST_TR	23.72	891.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	616.12	595.62
tblVehicleTrips	ST_TR	9.14	114.48
tblVehicleTrips	ST_TR	42.04	114.48
tblVehicleTrips	ST_TR	177.62	114.48
tblVehicleTrips	SU_TR	11.88	446.25
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	472.58	456.86
tblVehicleTrips	SU_TR	9.14	83.65

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

tblVehicleTrips	SU_TR	20.43	83.65
tblVehicleTrips	SU_TR	166.47	83.65
tblVehicleTrips	WD_TR	23.72	891.00
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	470.95	451.93
tblVehicleTrips	WD_TR	9.14	93.13
tblVehicleTrips	WD_TR	44.32	93.13
tblVehicleTrips	WD_TR	106.78	93.13

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	0.0000	0.0000	0.0000	0.0000	0.0000	5.3543	0.0000	0.0000	4.9565	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2023	0.0000	0.0000	0.0000	0.0000	0.0000	0.5830	0.0000	0.0000	0.5421	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**5.3543**	**0.0000**	**0.0000**	**4.9565**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Manteca Marketplace at Main - San Joaquin County, Summer

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

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	0.0000	0.0000	0.0000	0.0000	0.0000	5.3543	0.0000	0.0000	4.9565	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2023	0.0000	0.0000	0.0000	0.0000	0.0000	0.5830	0.0000	0.0000	0.5421	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**5.3543**	**0.0000**	**0.0000**	**4.9565**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.6887	3.3000e-004	0.0368	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0788	0.0788	2.1000e-004		0.0840
Energy	0.1054	0.9578	0.8046	5.7500e-003		0.0728	0.0728		0.0728	0.0728		1,149.3854	1,149.3854	0.0220	0.0211	1,156.2156

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

Mobile	41.5637	20.5599	120.7329	0.0975	6.1755	0.1294	6.3050	1.6474	0.1201	1.7675		9,938.5356	9,938.5356	2.5925	1.5451	10,463.7850
Total	**44.3578**	**21.5180**	**121.5743**	**0.1032**	**6.1755**	**0.2024**	**6.3779**	**1.6474**	**0.1930**	**1.8404**		**11,087.9998**	**11,087.9998**	**2.6147**	**1.5662**	**11,620.0847**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.6887	3.3000e-004	0.0368	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0788	0.0788	2.1000e-004		0.0840
Energy	0.1054	0.9578	0.8046	5.7500e-003		0.0728	0.0728		0.0728	0.0728		1,149.3854	1,149.3854	0.0220	0.0211	1,156.2156
Mobile	41.5637	20.5599	120.7329	0.0975	6.1755	0.1294	6.3050	1.6474	0.1201	1.7675		9,938.5356	9,938.5356	2.5925	1.5451	10,463.7850
Total	**44.3578**	**21.5180**	**121.5743**	**0.1032**	**6.1755**	**0.2024**	**6.3779**	**1.6474**	**0.1930**	**1.8404**		**11,087.9998**	**11,087.9998**	**2.6147**	**1.5662**	**11,620.0847**

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	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	6/1/2022	5/31/2022	5	0	
2	Site Preparation	Site Preparation	6/29/2022	6/28/2022	5	0	
3	Grading	Grading	7/13/2022	7/12/2022	5	0	
4	Building Construction	Building Construction	8/24/2022	8/23/2022	5	0	
5	Paving	Paving	10/18/2023	10/17/2023	5	0	
6	Architectural Coating	Architectural Coating	11/15/2023	11/14/2023	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 5.62

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 169,752; Non-Residential Outdoor: 56,584; Striped Parking Area: 14,681 (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

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

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
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	0.00	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	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	182.00	75.00	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	36.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2022

Manteca Marketplace at Main - San Joaquin County, Summer

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

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Manteca Marketplace at Main - San Joaquin County, Summer

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Manteca Marketplace at Main - San Joaquin County, Summer

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Manteca Marketplace at Main - San Joaquin County, Summer

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Manteca Marketplace at Main - San Joaquin County, Summer

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Manteca Marketplace at Main - San Joaquin County, Summer

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Manteca Marketplace at Main - San Joaquin County, Summer

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	41.5637	20.5599	120.7329	0.0975	6.1755	0.1294	6.3050	1.6474	0.1201	1.7675		9,938.5356	9,938.5356	2.5925	1.5451	10,463.7850
Unmitigated	41.5637	20.5599	120.7329	0.0975	6.1755	0.1294	6.3050	1.6474	0.1201	1.7675		9,938.5356	9,938.5356	2.5925	1.5451	10,463.7850

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	3,207.60	3,207.60	1606.50	433,724	433,724
City Park	0.00	0.00	0.00		
Fast Food Restaurant with Drive Thru	4,067.37	5,360.58	4111.74	620,031	620,031
Hardware/Paint Store	3,538.94	4,350.24	3178.70	524,652	524,652
Parking Lot	0.00	0.00	0.00		
Strip Mall	1,164.13	1,431.00	1045.63	172,583	172,583
Supermarket	4,663.02	5,732.01	4188.36	691,298	691,298
Total	16,641.05	20,081.43	14,130.92	2,442,287	2,442,287

4.3 Trip Type Information

	Miles	Trip %	Trip Purpose %

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

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
Automobile Care Center	0.40	0.40	0.40	33.00	48.00	19.00	100	0	0
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Fast Food Restaurant with Drive	0.40	0.40	0.40	2.20	78.80	19.00	100	0	0
Hardware/Paint Store	0.40	0.40	0.40	13.60	67.40	19.00	100	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Strip Mall	0.40	0.40	0.40	16.60	64.40	19.00	100	0	0
Supermarket	0.40	0.40	0.40	6.50	74.50	19.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.003707
City Park	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.003707
Fast Food Restaurant with Drive Thru	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.003707
Hardware/Paint Store	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.003707
Parking Lot	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.003707
Strip Mall	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.003707
Supermarket	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.003707

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

Manteca Marketplace at Main - San Joaquin County, Summer

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

Category	lb/day										lb/day					
NaturalGas Mitigated	0.1054	0.9578	0.8046	5.7500e-003		0.0728	0.0728		0.0728	0.0728		1,149.3854	1,149.3854	0.0220	0.0211	1,156.2156
NaturalGas Unmitigated	0.1054	0.9578	0.8046	5.7500e-003		0.0728	0.0728		0.0728	0.0728		1,149.3854	1,149.3854	0.0220	0.0211	1,156.2156

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Automobile Care Center	181.77	1.9600e-003	0.0178	0.0150	1.1000e-004		1.3500e-003	1.3500e-003		1.3500e-003	1.3500e-003		21.3848	21.3848	4.1000e-004	3.9000e-004	21.5118
City Park	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
Fast Food Restaurant with Drive Thru	2687.92	0.0290	0.2635	0.2214	1.5800e-003		0.0200	0.0200		0.0200	0.0200		316.2256	316.2256	6.0600e-003	5.8000e-003	318.1048
Hardware/Paint Store	1205.59	0.0130	0.1182	0.0993	7.1000e-004		8.9800e-003	8.9800e-003		8.9800e-003	8.9800e-003		141.8340	141.8340	2.7200e-003	2.6000e-003	142.6769
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	396.575	4.2800e-003	0.0389	0.0327	2.3000e-004		2.9500e-003	2.9500e-003		2.9500e-003	2.9500e-003		46.6559	46.6559	8.9000e-004	8.6000e-004	46.9332
Supermarket	5297.92	0.0571	0.5194	0.4363	3.1200e-003		0.0395	0.0395		0.0395	0.0395		623.2851	623.2851	0.0120	0.0114	626.9890
Total		**0.1054**	**0.9578**	**0.8046**	**5.7500e-003**		**0.0728**	**0.0728**		**0.0728**	**0.0728**		**1,149.3854**	**1,149.3854**	**0.0220**	**0.0211**	**1,156.2156**

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

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Automobile Care Center	0.18177	1.9600e-003	0.0178	0.0150	1.1000e-004		1.3500e-003	1.3500e-003		1.3500e-003	1.3500e-003		21.3848	21.3848	4.1000e-004	3.9000e-004	21.5118
City Park	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
Fast Food Restaurant with Drive Thru	2.68792	0.0290	0.2635	0.2214	1.5800e-003		0.0200	0.0200		0.0200	0.0200		316.2256	316.2256	6.0600e-003	5.8000e-003	318.1048
Hardware/Paint Store	1.20559	0.0130	0.1182	0.0993	7.1000e-004		8.9800e-003	8.9800e-003		8.9800e-003	8.9800e-003		141.8340	141.8340	2.7200e-003	2.6000e-003	142.6769
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.396575	4.2800e-003	0.0389	0.0327	2.3000e-004		2.9500e-003	2.9500e-003		2.9500e-003	2.9500e-003		46.6559	46.6559	8.9000e-004	8.6000e-004	46.9332
Supermarket	5.29792	0.0571	0.5194	0.4363	3.1200e-003		0.0395	0.0395		0.0395	0.0395		623.2851	623.2851	0.0120	0.0114	626.9890
Total		**0.1054**	**0.9578**	**0.8046**	**5.7500e-003**		**0.0728**	**0.0728**		**0.0728**	**0.0728**		**1,149.3854**	**1,149.3854**	**0.0220**	**0.0211**	**1,156.2156**

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	lb/day										lb/day					
Mitigated	2.6887	3.3000e-004	0.0368	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0788	0.0788	2.1000e-004		0.0840
Unmitigated	2.6887	3.3000e-004	0.0368	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0788	0.0788	2.1000e-004		0.0840

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1717					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.5136					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.4100e-003	3.3000e-004	0.0368	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0788	0.0788	2.1000e-004		0.0840
Total	**2.6887**	**3.3000e-004**	**0.0368**	**0.0000**		**1.3000e-004**	**1.3000e-004**		**1.3000e-004**	**1.3000e-004**		**0.0788**	**0.0788**	**2.1000e-004**		**0.0840**

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

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1717					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.5136					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.4100e-003	3.3000e-004	0.0368	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0788	0.0788	2.1000e-004		0.0840
Total	**2.6887**	**3.3000e-004**	**0.0368**	**0.0000**		**1.3000e-004**	**1.3000e-004**		**1.3000e-004**	**1.3000e-004**		**0.0788**	**0.0788**	**2.1000e-004**		**0.0840**

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Manteca Marketplace at Main - San Joaquin County, Winter

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

Manteca Marketplace at Main

San Joaquin County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	244.68	1000sqft	5.62	244,677.00	0
City Park	2.29	Acre	2.29	99,752.40	0
Fast Food Restaurant with Drive Thru	9.00	1000sqft	0.21	9,000.00	0
Automobile Care Center	3.60	1000sqft	0.08	3,596.00	0
Hardware/Paint Store	38.00	1000sqft	0.87	38,000.00	0
Strip Mall	12.50	1000sqft	0.29	12,500.00	0
Supermarket	50.07	1000sqft	1.15	50,071.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	51
Climate Zone	2			**Operational Year**	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Note 8

Land Use - Note 1

Construction Phase - Note 9

Demolition -

Grading - Note 7

Architectural Coating -

Manteca Marketplace at Main - San Joaquin County, Winter

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

Vehicle Trips - Note 10

Area Coating - Note 2

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	50
tblAreaCoating	Area_EF_Nonresidential_Interior	150	50
tblAreaCoating	Area_EF_Residential_Exterior	150	50
tblAreaCoating	Area_EF_Residential_Interior	150	50
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	300.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	30.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	10.00	0.00
tblLandUse	LandUseSquareFeet	244,680.00	244,677.00
tblLandUse	LandUseSquareFeet	3,600.00	3,596.00
tblLandUse	LandUseSquareFeet	50,070.00	50,071.00
tblVehicleTrips	CC_TL	7.30	0.40
tblVehicleTrips	CC_TL	7.30	0.40
tblVehicleTrips	CC_TL	7.30	0.40
tblVehicleTrips	CC_TL	7.30	0.40
tblVehicleTrips	CC_TL	7.30	0.40
tblVehicleTrips	CNW_TL	7.30	0.40
tblVehicleTrips	CNW_TL	7.30	0.40
tblVehicleTrips	CNW_TL	7.30	0.40
tblVehicleTrips	CNW_TL	7.30	0.40
tblVehicleTrips	CNW_TL	7.30	0.40
tblVehicleTrips	CW_TL	9.50	0.40
tblVehicleTrips	CW_TL	9.50	0.40

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

tblVehicleTrips	CW_TL	9.50	0.40
tblVehicleTrips	CW_TL	9.50	0.40
tblVehicleTrips	CW_TL	9.50	0.40
tblVehicleTrips	DV_TP	51.00	0.00
tblVehicleTrips	DV_TP	21.00	0.00
tblVehicleTrips	DV_TP	29.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	DV_TP	30.00	0.00
tblVehicleTrips	PB_TP	28.00	0.00
tblVehicleTrips	PB_TP	50.00	0.00
tblVehicleTrips	PB_TP	26.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PB_TP	36.00	0.00
tblVehicleTrips	PR_TP	21.00	100.00
tblVehicleTrips	PR_TP	29.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	PR_TP	34.00	100.00
tblVehicleTrips	ST_TR	23.72	891.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	616.12	595.62
tblVehicleTrips	ST_TR	9.14	114.48
tblVehicleTrips	ST_TR	42.04	114.48
tblVehicleTrips	ST_TR	177.62	114.48
tblVehicleTrips	SU_TR	11.88	446.25
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	472.58	456.86
tblVehicleTrips	SU_TR	9.14	83.65

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

tblVehicleTrips	SU_TR	20.43	83.65
tblVehicleTrips	SU_TR	166.47	83.65
tblVehicleTrips	WD_TR	23.72	891.00
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	470.95	451.93
tblVehicleTrips	WD_TR	9.14	93.13
tblVehicleTrips	WD_TR	44.32	93.13
tblVehicleTrips	WD_TR	106.78	93.13

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	0.0000	0.0000	0.0000	0.0000	0.0000	5.3544	0.0000	0.0000	4.9566	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2023	0.0000	0.0000	0.0000	0.0000	0.0000	0.5830	0.0000	0.0000	0.5421	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**5.3544**	**0.0000**	**0.0000**	**4.9566**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Manteca Marketplace at Main - San Joaquin County, Winter

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

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	0.0000	0.0000	0.0000	0.0000	0.0000	5.3544	0.0000	0.0000	4.9566	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2023	0.0000	0.0000	0.0000	0.0000	0.0000	0.5830	0.0000	0.0000	0.5421	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**5.3544**	**0.0000**	**0.0000**	**4.9566**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.6887	3.3000e-004	0.0368	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0788	0.0788	2.1000e-004		0.0840
Energy	0.1054	0.9578	0.8046	5.7500e-003		0.0728	0.0728		0.0728	0.0728		1,149.3854	1,149.3854	0.0220	0.0211	1,156.2156

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

Mobile	30.3312	23.4761	162.4701	0.0938	6.1755	0.1301	6.3056	1.6474	0.1208	1.7681		9,564.4795	9,564.4795	3.4479	1.7241	10,164.4563
Total	**33.1253**	**24.4343**	**163.3115**	**0.0995**	**6.1755**	**0.2030**	**6.3786**	**1.6474**	**0.1937**	**1.8410**		**10,713.9438**	**10,713.9438**	**3.4701**	**1.7452**	**11,320.7559**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.6887	3.3000e-004	0.0368	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0788	0.0788	2.1000e-004		0.0840
Energy	0.1054	0.9578	0.8046	5.7500e-003		0.0728	0.0728		0.0728	0.0728		1,149.3854	1,149.3854	0.0220	0.0211	1,156.2156
Mobile	30.3312	23.4761	162.4701	0.0938	6.1755	0.1301	6.3056	1.6474	0.1208	1.7681		9,564.4795	9,564.4795	3.4479	1.7241	10,164.4563
Total	**33.1253**	**24.4343**	**163.3115**	**0.0995**	**6.1755**	**0.2030**	**6.3786**	**1.6474**	**0.1937**	**1.8410**		**10,713.9438**	**10,713.9438**	**3.4701**	**1.7452**	**11,320.7559**

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	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	6/1/2022	5/31/2022	5	0	
2	Site Preparation	Site Preparation	6/29/2022	6/28/2022	5	0	
3	Grading	Grading	7/13/2022	7/12/2022	5	0	
4	Building Construction	Building Construction	8/24/2022	8/23/2022	5	0	
5	Paving	Paving	10/18/2023	10/17/2023	5	0	
6	Architectural Coating	Architectural Coating	11/15/2023	11/14/2023	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 5.62

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 169,752; Non-Residential Outdoor: 56,584; Striped Parking Area: 14,681 (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

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

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
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	0.00	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	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	182.00	75.00	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	36.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2022

Manteca Marketplace at Main - San Joaquin County, Winter

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

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Manteca Marketplace at Main - San Joaquin County, Winter

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Manteca Marketplace at Main - San Joaquin County, Winter

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Manteca Marketplace at Main - San Joaquin County, Winter

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Manteca Marketplace at Main - San Joaquin County, Winter

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

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Manteca Marketplace at Main - San Joaquin County, Winter

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Manteca Marketplace at Main - San Joaquin County, Winter

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Manteca Marketplace at Main - San Joaquin County, Winter

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.3312	23.4761	162.4701	0.0938	6.1755	0.1301	6.3056	1.6474	0.1208	1.7681		9,564.4795	9,564.4795	3.4479	1.7241	10,164.4563
Unmitigated	30.3312	23.4761	162.4701	0.0938	6.1755	0.1301	6.3056	1.6474	0.1208	1.7681		9,564.4795	9,564.4795	3.4479	1.7241	10,164.4563

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	3,207.60	3,207.60	1606.50	433,724	433,724
City Park	0.00	0.00	0.00		
Fast Food Restaurant with Drive Thru	4,067.37	5,360.58	4111.74	620,031	620,031
Hardware/Paint Store	3,538.94	4,350.24	3178.70	524,652	524,652
Parking Lot	0.00	0.00	0.00		
Strip Mall	1,164.13	1,431.00	1045.63	172,583	172,583
Supermarket	4,663.02	5,732.01	4188.36	691,298	691,298
Total	16,641.05	20,081.43	14,130.92	2,442,287	2,442,287

4.3 Trip Type Information

	Miles	Trip %	Trip Purpose %

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

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
Automobile Care Center	0.40	0.40	0.40	33.00	48.00	19.00	100	0	0
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Fast Food Restaurant with Drive	0.40	0.40	0.40	2.20	78.80	19.00	100	0	0
Hardware/Paint Store	0.40	0.40	0.40	13.60	67.40	19.00	100	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Strip Mall	0.40	0.40	0.40	16.60	64.40	19.00	100	0	0
Supermarket	0.40	0.40	0.40	6.50	74.50	19.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.003707
City Park	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.003707
Fast Food Restaurant with Drive Thru	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.003707
Hardware/Paint Store	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.003707
Parking Lot	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.003707
Strip Mall	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.003707
Supermarket	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.003707

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

Manteca Marketplace at Main - San Joaquin County, Winter

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

Category	lb/day										lb/day					
NaturalGas Mitigated	0.1054	0.9578	0.8046	5.7500e-003		0.0728	0.0728		0.0728	0.0728		1,149.3854	1,149.3854	0.0220	0.0211	1,156.2156
NaturalGas Unmitigated	0.1054	0.9578	0.8046	5.7500e-003		0.0728	0.0728		0.0728	0.0728		1,149.3854	1,149.3854	0.0220	0.0211	1,156.2156

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Automobile Care Center	181.77	1.9600e-003	0.0178	0.0150	1.1000e-004		1.3500e-003	1.3500e-003		1.3500e-003	1.3500e-003		21.3848	21.3848	4.1000e-004	3.9000e-004	21.5118
City Park	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
Fast Food Restaurant with Drive Thru	2687.92	0.0290	0.2635	0.2214	1.5800e-003		0.0200	0.0200		0.0200	0.0200		316.2256	316.2256	6.0600e-003	5.8000e-003	318.1048
Hardware/Paint Store	1205.59	0.0130	0.1182	0.0993	7.1000e-004		8.9800e-003	8.9800e-003		8.9800e-003	8.9800e-003		141.8340	141.8340	2.7200e-003	2.6000e-003	142.6769
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	396.575	4.2800e-003	0.0389	0.0327	2.3000e-004		2.9500e-003	2.9500e-003		2.9500e-003	2.9500e-003		46.6559	46.6559	8.9000e-004	8.6000e-004	46.9332
Supermarket	5297.92	0.0571	0.5194	0.4363	3.1200e-003		0.0395	0.0395		0.0395	0.0395		623.2851	623.2851	0.0120	0.0114	626.9890
Total		**0.1054**	**0.9578**	**0.8046**	**5.7500e-003**		**0.0728**	**0.0728**		**0.0728**	**0.0728**		**1,149.3854**	**1,149.3854**	**0.0220**	**0.0211**	**1,156.2156**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Automobile Care Center	0.18177	1.9600e-003	0.0178	0.0150	1.1000e-004		1.3500e-003	1.3500e-003		1.3500e-003	1.3500e-003		21.3848	21.3848	4.1000e-004	3.9000e-004	21.5118
City Park	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
Fast Food Restaurant with Drive Thru	2.68792	0.0290	0.2635	0.2214	1.5800e-003		0.0200	0.0200		0.0200	0.0200		316.2256	316.2256	6.0600e-003	5.8000e-003	318.1048
Hardware/Paint Store	1.20559	0.0130	0.1182	0.0993	7.1000e-004		8.9800e-003	8.9800e-003		8.9800e-003	8.9800e-003		141.8340	141.8340	2.7200e-003	2.6000e-003	142.6769
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.396575	4.2800e-003	0.0389	0.0327	2.3000e-004		2.9500e-003	2.9500e-003		2.9500e-003	2.9500e-003		46.6559	46.6559	8.9000e-004	8.6000e-004	46.9332
Supermarket	5.29792	0.0571	0.5194	0.4363	3.1200e-003		0.0395	0.0395		0.0395	0.0395		623.2851	623.2851	0.0120	0.0114	626.9890
Total		**0.1054**	**0.9578**	**0.8046**	**5.7500e-003**		**0.0728**	**0.0728**		**0.0728**	**0.0728**		**1,149.3854**	**1,149.3854**	**0.0220**	**0.0211**	**1,156.2156**

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	lb/day										lb/day					
Mitigated	2.6887	3.3000e-004	0.0368	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0788	0.0788	2.1000e-004		0.0840
Unmitigated	2.6887	3.3000e-004	0.0368	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0788	0.0788	2.1000e-004		0.0840

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1717					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.5136					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.4100e-003	3.3000e-004	0.0368	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0788	0.0788	2.1000e-004		0.0840
Total	**2.6887**	**3.3000e-004**	**0.0368**	**0.0000**		**1.3000e-004**	**1.3000e-004**		**1.3000e-004**	**1.3000e-004**		**0.0788**	**0.0788**	**2.1000e-004**		**0.0840**

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

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1717					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.5136					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.4100e-003	3.3000e-004	0.0368	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0788	0.0788	2.1000e-004		0.0840
Total	**2.6887**	**3.3000e-004**	**0.0368**	**0.0000**		**1.3000e-004**	**1.3000e-004**		**1.3000e-004**	**1.3000e-004**		**0.0788**	**0.0788**	**2.1000e-004**		**0.0840**

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Appendix D:
Biological Resources Supporting Information

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Table 1: Special-status Plant Species Evaluated

Scientific Name Common Name	Status USFWS[1]	Status CDFW[2]	Status CNPS[3]	Habitat Description[4]	Potential to Occur and Rationale[5]
Dicots					
Cirsium crassicaule slough thistle	—	—	1B.1	Chenopod scrub, marshes, swamps, riparian scrub, sloughs, riverbanks, and marshy areas. Elevation: 3 – 95 m. Blooming period: May – August	**None.** The project site lacks suitable wetland or riparian habitat to support this species.
Eryngium racemosum Delta button-celery	—	SE	1B.1	Riparian scrub and seasonally inundated floodplain on clay soils. Elevation: 1 – 335 m. Blooming period: (May) June – October	**None.** The project site lacks suitable riparian habitat to support this species.
Trichocoronis wrightii var. wrightii Wright's trichocoronis	—	—	2B.1	Marshes and swamps, riparian forest, meadows and seeps, vernal pools, mud flats, drying riverbeds, and alkali meadows. Elevation: 5 – 435 m. Blooming period: May – September	**None.** The project site lacks suitable vernal pool or riparian habitat to support this species.
Tropidocarpum capparideum caper-fruited tropidocarpum	—	—	1B.1	Valley and foothill grassland on alkaline clay soils. Elevation: 0 – 360 m. Blooming period: March – April	**None.** The project site does contain marginally suitable grassland habitat but lacks alkaline clay soil. Previous anthropogenic disturbance precludes this species from occurring.

Code Designations

[1] Federal Status: 2020 USFWS Listing

- **ESU** = Evolutionary Significant Unit is a distinctive population.
- **FE** = Listed as endangered under the FESA.
- **FT** = Listed as threatened under the FESA.
- **FC** = Candidate for listing (threatened or endangered) under FESA.
- **FD** = Delisted in accordance with the FESA.
- **FPD** = Federally Proposed to be Delisted.
- **MBTA** = protected by the Migratory Bird Treaty Act
- **—** = Not federally listed

[2] State Status: 2020 CDFW Listing

- **SE** = Listed as endangered under the CESA.
- **ST** = Listed as threatened under the CESA.
- **SSC** = Species of Special Concern as identified by the CDFW.
- **FP** = Listed as fully protected under FGC.
- **CFG** = FGC =protected by FGC 3503.5
- **CR** = Rare in California.
- **—** = Not state listed

[3] CNPS: 2020 CNPS Listing

- **Rank 1A** = Plants species that presumed extinct in California.
- **Rank 1B** = Plant species that are rare, threatened, or endangered in California and elsewhere.
- **Rank 2** = Plant species that are rare, threatened, or endangered in California, but more common elsewhere.
- **Rank 3** = Plants about which we need more information—A Review List
- **Rank 4** = Plants of limited distribution—A Watch List
- **Blooming period:** Months in parentheses are uncommon.

Scientific Name Common Name	Status			Habitat Description[4]	Potential to Occur and Rationale[5]
	USFWS[1]	CDFW[2]	CNPS[3]		

[4] **Habitat Description**: Habitat description adapted from CNDDB and CNPS online inventory or other specified source.
[5] **Potential to Occur and Rationale**: Location of recorded species occurrences determined by geospatial information from BIOS 5 or other specified source*.

Sources:

California Department of Fish and Wildlife (CDFW). 2021. CNDDB RareFind 5 California Natural Diversity Database Query for Special-Status Species. Website: https://map.dfg.ca.gov/rarefind/view/RareFind.aspx. Accessed November 4, 2021.
California Native Plant Society (CNPS). 2021. California Native Plant Society Rare and Endangered Plant Inventory. Website: http://www.rareplants.cnps.org/. Accessed November 4, 2021.
California Department of Fish and Wildlife (CDFW). 2021. Biogeographic Information and Observation System (BIOS 5). Website: https://map.dfg.ca.gov/bios/. Accessed November 4, 2021.

Table 2: Special-status Wildlife Species Evaluated

Scientific Name Common Name	Status		Habitat Description[3]	Potential to Occur and Rationale[4]
	USFWS[1]	CDFW[2]		
Amphibians				
Ambystoma californiense (pop.1) California tiger salamander (central California DPS)	FT	ST WL	Found in grassland, oak savanna, edges of mixed woodland and lower elevation coniferous forest. Nocturnal, and fossorial, spending most time underground in animal burrows, especially those of California ground squirrels, valley pocket gophers, and moles. This salamander needs both suitable upland terrestrial habitat with mammal burrows for refuge and temporary breeding ponds in order to survive.	**None.** The project site contains suitable grassland habitat. The nearest recorded occurrence is located approximately 3 miles west of the project site which is greater than maximum dispersal distance (approximately 1.3 miles) for this species.
Rana draytonii California red-legged frog	FT	— SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	**None.** The project site does not contain suitable aquatic or riparian habitat to support this species.
Birds				
Agelaius tricolor tricolored blackbird	— MBTA	ST SSC	Forages in open habitats such as farm fields, pastures, cattle pens, large lawns. Highly colonial species, most numerous in Central Valley & vicinity. Largely endemic to California. Breeds in large freshwater marshes, dense stands of hydrophytic vegetation (cattails, bulrushes, etc.)	**None.** The project site lacks suitable wetland habitat to support this species.
Athene cunicularia burrowing owl	— MBTA	— SSC FGC	Found in open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. A subterranean nester, dependent upon burrowing mammals, most notably the California ground squirrel (*Otospermophilus beecheyi*).	**Low.** The project site contains marginally suitable foraging habitat to support this species, however it does not contain suitable mammal burrows of sufficient size or prey population to support nesting owls on-site. There are 3 occurrences of this species within 5 miles of the project site with the most occurrence being dated to 2016.
Buteo swainsoni Swainson's hawk	— MBTA	ST SSC	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	**Low.** The project site does contain marginally suitable foraging habitat for this species, however it likely does not contain a sufficient prey population to support predation due to the lack of rodent burrows observed on-site. The site lacks trees of sufficient size to support this species, however more suitable trees are located adjacent to the project site. There are 18 extant records of this species within 5 miles of the project site.

Scientific Name Common Name	Status		Habitat Description[3]	Potential to Occur and Rationale[4]
	USFWS[1]	CDFW[2]		
Lanius ludovicianus loggerhead shrike	— MBTA	— SSC	Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub and washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	**Low.** The project site contains suitable foraging habitat, however suitable nesting habitat is not present on-site. However suitable nesting habitat is present adjacent to the project site.
Xanthocephalus xanthocephalus yellow-headed blackbird	— MBTA	— SSC	Nests in freshwater emergent wetlands with dense vegetation and deep water often along borders of lakes or ponds. Nests only where large insects such as Odonata are abundant, nesting timed with maximum emergence of aquatic insects.	**None.** The project site lacks suitable wetland habitat to support this species.
Fish				
Hypomesus transpacificus Delta smelt	FT	FE	Inhabits brackish waters of the Sacramento-San Joaquin Delta. Occurs seasonally in Suisun Bay, Carquinez Strait and San Pablo Bay as well. Seldom found at salinities > 10 ppt. Most often at salinities < 2ppt.	**None.** The project site does not contain suitable aquatic habitat to support this species.
Oncorhynchus mykiss irideus (pop. 11) steelhead (Central Valley DPS)	FT	—	Central Valley steelhead refers to populations in the Sacramento and San Joaquin rivers and their tributaries. Central Valley steelhead are anadromous fish, beginning their upstream migrations to fresh water during peak flows between December and February and typically spawn from February to April. After hatching, steelhead fry move into deeper, mid-channel habitats in the late summer and fall where they grow quickly by feeding on aquatic and terrestrial insects, small fish, frogs and other prey. Most juvenile Central Valley steelhead feed and grow in their natal streams for one or two years before migration in late December through the beginning of May, peaking in mid-March. Both juveniles and resident adults prefer complex habitat boulders, submerged clay and undercut banks, and large woody debris that provide feeding opportunities, segregation of territories, a refuge from high velocities, and cover from predators.	**None.** The project site does not contain suitable aquatic habitat to support this species.
Invertebrates				
Branchinecta lynchi vernal pool fairy shrimp	FT	—	Vernal pool fairy shrimp occur primarily in vernal pools, seasonal wetlands, and stagnant ditches that fill with water during fall and winter rains and dry up in spring and summer.	**None.** The project site does not contain suitable vernal pool habitat to support this species.

Scientific Name Common Name	Status		Habitat Description[3]	Potential to Occur and Rationale[4]
	USFWS[1]	CDFW[2]		
Lepidurus packardi vernal pool tadpole shrimp	FE	—	Inhabits vernal pools and swales in the Sacramento Valley containing clear to highly turbid water. Pools commonly found in grass-bottomed swales of unplowed grasslands. Some pools are mud-bottomed and highly turbid.	**None.** The project site does not contain suitable vernal pool habitat to support this species.
Danaus plexippus (pop. 1) monarch butterfly (California overwintering population)	FC	—	Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby.	**None.** The project site does not suitable roosting sites to support this species.
Desmocerus californicus dimorphus valley elderberry longhorn beetle	FT	—	Occurs only in the Central Valley of California, in association with blue elderberry (*Sambucus mexicana*). Prefers to lay eggs in elderberries 2-8 inches in diameter; some preference shown for "stressed" elderberries.	**None.** The project site does not contain any elderberry trees to support this species.
Reptiles				
Thamnophis gigas giant garter snake	FT	ST	This species is the largest in size and most aquatic of the garter snakes in California. Prefers freshwater marsh and low gradient streams. Has adapted to drainage canals and irrigation ditches.	**None.** The project site lacks suitable freshwater marsh and riparian habitat to support this species.

Code Designations

[1] Federal Status: 2020 USFWS Listing		[2] State Status: 2020 CDFW Listing	
ESU	= Evolutionary Significant Unit is a distinctive population.	**SE**	= Listed as endangered under the CESA.
FE	= Listed as endangered under the FESA.	**ST**	= Listed as threatened under the CESA.
FT	= Listed as threatened under the FESA.	**SSC**	= Species of Special Concern as identified by the CDFW.
FC	= Candidate for listing (threatened or endangered) under FESA.	**FP**	= Listed as fully protected under FGC.
FD	= Delisted in accordance with the FESA.	**CFG**	= FGC =protected by FGC 3503.5
FPD	= Federally Proposed to be Delisted.	**CE**	= Candidate endangered under the CESA.
MBTA	= protected by the Migratory Bird Treaty Act	**WL**	= Species monitored by CDFW “Watch List”.
—	= Not federally listed	—	= Not state listed

[3] **Habitat Description**: Habitat description adapted from CNDDB or other specified source*.
[4] **Potential to Occur and Rationale**: Location of recorded species occurrences determined by geospatial information from BIOS 5 or other specified source*.

Scientific Name Common Name	Status		Habitat Description[3]	Potential to Occur and Rationale[4]
	USFWS[1]	CDFW[2]		
Sources: California Department of Fish and Wildlife (CDFW). 2021. CNDDB RareFind 5 California Natural Diversity Database Query for Special-Status Species. Website: https://map.dfg.ca.gov/rarefind/view/RareFind.aspx. Accessed November 4, 2021. California Department of Fish and Wildlife (CDFW). 2021. Biogeographic Information and Observation System (BIOS 5). Website: https://map.dfg.ca.gov/bios/. Accessed November 4, 2021.				

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Manteca (3712172) OR Avena (3712171) OR Peters (3712181) OR Lathrop (3712173) OR Stockton West (3712183) OR Stockton East (3712182) OR Salida (3712161) OR Vernalis (3712163) OR Ripon (3712162))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	Threatened	G1G2	S1S2	SSC
Ambystoma californiense pop. 1 California tiger salamander - central California DPS	AAAAA01181	Threatened	Threatened	G2G3	S3	WL
Anniella pulchra Northern California legless lizard	ARACC01020	None	None	G3	S3	SSC
Anthicus sacramento Sacramento anthicid beetle	IICOL49010	None	None	G1	S1	
Antrozous pallidus pallid bat	AMACC10010	None	None	G4	S3	SSC
Astragalus tener var. tener alkali milk-vetch	PDFAB0F8R1	None	None	G2T1	S1	1B.2
Athene cunicularia burrowing owl	ABNSB10010	None	None	G4	S3	SSC
Atriplex cordulata var. cordulata heartscale	PDCHE040B0	None	None	G3T2	S2	1B.2
Atriplex minuscula lesser saltscale	PDCHE042M0	None	None	G2	S2	1B.1
Blepharizonia plumosa big tarplant	PDAST1C011	None	None	G1G2	S1S2	1B.1
Bombus caliginosus obscure bumble bee	IIHYM24380	None	None	G4?	S1S2	
Bombus crotchii Crotch bumble bee	IIHYM24480	None	None	G3G4	S1S2	
Bombus occidentalis western bumble bee	IIHYM24250	None	None	G2G3	S1	
Branchinecta conservatio Conservancy fairy shrimp	ICBRA03010	Endangered	None	G2	S2	
Branchinecta lynchi vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S3	
Branchinecta mesovallensis midvalley fairy shrimp	ICBRA03150	None	None	G2	S2S3	
Branta hutchinsii leucopareia cackling (=Aleutian Canada) goose	ABNJB05035	Delisted	None	G5T3	S3	WL
Brasenia schreberi watershield	PDCAB01010	None	None	G5	S3	2B.3
Buteo swainsoni Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Chloropyron palmatum palmate-bracted bird's-beak	PDSCR0J0J0	Endangered	Endangered	G1	S1	1B.1
Cirsium crassicaule slough thistle	PDAST2E0U0	None	None	G1	S1	1B.1
Coccyzus americanus occidentalis western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
Delphinium recurvatum recurved larkspur	PDRAN0B1J0	None	None	G2?	S2?	1B.2
Desmocerus californicus dimorphus valley elderberry longhorn beetle	IICOL48011	Threatened	None	G3T2	S3	
Elanus leucurus white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
Elderberry Savanna Elderberry Savanna	CTT63440CA	None	None	G2	S2.1	
Eremophila alpestris actia California horned lark	ABPAT02011	None	None	G5T4Q	S4	WL
Eryngium racemosum Delta button-celery	PDAPI0Z0S0	None	Endangered	G1	S1	1B.1
Extriplex joaquinana San Joaquin spearscale	PDCHE041F3	None	None	G2	S2	1B.2
Falco columbarius merlin	ABNKD06030	None	None	G5	S3S4	WL
Gonidea angulata western ridged mussel	IMBIV19010	None	None	G3	S1S2	
Great Valley Cottonwood Riparian Forest Great Valley Cottonwood Riparian Forest	CTT61410CA	None	None	G2	S2.1	
Great Valley Mixed Riparian Forest Great Valley Mixed Riparian Forest	CTT61420CA	None	None	G2	S2.2	
Great Valley Valley Oak Riparian Forest Great Valley Valley Oak Riparian Forest	CTT61430CA	None	None	G1	S1.1	
Hibiscus lasiocarpos var. occidentalis woolly rose-mallow	PDMAL0H0R3	None	None	G5T3	S3	1B.2
Hypomesus transpacificus Delta smelt	AFCHB01040	Threatened	Endangered	G1	S1	
Lanius ludovicianus loggerhead shrike	ABPBR01030	None	None	G4	S4	SSC
Lasthenia chrysantha alkali-sink goldfields	PDAST5L030	None	None	G2	S2	1B.1
Lathyrus jepsonii var. jepsonii Delta tule pea	PDFAB250D2	None	None	G5T2	S2	1B.2
Lepidurus packardi vernal pool tadpole shrimp	ICBRA10010	Endangered	None	G4	S3S4	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Linderiella occidentalis California linderiella	ICBRA06010	None	None	G2G3	S2S3	
Lytta moesta moestan blister beetle	IICOL4C020	None	None	G2	S2	
Melospiza melodia song sparrow ("Modesto" population)	ABPBXA3010	None	None	G5	S3?	SSC
Mylopharodon conocephalus hardhead	AFCJB25010	None	None	G3	S3	SSC
Neotoma fuscipes riparia riparian (=San Joaquin Valley) woodrat	AMAFF08081	Endangered	None	G5T1Q	S1	SSC
Oncorhynchus mykiss irideus pop. 11 steelhead - Central Valley DPS	AFCHA0209K	Threatened	None	G5T2Q	S2	
Puccinellia simplex California alkali grass	PMPOA53110	None	None	G3	S2	1B.2
Sagittaria sanfordii Sanford's arrowhead	PMALI040Q0	None	None	G3	S3	1B.2
Spea hammondii western spadefoot	AAABF02020	None	None	G2G3	S3	SSC
Spirinchus thaleichthys longfin smelt	AFCHB03010	Candidate	Threatened	G5	S1	
Sylvilagus bachmani riparius riparian brush rabbit	AMAEB01021	Endangered	Endangered	G5T1	S1	
Symphyotrichum lentum Suisun Marsh aster	PDASTE8470	None	None	G2	S2	1B.2
Thamnophis gigas giant gartersnake	ARADB36150	Threatened	Threatened	G2	S2	
Trichocoronis wrightii var. wrightii Wright's trichocoronis	PDAST9F031	None	None	G4T3	S1	2B.1
Trifolium hydrophilum saline clover	PDFAB400R5	None	None	G2	S2	1B.2
Tropidocarpum capparideum caper-fruited tropidocarpum	PDBRA2R010	None	None	G1	S1	1B.1
Tuctoria greenei Greene's tuctoria	PMPOA6N010	Endangered	Rare	G1	S1	1B.1
Vireo bellii pusillus least Bell's vireo	ABPBW01114	Endangered	Endangered	G5T2	S2	
Xanthocephalus xanthocephalus yellow-headed blackbird	ABPBXB3010	None	None	G5	S3	SSC

Record Count: 59

Inventory of Rare and Endangered Plants of California

California Native Plant Society

Search Results

20 matches found. Click on scientific name for details

Search Criteria: CRPR is one of [**1A:1B:2A:2B**] , 9-Quad include [**3712172:3712171:3712181:3712173:3712183:3712182:3712161:3712163:3712162**]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	CA RARE PLANT RANK	GENERAL HABITATS	MICRO HABITATS	LOWEST ELEVATION (M)	HIGHEST ELEVATION (M)
Astragalus tener var. *tener*	alkali milk-vetch	Fabaceae	annual herb	Mar-Jun	None	None	1B.2	Playas, Valley and foothill grassland, Vernal pools	Alkaline	1	60
Atriplex cordulata var. *cordulata*	heartscale	Chenopodiaceae	annual herb	Apr-Oct	None	None	1B.2	Chenopod scrub, Meadows and seeps, Valley and foothill grassland	Alkaline (sometimes)	0	560
Atriplex minuscula	lesser saltscale	Chenopodiaceae	annual herb	May-Oct	None	None	1B.1	Chenopod scrub, Playas, Valley and foothill grassland	Alkaline, Sandy	15	200
Blepharizonia plumosa	big tarplant	Asteraceae	annual herb	Jul-Oct	None	None	1B.1	Valley and foothill grassland	Clay (usually)	30	505
Brasenia schreberi	watershield	Cabombaceae	perennial rhizomatous herb (aquatic)	Jun-Sep	None	None	2B.3	Marshes and swamps		0	2200
Chloropyron palmatum	palmate-bracted bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	May-Oct	FE	CE	1B.1	Chenopod scrub, Valley and foothill grassland	Alkaline	5	155
Cirsium crassicaule	slough thistle	Asteraceae	annual/perennial herb	May-Aug	None	None	1B.1	Chenopod scrub, Marshes and swamps, Riparian scrub		3	100

Delphinium recurvatum	recurved larkspur	Ranunculaceae	perennial herb	Mar-Jun	None	None	1B.2	Chenopod scrub, Cismontane woodland, Valley and foothill grassland	Alkaline	3	790
Eryngium racemosum	Delta button-celery	Apiaceae	annual/perennial herb	(May)Jun-Oct	None	CE	1B.1	Riparian scrub		3	30
Extriplex joaquinana	San Joaquin spearscale	Chenopodiaceae	annual herb	Apr-Oct	None	None	1B.2	Chenopod scrub, Meadows and seeps, Playas, Valley and foothill grassland		1	835
Hibiscus lasiocarpos var. *occidentalis*	woolly rose-mallow	Malvaceae	perennial rhizomatous herb (emergent)	Jun-Sep	None	None	1B.2	Marshes and swamps		0	120
Lasthenia chrysantha	alkali-sink goldfields	Asteraceae	annual herb	Feb-Apr	None	None	1B.1	Vernal pools	Alkaline	0	200
Lathyrus jepsonii var. *jepsonii*	Delta tule pea	Fabaceae	perennial herb	May-Jul(Aug-Sep)	None	None	1B.2	Marshes and swamps		0	5
Puccinellia simplex	California alkali grass	Poaceae	annual herb	Mar-May	None	None	1B.2	Chenopod scrub, Meadows and seeps, Valley and foothill grassland, Vernal pools		2	930
Sagittaria sanfordii	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb (emergent)	May-Oct(Nov)	None	None	1B.2	Marshes and swamps		0	650
Symphyotrichum lentum	Suisun Marsh aster	Asteraceae	perennial rhizomatous herb	(Apr)May-Nov	None	None	1B.2	Marshes and swamps		0	3
Trichocoronis wrightii var. *wrightii*	Wright's trichocoronis	Asteraceae	annual herb	May-Sep	None	None	2B.1	Marshes and swamps, Meadows and seeps, Riparian forest, Vernal pools		5	435

Trifolium hydrophilum	saline clover	Fabaceae	annual herb	Apr-Jun	None	None	1B.2	Marshes and swamps, Valley and foothill grassland, Vernal pools	0	300
Tropidocarpum capparideum	caper-fruited tropidocarpum	Brassicaceae	annual herb	Mar-Apr	None	None	1B.1	Valley and foothill grassland	1	455
Tuctoria greenei	Greene's tuctoria	Poaceae	annual herb	May-Jul(Sep)	FE	CR	1B.1	Vernal pools	30	1070

Showing 1 to 20 of 20 entries

Suggested Citation:
California Native Plant Society, Rare Plant Program. 2021. Inventory of Rare and Endangered Plants of California (online edition, v9-01 1.0). Website https://www.rareplants.cnps.org [accessed 4 November 2021].

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IPaC **U.S. Fish & Wildlife Service**

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

San Joaquin County, California



NOT FOR CONSULTATION

Local office

Sacramento Fish And Wildlife Office

(916) 414-6600
(916) 414-6713

Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

NOT FOR CONSULTATION

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Reptiles

NAME	STATUS
Giant Garter Snake Thamnophis gigas Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4482	Threatened

Amphibians

NAME	STATUS
California Red-legged Frog Rana draytonii Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/2891	Threatened
California Tiger Salamander Ambystoma californiense There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/2076	Threatened

Fishes

NAME	STATUS

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Delta Smelt Hypomesus transpacificus — Threatened
Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
https://ecos.fws.gov/ecp/species/321

Insects

NAME	STATUS

Monarch Butterfly Danaus plexippus — Candidate
Wherever found
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/9743

Valley Elderberry Longhorn Beetle Desmocerus californicus dimorphus — Threatened
Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
https://ecos.fws.gov/ecp/species/7850

Crustaceans

NAME	STATUS

Vernal Pool Fairy Shrimp Branchinecta lynchi — Threatened
Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
https://ecos.fws.gov/ecp/species/498

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Vernal Pool Tadpole Shrimp Lepidurus packardi Endangered
Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
https://ecos.fws.gov/ecp/species/2246

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php

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- Nationwide conservation measures for birds
  http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)
Common Yellowthroat Geothlypis trichas sinuosa This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/2084	Breeds May 20 to Jul 31

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Nuttall's Woodpecker Picoides nuttallii — Breeds Apr 1 to Jul 20
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/9410

Oak Titmouse Baeolophus inornatus — Breeds Mar 15 to Jul 15
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9656

Yellow-billed Magpie Pica nuttalli — Breeds Apr 1 to Jul 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9726

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

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2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

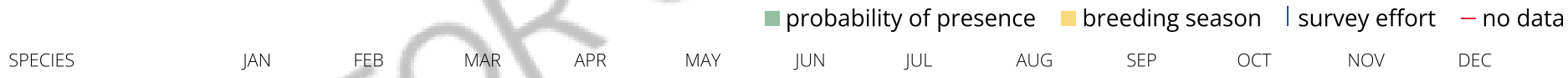
Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



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Common Yellowthroat BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)



Nuttall's Woodpecker BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)



Oak Titmouse BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Yellow-billed Magpie BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



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Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore

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energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

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Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

THERE ARE NO KNOWN WETLANDS AT THIS LOCATION.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

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The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

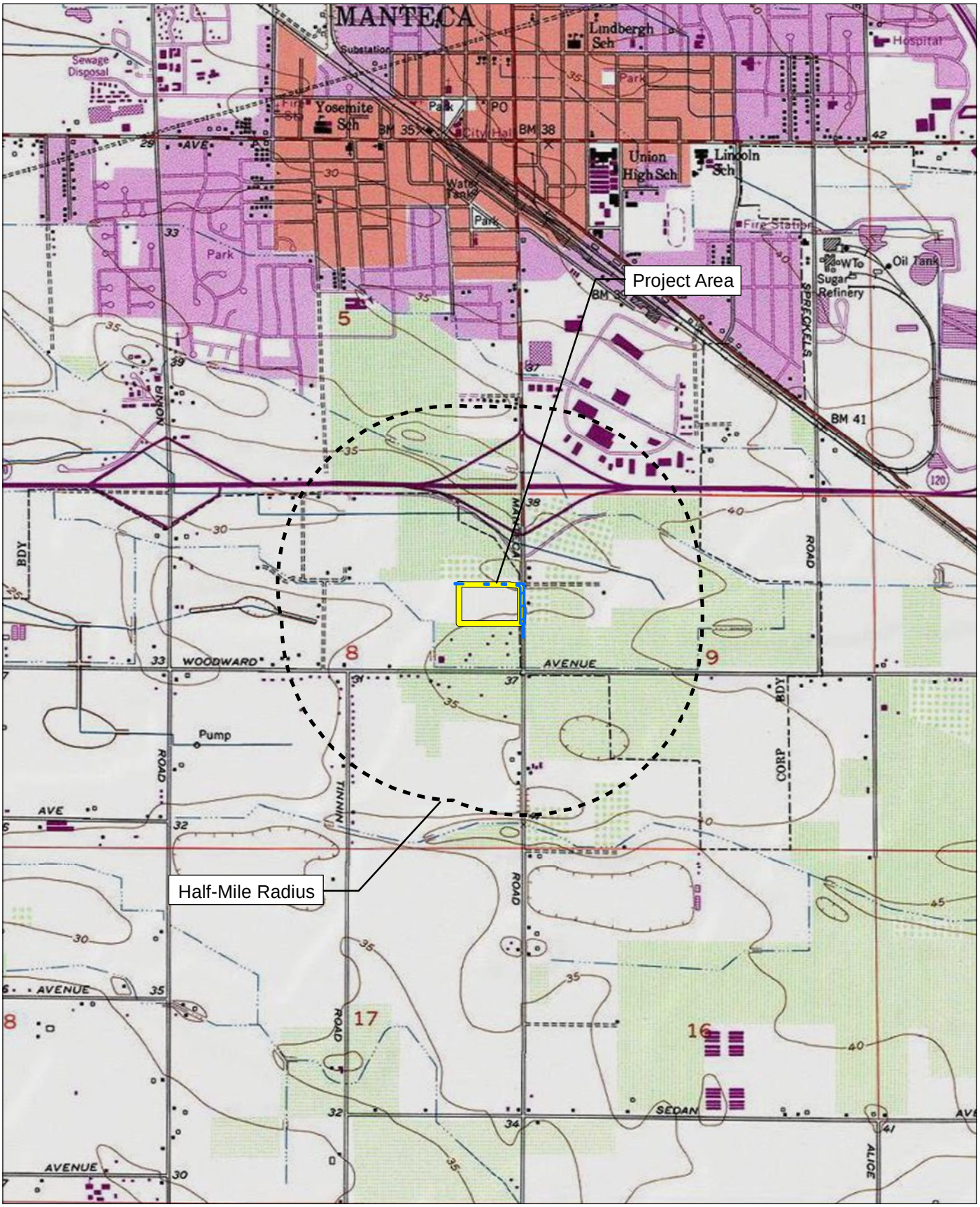
Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

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Appendix E:
Cultural Resources Supporting Information

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Source: USGS Manteca 7.5' Quadrangle / T02S, R07E, sections: 4, 5, 8, 9

FIRSTCARBON SOLUTIONS™

2,000 1,000 0 2,000 Feet

Record Search Map

35600008 • 12/2021 | 35600008_record_search.mxd

CITY OF MANTECA
SOUTH MAIN PLAZA PROJECT

CENTRAL CALIFORNIA INFORMATION CENTER

California Historical Resources Information System
Department of Anthropology – California State University, Stanislaus
One University Circle, Turlock, California 95382
(209) 667-3307

Alpine, Calaveras, Mariposa, Merced, San Joaquin, Stanislaus & Tuolumne Counties

Date: 12/15/2021

Records Search File No.: 12002L
Access Agreement: #37
Project: South Main Plaza, Manteca

Dr. Dana DePietro
FirstCarbon Solutions
1350 Treat Boulevard, Suite 380
Walnut Creek, CA 94597
530-219-1432 ddepietro@fcs-intl.com mdolan@fcs-intl.com

Invoice to: ap@fcs-intl.com

Dear Dr. DePietro:

The Central California Information Center received your Priority Response record search request for the project area referenced above, located on the Manteca 7.5' quadrangle in San Joaquin County. The following reflects the results of the records search for the project study area and radius:

As per data currently available at the CCaIC, the locations of resources/reports are provided in the following format: ☒ custom GIS maps ☐ GIS Data/shape files ☐ hand-drawn maps

Summary Data:

Resources within the project area:	None formally reported to the Information Center.
Resources within the 1/2-mile radius:	None formally reported to the Information Center
Reports within the project area:	2: SJ-01900, 4786
Reports within the 1/2-mile radius:	6: SJ-03810, 4682, 5309, 5808, 6625, 9247

Resource Database Printout (list):	☐ enclosed	☐ not requested	☒ nothing listed
Resource Database Printout (details):	☐ enclosed	☐ not requested	☒ nothing listed
Resource Digital Database Records:	☐ enclosed	☐ not requested	☒ nothing listed
Report Database Printout (list):	☒ enclosed	☐ not requested	☐ nothing listed
Report Database Printout (details):	☒ enclosed	☐ not requested	☐ nothing listed
Report Digital Database Records:	☐ enclosed	☒ not requested	☐ nothing listed
Resource Record Copies:	☐ enclosed	☐ not requested	☒ nothing listed
Report Copies:	☒ enclosed	☐ not requested	☐ nothing listed

OHP Historic Properties Directory: New Excel File: Built Environment Resource Directory (BERD)

Dated 11/17/2021 Nothing listed: 2Not all resources listed in the BERD are mapped in GIS, nor do we have records on file for; if you identify additional resources in the BERD that you need copies of, contact the IC.

☒ enclosed ☐ not requested ☐ nothing listed

Archaeological Determinations of Eligibility: ☐ enclosed ☐ not requested ☒ nothing listed

CA Inventory of Historic Resources (1976): ☐ enclosed ☐ not requested ☒ nothing listed

Caltrans Bridge Survey: ☐ enclosed ☐ not requested ☒ nothing listed

Ethnographic Information: ☐ enclosed ☒ not requested ☐ nothing listed

Historical Literature: ☐ enclosed ☒ not requested ☐ nothing listed

Historical Maps: ☒ enclosed ☐ not requested ☐ nothing listed

Map Number Three in History of San Joaquin County, California with Illustrations (1879; 1968 reprint)
Map of the County of san Joaquin, California 1883
Manteca 7.5' 1914, 1952

Local Inventories: ☐ enclosed ☐ not requested ☒ nothing listed

GLO and/or Rancho Plat Maps: ☒ enclosed ☐ not requested ☐ nothing listed

T2S R7E 1855

Shipwreck Inventory: ☒ not available at CCIC; please go to http://shipwrecks.slc.ca.gov/ShipwrecksDatabase/Shipwrecks_Database.asp

Soil Survey Maps: ☒ not available at CCIC; please go to http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you do not include resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at the phone number listed above.

The provision of CHRIS Data via this records search response does not in any way constitute public disclosure of records otherwise exempt from disclosure under the California Public Records Act or any other law, including, but not limited to, records related to archeological site information maintained by or on behalf of, or in the possession of, the State of California, Department of Parks and Recreation, State Historic Preservation Officer, Office of Historic Preservation, or the State Historical Resources Commission.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the CHRIS Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

Should you require any additional information for the above referenced project, reference the record search number listed above when making inquiries. Requests made after initial invoicing will result in the preparation of a separate invoice.

Thank you for using the California Historical Resources Information System (CHRIS).

Note: Billing will be transmitted separately via email by our Financial Services office *($417.82), payable within 60 days of receipt of the invoice.

If you wish to include payment by Credit Card, you must wait to receive the official invoice from Financial Services so that you can reference the CMP # (Invoice Number), and then contact the link below:

https://commerce.cashnet.com/ANTHROPOLOGY

Sincerely,

E. A. Greathouse

E. A. Greathouse, Coordinator
Central California Information Center
California Historical Resources Information System

* Invoice Request sent to: ARBilling@csustan.edu, CSU Stanislaus Financial Services

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
SJ-01900	NADB-R - 1360590	1993	Napton, L. K.	A Preliminary Cultural Resources Investigation of the South Manteca Area Plan, 7,800 acres in San Joaquin County, California.	CSU Stanislaus, Institute for Archaeological Research	39-000282
SJ-03810	NADB-R - 1364019	1999	Roper, C. K.	Attachment C: Cultural/Historical Resources, Pacific Bell Mobile Services SA-238-03, VERTEX Project No. 1391.	Sierra Valley Cultural Planning	
SJ-04682	NADB-R - 1364598	2001	Kobrin, Katherine	Request for Section 106 Findings/Determination, Verizon Site: 120/S. Main, County of San Joaquin (1153 Vanderbilt Circle, Manteca, California).	LFR Levine Fricke, Emeryville, California	
SJ-04786	NADB-R - 1364725	2002	Windmiller, Ric and Donald Napoli	City of Manteca--General Plan Update, Background Reports: Archaeological Resources, Historical Resources, Records Search Results.	Ric Windmiller, Consulting Archaeologist (and) Donald Napoli, of Historic Preservation Planning; for Wade Associates, Sacramento, CA	39-000002, 39-000015, 39-000098, 39-000099, 39-000102, 39-000103, 39-000111, 39-000282, 39-000354, 39-000681, 39-000682, 39-000683, 39-000684, 39-004148, 39-004188, 39-004189, 39-004190, 39-004191, 39-004192
SJ-05309	NADB-R - 1365195	2004	Baloian, M., R. Baloian, and W. Nettles	Cultural Resources Investigations for the South San Joaquin Irrigation District in San Joaquin County, California.	Applied Earthworks, Inc.; prepared for Russell Associates, Palo Alto, CA	39-000002, 39-000015, 39-000098, 39-000099, 39-000103, 39-000354, 39-004400, 39-004401, 39-004402, 39-004403, 39-004404, 39-004405, 39-004406, 39-004407, 39-004408, 39-004409, 39-004410, 39-004411, 39-004412, 39-004413, 39-004414, 39-004415, 39-004416, 39-004417
SJ-05808	NADB-R - 1365709	2005	Losee, C.	Collocation ("CO") Submission Packet, FCC Form 621, Cingular Wireless Cal-Concrete/T-Mobile, FS 031-C1.	ART	
SJ-06625	NADB-R - 1367290	1998	ASI Archaeology and Cultural Resource Management	Cultural Resources Survey, South County Surface Water Project, San Joaquin County, California, South San Joaquin Irrigation District	ASI Archaeology and Cultural Resource Management (prepared for Environmental Science Associates, Inc.)	39-000002, 39-000098, 39-000129, 39-000317, 39-000531, 39-000548, 50-000001
SJ-09247		2017	Falke, M. and K. Vallaire	Supplemental Archaeological Survey Report, State Route 120 at Union Road Interchange Project, Manteca, San Joaquin County, California; 10-SJ-120, P.M. 3.4/5.2, EA 10-0P200, ID 10-0000-0182	LSA Associates, Inc. for Caltrans	

Local Government Tribal Consultation List Request

Native American Heritage Commission
1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691
916-373-3710
916-373-5471 – Fax
nahc@nahc.ca.gov

Type of List Requested

■ **CEQA Tribal Consultation List (AB 52)** – ***Per Public Resources Code § 21080.3.1, subs. (b), (d), (e) and 21080.3.2***

☐ **General Plan (SB 18)** - ***Per Government Code § 65352.3.***

Local Action Type:

☐ **General Plan** ☐ **General Plan Element** ☐ **General Plan Amendment**

☐ **Specific Plan** ☐ **Specific Plan Amendment** ☐ **Pre-planning Outreach Activity**

Required Information

Project Title: South Main Plaza Project

Local Government/Lead Agency: City of Manteca

Contact Person: Dr. Dana DePietro

Street Address: 1350 Treat Blvd. Ste. 380

City: Walnut Creek **Zip:** 94597

Phone: 530.219.1432 **Fax:**

Email: ddepietro@fcs-intl.com, mdolan@fcs-intl.com

Specific Area Subject to Proposed Action

County: Manteca **City/Community:** Manteca

Project Description:

The applicant is proposing to remove the existing single-family residence, garage, and ornamental landscaping and develop a 112,271 square-foot neighborhood shopping center on the project site. The shopping center would be anchored by a 50,071 square-foot grocery store and include a 38,000 square-foot hardware store with 10,000 square feet of outdoor sale space, a 7,200 square-foot retail shop building, a 5,900 square-foot retail shop building, three drive-thru restaurants ranging from 2,200 square feet to 3,050 square feet and a 3,500 square-foot gas station with fueling canopy.

Additional Request

■ **Sacred Lands File Search** - ***Required Information:***

USGS Quadrangle Name(s): Manteca

Township: T02S **Range:** R07E **Section(s):** 4, 5, 8, 9

NATIVE AMERICAN HERITAGE COMMISSION

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Kumeyaay

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Christina Snider
Pomo

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

March 7, 2022

Dr. Dana DePietro
FirstCarbon Solutions

Via Email to: ddepietro@fcs-intl.com

Re: Native American Tribal Consultation, Pursuant to the Assembly Bill 52 (AB 52), Amendments to the California Environmental Quality Act (CEQA) (Chapter 532, Statutes of 2014), Public Resources Code Sections 5097.94 (m), 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2 and 21084.3, South Main Plaza Project, San Joaquin County

Dear Dr. DePietro:

Pursuant to Public Resources Code section 21080.3.1 (c), attached is a consultation list of tribes that are traditionally and culturally affiliated with the geographic area of the above-listed project. Please note that the intent of the AB 52 amendments to CEQA is to avoid and/or mitigate impacts to tribal cultural resources, (Pub. Resources Code §21084.3 (a)) ("Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource.")

Public Resources Code sections 21080.3.1 and 21084.3(c) require CEQA lead agencies to consult with California Native American tribes that have requested notice from such agencies of proposed projects in the geographic area that are traditionally and culturally affiliated with the tribes on projects for which a Notice of Preparation or Notice of Negative Declaration or Mitigated Negative Declaration has been filed on or after July 1, 2015. Specifically, Public Resources Code section 21080.3.1 (d) provides:

Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section.

The AB 52 amendments to CEQA law does not preclude initiating consultation with the tribes that are culturally and traditionally affiliated within your jurisdiction prior to receiving requests for notification of projects in the tribe's areas of traditional and cultural affiliation. The Native American Heritage Commission (NAHC) recommends, but does not require, early consultation as a best practice to ensure that lead agencies receive sufficient information about cultural resources in a project area to avoid damaging effects to tribal cultural resources.

The NAHC also recommends, but does not require that agencies should also include with their notification letters, information regarding any cultural resources assessment that has been completed on the area of potential effect (APE), such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:

- A listing of any and all known cultural resources that have already been recorded on or adjacent to the APE, such as known archaeological sites;
- Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
- Whether the records search indicates a low, moderate, or high probability that unrecorded cultural resources are located in the APE; and
- If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.

2. The results of any archaeological inventory survey that was conducted, including:

    - Any report that may contain site forms, site significance, and suggested mitigation measures.

      All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure in accordance with Government Code section 6254.10.

3. The result of any Sacred Lands File (SLF) check conducted through the Native American Heritage Commission was negative.

4. Any ethnographic studies conducted for any area including all or part of the APE; and

5. Any geotechnical reports regarding all or part of the APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS are not exhaustive and a negative response to these searches does not preclude the existence of a tribal cultural resource. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the event that they do, having the information beforehand will help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our consultation list remains current.

If you have any questions, please contact me at my email address: Pricilla.Torres-Fuentes@nahc.ca.gov.

Sincerely,

Pricilla Torres-Fuentes

Pricilla Torres-Fuentes
Cultural Resources Analyst

Attachment

Native American Heritage Commission
Tribal Consultation List
San Joaquin County
3/7/2022

Buena Vista Rancheria of Me-Wuk Indians
Rhonda Morningstar Pope, Chairperson
1418 20th Street, Suite 200 — Me-Wuk
Sacramento, CA, 95811
Phone: (916) 491 - 0011
Fax: (916) 491-0012
rhonda@buenavistatribe.com

Ione Band of Miwok Indians
Sara Dutschke, Chairperson
9252 Bush Street — Miwok
Plymouth, CA, 95669
Phone: (209) 245 - 5800
consultation@ionemiwok.net

Muwekma Ohlone Indian Tribe of the SF Bay Area
Monica Arellano, Vice Chairwoman
20885 Redwood Road, Suite 232 — Costanoan
Castro Valley, CA, 94546
Phone: (408) 205 - 9714
marellano@muwekma.org

Muwekma Ohlone Indian Tribe of the SF Bay Area
Charlene Nijmeh, Chairperson
20885 Redwood Road, Suite 232 — Costanoan
Castro Valley, CA, 94546
Phone: (408) 464 - 2892
cnijmeh@muwekma.org

North Valley Yokuts Tribe
Timothy Perez,
P.O. Box 717 — Costanoan
Linden, CA, 95236 — Northern Valley
Phone: (209) 662 - 2788 — Yokut
huskanam@gmail.com

North Valley Yokuts Tribe
Katherine Perez, Chairperson
P.O. Box 717 — Costanoan
Linden, CA, 95236 — Northern Valley
Phone: (209) 887 - 3415 — Yokut
canutes@verizon.net

Tule River Indian Tribe
Neil Peyron, Chairperson
P.O. Box 589 — Yokut
Porterville, CA, 93258
Phone: (559) 781 - 4271
Fax: (559) 781-4610
neil.peyron@tulerivertribe-nsn.gov

Wilton Rancheria
Jesus Tarango, Chairperson
9728 Kent Street — Miwok
Elk Grove, CA, 95624
Phone: (916) 683 - 6000
Fax: (916) 683-6015
jtarango@wiltonrancheria-nsn.gov

Wilton Rancheria
Dahlton Brown, Director of Administration
9728 Kent Street — Miwok
Elk Grove, CA, 95624
Phone: (916) 683 - 6000
dbrown@wiltonrancheria-nsn.gov

Wilton Rancheria
Steven Hutchason, THPO
9728 Kent Street — Miwok
Elk Grove, CA, 95624
Phone: (916) 683 - 6000
Fax: (916) 863-6015
shutchason@wiltonrancheria-nsn.gov

Wuksache Indian Tribe/Eshom Valley Band
Kenneth Woodrow, Chairperson
1179 Rock Haven Ct. — Foothill Yokut
Salinas, CA, 93906 — Mono
Phone: (831) 443 - 9702
kwood8934@aol.com

The Confederated Villages of Lisjan
Corrina Gould, Chairperson
10926 Edes Avenue — Bay Miwok
Oakland, CA, 94603 — Ohlone
Phone: (510) 575 - 8408 — Delta Yokut
cvltribe@gmail.com

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and section 5097.98 of the Public Resources Code.

This list is only applicable for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed South Main Plaza Project, San Joaquin County.

March 8, 2022

North Valley Yokuts Tribe
Katherine Perez, Chairperson
P.O. Box 717
Linden, CA, 95236

Subject: Proposed Marketplace @ Main Project

Dear Chairperson Perez:

FirstCarbon Solutions (FCS) is preparing a Cultural Resources Analysis for the proposed Marketplace @ Main Project on behalf of the City of Manteca. As part of the environmental review process, we are conducting a cultural resources assessment.

The project applicant is proposing to remove the existing single-family residence, garage, ornamental landscaping, and turf in order to develop a 113,167-square-foot neighborhood shopping center on the site. The shopping center would include a grocery store, a hardware store, retail shops, three drive-thru restaurants, and a carwash.

A Records Search map with a 0.5 mile buffer around the site is enclosed for your reference.

As part of the cultural resources assessment, FCS conducted a Sacred Lands File (SLF) search and California Historical Resource Information System (CHRIS). The results of the SLF records search was positive. The CHRIS Search found that there no recorded resources within the project site or within a 0.5 mile radius. The CHRIS Search also found that there are two reports that transect the project site on the eastern border. There are 6 other reports within the 0.5 mile search radius. The Native American Heritage Commission (NAHC) suggested you might be able to provide further information. If you have any additional information regarding potential historic or cultural resources in proximity or relation to the proposed project area, we would greatly appreciate your input.

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Sincerely,

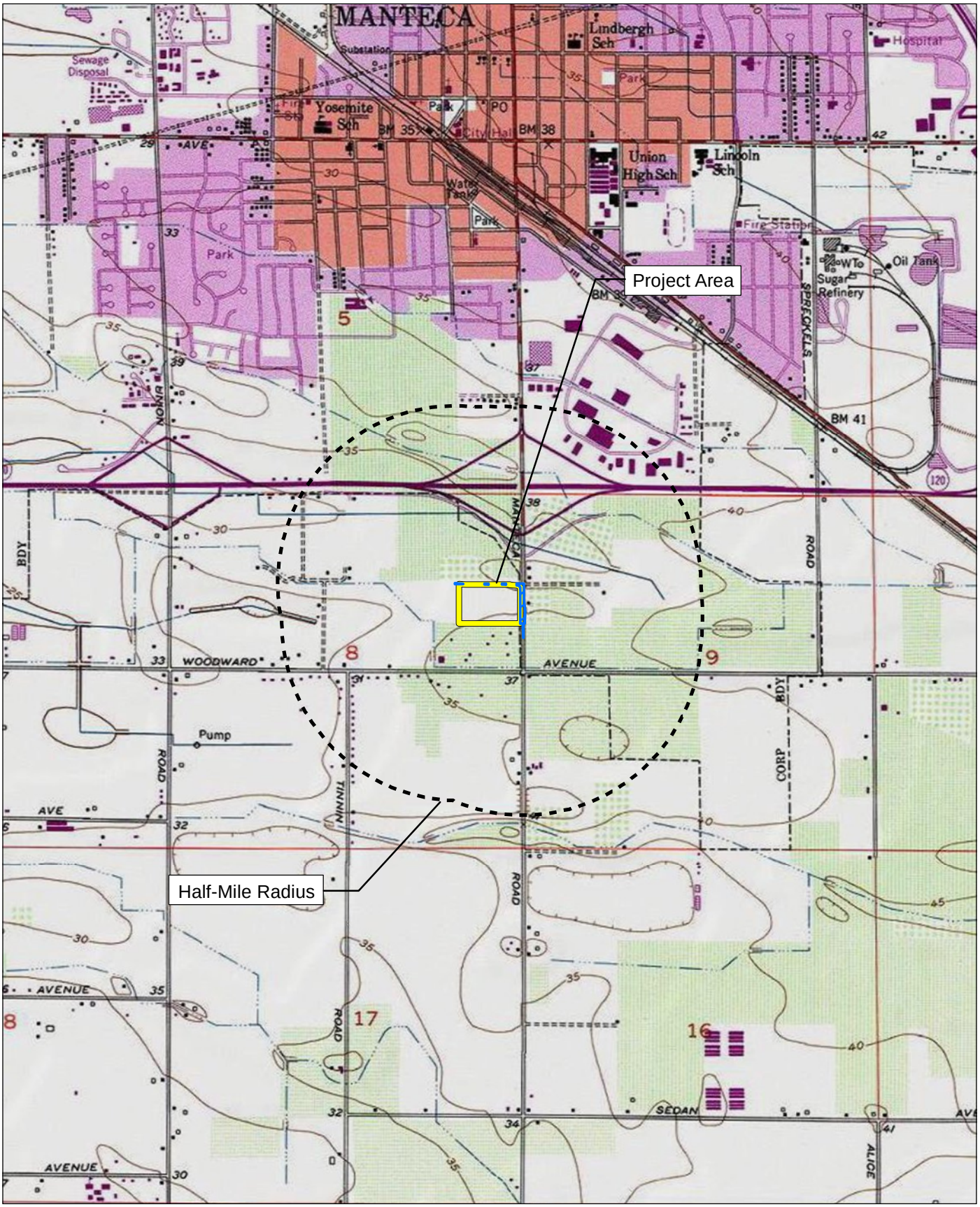


Dana Douglas DePietro, PhD
Director of Cultural Resources
FirstCarbon Solutions
1350 Treat Boulevard, Suite 380
Walnut Creek, CA 94597

Enc: Attachment A: Records Search Map

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Attachment A:
Records Search Map



Source: USGS Manteca 7.5' Quadrangle / T02S, R07E, sections: 4, 5, 8, 9

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Record Search Map

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CITY OF MANTECA
SOUTH MAIN PLAZA PROJECT

March 8, 2022

Wilton Rancheria
Steven Hutchason, THPO
9728 Kent Street
Elk Grove, CA, 95624

Subject: Proposed Marketplace @ Main Project

Dear Steven Hutchason:

FirstCarbon Solutions (FCS) is preparing a Cultural Resources Analysis for the proposed Marketplace @ Main Project on behalf of the City of Manteca. As part of the environmental review process, we are conducting a cultural resources assessment.

The project applicant is proposing to remove the existing single-family residence, garage, ornamental landscaping, and turf in order to develop a 113,167-square-foot neighborhood shopping center on the site. The shopping center would include a grocery store, a hardware store, retail shops, three drive-thru restaurants, and a carwash.

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Sincerely,

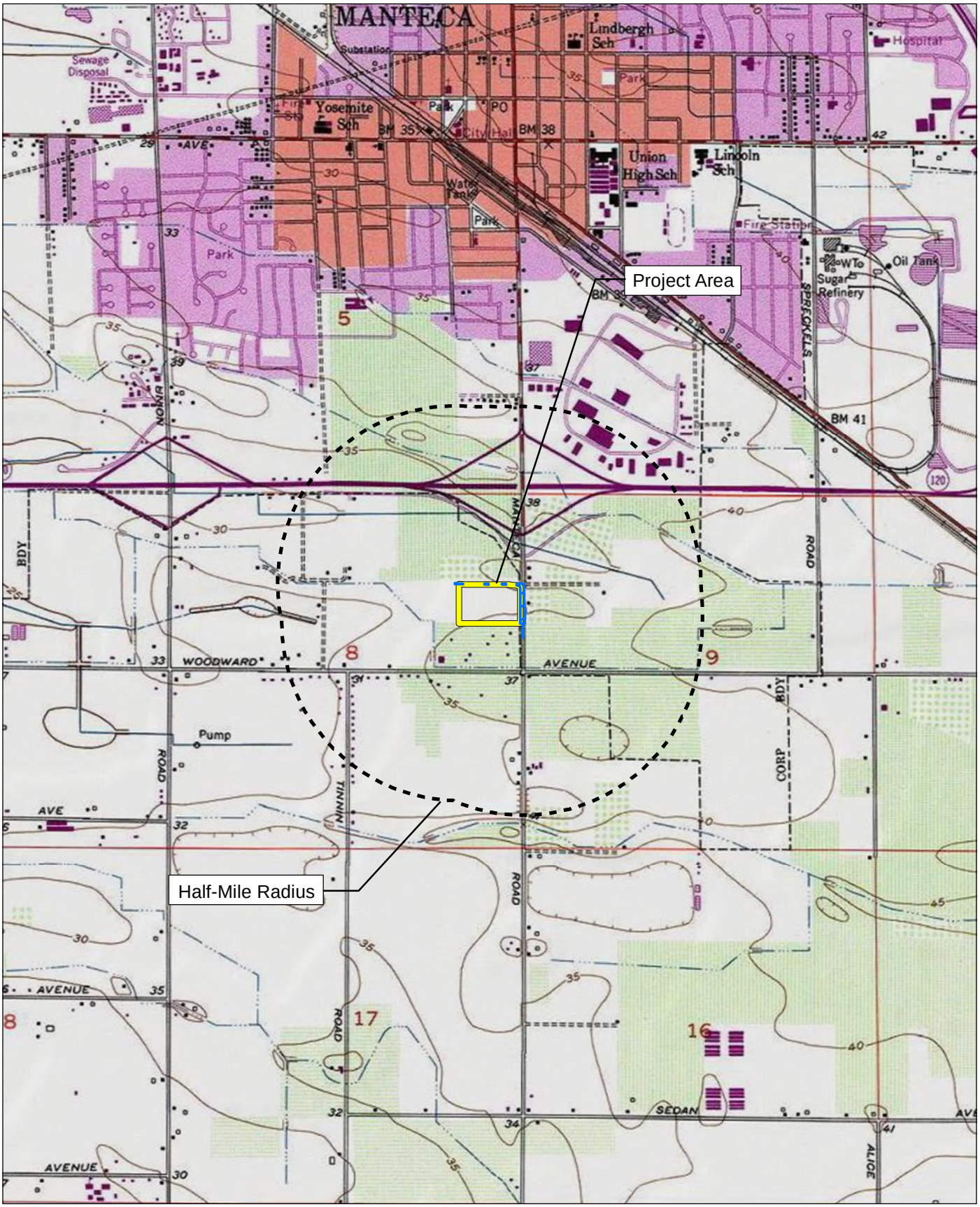


Dana Douglas DePietro, PhD
Director of Cultural Resources
FirstCarbon Solutions
1350 Treat Boulevard, Suite 380
Walnut Creek, CA 94597

Enc: Attachment A: Records Search Map

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Attachment A:
Records Search Map



Source: USGS Manteca 7.5' Quadrangle / T02S, R07E, sections: 4, 5, 8, 9

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CITY OF MANTECA
SOUTH MAIN PLAZA PROJECT

March 8, 2022

Muwekma Ohlone Indian Tribe of the SF Bay Area
Charlene Nijmeh, Chairperson
20885 Redwood Road, Suite 232
Castro Valley, CA, 94546

Subject: Proposed Marketplace @ Main Project

Dear Chairperson Nijmeh:

FirstCarbon Solutions (FCS) is preparing a Cultural Resources Analysis for the proposed Marketplace @ Main Project on behalf of the City of Manteca. As part of the environmental review process, we are conducting a cultural resources assessment.

The project applicant is proposing to remove the existing single-family residence, garage, ornamental landscaping, and turf in order to develop a 113,167-square-foot neighborhood shopping center on the site. The shopping center would include a grocery store, a hardware store, retail shops, three drive-thru restaurants, and a carwash.

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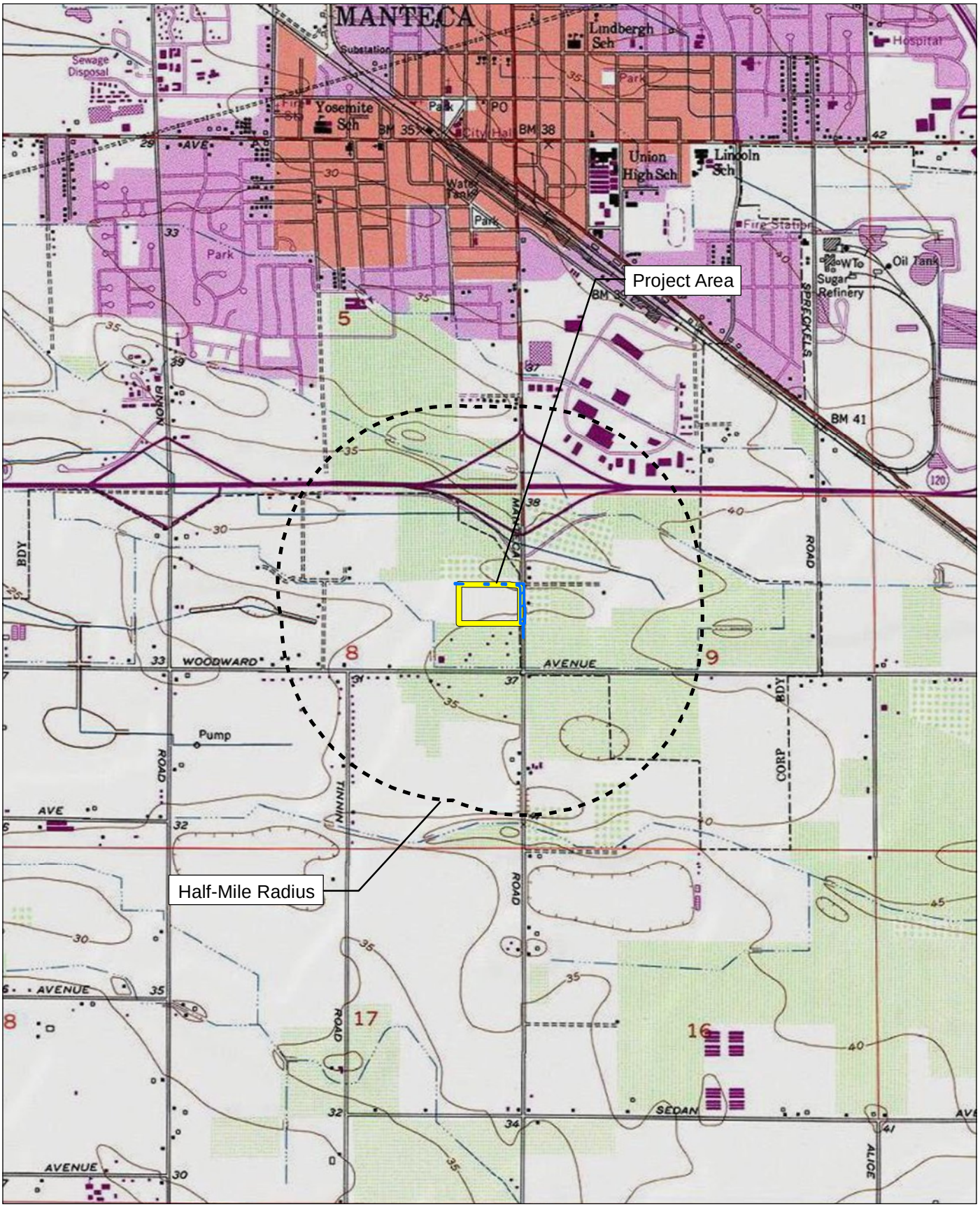


Dana Douglas DePietro, PhD
Director of Cultural Resources
FirstCarbon Solutions
1350 Treat Boulevard, Suite 380
Walnut Creek, CA 94597

Enc: Attachment A: Records Search Map

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Attachment A:
Records Search Map



Source: USGS Manteca 7.5' Quadrangle / T02S, R07E, sections: 4, 5, 8, 9

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CITY OF MANTECA
SOUTH MAIN PLAZA PROJECT

March 8, 2022

North Valley Yokuts Tribe
Timothy Perez
P.O. Box 717
Linden, CA, 95236

Subject: Proposed Marketplace @ Main Project

Dear Timothy Perez:

FirstCarbon Solutions (FCS) is preparing a Cultural Resources Analysis for the proposed Marketplace @ Main Project on behalf of the City of Manteca. As part of the environmental review process, we are conducting a cultural resources assessment.

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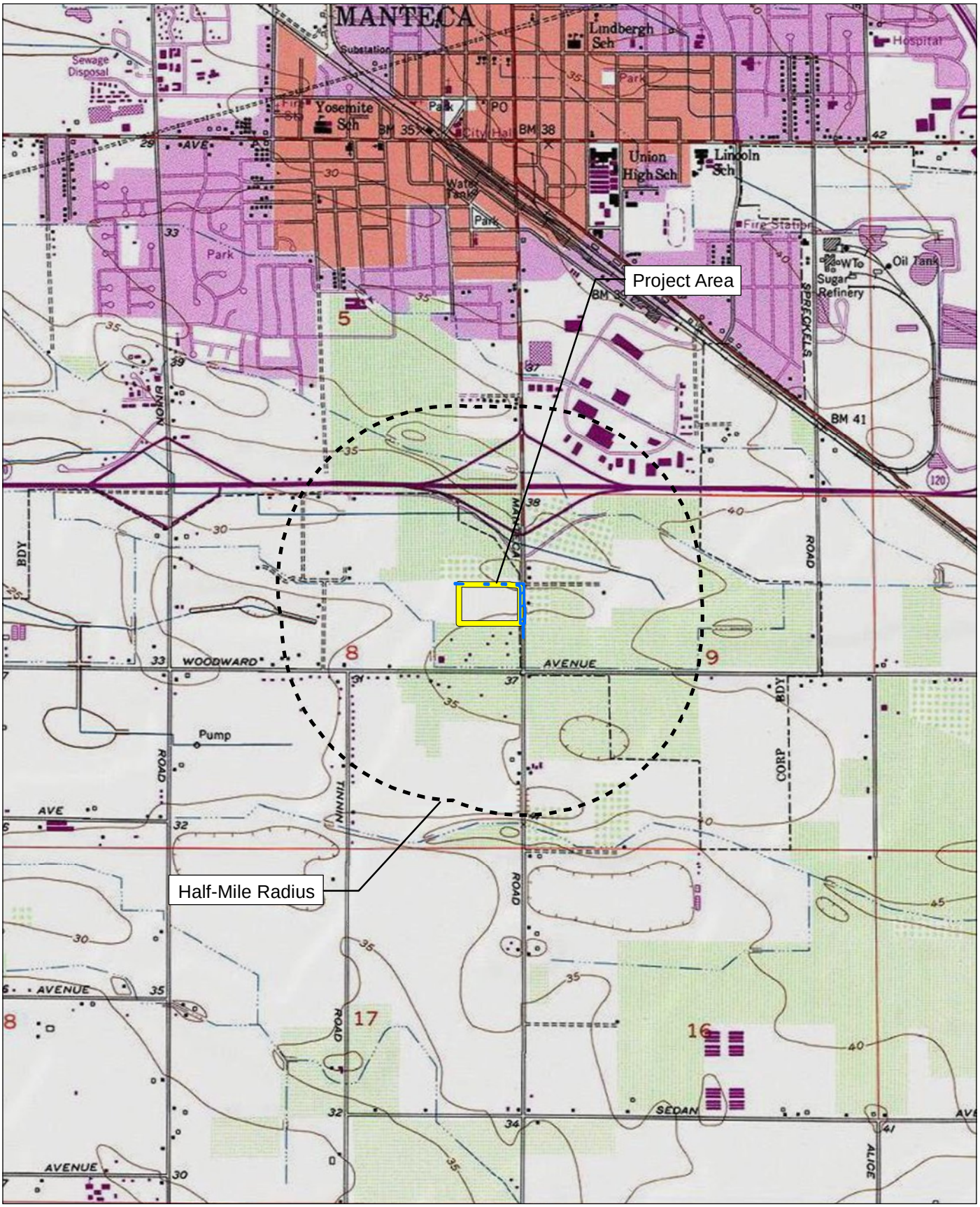


Dana Douglas DePietro, PhD
Director of Cultural Resources
FirstCarbon Solutions
1350 Treat Boulevard, Suite 380
Walnut Creek, CA 94597

Enc: Attachment A: Records Search Map

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Attachment A:
Records Search Map



Source: USGS Manteca 7.5' Quadrangle / T02S, R07E, sections: 4, 5, 8, 9

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CITY OF MANTECA
SOUTH MAIN PLAZA PROJECT

March 8, 2022

Tule River Indian Tribe
Neil Peyron, Chairperson
P.O. Box 589
Porterville, CA, 93258

Subject: Proposed Marketplace @ Main Project

Dear Chairperson Peyron:

FirstCarbon Solutions (FCS) is preparing a Cultural Resources Analysis for the proposed Marketplace @ Main Project on behalf of the City of Manteca. As part of the environmental review process, we are conducting a cultural resources assessment.

The project applicant is proposing to remove the existing single-family residence, garage, ornamental landscaping, and turf in order to develop a 113,167-square-foot neighborhood shopping center on the site. The shopping center would include a grocery store, a hardware store, retail shops, three drive-thru restaurants, and a carwash.

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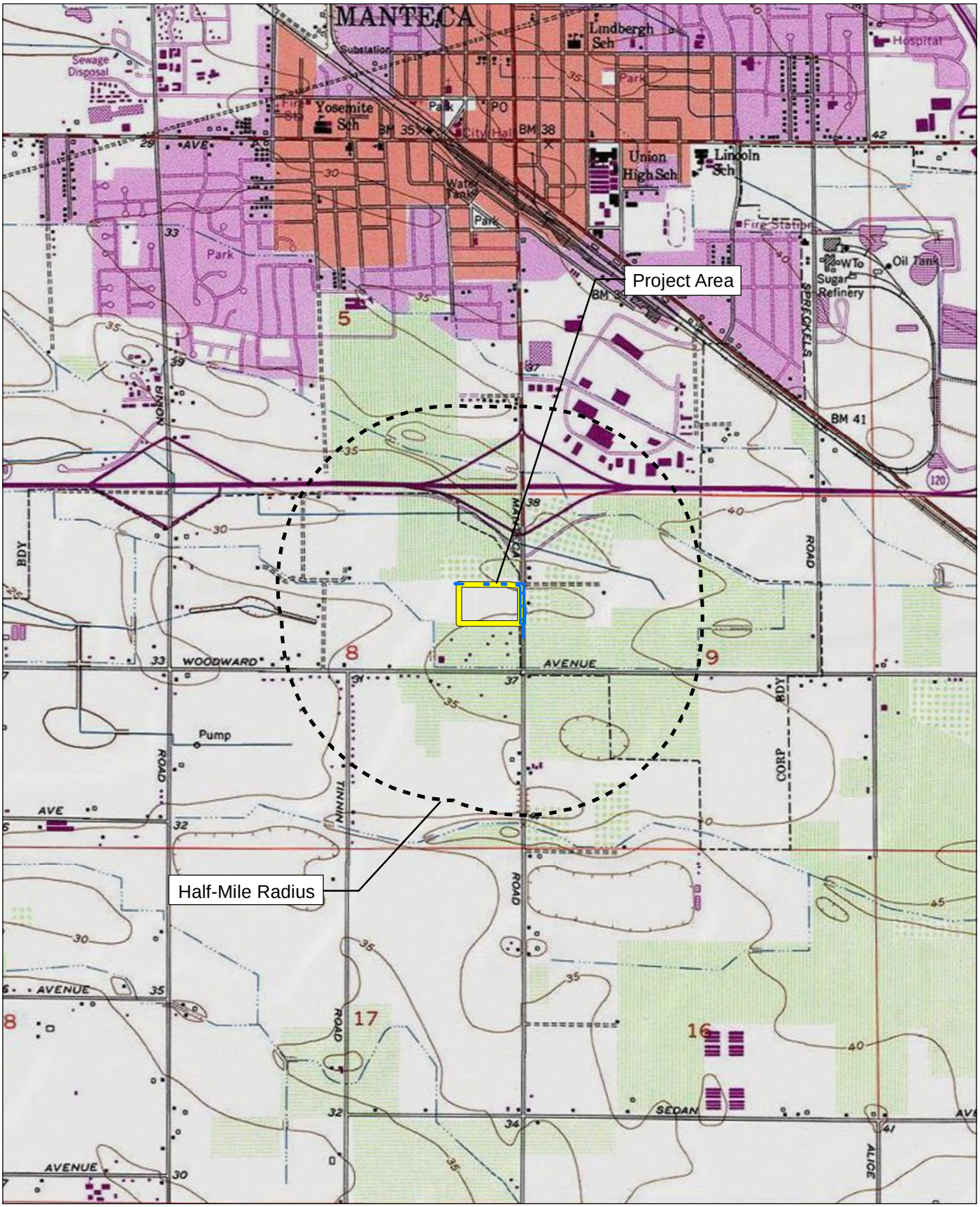


Dana Douglas DePietro, PhD
Director of Cultural Resources
FirstCarbon Solutions
1350 Treat Boulevard, Suite 380
Walnut Creek, CA 94597

Enc: Attachment A: Records Search Map

FIRSTCARBON
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FCS INTERNATIONAL, INC.

Attachment A:
Records Search Map



Source: USGS Manteca 7.5' Quadrangle / T02S, R07E, sections: 4, 5, 8, 9

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Record Search Map

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CITY OF MANTECA
SOUTH MAIN PLAZA PROJECT

March 8, 2022

Wilton Rancheria
Jesus Tarango, Chairperson
9728 Kent Street
Elk Grove, CA, 95624

Subject: Proposed Marketplace @ Main Project

Dear Chairperson Tarango:

FirstCarbon Solutions (FCS) is preparing a Cultural Resources Analysis for the proposed Marketplace @ Main Project on behalf of the City of Manteca. As part of the environmental review process, we are conducting a cultural resources assessment.

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Lehi, UT 84043

Connecticut
2 Corporate Drive
Suite 450
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Sincerely,

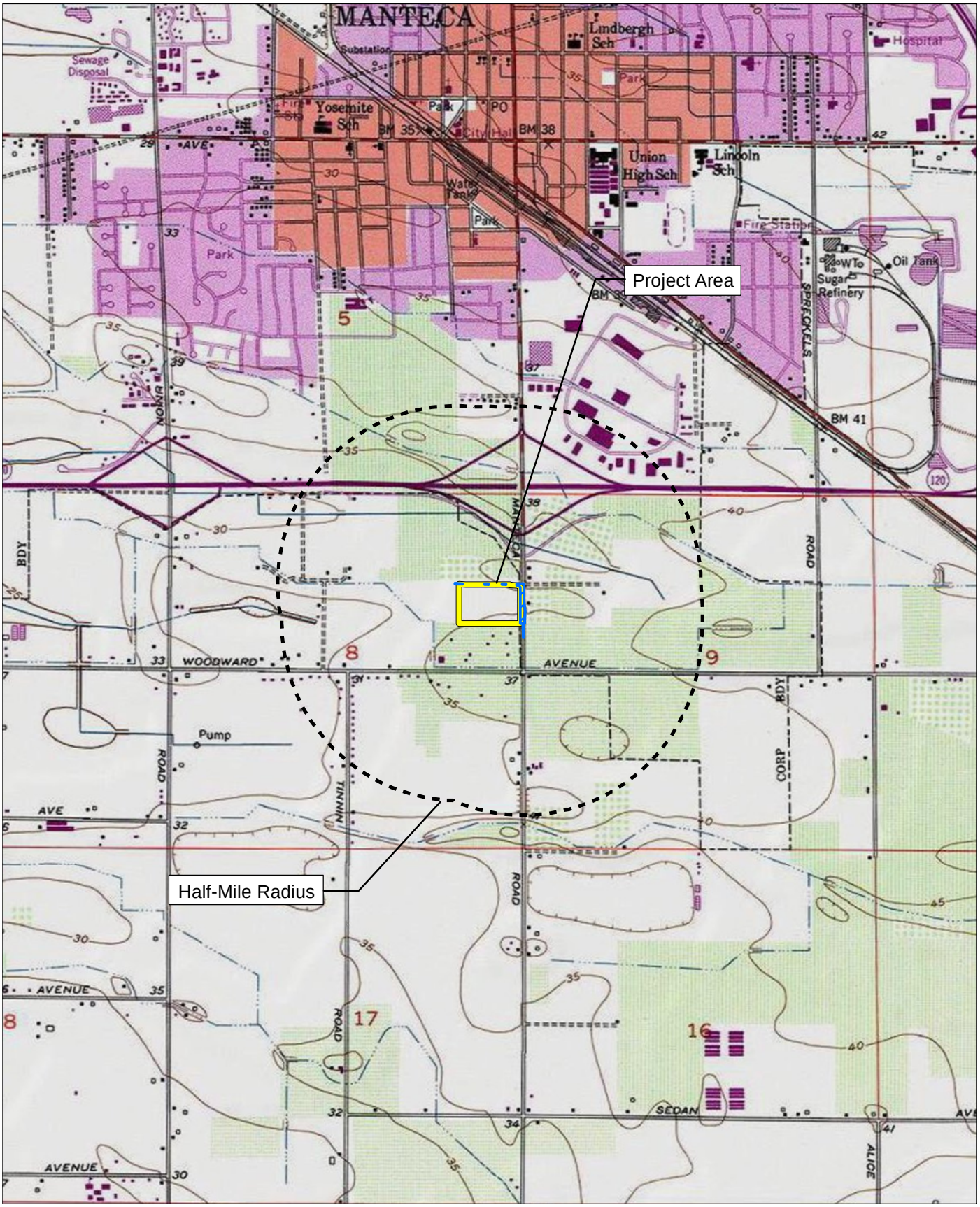


Dana Douglas DePietro, PhD
Director of Cultural Resources
FirstCarbon Solutions
1350 Treat Boulevard, Suite 380
Walnut Creek, CA 94597

Enc: Attachment A: Records Search Map

FIRSTCARBON
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FCS INTERNATIONAL, INC.

Attachment A:
Records Search Map



Source: USGS Manteca 7.5' Quadrangle / T02S, R07E, sections: 4, 5, 8, 9

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Record Search Map

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CITY OF MANTECA
SOUTH MAIN PLAZA PROJECT

March 8, 2022

Buena Vista Rancheria of Me-Wuk Indians
Rhonda Morningstar Pope, Chairperson
1418 20th Street, Suite 200
Sacramento, CA, 95811

Subject: Proposed Marketplace @ Main Project

Dear Chairperson Rhonda Morningstar Pope:

FirstCarbon Solutions (FCS) is preparing a Cultural Resources Analysis for the proposed Marketplace @ Main Project on behalf of the City of Manteca. As part of the environmental review process, we are conducting a cultural resources assessment.

The project applicant is proposing to remove the existing single-family residence, garage, ornamental landscaping, and turf in order to develop a 113,167-square-foot neighborhood shopping center on the site. The shopping center would include a grocery store, a hardware store, retail shops, three drive-thru restaurants, and a carwash.

A Records Search map with a 0.5 mile buffer around the site is enclosed for your reference.

As part of the cultural resources assessment, FCS conducted a Sacred Lands File (SLF) search and California Historical Resource Information System (CHRIS). The results of the SLF records search was positive. The CHRIS Search found that there no recorded resources within the project site or within a 0.5 mile radius. The CHRIS Search also found that there are two reports that transect the project site on the eastern border. There are 6 other reports within the 0.5 mile search radius. The Native American Heritage Commission (NAHC) suggested you might be able to provide further information. If you have any additional information regarding potential historic or cultural resources in proximity or relation to the proposed project area, we would greatly appreciate your input.

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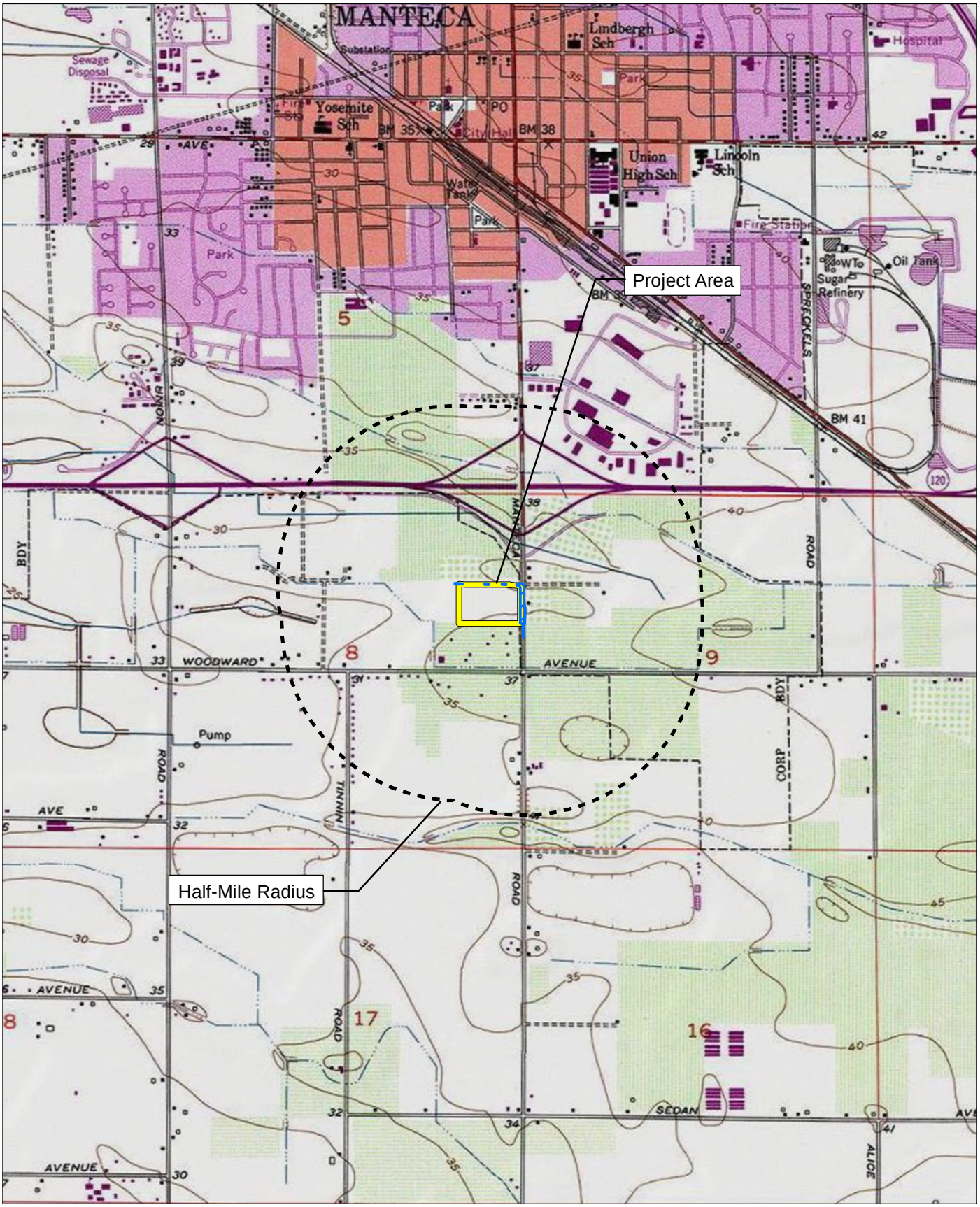


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CITY OF MANTECA
SOUTH MAIN PLAZA PROJECT

March 8, 2022

Wuksache Indian Tribe/Eshom Valley Band
Kenneth Woodrow, Chairperson
1179 Rock Haven Ct.
Salinas, CA, 93906

Subject: Proposed Marketplace @ Main Project

Dear Chairperson Woodrow:

FirstCarbon Solutions (FCS) is preparing a Cultural Resources Analysis for the proposed Marketplace @ Main Project on behalf of the City of Manteca. As part of the environmental review process, we are conducting a cultural resources assessment.

The project applicant is proposing to remove the existing single-family residence, garage, ornamental landscaping, and turf in order to develop a 113,167-square-foot neighborhood shopping center on the site. The shopping center would include a grocery store, a hardware store, retail shops, three drive-thru restaurants, and a carwash.

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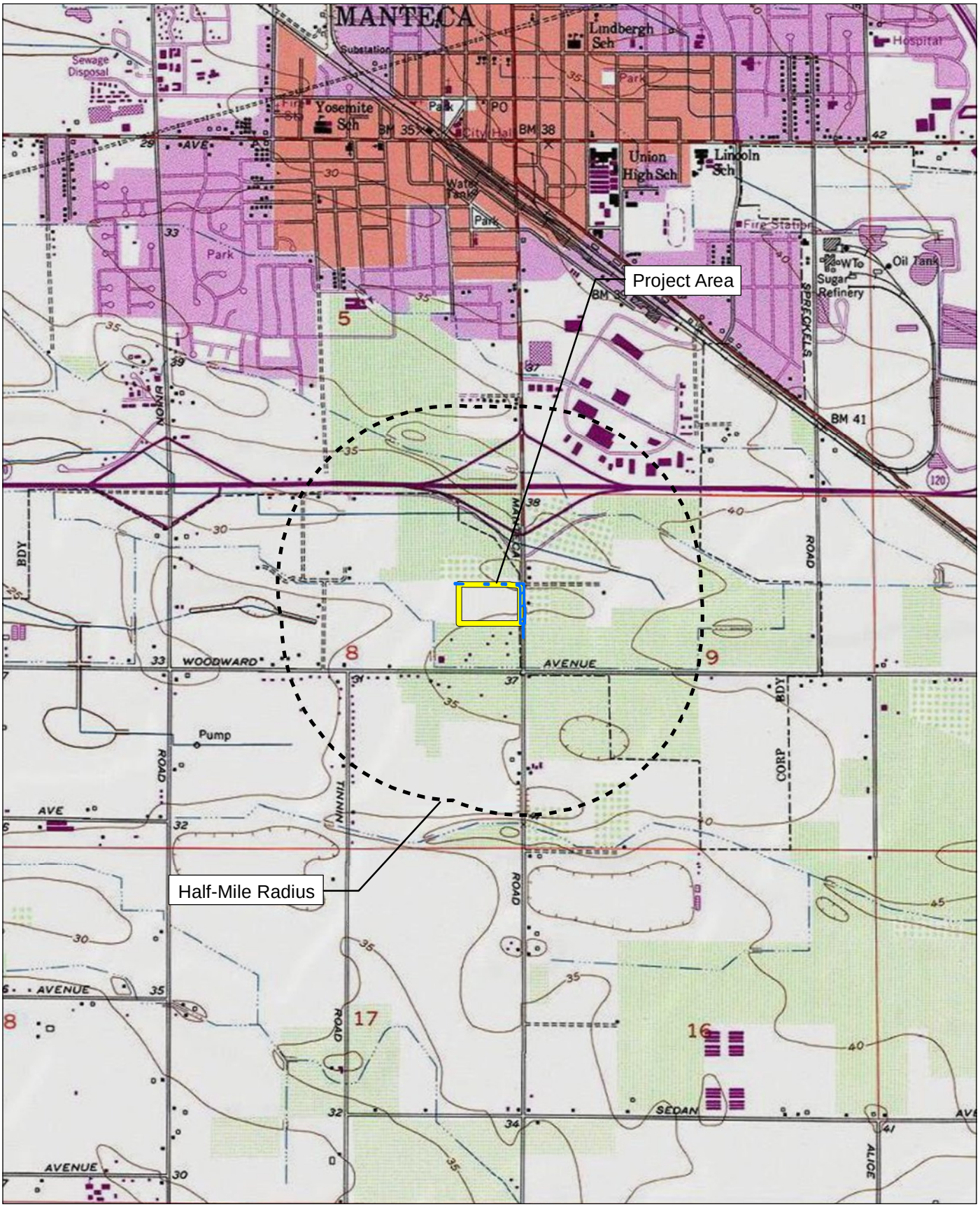


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CITY OF MANTECA
SOUTH MAIN PLAZA PROJECT

March 8, 2022

Ione Band of Miwok Indians
Sara Dutschke, Chairperson
9252 Bush Street
Plymouth, CA, 95669

Subject: Proposed Marketplace @ Main Project

Dear Chairperson Dutschke:

FirstCarbon Solutions (FCS) is preparing a Cultural Resources Analysis for the proposed Marketplace @ Main Project on behalf of the City of Manteca. As part of the environmental review process, we are conducting a cultural resources assessment.

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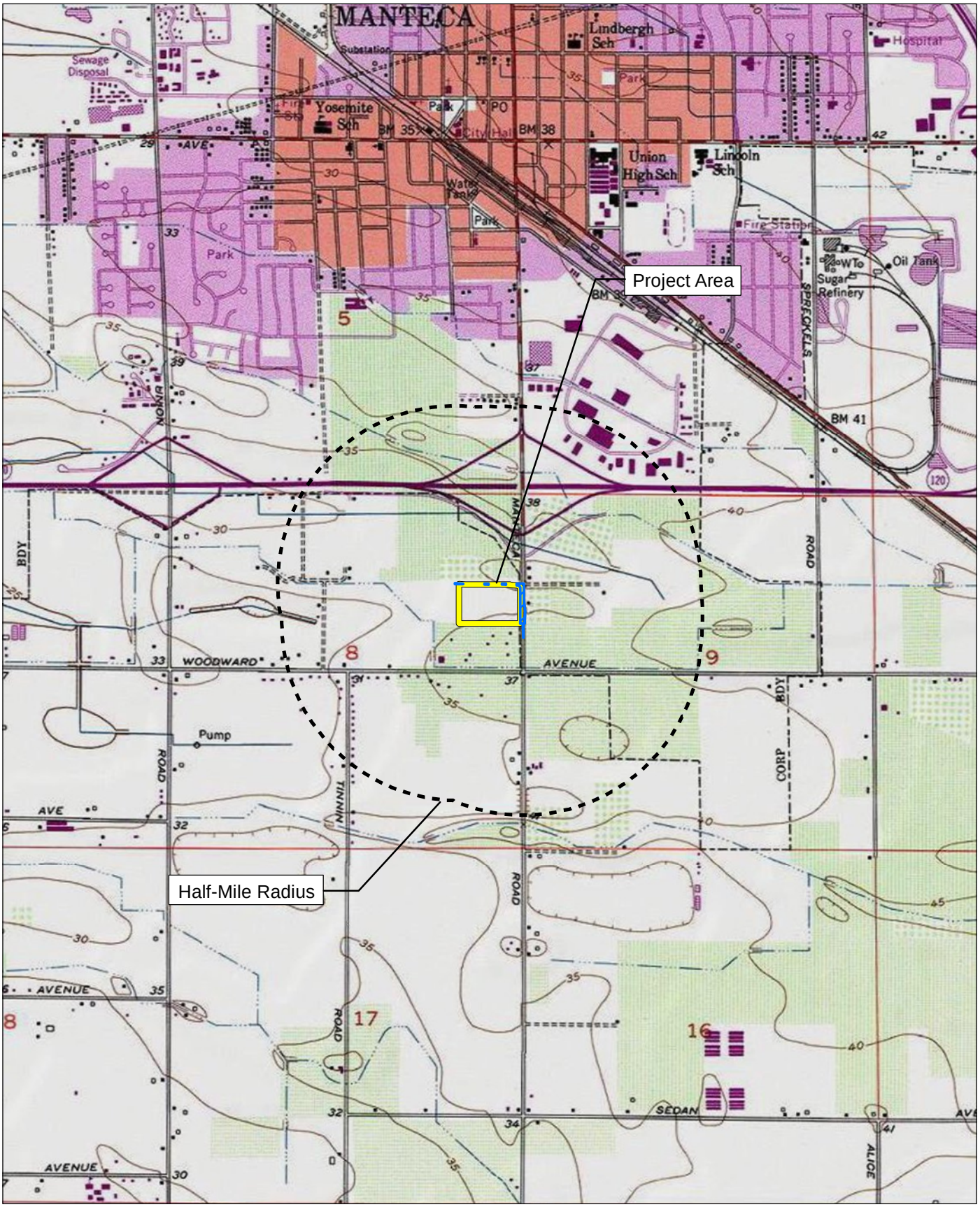


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CITY OF MANTECA
SOUTH MAIN PLAZA PROJECT

March 8, 2022

Cachil Dehe Band of Wintun Indians of the Colusa Indian Community
Daniel Gomez, Chairman
3730 Highway 45
Colusa, CA, 95932

Subject: Proposed Marketplace @ Main Project

Dear Chairman Gomez:

FirstCarbon Solutions (FCS) is preparing a Cultural Resources Analysis for the proposed Marketplace @ Main Project on behalf of the City of Manteca. As part of the environmental review process, we are conducting a cultural resources assessment.

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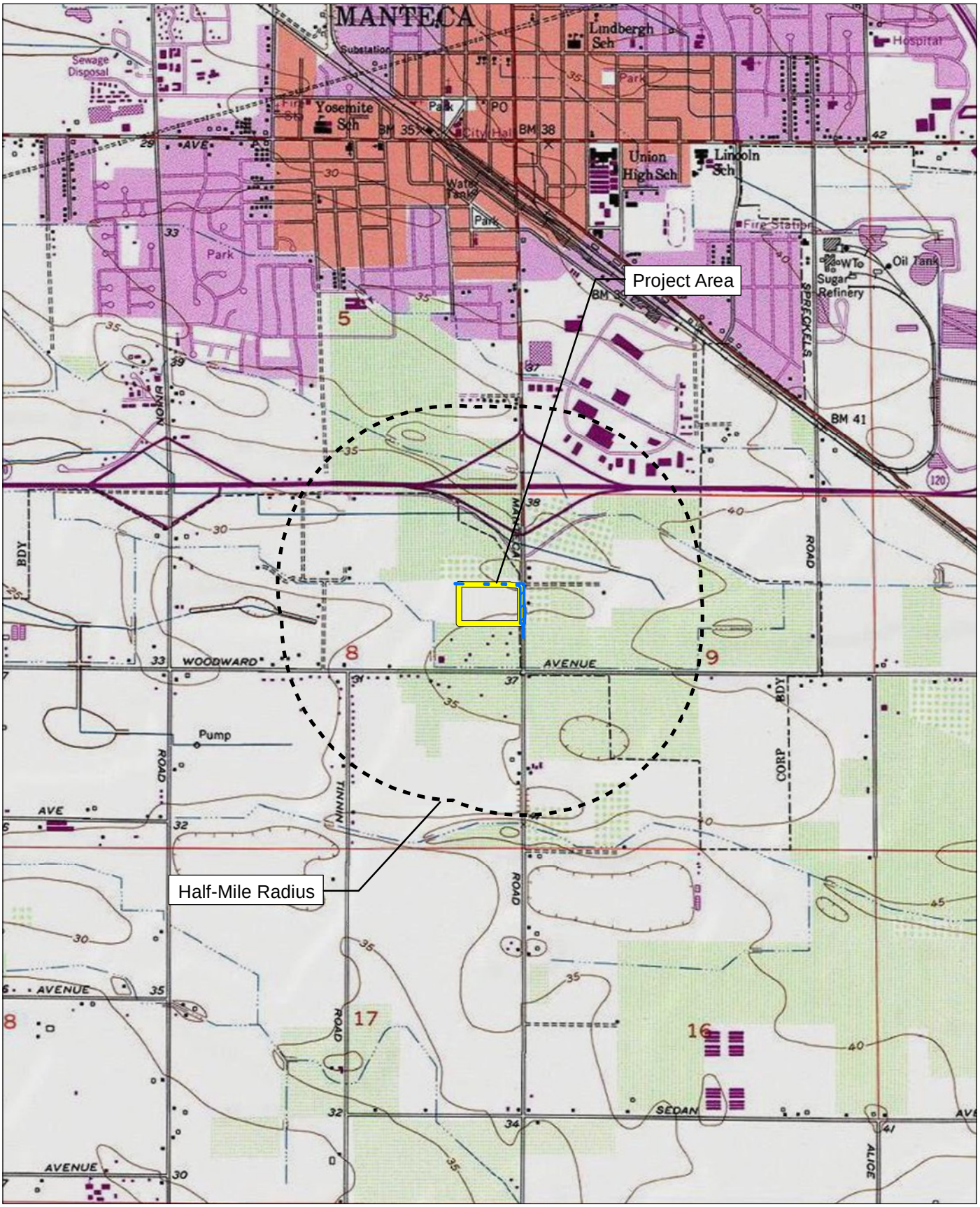


Dana Douglas DePietro, PhD
Director of Cultural Resources
FirstCarbon Solutions
1350 Treat Boulevard, Suite 380
Walnut Creek, CA 94597

Enc: Attachment A: Records Search Map

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Source: USGS Manteca 7.5' Quadrangle / T02S, R07E, sections: 4, 5, 8, 9

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Record Search Map

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CITY OF MANTECA
SOUTH MAIN PLAZA PROJECT

March 8, 2022

The Confederated Villages of Lisjan
Corrina Gould, Chairperson
10926 Edes Avenue
Oakland, CA, 94603

Subject: Proposed Marketplace @ Main Project

Dear Chairperson Gould:

FirstCarbon Solutions (FCS) is preparing a Cultural Resources Analysis for the proposed Marketplace @ Main Project on behalf of the City of Manteca. As part of the environmental review process, we are conducting a cultural resources assessment.

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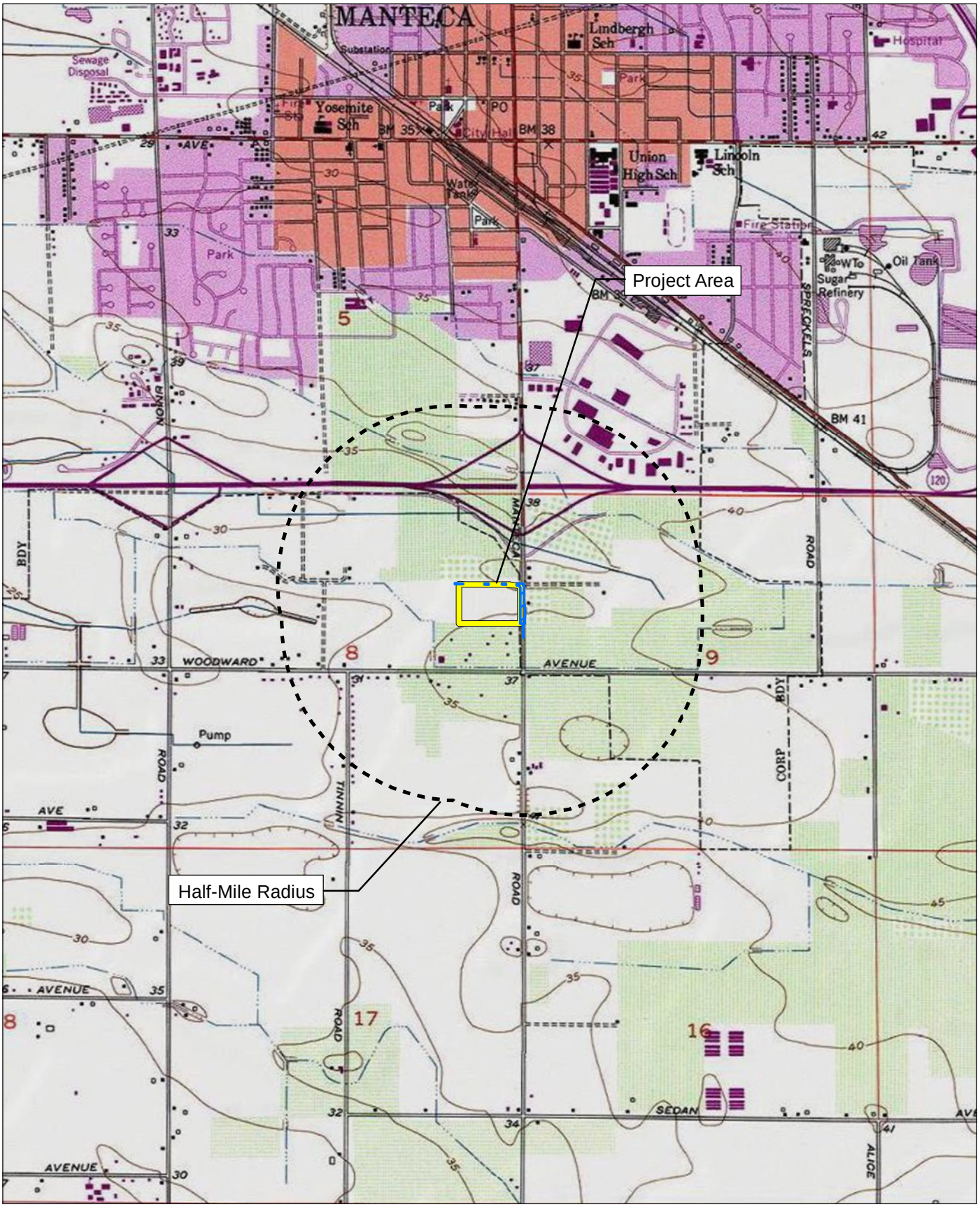


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CITY OF MANTECA
SOUTH MAIN PLAZA PROJECT

March 8, 2022

Wilton Rancheria
Dahlton Brown, Director of Administration
9728 Kent Street
Elk Grove, CA, 95624

Subject: Proposed Marketplace @ Main Project

Dear Dahlton Brown:

FirstCarbon Solutions (FCS) is preparing a Cultural Resources Analysis for the proposed Marketplace @ Main Project on behalf of the City of Manteca. As part of the environmental review process, we are conducting a cultural resources assessment.

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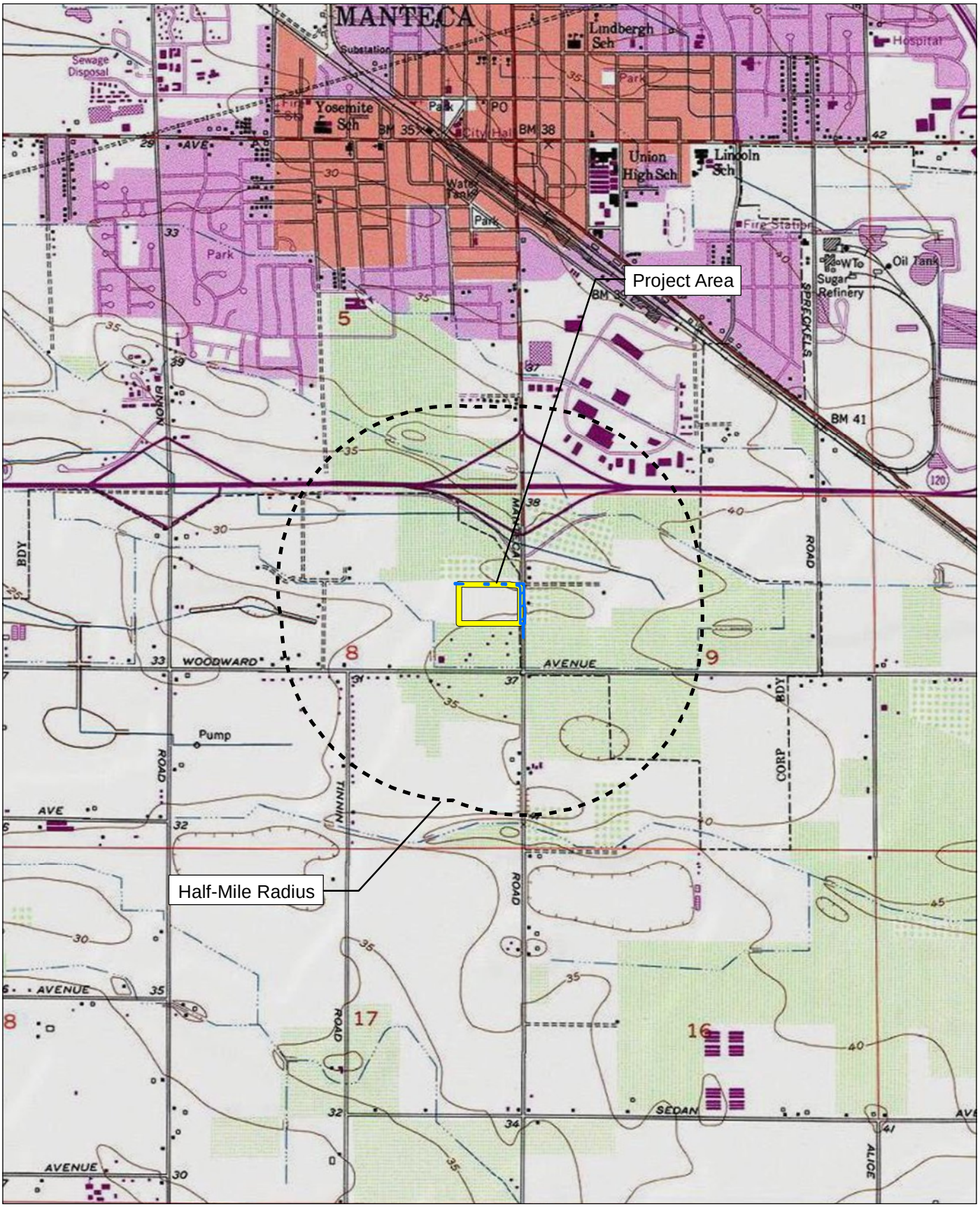


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CITY OF MANTECA
SOUTH MAIN PLAZA PROJECT

From: Katherine Perez
To: Maddie Dolan
Subject: Re: 3560.0008 Request for Information
Date: Wednesday, March 9, 2022 4:12:33 PM

Hello Maddie,

We are in receipt of your email regarding the proposed Marketplace. After reviewing the information, it is the recommendation of the tribe to have the proposed project monitored by both a qualified archeological firm and Native American monitor.

Nototomne Cultural Preservation
Northern Valley Yokut / Ohlone / Bay Mewuk
Katherine Perez
P.O Box 717
Linden, CA 95236
Cell: 209.649.8972
Email: canutes@veriozn.net

-----Original Message-----
From: Maddie Dolan <mdolan@fcs-intl.com>
To: Katherine Perez <canutes@verizon.net>
Cc: Cultural Resources <culturalres@fcs-intl.com>
Sent: Tue, Mar 8, 2022 5:33 pm
Subject: 3560.0008 Request for Information

Hello,

Attached is a request for information pertaining to a cultural resources assessment of the for the proposed Marketplace @ Main project in the City of Manteca. Please feel free to contact Dana DePietro at ddepietro@fcs-intl.com if you would like to provide input. Thank you for your assistance.

Best,
Madelyn Dolan (she | her | hers)
Environmental Services, Assistant Project Manager
Mobile +1 925 451 7133

FirstCarbon Solutions (FCS)
An ADEC Innovation
LinkedIn | Facebook | Twitter

CHRIS Data Request Form

ACCESS AND USE AGREEMENT NO.: 37 **IC FILE NO.:** _____

To: Central Coast Information Center

Print Name: Dr. Dana DePietro Date: 12/13/2021

Affiliation: FirstCarbon Solutions

Address: 1350 Treat Boulevard, Suite 380

City: Walnut Creek State: CA Zip: 94597

Phone: 530.219.1432 Fax: _____ Email: ddepietro@fcs-intl.com, mdolan@fcs-intl.com

Billing Address (if different than above): _____

Billing Email: ap@fcs-intl.com Billing Phone: _____

Project Name / Reference: South Main Plaza Project

Project Street Address: the southwest intersection of South Main Street and West Atherton Drive

County or Counties: Manteca

Township/Range/UTMs: T02S, R07E, Sections 4, 5, 8, 9

USGS 7.5' Quad(s): Manteca

PRIORITY RESPONSE (Additional Fee): yes ☒ / no ☐

TOTAL FEE NOT TO EXCEED: $_____
(If blank, the Information Center will contact you if the fee is expected to exceed $1,000.00)

Special Instructions:

Information Center Use Only

Date of CHRIS Data Provided for this Request: _____

Confidential Data Included in Response: yes ☐ / no ☐

Notes: _____

CHRIS Data Request Form

Mark the request form as needed. Attach a PDF of your project area (with the radius if applicable) mapped on a 7.5' USGS topographic quadrangle to scale 1:24000 ratio 1:1 neither enlarged nor reduced and include a shapefile of your project area, if available. Shapefiles are the current CHRIS standard for submitting digital spatial data for your project area or radius. **Check with the appropriate IC for current availability of digital data products.**

- Documents will be provided in PDF format. Paper copies will only be provided if PDFs are not available at the time of the request or under specially arranged circumstances.
- Location information will be provided as a digital map product (Custom Maps or GIS data) unless the area has not yet been digitized. In such circumstances, the IC may provide hand drawn maps.
- In addition to the $150/hr. staff time fee, client will be charged the Custom Map fee when GIS is required to complete the request [e.g., a map printout or map image/PDF is requested and no GIS Data is requested, or an electronic product is requested (derived from GIS data) but no mapping is requested].

For product fees, see the CHRIS IC Fee Structure on the OHP website.

1. Map Format Choice:

Select One: Custom GIS Maps ☒ GIS Data ☐ Custom GIS Maps **and** GIS Data ☐ No Maps ☐

Any selection below left unmarked will be considered a "no. "

Location Information:

	Within project area	Within 1/2 mi. radius
ARCHAEOLOGICAL Resource Locations[1]	yes ☒ / no ☐	yes ☒ / no ☐
NON-ARCHAEOLOGICAL Resource Locations	yes ☒ / no ☐	yes ☒ / no ☐
Report Locations[1]	yes ☒ / no ☐	yes ☒ / no ☐
"Other" Report Locations[2]	yes ☐ / no ☒	yes ☐ / no ☒

3. Database Information:
(contact the IC for product examples, or visit the SSJVIC website for examples)

	Within project area	Within 1/2 mi. radius
ARCHAEOLOGICAL Resource Database[1]		
List (PDF format)	yes ☒ / no ☐	yes ☒ / no ☐
Detail (PDF format)	yes ☒ / no ☐	yes ☒ / no ☐
Excel Spreadsheet	yes ☐ / no ☒	yes ☐ / no ☒
NON-ARCHAEOLOGICAL Resource Database		
List (PDF format)	yes ☒ / no ☐	yes ☒ / no ☐
Detail (PDF format)	yes ☒ / no ☐	yes ☒ / no ☐
Excel Spreadsheet	yes ☐ / no ☒	yes ☐ / no ☒
Report Database[1]		
List (PDF format)	yes ☒ / no ☐	yes ☒ / no ☐
Detail (PDF format)	yes ☒ / no ☐	yes ☒ / no ☐
Excel Spreadsheet	yes ☐ / no ☒	yes ☐ / no ☒
Include "Other" Reports [2]	yes ☐ / no ☒	yes ☐ / no ☒

4. Document PDFs (paper copy only upon request)**:**

	Within project area	Within 1/2 mi. radius
ARCHAEOLOGICAL Resource Records[1]	yes ☒ / no ☐	yes ☒ / no ☐
NON-ARCHAEOLOGICAL Resource Records	yes ☒ / no ☐	yes ☒ / no ☐
Reports[1]	yes ☒ / no ☐	yes ☒ / no ☐
"Other" Reports[2]	yes ☐ / no ☒	yes ☐ / no ☒

CHRIS Data Request Form

5. Eligibility Listings and Documentation:

	Within project area	Within 1/2 mi. radius
OHP Built Environment Resources Directory[3]:		
Directory listing only (Excel format)	yes ■ / no ☐	yes ☐ / no ■
Associated documentation[4]	yes ■ / no ☐	yes ☐ / no ■
OHP Archaeological Resources Directory[1,5]:		
Directory listing only (Excel format)	yes ■ / no ☐	yes ☐ / no ■
Associated documentation[4]	yes ■ / no ☐	yes ☐ / no ■
***California Inventory of Historic Resources* (1976):**		
Directory listing only (PDF format)	yes ■ / no ☐	yes ☐ / no ■
Associated documentation[4]	yes ■ / no ☐	yes ☐ / no ■

6. Additional Information:

The following sources of information may be available through the Information Center. However, several of these sources are now available on the OHP website and can be accessed directly. The Office of Historic Preservation makes no guarantees about the availability, completeness, or accuracy of the information provided through these sources. Indicate below if the Information Center should review and provide documentation (if available) of any of the following sources as part of this request.

Caltrans Bridge Survey	yes ■ / no ☐
Ethnographic Information	yes ☐ / no ■
Historical Literature	yes ☐ / no ■
Historical Maps	yes ■ / no ☐
Local Inventories	yes ■ / no ☐
GLO and/or Rancho Plat Maps	yes ■ / no ☐
Shipwreck Inventory	yes ☐ / no ■
Soil Survey Maps	yes ☐ / no ■

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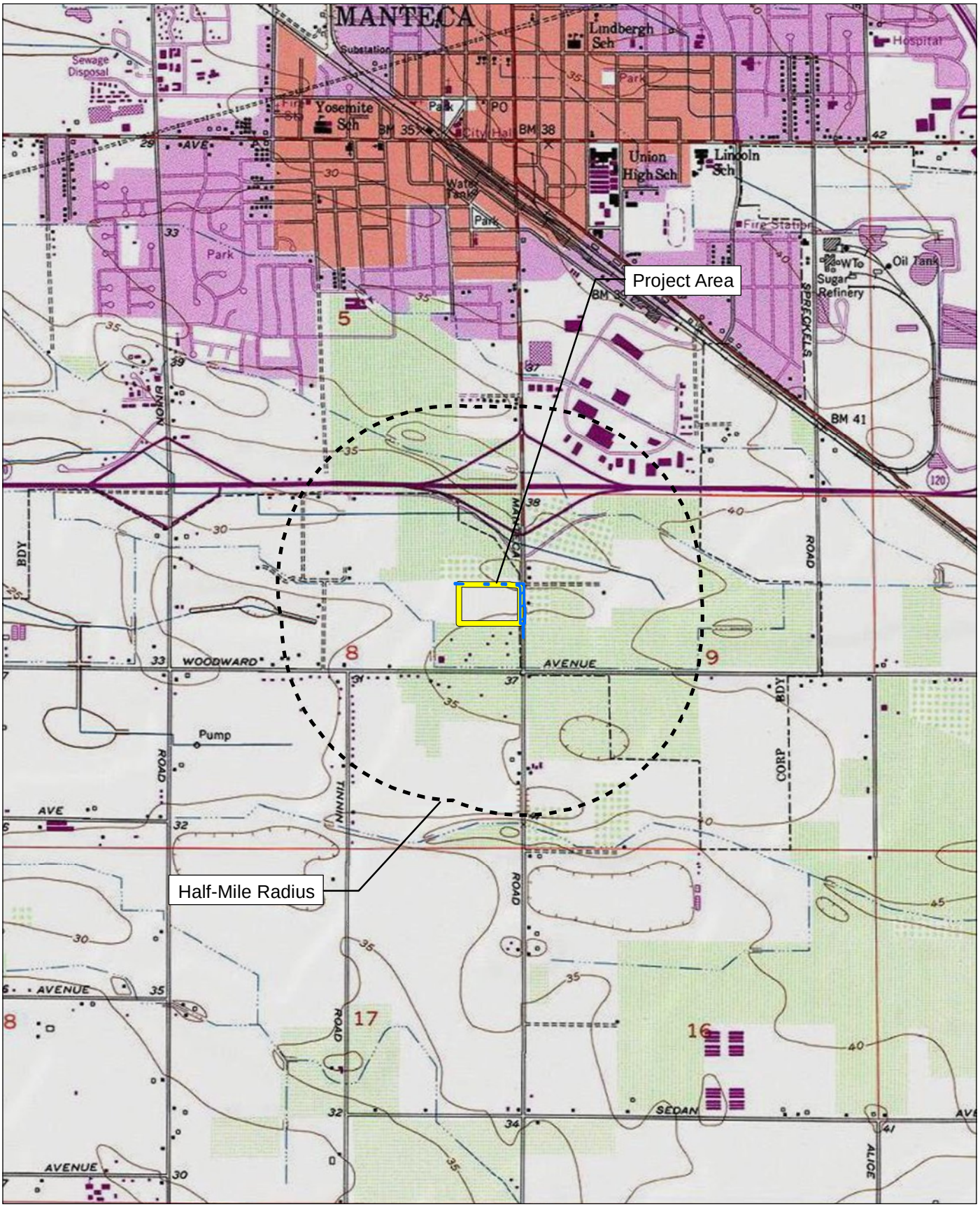
[1] In order to receive archaeological information, requestor must meet qualifications as specified in Section III of the current version of the California Historical Resources Information System Information Center Rules of Operation Manual and be identified as an Authorized User or Conditional User under an active CHRIS Access and Use Agreement.

[2] "Other" Reports GIS layer consists of report study areas for which the report content is almost entirely non-fieldwork related (e.g., local/regional history, or overview) and/or for which the presentation of the study area boundary may or may not add value to a record search.

[3] Provided as Excel spreadsheets with no cost for the rows; the only cost for this component is IC staff time. Includes, but not limited to, information regarding National Register of Historic Places, California Register of Historical Resources, California State Historical Landmarks, California State Points of Historical Interest, and historic building surveys. Previously known as the HRI and then as the HPD, it is now known as the Built Environment Resources Directory (BERD). The Office of Historic Preservation compiles this documentation and it is the source of the official status codes for evaluated resources.

[4] Associated documentation will vary by resource. Contact the IC for further details.

[5] Provided as Excel spreadsheets with no cost for the rows; the only cost for this component is IC staff time. Previously known as the Archaeological Determinations of Eligibility, now it is known as the Archaeological Resources Directory (ARD). The Office of Historic Preservation compiles this documentation and it is the source of the official status codes for evaluated resources.



Source: USGS Manteca 7.5' Quadrangle / T02S, R07E, sections: 4, 5, 8, 9

FIRSTCARBON SOLUTIONS™

2,000 1,000 0 2,000 Feet

Record Search Map

35600008 • 12/2021 | 35600008_record_search.mxd

CITY OF MANTECA
SOUTH MAIN PLAZA PROJECT

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
SJ-01900	NADB-R - 1360590	1993	Napton, L. K.	A Preliminary Cultural Resources Investigation of the South Manteca Area Plan, 7,800 acres in San Joaquin County, California.	CSU Stanislaus, Institute for Archaeological Research	39-000282
SJ-03810	NADB-R - 1364019	1999	Roper, C. K.	Attachment C: Cultural/Historical Resources, Pacific Bell Mobile Services SA-238-03, VERTEX Project No. 1391.	Sierra Valley Cultural Planning	
SJ-04682	NADB-R - 1364598	2001	Kobrin, Katherine	Request for Section 106 Findings/Determination, Verizon Site: 120/S. Main, County of San Joaquin (1153 Vanderbilt Circle, Manteca, California).	LFR Levine Fricke, Emeryville, California	
SJ-04786	NADB-R - 1364725	2002	Windmiller, Ric and Donald Napoli	City of Manteca--General Plan Update, Background Reports: Archaeological Resources, Historical Resources, Records Search Results.	Ric Windmiller, Consulting Archaeologist (and) Donald Napoli, of Historic Preservation Planning; for Wade Associates, Sacramento, CA	39-000002, 39-000015, 39-000098, 39-000099, 39-000102, 39-000103, 39-000111, 39-000282, 39-000354, 39-000681, 39-000682, 39-000683, 39-000684, 39-004148, 39-004188, 39-004189, 39-004190, 39-004191, 39-004192
SJ-05309	NADB-R - 1365195	2004	Baloian, M., R. Baloian, and W. Nettles	Cultural Resources Investigations for the South San Joaquin Irrigation District in San Joaquin County, California.	Applied Earthworks, Inc.; prepared for Russell Associates, Palo Alto, CA	39-000002, 39-000015, 39-000098, 39-000099, 39-000103, 39-000354, 39-004400, 39-004401, 39-004402, 39-004403, 39-004404, 39-004405, 39-004406, 39-004407, 39-004408, 39-004409, 39-004410, 39-004411, 39-004412, 39-004413, 39-004414, 39-004415, 39-004416, 39-004417
SJ-05808	NADB-R - 1365709	2005	Losee, C.	Collocation ("CO") Submission Packet, FCC Form 621, Cingular Wireless Cal-Concrete/T-Mobile, FS 031-C1.	ART	
SJ-06625	NADB-R - 1367290	1998	ASI Archaeology and Cultural Resource Management	Cultural Resources Survey, South County Surface Water Project, San Joaquin County, California, South San Joaquin Irrigation District	ASI Archaeology and Cultural Resource Management (prepared for Environmental Science Associates, Inc.)	39-000002, 39-000098, 39-000129, 39-000317, 39-000531, 39-000548, 50-000001
SJ-09247		2017	Falke, M. and K. Vallaire	Supplemental Archaeological Survey Report, State Route 120 at Union Road Interchange Project, Manteca, San Joaquin County, California; 10-SJ-120, P.M. 3.4/5.2, EA 10-0P200, ID 10-0000-0182	LSA Associates, Inc. for Caltrans	

Local Government Tribal Consultation List Request

Native American Heritage Commission
1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691
916-373-3710
916-373-5471 – Fax
nahc@nahc.ca.gov

Type of List Requested

☒ **CEQA Tribal Consultation List (AB 52)** – ***Per Public Resources Code § 21080.3.1, subs. (b), (d), (e) and 21080.3.2***

☐ **General Plan (SB 18)** - ***Per Government Code § 65352.3.***

Local Action Type:

☐ **General Plan** ☐ **General Plan Element** ☐ **General Plan Amendment**

☐ **Specific Plan** ☐ **Specific Plan Amendment** ☐ **Pre-planning Outreach Activity**

Required Information

Project Title: South Main Plaza Project

Local Government/Lead Agency: City of Manteca

Contact Person: Dr. Dana DePietro

Street Address: 1350 Treat Blvd. Ste. 380

City: Walnut Creek **Zip:** 94597

Phone: 530.219.1432 **Fax:**

Email: ddepietro@fcs-intl.com, mdolan@fcs-intl.com

Specific Area Subject to Proposed Action

County: Manteca **City/Community:** Manteca

Project Description:

The applicant is proposing to remove the existing single-family residence, garage, and ornamental landscaping and develop a 112,271 square-foot neighborhood shopping center on the project site. The shopping center would be anchored by a 50,071 square-foot grocery store and include a 38,000 square-foot hardware store with 10,000 square feet of outdoor sale space, a 7,200 square-foot retail shop building, a 5,900 square-foot retail shop building, three drive-thru restaurants ranging from 2,200 square feet to 3,050 square feet and a 3,500 square-foot gas station with fueling canopy.

Additional Request

☒ **Sacred Lands File Search** - ***Required Information:***

USGS Quadrangle Name(s): Manteca

Township: T02S **Range:** R07E **Section(s):** 4, 5, 8, 9



Photo 1: Bioturbation and soil exposure. View Plan.



Photo 2: Overview of project site from NE corner. View SW.



Photo 3: Overview of project site from NW corner. View SE



Photo 4: Overview of cleared orchard fields. View SE.



Photo 5: Overview of the project area from the SE corner. View NW.



Photo 6: Exposed soils with flora. View Plan.



Photo 7: Overview of project site from the SW corner. View NE.

Appendix F:
Energy Supporting Information

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Appendix E: Energy Supporting Information

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Energy Calculations **1**

Construction Trailer CalEEMod Output File **9**

Manteca Marketplace at Main —Energy Consumption Summary

Summary of Energy Use During Construction		
Construction vehicle fuel	66,461	gallons (gasoline, diesel)
Construction equipment fuel	84,745	gallons (diesel)
Construction office trailer electricity	10,652	kilowatt hours
Summary of Energy Use During Proposed Operations		(Annually)
Operational vehicle fuel consumption	718,442	gallons (gasoline, diesel)
Operational natural gas consumption	3,565,966	kilo-British Thermal Units
Operational electricity consumption	2,957,197	kilowatt hours

Construction Vehicle Fuel Calculations

California Air Resource Board (ARB). 2021. EMFAC2017 Web Database. Website: https://arb.ca.gov/emfac/2017/. Accessed April 4, 2022

EMFAC2017 (v1.0.2) Emissions Inventory
Region Type: County
Region: SAN JOAQUIN
Calendar Year: 2023
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption. Note 'day' in the unit is operation day.

VMT = Vehicle Miles Traveled
FE = Fuel Economy

							Calculations	
VehClass	MdlYr	Speed	Fuel	Population	VMT (mi/day)	Consumption (1000 gallons/day)	FE (mi/gallon)	VMT*FE
HHDT	Aggregated	Aggregated	GAS	1.937294118	216.587322	0.049194588	4.40266559	953.56155
HHDT	Aggregated	Aggregated	DSL	9794.815357	1332031.85	189.8518189	7.01616587	9345756.4
LDA	Aggregated	Aggregated	GAS	304868.3534	11794744.1	364.9020102	32.323045	381242044
LDA	Aggregated	Aggregated	DSL	2666.731115	110282.581	2.132014645	51.7269341	5704579.8
LDT1	Aggregated	Aggregated	GAS	30558.59397	1068327.18	38.5404167	27.7196581	29613664
LDT1	Aggregated	Aggregated	DSL	21.01613653	369.150661	0.015365706	24.0243221	8868.5944
LDT2	Aggregated	Aggregated	GAS	97797.16392	3543110.26	136.8911399	25.882685	91705207
LDT2	Aggregated	Aggregated	DSL	565.1522091	24411.2972	0.635318701	38.4237031	937972.43
LHDT1	Aggregated	Aggregated	GAS	7588.199792	240318.16	28.45064209	8.44684488	2029930.2
LHDT1	Aggregated	Aggregated	DSL	8460.104666	270366.73	15.00352826	18.02021	4872065.3
LHDT2	Aggregated	Aggregated	GAS	1041.986198	33461.4663	4.524431562	7.39572825	247471.91
LHDT2	Aggregated	Aggregated	DSL	2720.339035	90499.0266	5.603126258	16.1515237	1461697.2
MHDT	Aggregated	Aggregated	GAS	571.5959922	30857.2389	6.254930507	4.93326646	152226.98
MHDT	Aggregated	Aggregated	DSL	6712.808616	440983.154	45.30066228	9.73458513	4292788

Worker

Sum of VMT*FE (Column BI)	**509212336**
Total VMT	**16541245**
Weighted Average FE	**30.784403**

Vendor

Sum of VMT*FE (Column BI)	**22402890**
Total VMT	**2438734.2**
Weighted Average FE	**9.1862776**

Haul

Sum of VMT*FE (Column BI)	**9346710**
Total VMT	**1332248.4**
Weighted Average FE	**7.015741**

Construction Parameters

Source: AQ/GHG Appendix, CalEEMod Output
Manteca Marketplace at Main - San Joaquin County, Annual
Date: 3/26/2022 4:03 PM

Main Site Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days
Demolition	Demolition	6/1/2022	6/28/2022	5	20
Site Preparation	Site Preparation	6/29/2022	7/12/2022	5	10
Grading	Grading	7/13/2022	8/23/2022	5	30
Building Construction	Building Construction	8/24/2022	10/17/2023	5	300
Paving	Paving	10/18/2023	11/14/2023	5	20
Architectural Coating	Architectural Coating	11/15/2023	12/12/2023	5	20

Offsite Construction Schedule

Demolition	Demolition	6/1/2022	6/28/2022	5	20
Site Preparation	Site Preparation	6/29/2022	7/5/2022	5	5
Grading	Grading	7/6/2022	7/15/2022	5	8
Building Construction	Building Construction	7/16/2022	6/2/2023	5	230
Paving	Paving	6/3/2023	6/28/2023	5	18
Architectural Coating	Architectural Coating	6/29/2023	7/24/2023	5	18

Construction Trips and VMT

	Trips per Day		Total Trips	Construction Trip Length in Miles			Number of	Trips per Phase			VMT per Phase			Fuel Consumption (gallons)		
Phase Name	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Days per Phase	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trips	Vendor Trips	Hauling Trips	Worker Trips	Vendor Trips	Hauling Trips
Main Site Demolition	15	0	14	10.8	7.3	20	20	300	0	14	3,240	0	280	105.25	0.00	39.91
Mian Site Preparation	18	0	0	10.8	7.3	20	10	180	0	0	1,944	0	0	63.15	0.00	0.00
Main Site Grading	20	0	4,500	10.8	7.3	20	30	600	0	4,500	6,480	0	90,000	210.50	0.00	12,828.30
Main Site Building Construction	197	81	0	10.8	7.3	20	300	59,100	24,300	0	638,280	177,390	0	20,733.88	19,310.32	0.00
Main Site Paving	15	0	0	10.8	7.3	20	20	300	0	0	3,240	0	0	105.25	0.00	0.00
Main Site Architectural Coating	39	0	0	10.8	7.3	20	20	780	0	0	8,424	0	0	273.65	0.00	0.00
Offsite Demolition	15	0	0	10.8	7.3	20	20	300	0	0	3,240	0	0	105.25	0.00	0.00
Offsite Preparation	18	0	0	10.8	7.3	20	5	90	0	0	972	0	0	31.57	0.00	0.00
Offsite Grading	15	0	0	10.8	7.3	20	8	120	0	0	1,296	0	0	42.10	0.00	0.00
Offsite Building Construction	81	32	0	10.8	7.3	20	230	18,630	7,360	0	201,204	53,728	0	6,535.91	5,848.72	0.00
Offsite Paving	20	0	0	10.8	7.3	20	18	360	0	0	3,888	0	0	126.30	0.00	0.00
Offsite Architectural Coating	16	0	0	10.8	7.3	20	18	288	0	0	3,110	0	0	101.04	0.00	0.00

Construction Equipment Fuel Calculation

Source: AQ/GHG Appendix, CalEEMod Output
Manteca Marketplace at Main - San Joaquin County, Annual
Date: 3/26/2022 4:03 PM

Construction Schedule

CalEEMod Run	Phase Type	Start Date	End Date	Num Days Week	Num Days
Main Site Demolition	Demolition	6/1/2022	6/28/2022	5	20
Mian Site Preparation	Site Preparation	6/29/2022	7/12/2022	5	10
Main Site Grading	Grading	7/13/2022	8/23/2022	5	30
Main Site Building Construction	Building Construction	8/24/2022	10/17/2023	5	300
Main Site Paving	Paving	10/18/2023	11/14/2023	5	20
Main Site Architectural Coating	Architectural Coating	11/15/2023	12/12/2023	5	20
Offsite Demolition	Demolition	6/1/2022	6/28/2022	5	20
Offsite Preparation	Site Preparation	6/29/2022	7/5/2022	5	5
Offsite Grading	Grading	7/6/2022	7/15/2022	5	8
Offsite Building Construction	Building Construction	7/16/2022	6/2/2023	5	230
Offsite Paving	Paving	6/3/2023	6/28/2023	5	18
Offsite Architectural Coating	Architectural Coating	6/29/2023	7/24/2023	5	18

Construction Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor	Number of Days	HP Hours	Diesel Fuel Usage
Main Site Demolition	Concrete/Industrial Saws	1	8	81	0.73	20	9460.8	473.04
Demolition	Excavators	3	8	158	0.38	20	28819.2	1,440.96
Demolition	Rubber Tired Dozers	2	8	247	0.4	20	31616	1,580.80
Site Preparation	Rubber Tired Dozers	3	8	247	0.4	10	23712	1,185.60
Site Preparation	Tractors/Loaders/Backhoes	4	8	97	0.37	10	11484.8	574.24
Grading	Excavators	2	8	158	0.38	30	28819.2	1,440.96
Grading	Graders	1	8	187	0.41	30	18400.8	920.04
Grading	Rubber Tired Dozers	1	8	247	0.4	30	23712	1,185.60
Grading	Scrapers	2	8	367	0.48	30	84556.8	4,227.84
Grading	Tractors/Loaders/Backhoes	2	8	97	0.37	30	17227.2	861.36
Building Construction	Cranes	1	7	231	0.29	300	140679	7,033.95
Building Construction	Forklifts	3	8	89	0.2	300	128160	6,408.00
Building Construction	Generator Sets	1	8	84	0.74	300	149184	7,459.20
Building Construction	Tractors/Loaders/Backhoes	3	7	97	0.37	300	226107	11,305.35
Building Construction	Welders	1	8	46	0.45	300	49680	2,484.00
Paving	Pavers	2	8	130	0.42	20	17472	873.60
Paving	Paving Equipment	2	8	132	0.36	20	15206.4	760.32
Paving	Rollers	2	8	80	0.38	20	9728	486.40
Architectural Coating	Air Compressors	1	6	78	0.48	20	4492.8	224.64
Offsite Demolition	Concrete/Industrial Saws	1	8	81	0.73	20	9460.8	473.04
Demolition	Excavators	3	8	158	0.38	20	28819.2	1,440.96
Demolition	Rubber Tired Dozers	2	8	247	0.4	20	31616	1,580.80
Site Preparation	Rubber Tired Dozers	3	8	247	0.4	5	11856	592.80
Site Preparation	Tractors/Loaders/Backhoes	4	8	97	0.37	5	5742.4	287.12
Grading	Excavators	1	8	158	0.38	8	3842.56	192.13
Grading	Graders	1	8	187	0.41	8	4906.88	245.34
Grading	Rubber Tired Dozers	1	8	247	0.4	8	6323.2	316.16
Grading	Tractors/Loaders/Backhoes	3	8	97	0.37	8	6890.88	344.54
Building Construction	Cranes	1	7	231	0.29	230	107853.9	5,392.70
Building Construction	Forklifts	3	8	89	0.2	230	98256	4,912.80
Building Construction	Generator Sets	1	8	84	0.74	230	114374.4	5,718.72
Building Construction	Tractors/Loaders/Backhoes	3	7	97	0.37	230	173348.7	8,667.44
Building Construction	Welders	1	8	46	0.45	230	38088	1,904.40
Paving	Cement and Mortar Mixers	2	6	9	0.56	18	1088.64	54.43
Paving	Pavers	1	8	130	0.42	18	7862.4	393.12
Paving	Paving Equipment	2	6	132	0.36	18	10264.32	513.22
Paving	Rollers	2	6	80	0.38	18	6566.4	328.32
Paving	Tractors/Loaders/Backhoes	1	8	97	0.37	18	5168.16	258.41
Architectural Coating	Air Compressors	1	6	78	0.48	18	4043.52	202.18

Total Construction Equipment Fuel Consumption (gallons) **84,744.52**

Construction Office Electricity Calculation

Source: AQ/GHG Appendix, CalEEMod Output

Manteca Marketplace at Main Construction Trailer - San Joaquin County, Annual

Date: 4/4/2022 11:36 PM

kWh/yr = kilowatt hours per year

Energy by Land Use - Electricity

Annual	6,955	kWh/yr
Total Over Construction	**10,652**	**kWh**

Total Construction Schedule

Start	6/1/2022
End	12/12/2023
Total Calendar Days	559
Years	1.53

Project Operational Fuel Calculation

California Air Resource Board (ARB). 2021. EMFAC2017 Web Database. Website: https://arb.ca.gov/emfac/2017/. Accessed April 4, 2022

EMFAC2017 (v1.0.2) Emissions Inventory
Region Type: County
Region: SAN JOAQUIN
Calendar Year: 2023
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption. Note 'day' in the unit is operation day.

VMT = Vehicle Miles Traveled
FE = Fuel Economy

							Calculations	
VehClass	MdlYr	Speed	Fuel	Population	VMT	Fuel Consumption	FE	VMT*FE
HHDT	Aggregated	Aggregated	GAS	1.937294118	216.5873218	0.049194588	4.402665593	953.5615493
HHDT	Aggregated	Aggregated	DSL	9794.815357	1332031.852	189.8518189	7.016165872	9345756.424
LDA	Aggregated	Aggregated	GAS	304868.3534	11794744.1	364.9020102	32.323045	381242044.3
LDA	Aggregated	Aggregated	DSL	2666.731115	110282.581	2.132014645	51.72693409	5704579.798
LDT1	Aggregated	Aggregated	GAS	30558.59397	1068327.175	38.5404167	27.71965814	29613664.08
LDT1	Aggregated	Aggregated	DSL	21.01613653	369.1506605	0.015365706	24.02432212	8868.594378
LDT2	Aggregated	Aggregated	GAS	97797.16392	3543110.257	136.8911399	25.88268502	91705206.78
LDT2	Aggregated	Aggregated	DSL	565.1522091	24411.29716	0.635318701	38.4237031	937972.4343
LHDT1	Aggregated	Aggregated	GAS	7588.199792	240318.1604	28.45064209	8.446844875	2029930.221
LHDT1	Aggregated	Aggregated	DSL	8460.104666	270366.7305	15.00352826	18.02021003	4872065.269
LHDT2	Aggregated	Aggregated	GAS	1041.986198	33461.46631	4.524431562	7.395728248	247471.9116
LHDT2	Aggregated	Aggregated	DSL	2720.339035	90499.0266	5.603126258	16.15152371	1461697.174
MCY	Aggregated	Aggregated	GAS	13911.52666	99040.6004	2.664914402	37.16464601	3680808.854
MDV	Aggregated	Aggregated	GAS	89188.50739	2819157.575	137.9187402	20.44071438	57625594.78
MDV	Aggregated	Aggregated	DSL	1866.440937	72320.20825	2.594864446	27.87051492	2015601.443
MH	Aggregated	Aggregated	GAS	1537.363153	12464.10412	2.586895773	4.818170197	60054.17499
MH	Aggregated	Aggregated	DSL	646.8613917	5232.545187	0.53342937	9.809255886	51327.37467
MHDT	Aggregated	Aggregated	GAS	571.5959922	30857.23888	6.254930507	4.93326646	152226.9816
MHDT	Aggregated	Aggregated	DSL	6712.808616	440983.1535	45.30066228	9.734585132	4292788.049
OBUS	Aggregated	Aggregated	GAS	192.1354494	8849.174547	1.837806905	4.815073075	42609.4221
OBUS	Aggregated	Aggregated	DSL	89.99258276	6809.258534	0.850705357	8.00425021	54503.00905
SBUS	Aggregated	Aggregated	GAS	51.51176262	2562.891763	0.266996861	9.598958404	24601.09142
SBUS	Aggregated	Aggregated	DSL	617.2679882	19367.26048	2.419429674	8.004886726	155032.7263
UBUS	Aggregated	Aggregated	GAS	16.30644919	1484.600773	0.301655058	4.921517911	7306.489297
UBUS	Aggregated	Aggregated	DSL	62.05561311	4863.124921	0.662521759	7.340324836	35696.91664

Sum of VMT*FE **595368361.9**
Total VMT **22032130.12**
Weighted Average FE (miles/gallon) **27.0227**

Total VMT

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	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	3,207.60	3,207.60	1606.50	2,967,510	2,967,510
City Park	0.00	0.00	0.00		
City Park	0.00	0.00	0.00		
Fast Food Restaurant with Drive Thru	4,067.37	5,360.58	4111.74	3,978,779	3,978,779
Hardware/Paint Store	3,538.94	4,350.24	3178.70	5,242,034	5,242,034
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Strip Mall	1,164.13	1,431.00	1045.63	1,825,434	1,825,434
Supermarket	4,663.02	5,732.01	4188.36	5,400,495	5,400,495
Total	16,641.05	20,081.43	14,130.92	19,414,253	19,414,253

	Annual VMT (miles)	Fuel Consumption	
Total VMT	19,414,253	**718,442**	**gallons per year**

Project Operations Natural Gas Use

Source: AQ/GHG Appendix, CalEEMod Output
Manteca Marketplace at Main - San Joaquin County, Annual
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kBTU/yr = kilo-British Thermal Units/year

Land Use	Natural Gas Use (kBTU/yr)
Automobile Care Center	66346.2
City Park	0
Fast Food Restaurant with Drive Thru	981090
Hardware/Paint Store	440,040
Other Non-Asphalt Surfaces	0
Parking Lot	0
Strip Mall	144750
Supermarket	1933740
Total	**3,565,966 kBTU/yr**

Project Operations Electricity Use

Source: AQ/GHG Appendix, CalEEMod Output

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kWh/yr = kilowatt hours per year

Land Use	Electricity Use (kWh/yr)	
Automobile Care Center	29774.9	
City Park	0	
Fast Food Restaurant with Drive Thru	276300	
Hardware/Paint Store	432060	
Other Non-Asphalt Surfaces	0	
Parking Lot	6990.2	
Parking Lot	85636.9	
Strip Mall	142125	
Supermarket	1.98E+06	
Total	**2,957,197**	**kWh/yr**

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

Manteca Marketplace at Main Construction Trailer

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	0.72	1000sqft	0.02	720.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	51
Climate Zone	2			**Operational Year**	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Note 1

Construction Phase - Note 2

Demolition - Note 1

Grading - Note 3

Architectural Coating - Note 2

Vehicle Trips - Note 4

Area Coating - Note 2

Construction Off-road Equipment Mitigation - Note 5

Area Mitigation -

Table Name	Column Name	Default Value	New Value
Appendix E			

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

tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	5.5200e-003	3.5200e-003	4.5300e-003	1.0000e-005	0.0000	2.0000e-004	2.0000e-004	0.0000	2.0000e-004	2.0000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6394
Maximum	**5.5200e-003**	**3.5200e-003**	**4.5300e-003**	**1.0000e-005**	**0.0000**	**2.0000e-004**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**2.0000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6394**

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	5.5200e-003	3.5200e-003	4.5300e-003	1.0000e-005	0.0000	2.0000e-004	2.0000e-004	0.0000	2.0000e-004	2.0000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6394
Maximum	**5.5200e-003**	**3.5200e-003**	**4.5300e-003**	**1.0000e-005**	**0.0000**	**2.0000e-004**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**2.0000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6394**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

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	3.3100e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005
Energy	6.0000e-005	5.8000e-004	4.8000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	1.2698	1.2698	1.2000e-004	2.0000e-005	1.2799
Mobile	2.4500e-003	3.6700e-003	0.0220	5.0000e-005	4.7300e-003	4.0000e-005	4.7700e-003	1.2600e-003	4.0000e-005	1.3000e-003	0.0000	4.4936	4.4936	2.7000e-004	2.5000e-004	4.5739
Waste						0.0000	0.0000		0.0000	0.0000	0.1360	0.0000	0.1360	8.0400e-003	0.0000	0.3369
Water						0.0000	0.0000		0.0000	0.0000	0.0406	0.0895	0.1301	4.1800e-003	1.0000e-004	0.2645
Total	**5.8200e-003**	**4.2500e-003**	**0.0225**	**5.0000e-005**	**4.7300e-003**	**8.0000e-005**	**4.8100e-003**	**1.2600e-003**	**8.0000e-005**	**1.3400e-003**	**0.1766**	**5.8529**	**6.0295**	**0.0126**	**3.7000e-004**	**6.4553**

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

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	3.3100e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005
Energy	6.0000e-005	5.8000e-004	4.8000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	1.2698	1.2698	1.2000e-004	2.0000e-005	1.2799
Mobile	2.4500e-003	3.6700e-003	0.0220	5.0000e-005	4.7300e-003	4.0000e-005	4.7700e-003	1.2600e-003	4.0000e-005	1.3000e-003	0.0000	4.4936	4.4936	2.7000e-004	2.5000e-004	4.5739
Waste						0.0000	0.0000		0.0000	0.0000	0.1360	0.0000	0.1360	8.0400e-003	0.0000	0.3369
Water						0.0000	0.0000		0.0000	0.0000	0.0406	0.0895	0.1301	4.1800e-003	1.0000e-004	0.2645
Total	**5.8200e-003**	**4.2500e-003**	**0.0225**	**5.0000e-005**	**4.7300e-003**	**8.0000e-005**	**4.8100e-003**	**1.2600e-003**	**8.0000e-005**	**1.3400e-003**	**0.1766**	**5.8529**	**6.0295**	**0.0126**	**3.7000e-004**	**6.4553**

	ROG	NOx	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	Architectural Coating	Architectural Coating	11/12/2022	11/18/2022	5	5	

Acres of Grading (Site Preparation Phase): 0

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

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,080; Non-Residential Outdoor: 360; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	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
Architectural Coating	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	5.0100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.1000e-004	3.5200e-003	4.5300e-003	1.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6394

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

Total	**5.5200e-003**	**3.5200e-003**	**4.5300e-003**	**1.0000e-005**		**2.0000e-004**	**2.0000e-004**		**2.0000e-004**	**2.0000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6394**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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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	5.0100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.1000e-004	3.5200e-003	4.5300e-003	1.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6394
Total	**5.5200e-003**	**3.5200e-003**	**4.5300e-003**	**1.0000e-005**		**2.0000e-004**	**2.0000e-004**		**2.0000e-004**	**2.0000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6394**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	2.4500e-003	3.6700e-003	0.0220	5.0000e-005	4.7300e-003	4.0000e-005	4.7700e-003	1.2600e-003	4.0000e-005	1.3000e-003	0.0000	4.4936	4.4936	2.7000e-004	2.5000e-004	4.5739
Unmitigated	2.4500e-003	3.6700e-003	0.0220	5.0000e-005	4.7300e-003	4.0000e-005	4.7700e-003	1.2600e-003	4.0000e-005	1.3000e-003	0.0000	4.4936	4.4936	2.7000e-004	2.5000e-004	4.5739

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	7.01	1.59	0.50	12,686	12,686
Total	7.01	1.59	0.50	12,686	12,686

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
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH

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

General Office Building	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.003707

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	0.6435	0.6435	1.0000e-004	1.0000e-005	0.6499
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.6435	0.6435	1.0000e-004	1.0000e-005	0.6499
NaturalGas Mitigated	6.0000e-005	5.8000e-004	4.8000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.6263	0.6263	1.0000e-005	1.0000e-005	0.6300
NaturalGas Unmitigated	6.0000e-005	5.8000e-004	4.8000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.6263	0.6263	1.0000e-005	1.0000e-005	0.6300

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					
General Office Building	11736	6.0000e-005	5.8000e-004	4.8000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.6263	0.6263	1.0000e-005	1.0000e-005	0.6300
Total		**6.0000e-005**	**5.8000e-004**	**4.8000e-004**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.6263**	**0.6263**	**1.0000e-005**	**1.0000e-005**	**0.6300**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	11736	6.0000e-005	5.8000e-004	4.8000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.6263	0.6263	1.0000e-005	1.0000e-005	0.6300
Total		**6.0000e-005**	**5.8000e-004**	**4.8000e-004**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.6263**	**0.6263**	**1.0000e-005**	**1.0000e-005**	**0.6300**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
General Office Building	6955.2		0.6435	1.0000e-004	1.0000e-005	0.6499
Total			**0.6435**	**1.0000e-004**	**1.0000e-005**	**0.6499**

Mitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
General Office Building	6955.2		0.6435	1.0000e-004	1.0000e-005	0.6499
Total			**0.6435**	**1.0000e-004**	**1.0000e-005**	**0.6499**

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	3.3100e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005
Unmitigated	3.3100e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	5.0000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.8100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005
Total	**3.3100e-003**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0000e-005**	**1.0000e-005**	**0.0000**	**0.0000**	**1.0000e-005**

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

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	5.0000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.8100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005
Total	**3.3100e-003**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0000e-005**	**1.0000e-005**	**0.0000**	**0.0000**	**1.0000e-005**

7.0 Water Detail

7.1 Mitigation Measures Water

		Total CO2	CH4	N2O	CO2e
Category	tons/yr	MT/yr			
Mitigated		0.1301	4.1800e-003	1.0000e-004	0.2645
Unmitigated		0.1301	4.1800e-003	1.0000e-004	0.2645

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

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
General Office Building	0.127968 / 0.0784322		0.1301	4.1800e-003	1.0000e-004	0.2645
Total			**0.1301**	**4.1800e-003**	**1.0000e-004**	**0.2645**

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

Mitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
General Office Building	0.127968 / 0.0784322		0.1301	4.1800e-003	1.0000e-004	0.2645
Total			**0.1301**	**4.1800e-003**	**1.0000e-004**	**0.2645**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

		Total CO2	CH4	N2O	CO2e
	tons/yr	MT/yr			
Mitigated		0.1360	8.0400e-003	0.0000	0.3369
Unmitigated		0.1360	8.0400e-003	0.0000	0.3369

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

8.2 Waste by Land Use

Unmitigated

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
General Office Building	0.67		0.1360	8.0400e-003	0.0000	0.3369
Total			**0.1360**	**8.0400e-003**	**0.0000**	**0.3369**

Mitigated

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
General Office Building	0.67		0.1360	8.0400e-003	0.0000	0.3369
Total			**0.1360**	**8.0400e-003**	**0.0000**	**0.3369**

9.0 Operational Offroad

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

Manteca Marketplace at Main Construction Trailer - San Joaquin County, Annual

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Appendix G:
Geology and Soils Supporting Information

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August 13, 2021 CTE Job No. 25-1140G

Attn: Mark Patterson
California Gold Development Corp
133 Old Wards Ferry Road, Suite G
Sonora, CA 95370
P: 209-553-3333
E: mark@calgolddevelopment.com

Subject: Geotechnical Engineering Investigation
New Apartment Buildings, Pool, and Community Center
S. Main Street & Atherton Drive
Manteca, CA 95337

Dear Mr. Patterson,

In accordance with your request and authorization of CTE Cal Inc. (CTE) proposal dated July 7, 2021, CTE has completed a geotechnical investigation at the above referenced project site. The attached report contains the results of our subsurface investigation, laboratory testing program, and engineering evaluation of the geotechnical and geological elements of the project site. Specifically, the report provides geotechnical engineering design parameters and construction recommendations for the design and development of the proposed project structures and site improvements.

Based on CTE's subsurface investigations, site materials testing, and our geotechnical and engineering evaluation, the project is considered feasible from a geotechnical standpoint provided the recommendations contained in the attached report are incorporated into the project design and construction. If you have any questions regarding our findings or recommendations, please do not hesitate to contact this office. The opportunity to be of service is appreciated.

Respectfully submitted,

CTE Cal, Inc.

Mike Kennedy PE 88971
Project Engineer

REGISTERED PROFESSIONAL ENGINEER
MICHAEL H KENNEDY
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GEOTECHNICAL ENGINEERING INVESTIGATION
NEW APARTMENT BUILDINGS, POOL, AND COMMUNITY CENTER
S. MAIN STREET & ATHERTON DRIVE
MANTECA, CA 95337

PREPARED FOR:

MARK PATTERSON
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CTE JOB NO.: 25-1140G **August 13, 2021**

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FIGURES

FIGURE 1 INDEX MAP
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1.0 INTRODUCTION AND SCOPE OF SERVICES

1.1 Introduction

This report presents the results of the Geotechnical Engineering Investigation, performed by CTE Cal, Inc. (CTE) for the proposed development consisting of designing and constructing seven 2-3 story apartment buildings, a pool and spa, community center, grocery store, hardware store, retail shops, commercial buildings, and associated improvements. The developments are to be constructed south of W. Atherton Drive and west of S. Main Street, in Manteca, California. The report provides conclusions and recommendations regarding the geotechnical design parameters and construction recommendations for the proposed development.

The investigation contained herein included surface and subsurface field explorations, laboratory testing of site soil deposits, geologic and seismic hazard evaluation of the project site, and engineering evaluation and analysis of the proposed project site and improvements. Based on the results of the investigation and analysis performed by CTE the project is considered feasible if the recommendations contained herein are incorporated into the design and construction of the project. References utilized in the investigation and analyses cited are presented in Appendix A.

1.2 Scope of Services

The scope of services provided for this investigation included:

- Review of readily available geologic reports and documents pertinent to the site area.
- Explorations to determine subsurface conditions to the depths influenced by the proposed construction.
- Laboratory testing of representative soil samples to provide data to evaluate the geotechnical design characteristics of the site foundation soils.
- Determination of the general geology and evaluation of potential geologic seismic hazards at the site.
- Preparation of this report describing the investigations performed and providing opinions/conclusions and geotechnical engineering recommendations for design and construction.

2.0 SITE AND PROJECT DESCRIPTION

The project site is located at 1601 S. Main Street in Manteca, California and consists of an approximately 18.4 ± acre parcel (APN 224-021-047). The project site is bounded by W. Atherton Drive to the north, Main Street to the east, and residential properties to the west and south. At the time of our field reconnaissance, the site consisted of a relatively flat vacant lot covered by native vegetation.

The project is proposed to consist of the design and construction of seven 2-3 story apartment buildings, a pool and spa, and ±3500 sf community center, grocery store, hardware store, retail shops, and commercial buildings. Asphalt parking and drive areas as well as associated site improvements are also proposed. Figure 1, Site Index Map, at the end of this report, shows the general location of the sites. Figure 2 and Figure 2A, Exploration Maps, shows the configuration of the proposed project.

3.0 FIELD AND LABORATORY INVESTIGATIONS

3.1 Field Investigations

The field exploration program included performing a site reconnaissance and excavating 5 new exploratory borings on the western half of the parcel in order to determine the geometry and geotechnical characteristics of subsurface geologic deposits at the site areas proposed for new construction. CTE had previously drilled and sampled 5 exploratory borings on the eastern portion of the parcel. In both explorations, representative samples of the subsurface soil deposits were obtained from the soil boring for use in laboratory testing to determine the engineering properties and geotechnical parameters recommended for design. The borings, designated B-1 through B-5 (2021) and B-1 through B-10 (2017), were excavated using a truck-mounted drill rig using four-inch outer diameter solid stem flight augers to the auger refusal depth drilled of approximately 31.5 feet below existing ground surface (bgs).

The field subsurface exploration program included performing Standard Penetration Tests (SPT) using a standard split barrel sampler (1.4-inch inside diameter, 2-inch outside diameter) which was operated in accordance with ASTM D-1586. The drive sampler was utilized to obtain samples of

the subsurface soils at depth intervals of 2-ft, 5-ft,10-ft, 15-ft, 20-ft, 25-ft and 30-ft by driving the sampler into the bottom of the borehole with successive blows of a 140-pound hammer free-falling 30 inches. The number of blows required to drive the sampler three, six-inch intervals (18-inches total of sampler penetration) at each sampling location was recorded and the raw results of the drive sampler testing are shown on the boring logs (contained in Appendix B) in the column "Blows/6 inches". The standard penetration blow counts (N) were collected and used during the geotechnical engineering evaluation and analysis to correlate soil strength and structure bearing characteristics.

Soils were logged in the field by a CTE Field Geologist and were classified based on the Unified Soil Classification System (ASTM D2487), sampler drive resistance, field testing, and visual observations. Exploration logs prepared for each of the borings provide soil descriptions, and blow count data. The boring logs are included in Appendix B which also contains the Boring Log Legend and Definition of Soil Terminology as shown on Plates BL1 and BL2, respectively. The location of the test boring is shown on Figure 2 and Figure 2A at the end of this report.

Relatively undisturbed soil samples were obtained from the drive sampler during exploration activities. The samples were collected in capped, stainless steel sample tubes or placed in zip lock plastic bags. Bulk soil samples were recovered directly from drill cuttings or were obtained from surface deposits and placed in sample bags.

Soil samples were then transported to CTE's laboratory for further testing. Field descriptions within the boring logs have been modified, where appropriate, to reflect laboratory test results. Upon completion of drilling, the borings were backfilled from final boring depth to original ground surface. Details of the soils encountered are shown on the Boring Logs which are presented in Appendix B.

Field investigation and subsurface exploration oversight was performed by an experienced geological engineer from this office. Soils were logged and field classified using the Unified Soil Classification (USC) System as to consistency, color, texture, and gradation, on the bases of drill

action, drive sampler penetration and examination of soil samples and drill cuttings. Soil materials encountered within the percolation test hole was generally consistent with those encountered within the geotechnical borings.

3.2 Laboratory Testing Program

Laboratory tests were conducted on representative soil samples for classification purposes and to evaluate physical properties and engineering characteristics. Laboratory tests conducted on representative soil samples collected from the borings included in situ moisture content, dry density, and relative fines content. Test method descriptions and laboratory test results are presented in Appendix C.

4.0 GEOLOGY

4.1 General Geologic Setting

The site lies within the northwest-trending San Joaquin Valley, which generally represents the northern portion of the Great Valley Geomorphic Province, in Central California. The San Joaquin Valley is a nearly flat alluvial plain bounded to the east by the Coast Ranges and to the west by the Sierra Nevada's. Basin and river sediments constitute the typical depositional history. The most recent deposits consist of Holocene alluvium from present day creeks and rivers, such as the San Joaquin River to the west and the Stanislaus River to the south of the project site.

Based on geologic reconnaissance and observations made within the test borings, alluvial materials encountered during the investigation are considered to be consistent with Quaternary basin deposits as shown on published regional geologic map of the San Francisco - San Jose Quadrangle, prepared by Wagner et al. (1991). The mapped area shows one surficial geologic unit, Holocene Dune Sand deposits (Qs).

4.2 Generalized Soil Conditions

Soil materials encountered in our site explorations are consistent with the above referenced published geologic mapping. Soil materials encountered on site generally consisted of loose to

dense silty fine sands (SM) with beds of low plastic sandy clays (CL), clayey sands (SC) and sandy silts (ML) located at deeper depths.

Since the earth material profile described above is generalized, the reader is advised to consult the Test Boring Log contained in Appendix B, if determination of the earth material conditions at a specific depth and location are desired. The boring logs contain a more detailed earth material description regarding color, earth material type, and Unified Soil Classification System (USCS) symbol. It should be noted that earth material conditions cannot be fully determined by test borings and earth material sampling and testing. Hence, unexpected earth material conditions might be encountered during construction. If soil deposits encountered during construction vary substantially from materials encountered during the investigation, appropriate recommendations will be made during construction.

4.3 Groundwater Conditions

Observations of groundwater conditions were made in the test borings at the time of field exploration. Groundwater was encountered at 18 feet bgs during 2021 explorations and at approximately 15 feet bgs during 2017 explorations. Based on information contained on the California SGMA Data Viewer site (https://sgma.water.ca.gov/webgis/?appid=SGMADataViewer#gwlevels), ground water levels measured as groundwater contour lines near the site are typically between 15 to 36 feet bgs in the fall seasons and typically between 13 to 27 feet bgs in the spring seasons.

Groundwater levels can fluctuate on a seasonal basis due to changes in precipitation, irrigation, pumping, etc., and might increase above the levels. With proper drainage groundwater is not expected to affect the proposed development. However, excavations below groundwater level will be impacted by seepage; therefore, we recommend grading and utility excavations be performed during dry-season when ground water levels are lowest.

If construction is undertaken during wet-season/heavy-rains, saturated soils will not be expected to be acceptable for grading or compaction and could hamper progress due to limited equipment

mobility and/or inability to achieve appropriate moisture content to achieve required soil compaction. Saturated soils resulting from significant precipitation events may need to be dried by aeration or an additive, such as lime, cement, or kiln dust added to stabilize the working surface and allow for proper soil compaction. Moisture conditioning (drying or wetting) of the engineered fill will likely be needed for the project. Appropriate erosion control and permanent site surface drainage elements per the latest California Building Code should be designed and implemented as per the project civil engineer.

4.4 Geologic Hazards

Based on the investigation it appears that geologic hazards at the site are primarily limited to those caused by violent shaking from earthquake generated ground motion waves. The subject site is not located within a seismic hazard zone for susceptibility to liquefaction or landslides. The subject site is not in an Alquist-Priolo special studies zone. The underlying undisturbed soils encountered are considered adequate for support of moderately loaded structures with conventional shallow foundations. The soil conditions, groundwater level, and relatively short distances to several faults are significant geotechnical concerns that also control the selection of suitable foundation support for the proposed improvements. Design and construction recommendations presented herein have been developed based on the noted site conditions.

4.5 General Geologic Hazards Observation

Based on the site reconnaissance and review of the referenced literature, the site is not within a State of California-designated Alquist-Priolo Earthquake Fault Studies Zone (http://maps.conservation.ca.gov/cgs/fam/), and no known active fault traces shown on published hazard mapping underlie or project toward the site. According to the California Division of Mines and Geology, a fault is active if it displays evidence of activity in the last 11,000 years (Hart and Bryant, revised 2007). Therefore, the potential for surface rupture from displacement or fault movement directly beneath the proposed improvements is considered low.

4.6 Local and Regional Faulting

The California Geological Survey (CGS) and the United States Geological Survey (USGS) broadly group faults as "Class A" or "Class B". Class A faults are identified based upon relatively well-defined paleoseismic activity, and a fault-slip rate of more than 5 millimeters per year (mm/yr). In contrast, Class B faults have comparatively less defined paleoseismic activity and typically have a fault-slip rate less than 5 mm/yr. The nearest known Class A fault is the Calaveras; CN Fault located approximately 38.1 miles from the site and the nearest known Class B fault is the Great Valley 7 located approximately 13.8 miles from the site (U.S. Geological Survey (CGS), 2006, Quaternary fault and fold database for the United States, accessed 7/26/2021, USGS web site https://earthquake.usgs.gov/cfusion/hazfaults_2008_search/query_results.cfm). Information for other principal regional faults is included in Table 4.6 below.

TABLE 4.6
NEAR SITE FAULT PARAMETERS

FAULT NAME	DISTANCE FROM SITE (MILES)	MAXIMUM EARTHQUAKE MAGNITUDE	SLIP RATE (MM/YR)
Great Valley 7	13.8	6.9	1.5
Great Valley 8	24.02	6.8	1.5
Greenville Connected	24.26	7	2
Mount Diablo Thrust	33.19	6.7	2
Ortigalita	35.21	7.1	1
Great Valley 5, Pittsburg Kirby Hills	37.87	6.7	1
Calaveras;CN	38.1	6.87	6
Calaveras;CC	39.55	6.39	15
Calaveras;CC+CS	39.55	6.5	15
Hayward-Rodgers Creek;RC+HN+HS	41.15	7.33	9

4.7 Liquefaction and Seismic Settlement Evaluation

Liquefaction occurs when saturated fine-grained sands and/or silts lose their physical strength temporarily during earthquake induced shaking and behave as a liquid. This is due to loss of point-to-point grain contact and transfer of normal stress to the pore water. Liquefaction potential varies with water level, soil type, material gradation, relative density, and probable intensity and duration of ground shaking.

The California Geological Survey (CGS) has designated certain areas within California as potential liquefaction hazard zones. These mapped areas are considered at risk of liquefaction-related ground failure during a seismic event based upon mapped surficial deposits. The project site is not currently mapped for potential liquefaction hazard by the CGS (refer to CGS website: (http://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=regulatorymaps). Based on readily available published geologic information, there is no historical record of liquefaction occurring at the site.

Based on our explorations the soil deposits at the site consist of loose to dense silty fine sands (SM), sandy clays (CL), clayey sands (SC) and sandy silts (ML). Based on the site location, relatively low intensity of ground shaking, ground water depth, and the consistency of the subsurface materials the possibility of large differential settlements due to seismic dry sand settlement or liquefaction is considered low. Therefore, the potential for catastrophic building collapse due to a seismic liquefaction event are not likely in an area of relatively dense / stiff soil deposits and low seismic frequency and ground acceleration.

4.8 Earthquake Induced Landsliding

Based on information available on the California Geological Survey (CGS) website (http://maps.conservation.ca.gov/cgs/lsi/) the subject site is not currently mapped within a State of California Seismic Hazard Zone for seismically induced landsliding. Furthermore, no evidence of landsliding was observed during site reconnaissance. Therefore, seismically induced and/or other landslides are not considered a potential hazard at the site.

4.9 Tsunamis and Seiche Evaluation

Based on site location, elevation, and tsunami hazard mapping from the CGS website (http://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=tsunami) the site is not in a tsunami inundation hazard zone. In addition, oscillatory waves (seiches) are considered unlikely due to the absence of large confined bodies of water in the site area.

4.10 Compressible and Expansive Soils

Surficial soils existing at the site within the upper 2 feet in most areas of the site are loose and are therefore not suitable for structure or improvement support in their current state. The upper 5 feet of soil in the area represented by Borings B-1 and B-4 (shown on Figure 2) are loose. These surficial soils will require remedial grading per Section 5.2. Site soils encountered below these surficial soils are described as silty and clayey sands, sandy silts, and sandy clays, and are not considered subject to significant compression under anticipated loads. In addition, soils encountered generally had low plasticity or were non-plastic within the depth of influence; therefore, they would not be expected to exhibit significant expansive characteristics.

4.11 Soil Corrosion Potential

Assessment for potential of soil corrosion on construction materials was conducted in 2017. Corrosion Guidelines by the California Department of Transportation Division of Engineering Services, Corrosion Technology Branch, Version 1.0, dated September 2003 indicate the following:

For Structural Elements, the Department considers a site to be corrosive if one or more of the following conditions exist for the representative soil and water samples taken at the site.
Chloride concentration is 500 ppm or greater, sulfate concentration is 2000 ppm or greater, or the pH is 5.5 or less.

Soil samples were obtained for corrosion analyses at B-3, see Figure 2A for location. Based on these guidelines and soil characteristics, it is anticipated that the subject site would be considered “non corrosive” to concrete improvements.

As requested, CTE also ran soil suitability for landscaping areas, please see the detailed report in Appendix C for further information.

CTE does not practice corrosion engineering. Therefore, if corrosion of proposed improvements is of more significant concern, a qualified corrosion engineer/consultant could be consulted.

4.12 Flooding Hazard Potential

Based on FEMA flood insurance map for City of Manteca, California, Map No. 06077C0640F, (2009) to assess the potential for flooding of the site. Based on a review of the noted map, the site is located in a designated zone, "AREA OF MINIMAL FLOOD HAZARD - Zone X", areas determined to be outside the 0.2 percent chance of flooding in a given year, which corresponds to a 500-year flood plain, meaning it does not reside within a 500-year flood plain.

5.0 CONCLUSIONS AND RECOMMENDATIONS

We conclude that the proposed construction is feasible from a geotechnical standpoint, provided the recommendations in this report are incorporated into the design of the project. Recommendations for the design and construction of the proposed structures and associated improvements are included below.

5.1 Site Preparation

Project site stripping should include the demolition, removal and disposal of all asphalt and concrete debris, vegetation, other organic material in all proposed building pad and improvement areas. CTE shall observe grading operations and confirm that footings from the previous residential structure have been removed in full. Any undocumented fill encountered shall be removed and evaluated for re-use by CTE. Loose, wet or otherwise unstable soil in the proposed improvement area should be excavated and evaluated by CTE for possible re-use as engineered fill or disposed of offsite. Utilities that extend into the construction area and are scheduled to be abandoned should be properly capped at the perimeter of the construction zone or moved as directed in the plans. CTE personnel shall observe and confirm that all asphalt and concrete debris,

vegetation, other organic material has been adequately removed in all proposed improvement areas.

5.2 Grading and Earthwork

Based on the current proposed development and the subsurface soils encountered during our excavations, overexcavation and recompaction of surficial soils beneath the proposed building pads is required. As shown on Figure 2, the delineated area should be overexcavated to a depth of 4 feet due to the presence of loose soils to a greater depth than the rest of the site. In all other building pads, CTE recommends that the proposed structure building pads be overexcavated to a depth of 2 feet below current grade or to the depth of the bottom of the structural foundations, whichever is deeper. The building pad overexcavation should extend to a minimum distance of at least 5 feet outside of all proposed structure areas where possible. Where conflicts with existing structures or improvements exists, overexcavation can be limited to the foundation footprint, given proper care is given to footing layout during construction.

The exposed overexcavated surface should then be scarified to a depth of approximately 12 inches, moisture conditioned to at least 2% above optimum moisture content and recompacted to 90% relative compaction per ASTM D1557. Additional engineered fill, if required, shall then be placed in 8 inch loose lifts, moisture conditioned to at least 2% above optimum moisture content and recompacted to at least 90% relative compaction.

After stripping in pavement improvement areas is conducted, the stripped areas should be excavated to the proposed pavement subgrade or below. Pavement sections in the area shown in Figure 2 should be overexcavated to a depth of 12 inches below the bottom of the aggregate base section. The excavated surface should then be scarified to a minimum depth of 12 inches, moisture conditioned to at least 2% above optimum moisture and recompacted to 95% relative compaction per ASTM D1557. If after stripping the excavated level is located below the proposed pavement subgrade, the stripped surface should be scarified, moisture conditioned to at least 2% above optimum moisture content, and recompacted to 90% relative compaction. Soils should then be placed, moisture conditioned and compacted as stipulated above to the subgrade level. Prior to

pavement base placement the subgrade surface should be scarified, moisture conditioned to at least 2% above optimum and re-compacted to at least 95% relative compaction.

Soils generated from the site are considered acceptable for engineered fill provided the debris and organic materials are removed from the soils. Import soils proposed for engineered fill should consist of soil deposits having an Expansion Index EI < 20 or liquid limit less than 30 (LL<30) and a plasticity index less than 12 (PI< 12), with no particles greater than 3 inches and 20 to 80% of the soil particles passing the #200 sieve. Imported fill meeting these requirements should be placed in 8 inch loose lifts, moisture conditioned to at least optimum moisture contact and recompacted to at least 90% relative compaction. A CTE representative should approve all imported soils prior to delivery to the site.

If unanticipated, unsuitable materials are encountered at the surface improvement subgrade or structure over-excavation such that proper compaction cannot be obtained, over-excavations to remove such material may be required. Compacted soil is not acceptable if it is unstable. Soil shall exhibit little flexing or pumping as determined by CTE representative. CTE shall inspect and approve all structure over-excavations and pavement and surface improvement subgrade areas to confirm that adequate soil conditions have been reached. CTE shall also observe and approve the scarification, moisture conditioning and recompaction of the excavated surfaces and the placement of all engineered fill.

5.3 Structure Foundation Recommendations

CTE anticipates it will be feasible to utilize reinforced continuous and isolated spread footing foundations to support the proposed structures at this site. It is recommended that these structure foundations be supported upon properly compacted engineered fill per the requirements stated in Section 5.2.

Continuous perimeter spread footings extend around the entire perimeter of the buildings including all door opening. Foundation dimensions and reinforcement should be based on allowable soil bearing values of 2,500 pounds per square foot (psf) for spread footings of at least 12-inches in

width penetrating into and embedded below rough pad soil grade at least 18 inches. The allowable foundation bearing pressures apply to dead loads plus design live load conditions. The design bearing pressure may be increased by one-third when considering total loads that include short duration wind or seismic conditions. The weight of the foundation concrete below grade may be neglected in dead load computations. The weight of the footing should be neglected in the above downward capacity calculations.

We recommend that all footings be reinforced as required by the structural engineer to provide structural continuity, to permit strong spanning of local irregularities, and to be rigid enough to accommodate potential differential static movements estimated at about 0.5 inch over 20 linear feet. CTE recommends that at a minimum footing reinforcement should consist of a minimum of 2- #4 reinforcing bars one installed near the top and one near the bottom of the footing but with proper cover and maximum spacing. Isolated spread footings should be reinforced in accordance with the requirements of the structural engineer.

Based on the conditions observed at the site, the total structure settlement is expected to be on the order of one inch for static compression and 0.5 inch for differential static compression. Dynamic settlement due to an earthquake event is estimated to be on the order of 0.5 inch with differential seismic settlement of about 0.25 inches. The dynamic settlement is in addition to the static settlement.

The foundation excavations should be clean (i.e., free of all loose slough) and wetted prior to placing steel and concrete. Foundation excavations should be moisture conditioned (wetted) to at least 3% above optimum moisture content more verified by CTE no longer than 24 hours prior to foundation concrete placement. The concrete for the foundation should not be placed against a dry excavation surface. Concrete should be pumped or placed by means of a tremie or elephant's trunk to avoid aggregate segregation and earth contamination. The concrete should be properly vibrated to mitigate formation of voids and to promote proper bonding of the concrete to steel reinforcing. These recommendations are predicated upon CTE's representative observing the bearing materials as well as the manner of concrete placement.

CTE's geotechnical engineer or his representative should observe soil conditions exposed in foundation excavations and shall test the foundation excavations to assure the proper moisture content has been achieved prior to footing placement. If the soil conditions encountered differ significantly from those presented in this report, then supplemental recommendations will be required.

5.4 Lateral Load Resistance

Shallow footings may be designed to resist lateral loads using a coefficient of friction of 0.30 (total frictional resistance equals the coefficient of friction times the dead load). A design passive resistance value of 250 pounds per square foot per foot of depth (with a maximum value of 1500 pounds per square foot) may be used. The allowable lateral resistance can be taken as the sum of the frictional resistance and the passive resistance, provided the passive resistance does not exceed two-thirds of the total allowable resistance.

5.5 Retaining Walls

Free draining retaining walls backfilled using generally onsite fill soils per the preceding section of this report, may be designed using the equivalent fluid weights given in the table below. These values are also considered suitable for permanent shoring, if proposed.

TABLE 5.5
EQUIVALENT FLUID UNIT WEIGHTS (pounds per cubic foot)

WALL TYPE	LEVEL BACKFILL	SLOPE BACKFILL 2:1 (HORIZONTAL: VERTICAL)
CANTLEVERED WALL	40	60
RESTRAINED WALL	60	80

Traffic surcharges on retaining walls should generally be equal to 1/3 of the vertical load of the traffic located within ten lateral feet of wall. Lateral pressures on cantilever retaining walls (yielding walls) due to earthquake motions may be calculated based on work by Seed and Whitman

(1970). The total lateral thrust against a properly drained and backfilled cantilever retaining wall above the groundwater level can be expressed as:

$$P_{AE} = P_A + \Delta P_{AE}$$

For non-yielding (or "restrained") walls, the total lateral thrust may be similarly calculated based on work by Wood (1973):

$$P_{KE} = P_K + \Delta P_{KE}$$

Where P_A = Static Active Thrust (given in previous Table)

P_K = Static Restrained Wall Thrust (given in previous Table)

ΔP_{AE} = Dynamic Active Thrust Increment = $(3/8)\ k_h\ \gamma H^2$

ΔP_{KE} = Dynamic Restrained Thrust Increment = $k_h\ \gamma H^2$

k_h = ½ Peak Ground Acceleration = ½ (S_{DS}/2.5)

H = Total Height of the Wall

γ = Total Unit Weight of Soil ≈ 125 pounds per cubic foot

The increment of dynamic thrust in both cases should be based on a trapezoidal distribution (essentially an inverted triangle), with a line of action located at 0.6H above the bottom of the wall. The values above assume non-expansive backfill and free-draining conditions. Additional information for dynamic and static loading conditions for specific retaining structures can be provided on request from CTE. Measures should be taken to prevent moisture buildup behind all retaining walls. Drainage measures should include free-draining backfill materials and sloped, perforated drains. These drains should discharge to an appropriate off-site location. Waterproofing should be as specified by the project architect.

5.6 Foundation Setback

The bottoms of all utility trenches placed along the perimeter of the foundations should be above an imaginary plane that projects at a 45-degree angle down from the lowest outermost edge of the foundation. Deepening of affected foundation is considered an effective means of attaining the prescribed setbacks. Foundations should be offset from slopes by at least one-third the slope height or 40 feet whichever is less. The offset from slopes steeper than 1H:1V should be increased by the

projection of a 45-degree plane from the slope toe. The offset distance should be measured to the nearest edge of the foundation base. Deepening the footing is considered a valid way to achieve the required slope offset.

5.7 Concrete Slabs-On-Grade

Lightly loaded concrete slabs-on-ground placed beneath the structures should be designed for the anticipated loadings, but measure at least 4 inches in thickness. Concrete slabs exposed to vehicular traffic should measure at least 5 inches in thickness. Slab-on-grade reinforcement should consist of # 4 reinforcing bars placed on 24-inch centers, each way, at or above mid-slab height, but with proper cover. Control joints at appropriate spacing i.e. 12 feet each way should be saw-cut into the slab after concrete placement in accordance with ACI Design Manual, Section 302.1R-37 8.3.12 (tooled control joints are not recommended). All interior slab on grade areas shall be underlain by a capillary moisture break consisting of a 4" layer of ¾" minus crushed rock or Class 2 base. Prior to the installation of the capillary moisture barrier the existing subgrade shall be wetted to at least 3% above optimum as verified by a CTE representative no longer the 24 hours prior to concrete slab placement.

All interior slab on grade located in moisture sensitive areas should be directly underlain by a minimum 10-mil thickness vapor retarder meeting the requirements of ASTM E1745 – "Standard Specification for Plastic Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs" with all laps or penetrations sealed or taped. The vapor retarder should be installed above the capillary moisture break which in turn overlies the compacted building pad. The use of sand above the vapor retarder is not recommended. The concrete to be placed into the post tensioned or conventional slab on grade shall have a water to cement ratio w/c $\leq$ 0.45 and be placed at a maximum slump of 4" +/-.

5.8 Seismic Design Criteria

Soils that underlie the site are considered to be consistent with Site Class D materials. Site ground motion with 10% probability of exceedance in 50 years is presented in Table 5.8, below. The table is based on the United States Geological Survey's (USGS) Probabilistic Seismic Design Maps

through the third party interface ATC Hazards by Location Tool website (https://hazards.atcouncil.org/#/seismic?) for the site coordinates 37.77885672° latitude and -121.2208596° longitude. The referenced USGS design maps are based on the design code reference document, ASCE 7-16 Standard with the 2019 California Building Code.

TABLE 5.8
SEISMIC GROUND MOTION VALUES

PARAMETER	VALUE	CBC REFERENCE (2019)
Site Class[1]	D	ASCE 7, Chapter 20
Mapped Spectral Response Acceleration Parameter, S_S	0.798g	Figure 22-1
Mapped Spectral Response Acceleration Parameter, S_1	0.301g	Figure 22-2
Seismic Coefficient, F_a	1.200	Table 1613.2.3 (1)
Seismic Coefficient, F_v[3]	1.999	Table 1613.2.3 (2) ASCE 7 Section 11.4.8
MCE Spectral Response Acceleration Parameter, S_{MS}	0.958g	Section 11.4.4
MCE Spectral Response Acceleration Parameter, S_{M1}[4]	0.602g	Section 11.4.8
Design Spectral Response Acceleration Parameter, S_{DS}	0.638g	Section 11.4.5
Design Spectral Response Acceleration Parameter, S_{D1}[5]	0.401g	Section 11.4.8
Mapped MCE Geometric Peak Ground Acceleration, PGA	0.332g	ASCE 7, Chapter 21
Mapped MCE Geometric Peak Ground Acceleration Adjusted for Site Class Effects, PGA_m	0.421g	ASCE 7, Chapter 11
Seismic Design Category	D	ASCE 7, Chapter 11

[1] In general accordance with the 2019 CBC 1613.2.2. CBC Site Class is based on the average characteristics of the upper 100 feet of the subsurface profile.
[2] The 2019 CBC requires a site soil profile determination extending to a depth of 100 feet for seismic site classification. Borings for this study extended to a maximum depth of 31.5± feet, and this seismic site class definition considers soils below 21.5 feet in depth to be consistent with the stiff soils encountered at shallower depths.
[3] F_v is calculated in accordance with ASCE 7-16 Table 11.4-2 assuming that the exception for Site Class D with S_1 greater than or equal to 0.2 will be applied.
[4] S_{M1} is calculated in accordance with ASCE 7-16 Section 11.4.4
[5] S_{D1} is calculated in accordance with ASCE 7-16 Section 11.4.5

Per ASCE 7-16 Section 11.4.8, a site-specific ground motion procedure would be required for the structure since the site falls under Class D, and the S_1 parameter is greater than or equal to 0.2. However, Exception (2) permits the use of the Code-Based ground motion values if the seismic response coefficient C_s is amplified by 1.5 times for the period range $T \geq 1.5T_s$ using equations 12.8-3 and 12.8-4 in ASCE 7-16. If the proposed developments have a period in the range exceeding $1.5T_s$, then the base shear coefficient must be increased as required by ASCE 7-16.

5.9 Pavement Section Alternatives

It is understood asphaltic or concrete pavement is proposed for the site. The upper 12 inches of subgrade beneath all pavements should be compacted to at least 95 percent (%) of laboratory determined maximum dry density, as per ASTM D1557, at moisture contents of at least 3 percent over optimum moisture content. Pavements should be designed and constructed according to CALTRANS standards.

Preliminary pavement sections presented below are based on a Resistance ("R") Value of 45 and assumed Traffic Indices presented below. Based on our previous experience on similar sites we have assumed traffic indices (TI's) of 5 for parking areas and 6 for drive and truck traffic areas. The pavement design is based on California Department of Transportation (CalTrans) Highway Design Manual and on anticipated traffic indices as indicated below, except the CalTrans safety factor has not been applied. If these assumptions are incorrect, then this office should be contacted to obtain further pavement recommendations.

TABLE 5.9
RECOMMENDED PAVEMENT SECTIONS

Traffic Area	Assumed Traffic Index	Subgrade "R"-Value	Asphalt Pavements		Portland Cement Concrete Pavements, On 6" class 2 on Subgrade Materials (inches)
			AC Thickness (inches)	Class II Aggregate Base Thickness (inches)	
Auto Parking Area	5.0	45	3.0	3.0	6
Truck Loading and Drive Areas	6.0	45	4.0	4.0	6

* Caltrans class 2 aggregate base, ** Concrete should have a modulus of rupture of at least 600 psi

To significantly reduce concrete shrinkage cracking concrete pavements should be reinforced with nominal rebar, such as minimum #4 bars spaced no greater than 24 inches, on center, both ways, placed at above mid-slab height, but with proper concrete cover, or as designed by your structural designer. Concrete pavements not supporting heavy traffic could be unreinforced provided they are constructed with expansion/contraction and/or construction joints spaced no greater than 24 times the pavement thickness, both ways, in nearly square patterns, and are detailed in general accordance with ACI Guidelines. Doweling of concrete pavements at critical pathways is also recommended.

Asphalt concrete paved areas should be designed, constructed, and maintained in accordance with, for example, the recommendations of the Asphalt Institute, or other widely recognized authority. Concrete paved areas should be designed and constructed in accordance with the recommendations of the American Concrete Institute or other widely recognized authority, particularly with regard to thickened edges, joints, and drainage. The Standard Specifications for Public Works construction ("Greenbook") or Caltrans Standard Specifications may be referenced for pavement materials specifications.

5.10 Drainage

Foundation and concrete-slab-on grade performance depends greatly on how well the runoff waters drain from the site. This is true both during construction and over the entire life of the

structure. The ground surface around structures should be graded so that water flows rapidly away from the structures without ponding. The surface gradient needed to do this depends on the landscaping type.

Should excessive irrigation, waterline breaks, or unusually high rainfall occur, saturated zones and groundwater may develop. Consequently, the site should be graded so that water drains away readily without saturating the foundation or landscaped areas or cascading over slope faces. A potential source of water, such as water pipes, drains, and the like should be frequently examined for signs of leakage or damage. Any such leakage or damage should be repaired promptly. The project Civil Engineers should thoroughly evaluate the on-site drainage and make provisions as necessary to keep surface waters from affecting the site.

5.11 Construction Observation

The recommendations provided in this report are based limited subsurface information observed, at locations, and within, exploratory borings performed for this project and preliminary concept design proposed construction as of the date of publication. The interpolated subsurface conditions, on which this report relies, should be checked in the field during construction to verify conditions described herein are as anticipated. Any changes which occur to preliminary information provided to this office as of the date of this publication, this office should be notified and afforded an opportunity to update information provided in this report.

Recommendations provided in this report are based on the understanding and assumption that CTE will provide the observation and testing services for the project. All earthworks should be observed and tested to verify that grading activity has been performed according to the recommendations contained within this report. The project engineer should evaluate all footing excavations before reinforcing steel placement. To assure that the recommendations contained within this report are adhered to the following minimum inspection and testing services should be performed with regard to the geotechnical design of the project.

1. Continuous observation and testing during mass grading.

2. Footing excavation inspection.
3. Periodic Utility trench backfill testing for moisture and relative compaction.
4. Slab subgrade inspection and testing prior to the placement of capillary moisture break materials for moisture and relative compaction.
5. Pavement Class 2 Base inspection and testing prior to the placement of asphalt or concrete pavement.
6. Asphalt relative compaction testing during pavement placement. (Optional)

5.12 Plan Review

CTE should review project grading and foundation plans before the start of earthworks to identify potential conflicts and to verify that the recommendations contained in the report are to be implemented.

6.0 LIMITATIONS OF INVESTIGATION

As indicated, the recommendations presented herein are based on the field exploration, laboratory testing and our geologic and engineering analysis. Following completion of testing, these recommendations will be confirmed and or modified, if necessary, based on the materials exposed and re-worked during grading. The field evaluation, laboratory testing and geotechnical analysis presented in this report have been conducted according to current engineering practice and the standard of care exercised by reputable geotechnical consultants performing similar tasks in this area. No other warranty, expressed or implied, is made regarding the conclusions, recommendations and opinions expressed in this report.

Variations may exist and conditions not observed or described in this report may be encountered during construction. Our conclusions and recommendations are based on an analysis of the observed conditions. If conditions different from those described in this report are encountered, our office should be notified and additional recommendations, if required, will be provided upon request.

We appreciate the opportunity to be of service on this project. Should you have any questions or need further information please do not hesitate to contact this office

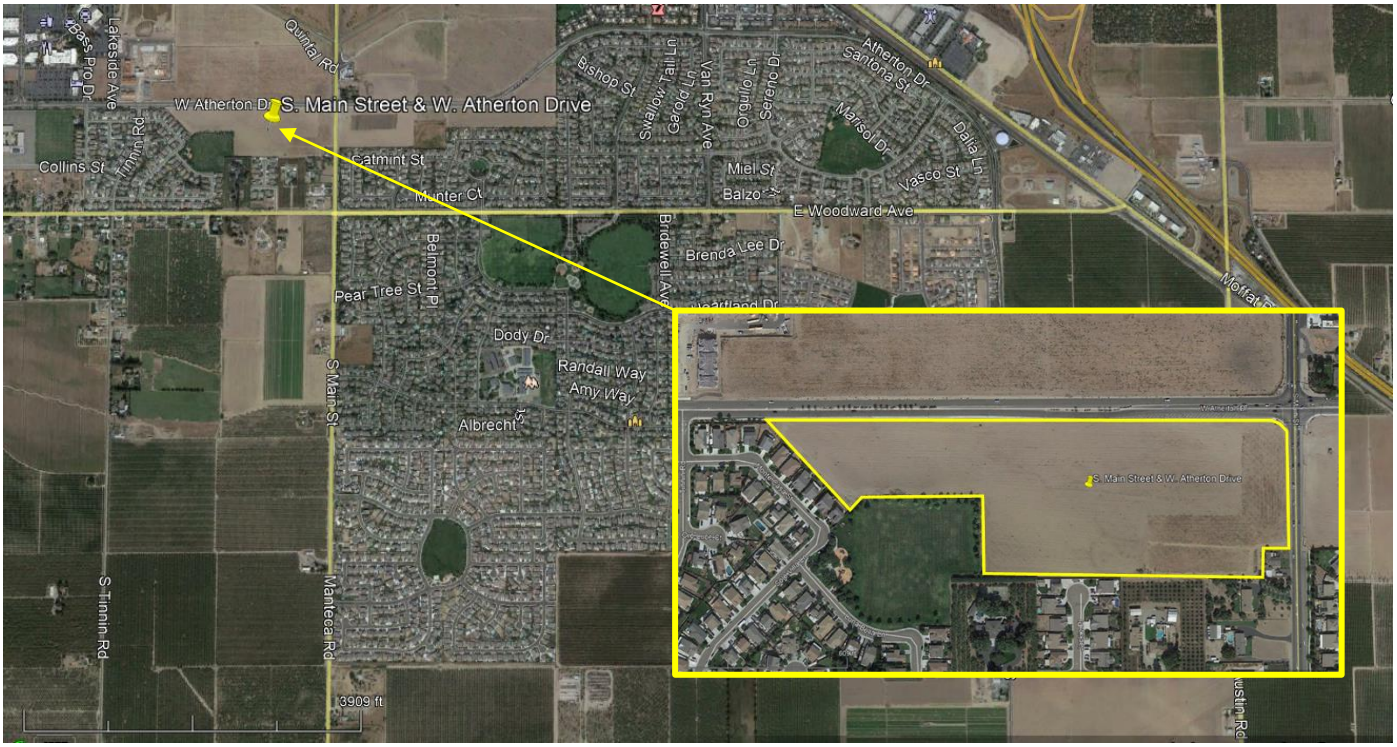
Respectfully submitted,

CTE CAL, INC.

Mike Kennedy PE 88971
Project Engineer



Selena Gray EIT
Staff Engineer



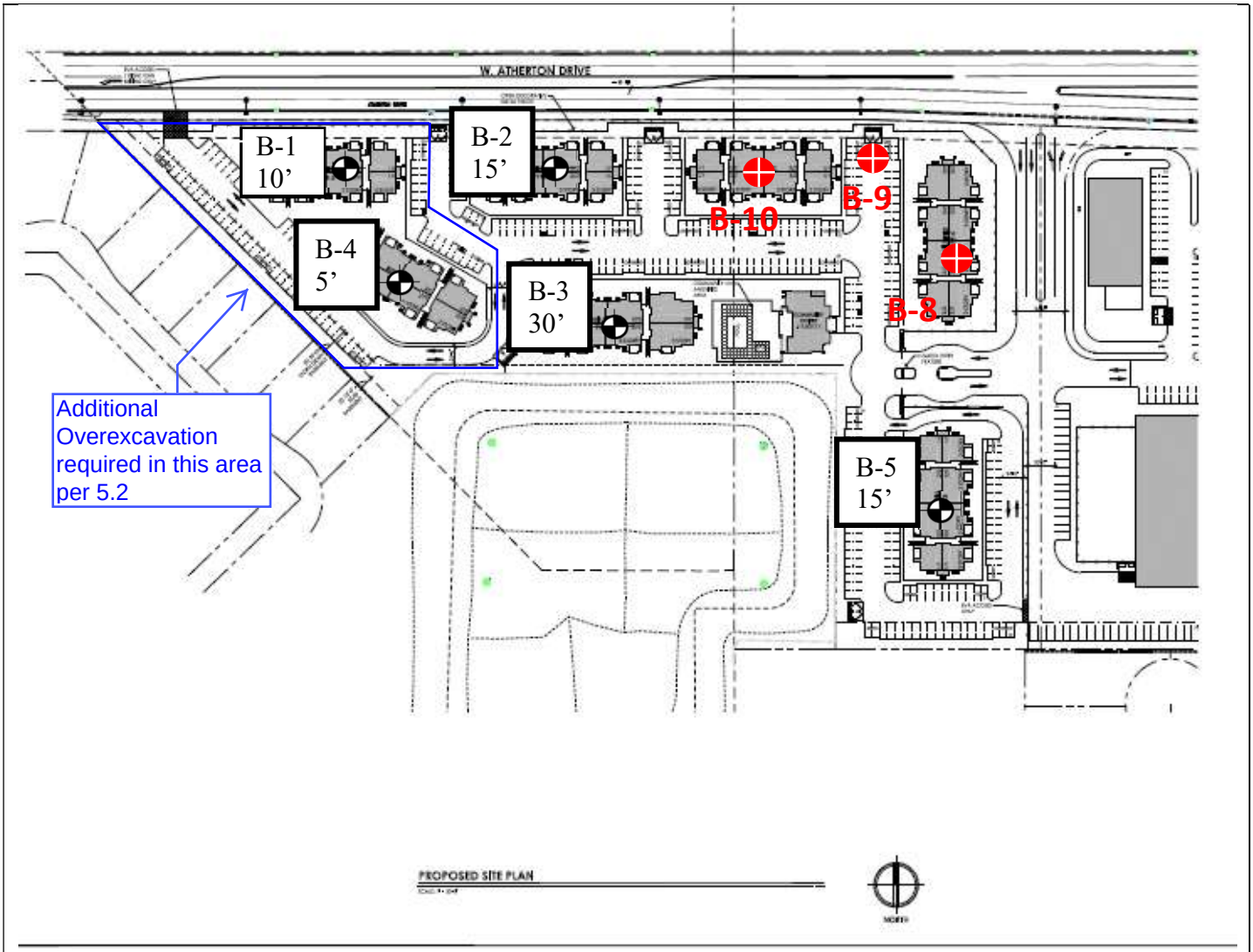
NOTES:

Location of site is approximate. Base map from Google Earth Satellite Imagery (2020)

3628 Madison Avenue, Suite 22
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Site Index Map
New Apartment Buildings, Pool, Community Center
S. Main Street & W. Atherton Drive
Manteca, CA 95337

CTE JOB NO.	
25-1140G	
SCALE	
N.T.S.	
DATE	FIGURE
7/27/2021	1



Prior Exploratory Borings from CTE Cal Geotechnical Investigation March 17, 2017

Current Exploratory Borings from CTE Cal Geotechnical Investigation

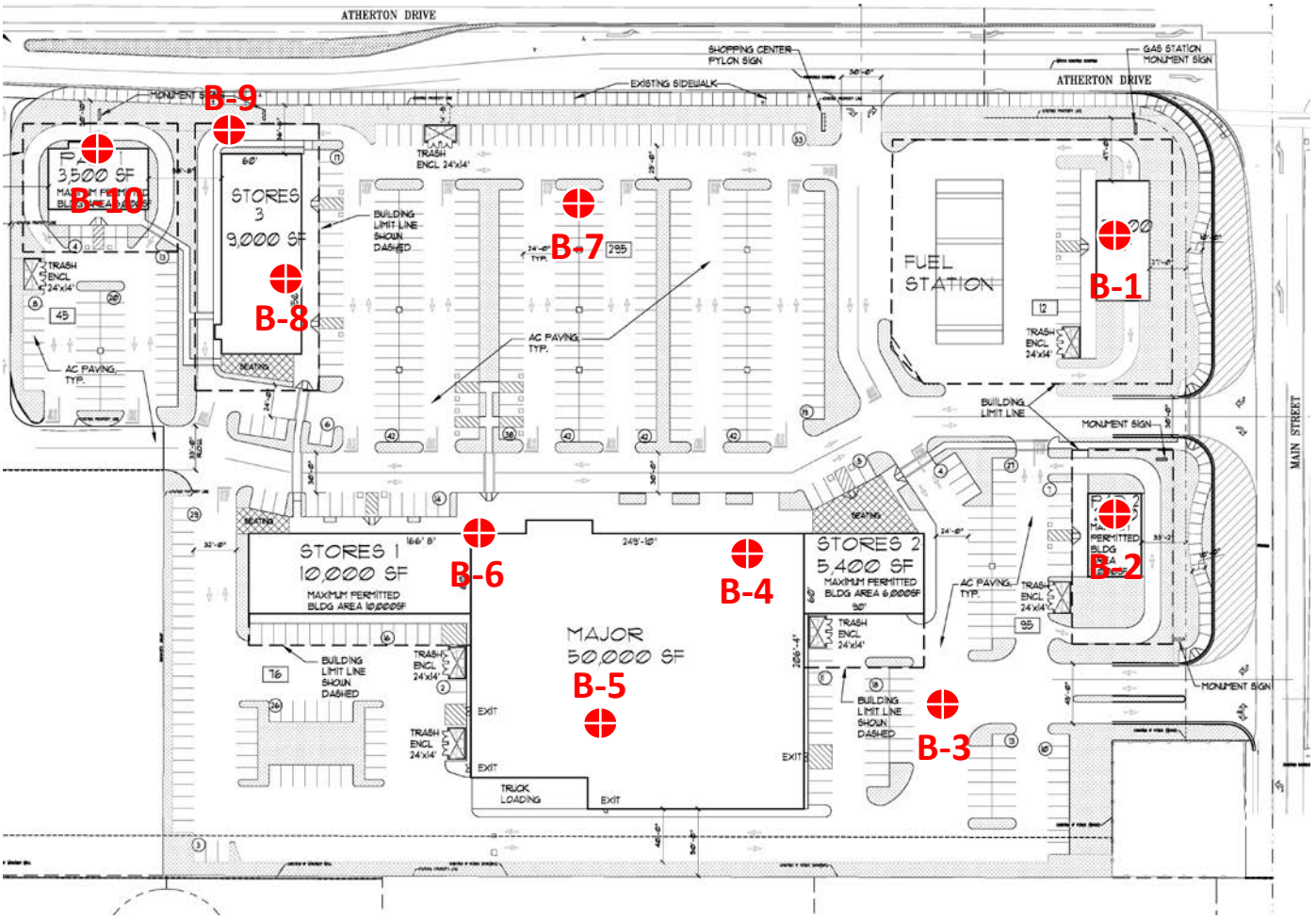
NOTES:

Location of site is approximate. Base map from Crosstown Plaza Proposed Site Plan

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Exploration Location Map
New Apartment Buildings, Pool, Community Center
S. Main Street & W. Atherton Drive
Manteca, CA 95337

CTE JOB NO.	
25-1140G	
SCALE	
N.T.S.	
DATE	FIGURE
7/8/2021	2



SCALE

0 80 160 Feet

LEGEND

Borehole Locations (B-1 to B-10)

N

NOTES:

Approximate location of test borings (shown as circles with adjacent boring number).

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EXPLORATION MAP
SWC Main St & Atherton Dr.
1601 S. Main St.
Manteca, California

CTE JOB NO.	
25-0484G	
SCALE	
See Scale Above	
DATE	FIGURE
3/17/17	2A

APPENDIX A

REFERENCES CITED

1. ACI Design Manual, Section 318, Chapter 4.

2. ASCE/SEI 7-16, 2019, “Minimum Design Loads For Buildings and Other Structures”.

3. ASTM, “Test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort,” Volume 04.08.

4. California Department of Water Recourses website: (http://wwwdwr.water.ca.gov/waterdatalibrary/index.cfm)

5. California SGMA Data Viewer Website: (https://sgma.water.ca.gov/webgis/?appid=SGMADataViewer#gwlevels)

6. California Geologic Survey (CGS) website for geologic hazards: (https://maps.conservation.ca.gov/cgs/EQZApp/app/)

7. California Division of Mines and Geology (CDMG), “Geologic Map of the San Francisco – San Jose Quadrangle” (1:250,000; 1991), compiled by Wagner, D.L., Bortugno, E.J., and McJunkin, R.D.

8. FEMA Flood Map Service Center; “SOUTH MANTECA”, Flood Zone Map No. 06077C0640F, January 2008.

9. Google Earth aerial imagery.

10. ATC Hazards by Location website (https://hazards.atcouncil.org/#/seismic?) which utilizes USGS hazard data, reference 2016 ASCE 7 Standard.

11. Hart, Earl W., Revised 2007, "Fault-Rupture Hazard Zones in California, Alquist Priolo, Special Studies Zones Act of 1972,” California Division of Mines and Geology, Special Publication 42.

12. Jennings, Charles W., “Fault Map of California”, 2010, CGS.

APPENDIX B

DEFINITION OF TERMS, LEGEND, & BORING LOGS

CTE CAL
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DEFINITION OF TERMS

PRIMARY DIVISIONS			SYMBOLS	SECONDARY DIVISIONS
COARSE GRAINED SOILS MORE THAN HALF OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	**GRAVELS** MORE THAN HALF OF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE	CLEAN GRAVELS < 5% FINES	GW	WELL GRADED GRAVELS, GRAVEL-SAND MIXTURES LITTLE OR NO FINES
			GP	POORLY GRADED GRAVELS OR GRAVEL SAND MIXTURES, LITTLE OF NO FINES
		GRAVELS WITH FINES	GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES, NON-PLASTIC FINES
			GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES, PLASTIC FINES
	SANDS MORE THAN HALF OF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE	CLEAN SANDS < 5% FINES	SW	WELL GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
			SP	POORLY GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
		SANDS WITH FINES	SM	SILTY SANDS, SAND-SILT MIXTURES, NON-PLASTIC FINES
			SC	CLAYEY SANDS, SAND-CLAY MIXTURES, PLASTIC FINES
FINE GRAINED SOILS MORE THAN HALF OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	**SILTS AND CLAYS** LIQUID LIMIT IS LESS THAN 50		ML	INORGANIC SILTS, VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS, SLIGHTLY PLASTIC CLAYEY SILTS
			CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY, SANDY, SILTS OR LEAN CLAYS
			OL	ORGANIC SILTS AND ORGANIC CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS LIQUID LIMIT IS GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOILS, ELASTIC SILTS
			CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
			OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTY CLAYS
HIGHLY ORGANIC SOILS			PT	PEAT AND OTHER HIGHLY ORGANIC SOILS

GRAIN SIZES

BOULDERS	COBBLES	GRAVEL		SAND			SILTS AND CLAYS
		COARSE	FINE	COARSE	MEDIUM	FINE	

12" 3" 3/4" 4 10 40 200

CLEAR SQUARE SIEVE OPENING U.S. STANDARD SIEVE SIZE

ADDITIONAL TESTS

(OTHER THAN TEST PIT AND BORING LOG COLUMN HEADINGS)

MAX- Maximum Dry Density
GS- Grain Size Distribution
SE- Sand Equivalent
EI- Expansion Index
CHM- Sulfate and Chloride Content , pH, Resistivity
COR - Corrosivity
SD- Sample Disturbed
PM- Permeability
SG- Specific Gravity
HA- Hydrometer Analysis
AL - Atterberg Limits
RV- R-Value
CN- Consolidation
CP- Collapse Potential
HC- Hydrocollapse
REM- Remolded
PP- Pocket Penetrometer
WA- Wash Analysis
DS- Direct Shear
UC- Unconfined Compression
MD- Moisture/Density
M- Moisture
SC- Swell Compression
OI- Organic Impurities

FIGURE: BL1

CTE CAL
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PROJECT:	DRILLER:	SHEET: of
CTE JOB NO:	DRILL METHOD:	DRILLING DATE:
LOGGED BY:	SAMPLE METHOD:	ELEVATION:

Depth (Feet) | Bulk Sample | Driven Type | Blows/Foot | Dry Density (pcf) | Moisture (%) | U.S.C.S. Symbol | Graphic Log

BORING LEGEND

DESCRIPTION

Laboratory Tests

0

Block or Chunk Sample

Bulk Sample

5

Standard Penetration Test

10

Modified Split-Barrel Drive Sampler (Cal Sampler)

Thin Walled Army Corp. of Engineers Sample

15

Groundwater Table

Soil Type or Classification Change

20

? ——— ? ——— ? ——— ? ——— ? ——— ? ——— ? —

Formation Change [(Approximate boundaries queried (?)]

"SM"

Quotes are placed around classifications where the soils exist in situ as bedrock

25

FIGURE: BL2

CTE CAL
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PROJECT:	New Apartment Buildings	DRILLER:	West Coast Explroation	SHEET:	1 of 1
CTE JOB NO:	25-1140G	DRILL METHOD:	4" Solid Stem Auger	DRILLING DATE:	7/22/2021
LOGGED BY:	Knuth R.	SAMPLE METHOD:	SPT Rope & Cathead	ELEVATION:	EGS

BORING: B-1

Depth (Feet)	Sample: Bulk	Sample: Driven	Type	Blows/6 Inches	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0										
				2 3 4	99.5	3.40	SM		Loose, Brown, Damp, Silty Fine SAND	FC=21.1%
5				2 2 3	104.3	5.4	SM		Loose, Brown, Damp, Silty Fine SAND	
							SP		Grey, Dry Poorly-graded Fine SAND	
10				7 7 11	93.8	15.1	SM		Medium Dense, Gery, Damp, Silty Fine SAND	FC=35.4%
15										
20										
25									Total Depth = 11.5 Feet NFGD Boring Backfilled 7/22/21 Inspected by San Joaquin County Environmental Health Department	

CTE CAL
3628 Madison Avenue, Suite 22 | Sacramento, CA 95660 | 916.331.6030 | Fax 916.331.6037

PROJECT:	New Apartment Buildings	DRILLER:	West Coast Explroation	SHEET:	1 of 1
CTE JOB NO:	25-1140G	DRILL METHOD:	4" Solid Stem Auger	DRILLING DATE:	7/22/2021
LOGGED BY:	Knuth R.	SAMPLE METHOD:	SPT Rope & Cathead	ELEVATION:	EGS

BORING: B-2

Depth (Feet)	Sample Bulk	Sample Driven	Type	Blows/6 Inches	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0										
				6 6 8	105.7	4.80	SM		Medium Dense, Brown, Damp, Silty Fine SAND	
5				5 8 26	110.4	5.9	SM		Dense, Brown, Damp, Silty Fine SAND	
10				15 20 24	102.7	17.2	SM		Very Dense, Brown, Damp, Silty Fine SAND	
15										
20										
25									Total Depth = 11.5 Feet NFGD Boring Backfilled 7/22/21 Inspected by San Joaquin County Environmental Health Department	

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PROJECT:	New Apartment Buildings	DRILLER:	West Coast Exploration	SHEET:	1 of 2
CTE JOB NO:	25-1140G	DRILL METHOD:	4" Solid Stem Auger	DRILLING DATE:	7/22/2021
LOGGED BY:	Knuth R.	SAMPLE METHOD:	SPT Rope & Cathead	ELEVATION:	EGS

BORING: B-3

Depth (Feet)	Sample: Bulk	Sample: Driven	Type	Blows/6 Inches	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0			X				SP		Very Loose, Brown, Dry SAND	R-Value=45
				5 7 8	107.8	5.20	SM		Medium Dense, Brown, Damp, Silty Fine SAND	FC=17.6%
5				3 4 13	104.3	11.5	SM		Medium Dense, Brown, Damp, Silty Fine SAND	FC=25.1%
10				12 16 20	97.2	16.9	SM		Dense, Brown, Damp, Silty Fine SAND	FC=43.5%
15				9 13 17	100.0	21.8	CL		Very Stiff, Grey, Damp, Sandy Low Plastic CLAY	FC=66.1%
20				8 19 17	102.5	22.2	SC		Dense, Brown, Wet, Clayey SAND	FC=39.5%
25										

CTE CAL
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PROJECT:	New Apartment Buildings	DRILLER:	West Coast Exploration	SHEET:	2 of 2
CTE JOB NO:	25-1140G	DRILL METHOD:	4" Solid Stem Auger	DRILLING DATE:	7/22/2021
LOGGED BY:	Knuth R.	SAMPLE METHOD:	SPT Rope & Cathead	ELEVATION:	EGS

BORING: B-3

Depth (Feet)	Sample Bulk	Sample Driven	Type	Blows/6 Inches	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
25				50/6"	105.3	21.70	SM		Hard, Grey, Damp, silty SAND	FC=21.7%
30				10 14 20	101	25.1	ML		Hard, Brown, Moist, Sandy Non-plastic SILT	FC=60.3%
35										
40										
45										
50									Total Depth = 31.5 Feet Groundwater Encountered = 18 Feet Boring Backfilled 7/22/21 Inspected by San Joaquin County Environmental Health Department	

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PROJECT:	New Apartment Buildings	DRILLER:	West Coast Exploration	SHEET:	1 of 1
CTE JOB NO:	25-1140G	DRILL METHOD:	4" Solid Stem Auger	DRILLING DATE:	7/22/2021
LOGGED BY:	Knuth R.	SAMPLE METHOD:	SPT Rope & Cathead	ELEVATION:	EGS

BORING: B-4

Depth (Feet)	Bulk Sample	Driven Type	Blows/6 Inches	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0									
			2 4 4	97.3	2.20	SM		Loose, Brown, Damp, Silty Fine SAND	
5			8 9 12	108.1	5.6	SM		Medium Dense, Brown, Damp, Silty Fine SAND	
10									
15									
20									
25								Total Depth = 6.5 Feet NFGD Boring Backfilled 7/22/21 Inspected by San Joaquin County Environmental Health Department	

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PROJECT:	New Apartment Buildings	DRILLER:	West Coast Explroation	SHEET:	1 of 1
CTE JOB NO:	25-1140G	DRILL METHOD:	4" Solid Stem Auger	DRILLING DATE:	7/22/2021
LOGGED BY:	Knuth R.	SAMPLE METHOD:	SPT Rope & Cathead	ELEVATION:	EGS

BORING: B-5

Depth (Feet)	Sample Bulk	Sample Driven Type	Blows/6 Inches	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0									
			7 8 10	108.2	3.90	SM		Medium Dense, Brown, Damp, Silty Fine SAND	
5			4 5 8	107	5	SM		Medium Dense, Brown, Damp, Silty Fine SAND	
10			12 20 25					Dense, Brown, Damp, Silty Fine SAND	
15									
20									
25								Total Depth = 11.5 Feet NFGD Boring Backfilled 7/22/21 Inspected by San Joaquin County Environmental Health Department	

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PROJECT:	SWC Main St. & Atherton Dr.		DRILLER:	NATS	SHEET:	1 of	10
CTE JOB NO:	25-0484G		DRILL METHOD:	4" Solid StemAuger	DRILLING DATE:		2/27/17
LOGGED BY:	K. Kohls		SAMPLE METHOD:	SPT/Rope & Cathead 350 ft-lb	ELEVATION:		40 +/-

BORING: B-1

Depth (Feet)	Bulk Sample	Driven Type	Blows/6 Inches	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0								Native grass/brush	
		■	2 3 4	106.1	10.0	SM		Loose, moist, brown, fine SAND with silt (15-30%)	MD, GS
5		■	9 10 12	105.9	11.8	SM		Medium dense, moist, brown, SAND with silt (15-30%)	MD, GS
10		■	1 3 8	94.6	26.7	CL		Stiff, moist to wet, brown, silty CLAY	MD, GS
15		■	3 7 6	98.9	26.3	SM		Medium dense, wet, brown, silty SAND Some orange mottling	MD, GS
								Boring terminated at 16.5 feet Groundwater encounterd at 15 feet Boring backfilled with slurry cement and topped with cuttings	
20									
25									

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PROJECT:	SWC Main St. & Atherton Dr.		DRILLER:	NATS	SHEET:	2 of 10	
CTE JOB NO:	25-0484G		DRILL METHOD:	4" Solid StemAuger	DRILLING DATE:	2/27/17	
LOGGED BY:	K. Kohls		SAMPLE METHOD:	SPT/Rope & Cathead 350 ft-lb	ELEVATION:	40 +/-	

BORING: B-2

Depth (Feet)	Sample Bulk	Sample Driven Type	Blows/6 Inches	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0								Native grass/brush	
			1 2 4			SM		Loose, moist, brown, fine SAND with silt (15-30%)	GS
5			30 40 42	109.2	11.0			Very dense, moist, brown, SAND with some silt (5-15%) to Hard, dry, light tan, SILT	MD, GS
						ML			
10			5 6 7	90.4	10.5			Stiff, moist to wet, brown, SILT with some sand (5-15%)	MD, GS
15			4 6 8	94.4	28.2	CL		Stiff, wet, brown, silty CLAY	MD
								Boring terminated at 16.5 feet Groundwater encounterd at 15 feet Boring backfilled with slurry cement and topped with cuttings	
20									
25									

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PROJECT:	SWC Main St. & Atherton Dr.		DRILLER:	NATS	SHEET:	3 of	10
CTE JOB NO:	25-0484G		DRILL METHOD:	4" Solid StemAuger	DRILLING DATE:		2/27/17
LOGGED BY:	K. Kohls		SAMPLE METHOD:	SPT/Rope & Cathead 350 ft-lb	ELEVATION:		40 +/-

BORING: B-3

Depth (Feet)	Sample Bulk	Sample Driven Type	Blows/6 Inches	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0								Native grass/brush	
						SM		Moist, brown, SAND	
5			3 4 4	109.3	6.8			Loose, moist to wet, brown, SAND with some silt (5-15%)	MD, GS
								Boring terminated at 6.5 feet No groundwater encountered. Boring backfilled with cuttings	
10									
15									
20									
25									

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PROJECT:	SWC Main St. & Atherton Dr.		DRILLER:	NATS	SHEET:	4 of 10	
CTE JOB NO:	25-0484G		DRILL METHOD:	4" Solid StemAuger	DRILLING DATE:	2/27/17	
LOGGED BY:	K. Kohls		SAMPLE METHOD:	SPT/Rope & Cathead 350 ft-lb	ELEVATION:	40 +/-	

BORING: B-4

Depth (Feet)	Sample Bulk	Sample Driven Type	Blows/6 Inches	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0								Native grass/brush	
		■	4 10 9	112.5	7.7	SM		Medium dense, moist, brown, SAND with silt (15-30%)	MD, GS
5		■	4 4 15	96.0	8.2	SM		Medium dense, moist, brown, SAND with silt (15-30%)	MD, GS
10		■	6 7 8	97.6	22.6	CL		Stiff, moist, brown, silty CLAY to Medium dense, moist, orange-brown, SAND with some silt (~5%)	MD, GS
						SP			
15		■	17 40 36	107.4	19.8			Very dense, wet, brown, SAND with some clay (~5%)	MD, GS
								Boring terminated at 16.5 feet Groundwater encounterd at 15 feet Boring backfilled with slurry cement and topped with cuttings	
20									
25									

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PROJECT:	SWC Main St. & Atherton Dr.	DRILLER:	NATS	SHEET:	5	of	10
CTE JOB NO:	25-0484G	DRILL METHOD:	4" Solid StemAuger	DRILLING DATE:			2/27/17
LOGGED BY:	K. Kohls	SAMPLE METHOD:	SPT/Rope & Cathead 350 ft-lb	ELEVATION:			42 +/-

BORING: B-5

Depth (Feet)	Bulk Sample	Driven Type	Blows/6 Inches	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0								Native grass/brush	
			4 6 7	114.9	7.4	SM		Medium dense, moist, dark brown, SAND with silt (15-30%)	MD, GS
5			40 50/6"	103.9	20.2			Very dense, moist, dark brown, coarse SAND with silt (15-30%) to Hard, dry, light tan, SILT	MD, GS
						ML			
10			8 13 12	100.0	22.7	CL		Very stiff, moist, orange-brown to SILT to Very stiff, moist, light gray silty CLAY	MD, GS
						ML			
15			6 8 11	98.2	26.2			Very stiff, moist to wet, brown SILT with fine sand (15-30%) some sulfide-rich minerals (pyrite)	MD, GS
								Boring terminated at 16.5 feet No groundwater encounterd Boring backfilled with slurry cement and topped with cuttings	
20									
25									

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PROJECT:	SWC Main St. & Atherton Dr.	DRILLER:	NATS	SHEET:	6	of	10
CTE JOB NO:	25-0484G	DRILL METHOD:	4" Solid StemAuger	DRILLING DATE:			2/27/17
LOGGED BY:	K. Kohls	SAMPLE METHOD:	SPT/Rope & Cathead 350 ft-lb	ELEVATION:			40 +/-

BORING: B-6

Depth (Feet)	Bulk Sample	Driven Type	Blows/6 Inches	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0								Native grass/brush	
			3 3 6	115.0	7.7	SM		Loose, moist, dark brown, SAND with silt (15-30%)	MD, GS
5			5 20 32	110.9	15.6	ML		Medium dense, moist, dark brown, SAND with silt to Hard, dry, light tan, SILT	MD
						SC			
10			8 26 30	102.4	20.5	CL		Medium dense, moist, brown, silty clayey SAND to Hard, dry, light gray/tan, silty CLAY with some orange mottling	MD
15			8 10 16	108.7	17.0	SP		Medium dense, wet, multi-colored, SAND	MD, GS
20			3 25 11					Dense, wet, multi-colored, SAND	
25								Boring terminated at 21.5 feet Groundwater encountered at 15 feet Boring backfilled with slurry cement and topped with cuttings	

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PROJECT:	SWC Main St. & Atherton Dr.	DRILLER:	NATS	SHEET:	7 of 10
CTE JOB NO:	25-0484G	DRILL METHOD:	4" Solid StemAuger	DRILLING DATE:	2/27/17
LOGGED BY:	K. Kohls	SAMPLE METHOD:	SPT/Rope & Cathead 350 ft-lb	ELEVATION:	40 +/-

BORING: B-7

Depth (Feet)	Sample Bulk	Sample Driven Type	Blows/6 Inches	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0								Native grass/brush	
						ML		Slightly moist, brown, SILT with fine sand (15-30%)	RV
5			18 38 32		13.3	SC		Very dense, moist to wet, clayey SAND	GS
								Boring terminated at 6.5 feet No groundwater encountered. Boring backfilled with cuttings	
10									
15									
20									
25									

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PROJECT:	SWC Main St. & Atherton Dr.	DRILLER:	NATS	SHEET:	8	of	10
CTE JOB NO:	25-0484G	DRILL METHOD:	4" Solid StemAuger	DRILLING DATE:			2/27/17
LOGGED BY:	K. Kohls	SAMPLE METHOD:	SPT/Rope & Cathead 350 ft-lb	ELEVATION:			40 +/-

BORING: B-8

Depth (Feet)	Bulk Sample	Driven Type	Blows/6 Inches	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0								Native grass/brush	
			5 10 16	115.6	9.2	SC		Medium dense, moist, brown, SAND with clay and silt (15-30%)	MD, GS
5			11 35 50	94.0	24.3	CL		Medium dense, moist, brown, SAND with clay to Hard, dry, tan to light gray, silty CLAY	MD, GS
10			5 5 10	95.2	19.8	ML		Stiff, moist, brown, SILT with fine sand	MD
15			6 8 10		▼	SC		Medium dense, wet, brown, SAND with clay and silt	
								Boring terminated at 16.5 feet Groundwater encounterd at 15 feet Boring backfilled with slurry cement and topped with cuttings	
20									
25									

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PROJECT:	SWC Main St. & Atherton Dr.	DRILLER:	NATS	SHEET:	9	of	10
CTE JOB NO:	25-0484G	DRILL METHOD:	4" Solid StemAuger	DRILLING DATE:			2/27/17
LOGGED BY:	K. Kohls	SAMPLE METHOD:	SPT/Rope & Cathead 350 ft-lb	ELEVATION:			40 +/-

BORING: B-9

Depth (Feet)	Bulk Sample	Driven Type	Blows/6 Inches	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0								Native grass/brush	
			3 4 6			SM		Loose, moist, brown, fine SAND with silt	
5			15 17 21	99.9	22.8	ML		Medium dense, moist, brown, SAND with silt to Hard, dry, tan, clayey SILT	MD, GS
10			10 20 23			SM		Hard, dry, tan to light gray, clayey SILT to Dense, moist, brown, silty SAND	
								Boring terminated at 11.5 feet No groundwater encountered Boring backfilled with slurry cement and topped with cuttings	
15									
20									
25									

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PROJECT:	SWC Main St. & Atherton Dr.	DRILLER:	NATS	SHEET:	10 of 10
CTE JOB NO:	25-0484G	DRILL METHOD:	4" Solid StemAuger	DRILLING DATE:	2/27/17
LOGGED BY:	K. Kohls	SAMPLE METHOD:	SPT/Rope & Cathead 350 ft-lb	ELEVATION:	40 +/-

BORING: B-10

Depth (Feet)	Bulk Sample	Driven Type	Blows/6 Inches	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0								Native grass/brush	
			6 6 7	111.8	7.4	SM		Medium dense, moist, dark brown to brown, fine SAND with silt (15-30%)	MD, GS
5			3 14 20			SM		Dense, moist to damp, brown, SAND with silt	
10			5 10 17	104.9	19.8	ML		Medium dense, moist, brown, silty SAND to Very stiff, dry, tan, clayey SILT	MD
								Boring terminated at 11.5 feet No groundwater encountered Boring backfilled with slurry cement and topped with cuttings	
15									
20									
25									

APPENDIX C

LABORATORY METHODS AND RESULTS

Laboratory tests were performed on representative soil samples to detect their relative engineering properties. Tests were performed following test methods of the American Society for Testing Materials or other accepted standards. The following presents a brief description of the various test methods used. The result of the laboratory tests is presented on the test boring logs or following this Appendix section.

Natural Moisture Content

The procedure of ASTM D2216 was used to measure the moisture content of representative samples.

Classification

Soils were classified visually according to the Unified Soil Classification System. Visual classifications were supplemented by laboratory testing of selected samples according to ASTM D2487.

Material Finer than No. 200 Sieve

Particle-size analyses were performed on selected representative samples according to ASTM D1140.

R-Value

The procedure of ASTM D2844 was performed to determine the potential strength of subgrade and base materials for use in road pavements.

Material Finer than #200 Sieve

ASTM D-1140

Project Name: New Apartment

Date Received: 7/26/2021

Project #: 25-1140G

Sampled By: RS

Sample Description:

Lab #: 1928

Sample Location: B-1 @ 2

Initial Dry Wt. + Tare (g): 241.1

Oven Dry Wt. + Tare (g): 190.2

Tare: 0

Soil Loss (g): 50.9

Percent Finer than # 200 Sieve: **21.1%**

Reviewed By: Brian Willilams

Date: **7/28/2021**

Laboratory Manager

Material Finer than #200 Sieve

ASTM D-1140

Project Name: New Apartment

Date Received: 7/26/2021

Project #: 25-1140G

Sampled By: RS

Sample Description:

Lab #: 1928

Sample Location: B-1 @ 10

Initial Dry Wt. + Tare (g):	227.6	Oven Dry Wt. + Tare (g):	147.1
Tare:	0	Soil Loss (g):	80.5

Percent Finer than # 200 Sieve: **35.4%**

Reviewed By: Brian Willilams

Date: **7/28/2021**

Laboratory Manager

Material Finer than #200 Sieve

ASTM D-1140

Project Name: New Apartment

Date Received: 7/26/2021

Project #: 25-1140G

Sampled By: RS

Sample Description:

Lab #: 1928

Sample Location: B-3 @ 2

Initial Dry Wt. + Tare (g):	261.5	Oven Dry Wt. + Tare (g):	215.5
Tare:	0	Soil Loss (g):	46

Percent Finer than # 200 Sieve: **17.6%**

Reviewed By: Brian Willilams

Date: **7/28/2021**

Laboratory Manager

Material Finer than #200 Sieve

ASTM D-1140

Project Name: New Apartment

Date Received: 7/26/2021

Project #: 25-1140G

Sampled By: RS

Sample Description:

Lab #: 1928

Sample Location: B-3 @ 5

Initial Dry Wt. + Tare (g):	253	Oven Dry Wt. + Tare (g):	189.5
Tare:	0	Soil Loss (g):	63.5

Percent Finer than # 200 Sieve: **25.1%**

Reviewed By: Brian Willilams

Date: **7/28/2021**

Laboratory Manager

Material Finer than #200 Sieve

ASTM D-1140

Project Name: New Apartment

Date Received: 7/26/2021

Project #: 25-1140G

Sampled By: RS

Sample Description:

Lab #: 1928

Sample Location: B-3 @ 10

Initial Dry Wt. + Tare (g): 235.7

Oven Dry Wt. + Tare (g): 133.2

Tare: 0

Soil Loss (g): 102.5

Percent Finer than # 200 Sieve: **43.5%**

Reviewed By: Brian Willilams

Date: **7/28/2021**

Laboratory Manager

Material Finer than #200 Sieve

ASTM D-1140

Project Name: New Apartment

Date Received: 7/26/2021

Project #: 25-1140G

Sampled By: RS

Sample Description:

Lab #: 1928

Sample Location: B-3 @ 15

Initial Dry Wt. + Tare (g):	242.6	Oven Dry Wt. + Tare (g):	82.2
Tare:	0	Soil Loss (g):	160.4

Percent Finer than # 200 Sieve: **66.1%**

Reviewed By: Brian Willilams

Date: **7/28/2021**

Laboratory Manager

Material Finer than #200 Sieve

ASTM D-1140

Project Name: New Apartment

Date Received: 7/26/2021

Project #: 25-1140G

Sampled By: RS

Sample Description:

Lab #: 1928

Sample Location: B-3 @ 20

Initial Dry Wt. + Tare (g):	248.4	Oven Dry Wt. + Tare (g):	150.2
Tare:	0	Soil Loss (g):	98.2

Percent Finer than # 200 Sieve: **39.5%**

Reviewed By: Brian Willilams

Date: **7/28/2021**

Laboratory Manager

Material Finer than #200 Sieve

ASTM D-1140

Project Name: New Apartment

Date Received: 7/26/2021

Project #: 25-1140G

Sampled By: RS

Sample Description:

Lab #: 1928

Sample Location: B-3 @ 25

Initial Dry Wt. + Tare (g):	255.4	Oven Dry Wt. + Tare (g):	200
Tare:	0	Soil Loss (g):	55.4

Percent Finer than # 200 Sieve: **21.7%**

Reviewed By: Brian Willilams

Date: **7/28/2021**

Laboratory Manager

Material Finer than #200 Sieve

ASTM D-1140

Project Name: New Apartment

Date Received: 7/26/2021

Project #: 25-1140G

Sampled By: RS

Sample Description:

Lab #: 1928

Sample Location: B-3 @ 30

Initial Dry Wt. + Tare (g):	245	Oven Dry Wt. + Tare (g):	97.2
Tare:	0	Soil Loss (g):	147.8

Percent Finer than # 200 Sieve: **60.3%**

Reviewed By: Brian Willilams

Date: **7/28/2021**

Laboratory Manager

MOISTURE & DENSITY TEST

Project Number: 25-1140G **Sample Date:** 7/26/2021

Project Name: New Apartment **Lab Number:** 1928

Sample No.	B-1	B-1	B-1	B-2	B-2
DEPTH FT	2	5	10	2	5
SAMPLE HT	6	6	6	6	6
TUBE DIA.	1.4	1.4	1.4	1.4	1.4
Pan Wt	0	0	0	0	0
SOIL+Tube+Pan	390.3	386.9	392.2	409.6	414
Tube Wt	141.1	120.4	130.3	140.8	130.5
SOIL WET	249.2	266.5	261.9	268.8	283.5
SOIL LB	0.54938	0.58700	0.57687	0.59207	0.62445
VOL SOIL	0.00534	0.00534	0.00534	0.00534	0.00534
WET DENS	102.8	109.9	108.0	110.8	116.9
DRY WT					
SOIL DRY	241.1	252.9	227.6	256.4	267.7
% MOIST	3.4%	5.4%	15.1%	4.8%	5.9%
DRY DENS	99.5	104.3	93.8	105.7	110.4

Reviewed By: Brian Williams Date: July 28, 2021

Laboratory Manager

MOISTURE & DENSITY TEST

Project Number: 25-1140G **Sample Date:** 7/26/2021

Project Name: New Apartment **Lab Number:** 1928

Sample No.	B-2	B-3	B-3	B-3	B-3
DEPTH FT	10	2	5	10	15
SAMPLE HT	6	6	6	6	6
TUBE DIA.	1.4	1.4	1.4	1.4	1.4
Pan Wt	0	0	0	0	0
SOIL+Tube+Pan	413.2	406.1	412	407.2	416.9
Tube Wt	121.6	130.9	129.9	131.7	121.3
SOIL WET	291.6	275.2	282.1	275.5	295.6
SOIL LB	0.64286	0.60617	0.62137	0.60683	0.65110
VOL SOIL	0.00534	0.00534	0.00534	0.00534	0.00534
WET DENS	120.3	113.5	116.3	113.6	121.9
DRY WT					
SOIL DRY	248.9	261.5	253	235.7	242.6
% MOIST	17.2%	5.2%	11.5%	16.9%	21.8%
DRY DENS	102.7	107.8	104.3	97.2	100.0

Reviewed By: Brian Williams Date: July 28, 2021

Laboratory Manager

MOISTURE & DENSITY TEST

Project Number: 25-1140G **Sample Date:** 7/26/2021

Project Name: New Apartment **Lab Number:** 1928

Sample No.	B-3	B-3	B-3	B-4	B-4
DEPTH FT	20	25	30	2	5
SAMPLE HT	6	6	6	6	6
TUBE DIA.	1.4	1.4	1.4	1.4	1.4
Pan Wt	0	0	0	0	0
SOIL+Tube+Pan	434	441	448.1	382.8	418.2
Tube Wt	130.4	130.2	141.7	141.6	141.3
SOIL WET	303.6	310.8	306.4	241.2	276.9
SOIL LB	0.66931	0.68458	0.67489	0.53128	0.60991
VOL SOIL	0.00534	0.00534	0.00534	0.00534	0.00534
WET DENS	125.3	128.1	126.3	99.4	114.2
DRY WT					
SOIL DRY	248.4	255.4	245	236	262.3
% MOIST	22.2%	21.7%	25.1%	2.2%	5.6%
DRY DENS	102.5	105.3	101.0	97.3	108.1

Reviewed By: Brian Williams Date: July 28, 2021

Laboratory Manager

MOISTURE & DENSITY TEST

Project Number: 25-1140G **Sample Date:** 7/26/2021

Project Name: New Apartment **Lab Number:** 1928

Sample No.	B-5	B-5			
DEPTH FT	2	5			
SAMPLE HT	6	6			
TUBE DIA.	1.4	1.4			
Pan Wt	0	0	0	0	0
SOIL+Tube+Pan	413	400.3			
Tube Wt	140.4	127.9			
SOIL WET	272.6	272.4			
SOIL LB	0.60097	0.60000			
VOL SOIL	0.00534	0.00534			
WET DENS	112.5	112.3			
DRY WT					
SOIL DRY	262.3	259.5			
% MOIST	3.9%	5.0%			
DRY DENS	108.2	107.0			

Reviewed By: Brian Williams Date: July 28, 2021

Laboratory Manager

CTE CAL, Inc.
3628 Madison Avenue, Suite 22 | Sacramento, CA 95660 | Office (916) 331-6030 | Fax (916) 331-6
CONSTRUCTION INSPECTION AND TESTING | GEOTECHNICAL | ENVIRONMENTAL | CIVIL ENGINEER

REPORT OF RESISTANCE 'R' VALUE-EXPANSION PRESSURE
ASTM D2844

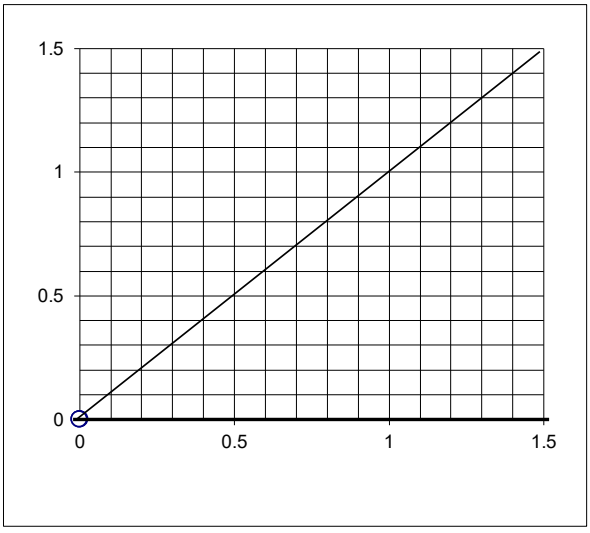
Job Name: New Apartment Bldgs, Pool, & Community Center **Date:** 8/5/2021
Job No. 25-1140G **Submitted By:** RS
Lab No. 5893 **Tested/ Calc.By:** AO/KK
Sample No. B3 @ 0-2' **Type of Material:** Silt-Fine Sand

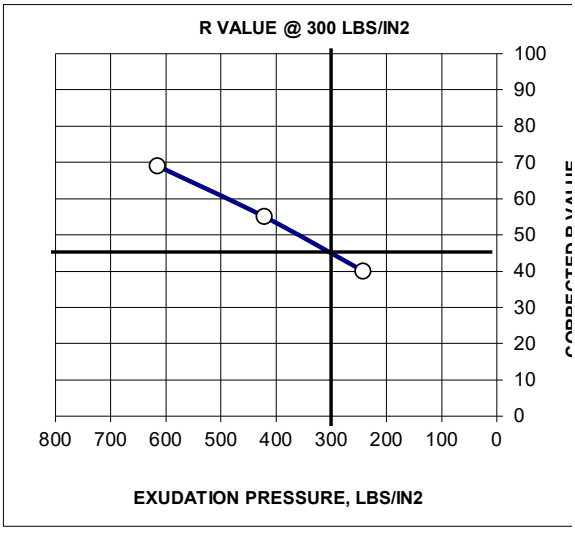
Test Procedure: ASTM D2844

Specimen/ Mold No.	16	E	I
Compactor Air Pressure, - ft.lbs.	350	350	300
Initial Moisture, - %	7.5%	7.5%	7.5%
Sample Size - g	1200	1200	1200
Water Added, - ml	30	45	55
Moisture at Compaction, - %	10.0%	11.3%	12.1%
Wt. Of Briquette and Mold, - g	3117.6	3118	3014
Wt. Of Mold, - g	2078.5	2087	2089
Wt. Of Briquitte, - g	1039.1	1031	925
Height of Briquette, - in	2.47	2.55	2.45
Dry Density, - pcf	115.8	110.1	102.0
Stabilometer PH @ 2000 lbs	30	45	62
Displacement	4.68	5.12	5.74
R' Value	69	55	40
Corrected 'R' Value	69	55	40
Exudation Pressure, - lbs	7684	5263	3021
Exudation Pressure, - psi	615	421	242
Stabilometer Thickness - ft	0	0	0
Expansion - in.	0	0	0
Expansion Pressure - Pascals	0	0	0
Expansion Press, Thick-ft	0	0	0

TI	
Expansion	N/A

R-value **45**





Cover Thickness by Expansion Pressure-Feet

Expansion From Graph:	N/A

Sunland Analytical

11419 Sunrise Gold Circle, #10
Rancho Cordova, CA 95742
(916) 852-8557

Date Reported 03/10/2017
Date Submitted 03/07/2017

To: Ken Magnuson
CTE Cal,Inc.
3628 Madison Ave, Ste 22
Sacramento, Ca 95660

From: Gene Oliphant, Ph.D. \ Randy Horney
General Manager \ Lab Manager

The reported analysis was requested for the following location:
Location : 25-0484G Site ID : B3-BULK.
Thank you for your business.

* For future reference to this analysis please use SUN # 73749-153799.

EVALUATION FOR SOIL CORROSION

Soil pH	7.35	
Minimum Resistivity	16.88 ohm-cm (x1000)	
Chloride	1.0 ppm	00.00010 %
Sulfate	2.0 ppm	00.00020 %

METHODS
pH and Min.Resistivity CA DOT Test #643
Sulfate CA DOT Test #417, Chloride CA DOT Test #422

Sunland Analytical

11419 Sunrise Gold Circle, #10
Rancho Cordova, CA 95742
(916) 852-8557

Date Reported 03/10/2017
Date Submitted 03/07/2017

To: Ken Magnuson
CTE Cal,Inc.
3628 Madison Ave, Ste 22
Sacramento, Ca 95660

From: Gene Oliphant, Ph.D. \ Randy Horney
General Manager \ Lab Manager

The reported analysis was requested for the following:
Location : 25-0484G Site ID : B3-BULK.
Thank you for your business.

* For future reference to this analysis please use SUN # 73749-153800.

SOIL ANALYSIS

Saturation Percent (SP)	24		Soil Texture Sandy Loam
pH	7.29		
E.C.	0.18	mmho/cm	
Tot.Dissolved Salts	115.2	ppm	
Infiltration Rate (0% Slope)	0.75	in/hr	
% Organic Matter	1.0		
C.E.C.	4.3	meq/100g	
Sodium Absorption Ratio (SAR)	2.4		
Exchangable Sodium Percent (ESP)	2.2		
Gypsum Req. (CaSO4*2H2O)	None Required		
est. Nitrogen Release	0.9	#/1000 sq.ft.	

Nitrate	2.30	ppm	*
Phosphorus	15.95	ppm	**********
Potassium	78.82	ppm	**********
Sulfur	1.80	ppm	***
Chloride	25.82	ppm	**********
Carbonates	56.96	ppm	**********
Sodium	21.79	ppm	
Calcium	621.16	ppm	**********
Magnesium	106.84	ppm	******
Boron	0.36	ppm	**********
Copper	1.22	ppm	**********
Iron	15.22	ppm	**********
Manganese	5.13	ppm	**********
Zinc	0.63	ppm	**********

Very Low	Low	Adequate	Excessive

Sunland Analytical
11419 Sunrise Gold Circle, #10
Rancho Cordova, CA 95742
(916) 852-8557

DATE 03/10/2017
SUN NUMBER 153800

Information requested by:
Ken Magnuson
CTE Cal,Inc.

Information for:
25-0484G
Sample ID: B3-BULK

SOIL RECOMMENDATIONS FOR LANDSCAPE GARDENING

SOIL pH (Acidity and Alkalinity)

The pH of this sample indicates the soil is in a range for normal growth of most plants. No modification is required.

DISSOLVED SALTS (Indicated by E.C. & TDS)

These conditions are in the normal range for plant growth.

SOIL TEXTURE AND RATE OF WATER INFILTRATION

The infiltration rate for all soil textures decreases with increasing ground slope. At 0 to 4%, 5 to 8%, 9 to 12%, 13 to 16% and above 16% the infiltration rate of this sample decreases from 1.06 to 0.85, 0.64, 0.42, 0.27, respectively. Infiltration rate also decreases with percent of ground cover and by compaction.

WATER PENETRATION OF SOIL DUE TO CHEMICAL CHARACTERISTICS

When exchangable Sodium increases in the soil, water penetration decreases. Based on SAR and ESP values this sample has no penetration problem due to soil Sodium. No Gypsum required.

ORGANIC MATTER

Organic matter provides a slow nitrogen release and aids water retention. This sample has a low Organic Matter content.
To maintain moisture and provide sustained nitrogen release a level of 10% organic matter is recommended. Use amending material that is approximately 75% organic matter (i.e. many ground fir barks). Based on the analysis of this soil sample apply 4 yards per 1000 sq.ft. Spread evenly and blend into the top six inches of soil. It is a reasonable practice to apply a top dressing of 3 inches of organic mulches to aid water penetration and retention.

SOIL BORON

Boron concenrations are in a range allowing normal plant growth.

SOIL MICRONUTRIENTS

Micronutrients, Copper, Iron, Manganese and Zinc, in soil are present in small amounts. However, they play a necessary role in plant metabolism. Without appropriate amounts plants will not thrive. Apply the following per 1000/ sq.ft. Do not mix micronutrients during application (use a separate application for each element indicated).

Because copper, manganese and zinc are in very small amounts, dissolve (each) in 2 gallons of water and use a sprayer to obtain an even application.
Apply , 1.0 # Manganese Sulfate, 0.5 # Zinc Sulfate and water.

Sunland Analytical
11419 Sunrise Gold Circle, #10
Rancho Cordova, CA 95742
(916) 852-8557

DATE 03/10/2017
SUN NUMBER 153800

Information requested by:
Ken Magnuson
CTE Cal,Inc.

Information for:
25-0484G
Sample ID: B3-BULK

SOIL RECOMMENDATIONS FOR LANDSCAPE GARDENING

SOIL MACRONUTRIENTS : NITROGEN-PHOSPHORUS-POTASSIUM (N-P-K)
GENERAL N-P-K RECOMMENDATION

Use ONE of these NPK preparations for the first fertilizer application.

Standard NPK Fertilizer Preparations	6-20-20	5-20-10	16-16-16	0-10-10	28-3-4	21-0-0	Customer Choice None
#/1000 sq.ft.	19	23	N/A	N/A	N/A	N/A	**

GRASS OR SOD PREPARATION

Till in organic matter, N,P,K and micro nutrients in addition to any lime gypsum or sulfur as directed above. Smooth soil surface and follow seed or sod producers direction for moisture and product application.

TREES AND SHRUBS

Excavate holes for planting shrubs and trees to at least twice the volume of the container. Prepare backfill for tree and shrub planting holes by mixing three parts of native soil (or imported top soil) with one part organic amendment (preferably nitrogen and iron fortified) and 2.5 pounds of 6-20-20 per yard of mix. For extended fertilization, place slow release fertilizer tablets in each hole per manufacturer's instructions. If 6-20-20 was not directly added to backfill mix, during backfill apply uniformly 1/2 oz of 6-20-20 per gallon containers, 2.5 oz per 5 gallons, 6 oz per 24 inch boxes.

Summary and Suggested Sequence of Soil Improvements (#/1000 Sq.Ft.)

Organic Amendment	4	Yd./1000 Sq.Ft. Bulk organic amendment (nitrofied).
N-P-K Fertilizer	See above chart	
Micro Nutrients		
Manganese	1.0 #	Manganese Sulfate
Zinc	0.5 #	Zinc Sulfate
Magnesium	2 #	Magnesium Sulfate (Epson Salts)
Sulfate-Sulfur	Low sulfate compensated by other soil improvements.	

Maintenance Fertilization

Apply 5 pounds of Ammonium sulfate (21-0-0) per 1000 sq.ft.every month until plants become established. After established, apply 28-3-4 (or similar preparation) to provide desired growth rate and color.

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CIVIL ENGINEERING | GEOTECHNICAL | ENVIRONMENTAL | CONSTRUCTION INSPECTION AND TESTING

Report of Soil Testing

To: Pacific Development Group
Project Name: S.W.C. Main Str. & Atherton Dr.
Gov. Contract #
Project Number: 25-0484G

Sample Data:

Date Sampled: February 27, 2017

Lab #: 4466

SampleID:	B1 @ 2.5'	B1 @ 5'	B1 @ 10'	B1 @ 15'	
Wet Wt:	272.8	300.5	207.5	261.6	
Dry Wt (before wash):	247.9	268.8	163.8	207.1	
Dry Wt (after wash):	189.5	224.5	52.7	130.9	
In-Place Moisture %:	10.0	11.8	26.7	26.3	
	% Passing	% Passing	% Passing	% Passing	
1 1/2inch					
1inch					
3/4inch					
1/2inch					
3/8inch					
#4					
#8					
#16					
#30					
#50					
#100					
#200	**23.6**	**16.5**	**67.8**	**36.8**	

All Sampling and Testing Done In Accordance With ASTM C117, C136, D1557, D4318, and D2487.

Reviewed By: Kurt Magnusson Date: March 10, 2017

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CIVIL ENGINEERING | GEOTECHNICAL | ENVIRONMENTAL | CONSTRUCTION INSPECTION AND TESTING

Report of Soil Testing

To: Pacific Development Group
Project Name: S.W.C. Main Str. & Atherton Dr.
Gov. Contract #
Project Number: 25-0484G

Sample Data:

Date Sampled: February 27, 2017

Lab #: 4466

SampleID:	B2 @ 2.5'	B2 @ 5'	B2 @ 10'	B3 @ 0-5'	B3 @ 5'
Wet Wt:	187.2	231.2	305.8		295.0
Dry Wt (before wash):	168.6	209.3	238.5		276.3
Dry Wt (after wash):	127.8	180.5	27.8		245.3
In-Place Moisture %:	11.0	10.5	28.2		6.8
	% Passing	% Passing	% Passing		% Passing
1 1/2inch					
1inch					
3/4inch					
1/2inch					
3/8inch					
#4					
#8					
#16					
#30					
#50					
#100					
#200	**24.2**	**13.8**	**88.3**		**11.2**

All Sampling and Testing Done In Accordance With ASTM C117, C136, D1557, D4318, and D2487.

Reviewed By: Kurt Magnusson Date: March 10, 2017

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CIVIL ENGINEERING | GEOTECHNICAL | ENVIRONMENTAL | CONSTRUCTION INSPECTION AND TESTING

Report of Soil Testing

To: Pacific Development Group
Project Name: S.W.C. Main Str. & Atherton Dr.
Gov. Contract #
Project Number: 25-0484G

Sample Data:

Date Sampled: February 27, 2017

Lab #: 4466

SampleID:	B4 @ 2.5'	B4 @ 5'	B4 @ 10'	B4 @ 15'	
Wet Wt:	306.3	239.6	267.8	244.5	
Dry Wt (before wash):	284.4	221.4	218.5	204.1	
Dry Wt (after wash):	236.1	176.3	95.1	192.7	
In-Place Moisture %:	7.7	8.2	22.6	19.8	
	% Passing	% Passing	% Passing	% Passing	
1 1/2inch					
1inch					
3/4inch					
1/2inch					
3/8inch					
#4					
#8					
#16					
#30					
#50					
#100					
#200	**17.0**	**20.4**	**56.5**	**5.6**	

All Sampling and Testing Done In Accordance With ASTM C117, C136, D1557, D4318, and D2487.

Reviewed By: Kurt Magnusson Date: March 10, 2017

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CIVIL ENGINEERING | GEOTECHNICAL | ENVIRONMENTAL | CONSTRUCTION INSPECTION AND TESTING

Report of Soil Testing

To: Pacific Development Group
Project Name: S.W.C. Main Str. & Atherton Dr.
Gov. Contract #
Project Number: 25-0484G

Sample Data:

Date Sampled: February 27, 2017

Lab #: 4466

SampleID:	B5 @ 2.5'	B5 @ 5.5'	B5 @ 10'	B5 @ 15'	
Wet Wt:	311.3	319.1	184.7	278.1	
Dry Wt (before wash):	289.9	265.5	150.5	220.3	
Dry Wt (after wash):	230.4	73.5	73.5	56.6	
In-Place Moisture %:	7.4	20.2	22.7	26.2	
	% Passing	% Passing	% Passing	% Passing	
1 1/2inch					
1inch					
3/4inch					
1/2inch					
3/8inch					
#4					
#8					
#16					
#30					
#50					
#100					
#200	**20.5**	**72.3**	**51.2**	**74.3**	

All Sampling and Testing Done In Accordance With ASTM C117, C136, D1557, D4318, and D2487.

Reviewed By: Kent Magnusson Date: March 10, 2017

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CIVIL ENGINEERING | GEOTECHNICAL | ENVIRONMENTAL | CONSTRUCTION INSPECTION AND TESTING

Report of Soil Testing

To: Pacific Development Group
Project Name: S.W.C. Main Str. & Atherton Dr.
Gov. Contract #
Project Number: 25-0484G

Sample Data:

Date Sampled: February 27, 2017

Lab #: 4466

SampleID:	B6 @ 2.5'	B6 @ 5.5'	B6 @ 10'	B6 @ 15'	
Wet Wt:	312.7		282.9	317.0	
Dry Wt (before wash):	290.3		234.7	270.9	
Dry Wt (after wash):	235.0		66.2		
In-Place Moisture %:	7.7		20.5	17.0	
	% Passing		% Passing	% Passing	
1 1/2inch					
1inch					
3/4inch					
1/2inch					
3/8inch					
#4					
#8					
#16					
#30					
#50					
#100					
#200	**19.0**		**71.8**		

All Sampling and Testing Done In Accordance With ASTM C117, C136, D1557, D4318, and D2487.

Reviewed By: Kurt Magnusson Date: March 10, 2017

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CIVIL ENGINEERING | GEOTECHNICAL | ENVIRONMENTAL | CONSTRUCTION INSPECTION AND TESTING

Report of Soil Testing

To: Pacific Development Group
Project Name: S.W.C. Main Str. & Atherton Dr.
Gov. Contract #
Project Number: 25-0484G

Sample Data:

Date Sampled: February 27, 2017

Lab #: 4466

SampleID:	B7 @ 0-5'	B8 @ 2.5'	B8 @ 5.5'	B8 @ 10'	
Wet Wt:	306.0	319.0	245.5	275.7	
Dry Wt (before wash):	270.0	292.2	197.5	230.1	
Dry Wt (after wash):	168.5	225.3	59.4		
In-Place Moisture %:	13.3	9.2	24.3	19.8	
	% Passing	% Passing	% Passing	% Passing	
1 1/2inch					
1inch					
3/4inch					
1/2inch					
3/8inch					
#4					
#8					
#16					
#30					
#50					
#100					
#200	**37.6**	**22.9**	**69.9**		

All Sampling and Testing Done In Accordance With ASTM C117, C136, D1557, D4318, and D2487.

Reviewed By: Kurt Magnusson Date: March 10, 2017

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Report of Soil Testing

To: Pacific Development Group
Project Name: S.W.C. Main Str. & Atherton Dr.
Gov. Contract #
Project Number: 25-0484G

Sample Data:

Date Sampled: February 27, 2017

Lab #: 4466

SampleID:	B9 @ 5.5'		B10 @ 2'	B10 @ 10'	
Wet Wt:	273.3		293.1	309.2	
Dry Wt (before wash):	222.5		272.8	258.1	
Dry Wt (after wash):	68.8		216.2		
In-Place Moisture %:	22.8		7.4	19.8	
	% Passing		% Passing	% Passing	
1 1/2inch					
1inch					
3/4inch					
1/2inch					
3/8inch					
#4					
#8					
#16					
#30					
#50					
#100					
#200	**69.1**		**20.7**		

All Sampling and Testing Done In Accordance With ASTM C117, C136, D1557, D4318, and D2487.

Reviewed By: Kurt Magnusson Date: March 10, 2017

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CIVIL ENGINEERING | GEOTECHNICAL | ENVIRONMENTAL | CONSTRUCTION INSPECTION AND TESTING

MOISTURE & DENSITY TEST

Client: Pacific Development Group **Sample Date:** 2/27/2017

Project Name: S.W.C. Main Str. & Atherton **Lab Number:** 4466

Project Number: 25-0484G

Sample No.	B1	B1	B1	B1	
DEPTH FT	2.5'	5'	10'	15'	
SAMPLE HT	5.54	6.00	4.11	4.97	
TUBE DIA.	1.43	1.43	1.43	1.43	
SOIL+RING	399.4	420.4	328.1	380.0	
RING	126.6	120.8	120.4	118.2	
SOIL WT., g	272.8	299.6	207.7	261.8	
SOIL, LB	0.60141	0.66049	0.45789	0.57716	
VOL. SOIL	0.00515	0.00558	0.00382	0.00462	
WET DENS	116.8	118.4	119.9	124.9	
SOIL WET	272.8	300.5	207.5	261.6	
SOIL DRY	247.9	268.8	163.8	207.1	
% MOIST	10.0%	11.8%	26.7%	26.3%	
DRY DENS	106.1	105.9	94.6	98.9	

Reviewed By: Ken Magnuson Date: March 10, 2017

Laboratory Manager

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CIVIL ENGINEERING | GEOTECHNICAL | ENVIRONMENTAL | CONSTRUCTION INSPECTION AND TESTING

MOISTURE & DENSITY TEST

Client: Pacific Development Group **Sample Date:** 2/27/2017

Project Name: S.W.C. Main Str. & Atherton **Lab Number:** 4466

Project Number: 25-0484G

Sample No.	B2	B2	B2	B3	B3
DEPTH FT	5'	10'	15'	0-5'	5'
SAMPLE HT	3.67	5.49	6.00		6.00
TUBE DIA.	1.43	1.43	1.43		1.43
SOIL+RING	310.8	354.2	428.9		416.0
RING	123.2	123.0	122.6		120.7
SOIL WT., g	187.6	231.2	306.3		295.3
SOIL, LB	0.41358	0.50970	0.67526		0.65101
VOL. SOIL	0.00341	0.00510	0.00558		0.00558
WET DENS	121.2	99.9	121.1		116.7
SOIL WET	187.2	231.2	305.8		295.0
SOIL DRY	168.6	209.3	238.5		276.3
% MOIST	11.0%	10.5%	28.2%		6.8%
DRY DENS	109.2	90.4	94.4		109.3

Reviewed By: Ken Magnuson, Laboratory Manager Date: March 10, 2017

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CIVIL ENGINEERING | GEOTECHNICAL | ENVIRONMENTAL | CONSTRUCTION INSPECTION AND TESTING

MOISTURE & DENSITY TEST

Client: Pacific Development Group **Sample Date:** 2/27/2017

Project Name: S.W.C. Main Str. & Atherton **Lab Number:** 4466

Project Number: 25-0484G

Sample No.	B4	B4	B4	B4	
DEPTH FT	2.5'	5'	10'	15'	
SAMPLE HT	5.91	5.47	5.33	4.52	
TUBE DIA.	1.44	1.43	1.43	1.43	
SOIL+RING	417.1	366.9	379.5	364.6	
RING	110.9	127.2	110.8	119.5	
SOIL WT., g	306.2	239.7	268.7	245.1	
SOIL, LB	0.67504	0.52844	0.59237	0.54034	
VOL. SOIL	0.00557	0.00508	0.00495	0.00420	
WET DENS	121.2	103.9	119.6	128.6	
SOIL WET	306.3	239.6	267.8	244.5	
SOIL DRY	284.4	221.4	218.5	204.1	
% MOIST	7.7%	8.2%	22.6%	19.8%	
DRY DENS	112.5	96.0	97.6	107.4	

Reviewed By: Ken Magnuson Date: March 10, 2017
Laboratory Manager

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MOISTURE & DENSITY TEST

Client: Pacific Development Group **Sample Date:** 2/27/2017

Project Name: S.W.C. Main Str. & Atherton **Lab Number:** 4466

Project Number: 25-0484G

Sample No.	B5	B5	B5	B5	
DEPTH FT	2.5'	5.5'	10'	15'	
SAMPLE HT	5.98	5.99	5.34	5.36	
TUBE DIA.	1.43	1.44	1.43	1.43	
SOIL+RING	436.2	430.7	398.7	403.6	
RING	125.0	110.8	122.3	123.5	
SOIL WT., g	311.2	319.9	276.4	280.1	
SOIL, LB	0.68607	0.70525	0.60935	0.61750	
VOL. SOIL	0.00556	0.00565	0.00496	0.00498	
WET DENS	123.4	124.9	122.8	124.0	
SOIL WET	311.3	319.1	184.7	278.1	
SOIL DRY	289.8	265.5	150.5	220.3	
% MOIST	7.4%	20.2%	22.7%	26.2%	
DRY DENS	114.9	103.9	100.0	98.2	

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MOISTURE & DENSITY TEST

Client: Pacific Development Group **Sample Date:** 2/27/2017

Project Name: S.W.C. Main Str. & Atherton **Lab Number:** 4466

Project Number: 25-0484G

Sample No.	B6	B6	B6	B6	B6
DEPTH FT	2.5'	5'	5.5'	10'	15'
SAMPLE HT	5.99	5.98		5.45	5.92
TUBE DIA.	1.43	1.42		1.43	1.43
SOIL+RING	437.2	487.4		406.5	440.7
RING	124.3	168.8		123.0	123.3
SOIL WT., g	312.9	318.6		283.5	317.4
SOIL, LB	0.68981	0.70238		0.62500	0.69974
VOL. SOIL	0.00557	0.00548		0.00507	0.00550
WET DENS	123.9	128.2		123.4	127.2
SOIL WET	312.7	318.1		282.9	317.0
SOIL DRY	290.3	275.2		234.7	270.9
% MOIST	7.7%	15.6%		20.5%	17.0%
DRY DENS	115.0	110.9		102.4	108.7

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MOISTURE & DENSITY TEST

Client: Pacific Development Group **Sample Date:** 2/27/2017

Project Name: S.W.C. Main Str. & Atherton **Lab Number:** 4466

Project Number: 25-0484G

Sample No.	B7	B8	B8	B8	
DEPTH FT	0-5'	2'	5.5'	10'	
SAMPLE HT		6.00	5.01	5.75	
TUBE DIA.		1.43	1.43	1.43	
SOIL+RING		442.1	365.4	395.5	
RING		123.0	118.7	119.0	
SOIL WT., g		319.1	246.7	276.5	
SOIL, LB		0.70348	0.54387	0.60957	
VOL. SOIL		0.00558	0.00466	0.00534	
WET DENS		126.1	116.8	114.1	
SOIL WET	306.0	319.0	245.5	275.7	
SOIL DRY	270.0	292.2	197.5	230.1	
% MOIST	13.3%	9.2%	24.3%	19.8%	
DRY DENS		115.6	94.0	95.2	

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MOISTURE & DENSITY TEST

Client: Pacific Development Group **Sample Date:** 2/27/2017

Project Name: S.W.C. Main Str. & Atherton **Lab Number:** 4466

Project Number: 25-0484G

Sample No.	B9		B10	B10	
DEPTH FT	5.5'		2'	10'	
SAMPLE HT	5.30		5.79	5.84	
TUBE DIA.	1.43		1.43	1.43	
SOIL+RING	397.1		420.6	420.7	
RING	122.9		127.4	111.2	
SOIL WT., g	274.2		293.2	309.5	
SOIL, LB	0.60450		0.64638	0.68232	
VOL. SOIL	0.00493		0.00538	0.00543	
WET DENS	122.7		120.1	125.7	
SOIL WET	273.3		293.1	309.2	
SOIL DRY	222.5		272.8	258.1	
% MOIST	22.8%		7.4%	19.8%	
DRY DENS	99.9		111.8	104.9	

Reviewed By: Ken Magnuson, Laboratory Manager Date: March 10, 2017

APPENDIX D

STANDARD SPECIFICATIONS FOR GRADING

Section 1 - General

CTE, Cal, Inc. (CTE) presents the following standard recommendations for grading and other associated operations on construction projects. These guidelines should be considered a portion of the project specifications. Recommendations contained in the body of the previously presented soils report shall supersede the recommendations and or requirements as specified herein. The project geotechnical consultant shall interpret disputes arising out of interpretation of the recommendations contained in the soils report or specifications contained herein.

Section 2 - Responsibilities of Project Personnel

The geotechnical consultant should provide observation and testing services sufficient to general conformance with project specifications and standard grading practices. The geotechnical consultant should report any deviations to the client or his authorized representative.

The Client should be chiefly responsible for all aspects of the project. He or his authorized representative has the responsibility of reviewing the findings and recommendations of the geotechnical consultant. He shall authorize or cause to have authorized the Contractor and/or other consultants to perform work and/or provide services. During grading the Client or his authorized representative should remain on-site or should remain reasonably accessible to all concerned parties in order to make decisions necessary to maintain the flow of the project.

The Contractor is responsible for the safety of the project and satisfactory completion of all grading and other associated operations on construction projects, including, but not limited to, earth work in accordance with the project plans, specifications and controlling agency requirements.

Section 3 - Preconstruction Meeting

A preconstruction site meeting should be arranged by the owner and/or client and should include the grading contractor, design engineer, geotechnical consultant, owner's representative and representatives of the appropriate governing authorities.

Section 4 - Site Preparation

The client or contractor should obtain the required approvals from the controlling authorities for the project prior, during and/or after demolition, site preparation and removals, etc. The appropriate approvals should be obtained prior to proceeding with grading operations.

Clearing and grubbing should consist of the removal of vegetation such as brush, grass, woods, stumps, trees, root of trees and otherwise deleterious natural materials from the areas to be graded. Clearing and grubbing should extend to the outside of all proposed excavation and fill areas.

Demolition should include removal of buildings, structures, foundations, reservoirs, utilities (including underground pipelines, septic tanks, leach fields, seepage pits, cisterns, mining shafts, tunnels, etc.) and other man-made surface and subsurface improvements from the areas to be graded. Demolition of utilities should include proper capping and/or rerouting pipelines at the project perimeter and cutoff and capping of wells in accordance with the requirements of the governing authorities and the recommendations of the geotechnical consultant at the time of demolition.

Trees, plants or man-made improvements not planned to be removed or demolished should be protected by the contractor from damage or injury.

Debris generated during clearing, grubbing and/or demolition operations should be wasted from areas to be graded and disposed off-site. Clearing, grubbing and demolition operations should be performed under the observation of the geotechnical consultant.

Section 5 - Site Protection

Protection of the site during the period of grading should be the responsibility of the contractor. Unless other provisions are made in writing and agreed upon among the concerned parties, completion of a portion of the project should not be considered to preclude that portion or adjacent areas from the requirements for site protection until such time as the entire project is complete as identified by the geotechnical consultant, the client and the regulating agencies.

Precautions should be taken during the performance of site clearing, excavations and grading to protect the work site from flooding, ponding or inundation by poor or improper surface drainage. Temporary provisions should be made during the rainy season to adequately direct surface drainage away from and off the work site. Where low areas cannot be avoided, pumps should be kept on hand to continually remove water during periods of rainfall.

Rain related damage should be considered to include, but may not be limited to, erosion, silting, saturation, swelling, structural distress and other adverse conditions as determined by the geotechnical consultant. Soil adversely affected should be classified as unsuitable materials and should be subject to overexcavation and replacement with compacted fill or other remedial grading as recommended by the geotechnical consultant.

The contractor should be responsible for the stability of all temporary excavations. Recommendations by the geotechnical consultant pertaining to temporary excavations (e.g., backcuts) are made in consideration of stability of the completed project and, therefore, should not be considered to preclude the responsibilities of the contractor. Recommendations by the geotechnical consultant should not be considered to preclude requirements that are more restrictive by the regulating agencies. The contractor should provide during periods of extensive rainfall plastic sheeting to prevent unprotected slopes from becoming saturated and unstable. When deemed appropriate by the geotechnical consultant or governing agencies the contractor shall install checkdams, desilting basins, sand bags or other drainage control measures.

In relatively level areas and/or slope areas, where saturated soil and/or erosion gullies exist to depths of greater than 1.0 foot; they should be overexcavated and replaced as compacted fill in accordance with the applicable specifications. Where affected materials exist to depths of 1.0 foot or less below proposed finished grade, remedial grading by moisture conditioning in-place, followed by thorough recompaction in accordance with the applicable grading guidelines herein may be attempted. If the desired results are not achieved, all affected materials should be overexcavated and replaced as compacted fill in accordance with the slope repair recommendations herein. If field conditions dictate, the geotechnical consultant may recommend other slope repair procedures.

Section 6 - Excavations

6.1 Unsuitable Materials

Materials that are unsuitable should be excavated under observation and recommendations of the geotechnical consultant. Unsuitable materials include, but may not be limited to, dry, loose, soft, wet, organic compressible natural soils and fractured, weathered, soft bedrock and nonengineered or otherwise deleterious fill materials.

Material identified by the geotechnical consultant as unsatisfactory due to its moisture conditions should be overexcavated; moisture conditioned as needed, to a uniform at or above optimum moisture condition before placement as compacted fill.

If during the course of grading adverse geotechnical conditions are exposed which were not anticipated in the preliminary soil report as determined by the geotechnical consultant additional exploration, analysis, and treatment of these problems may be recommended.

6.2 Cut Slopes

Unless otherwise recommended by the geotechnical consultant and approved by the regulating agencies, permanent cut slopes should not be steeper than 2:1 (horizontal: vertical).

The geotechnical consultant should observe cut slope excavation and if these excavations expose loose cohesionless, significantly fractured or otherwise unsuitable material, the materials should be overexcavated and replaced with a compacted stabilization fill. If encountered specific cross section details should be obtained from the Geotechnical Consultant.

When extensive cut slopes are excavated or these cut slopes are made in the direction of the prevailing drainage, a non-erodible diversion swale (brow ditch) should be provided at the top of the slope.

6.3 Pad Areas

All lot pad areas, including side yard terrace containing both cut and fill materials, transitions, located less than 3 feet deep should be overexcavated to a depth of 3 feet and replaced with a uniform compacted fill blanket of 3 feet. Actual depth of overexcavation may vary and should be delineated by the geotechnical consultant during grading, especially where deep or drastic transitions are present.

For pad areas created above cut or natural slopes, positive drainage should be established away from the top-of-slope. This may be accomplished utilizing a berm drainage swale and/or an appropriate pad gradient. A gradient in soil areas away from the top-of-slopes of 2 percent or greater is recommended.

Section 7 - Compacted Fill

All fill materials should have fill quality, placement, conditioning and compaction as specified below or as approved by the geotechnical consultant.

7.1 Fill Material Quality

Excavated on-site or import materials which are acceptable to the geotechnical consultant may be utilized as compacted fill, provided trash, vegetation and other deleterious materials are removed prior to placement. All import materials anticipated for use on-site should be sampled tested and approved prior to and placement is in conformance with the requirements outlined.

Rocks 12 inches in maximum and smaller may be utilized within compacted fill provided sufficient fill material is placed and thoroughly compacted over and around all rock to effectively fill rock voids. The amount of rock should not exceed 40 percent by dry weight passing the 3/4-inch sieve. The geotechnical consultant may vary those requirements as field conditions dictate.

Where rocks greater than 12 inches but less than four feet of maximum dimension are generated during grading, or otherwise desired to be placed within an engineered fill, special handling in accordance with the recommendations below. Rocks greater than four feet should be broken down or disposed off-site.

7.2 Placement of Fill

Prior to placement of fill material, the geotechnical consultant should observe and approve the area to receive fill. After observation and approval, the exposed ground surface should be scarified to a depth of 6 to 8 inches. The scarified material should be conditioned (i.e. moisture added or air dried by continued discing) to achieve a moisture content at or slightly above optimum moisture conditions and compacted to a minimum of 90 percent of the maximum density or as otherwise recommended in the soils report or by appropriate government agencies.

Compacted fill should then be placed in thin horizontal lifts not exceeding eight inches in loose thickness prior to compaction. Each lift should be moisture conditioned as needed, thoroughly blended to achieve a consistent moisture content at or slightly above optimum and thoroughly compacted by mechanical methods to a minimum of 90 percent of laboratory maximum dry density. Each lift should be treated in a like manner until the desired finished grades are achieved.

The contractor should have suitable and sufficient mechanical compaction equipment and watering apparatus on the job site to handle the amount of fill being placed in consideration of moisture retention properties of the materials and weather conditions.

When placing fill in horizontal lifts adjacent to areas sloping steeper than 5:1 (horizontal: vertical), horizontal keys and vertical benches should be excavated into the adjacent slope area. Keying and benching should be sufficient to provide at least six-foot wide benches and a minimum of four feet of vertical bench height within the firm natural ground, firm bedrock or engineered compacted fill. No compacted fill should be placed in an area after keying and benching until the geotechnical consultant has reviewed the area. Material generated by the benching operation should be moved sufficiently away from

the bench area to allow for the recommended review of the horizontal bench prior to placement of fill.

Within a single fill area where grading procedures dictate two or more separate fills, temporary slopes (false slopes) may be created. When placing fill adjacent to a false slope, benching should be conducted in the same manner as above described. At least a 3-foot vertical bench should be established within the firm core of adjacent approved compacted fill prior to placement of additional fill. Benching should proceed in at least 3-foot vertical increments until the desired finished grades are achieved.

Prior to placement of additional compacted fill following an overnight or other grading delay, the exposed surface or previously compacted fill should be processed by scarification, moisture conditioning as needed to at or slightly above optimum moisture content, thoroughly blended and recompacted to a minimum of 90 percent of laboratory maximum dry density. Where unsuitable materials exist to depths of greater than one foot, the unsuitable materials should be over-excavated.

Following a period of flooding, rainfall or overwatering by other means, no additional fill should be placed until damage assessments have been made and remedial grading performed as described herein.

Rocks 12 inch in maximum dimension and smaller may be utilized in the compacted fill provided the fill is placed and thoroughly compacted over and around all rock. No oversize material should be used within 3 feet of finished pad grade and within 1 foot of other compacted fill areas. Rocks 12 inches up to four feet maximum dimension should be placed below the upper 10 feet of any fill and should not be closer than 15 feet to any slope face. These recommendations could vary as locations of improvements dictate. Where practical, oversized material should not be placed below areas where structures or deep utilities are proposed. Oversized material should be placed in windrows on a clean, overexcavated or unyielding compacted fill or firm natural ground surface. Select native or imported granular soil (S.E. 30 or higher) should be placed and thoroughly flooded over and around all windrowed rock, such that voids are filled. Windrows of oversized material should be staggered so those successive strata of oversized material are not in the same vertical plane.

It may be possible to dispose of individual larger rock as field conditions dictate and as recommended by the geotechnical consultant at the time of placement.

The contractor should assist the geotechnical consultant and/or his representative by digging test pits for removal determinations and/or for testing compacted fill. The contractor should provide this work at no additional cost to the owner or contractor's client.

Fill should be tested by the geotechnical consultant for compliance with the recommended relative compaction and moisture conditions. Field density testing should conform to ASTM Method of Test D 1556-00, D 2922-04. Tests should be conducted at a minimum of approximately two vertical feet or approximately 1,000 to 2,000 cubic yards of fill placed. Actual test intervals may vary as field conditions dictate. Fill found not to be in conformance with the grading recommendations should be removed or otherwise handled as recommended by the geotechnical consultant.

7.3 Fill Slopes

Unless otherwise recommended by the geotechnical consultant and approved by the regulating agencies, permanent fill slopes should not be steeper than 2:1 (horizontal: vertical).

Except as specifically recommended in these grading guidelines compacted fill slopes should be over-built two to five feet and cut back to grade, exposing the firm, compacted fill inner core. The actual amount of overbuilding may vary as field conditions dictate. If the desired results are not achieved, the existing slopes should be overexcavated and reconstructed under the guidelines of the geotechnical consultant. The degree of overbuilding shall be increased until the desired compacted slope surface condition is achieved. Care should be taken by the contractor to provide thorough mechanical compaction to the outer edge of the overbuilt slope surface.

At the discretion of the geotechnical consultant, slope face compaction may be attempted by conventional construction procedures including backrolling. The procedure must create a firmly compacted material throughout the entire depth of the slope face to the surface of the previously compacted firm fill intercore.

During grading operations, care should be taken to extend compactive effort to the outer edge of the slope. Each lift should extend horizontally to the desired finished slope surface or more as needed to ultimately established desired grades. Grade during construction should not be allowed to roll off at the edge of the slope. It may be helpful to elevate slightly the outer edge of the slope. Slough resulting from the placement of individual lifts should not be allowed to drift down over previous lifts. At intervals not

exceeding four feet in vertical slope height or the capability of available equipment, whichever is less, fill slopes should be thoroughly dozer trackrolled.

For pad areas above fill slopes, positive drainage should be established away from the top-of-slope. This may be accomplished using a berm and pad gradient of at least two percent.

Section 8 - Trench Backfill

Utility and/or other excavation of trench backfill should, unless otherwise recommended, be compacted by mechanical means. Unless otherwise recommended, the degree of compaction should be a minimum of 90 percent of the laboratory maximum density.

Within slab areas, but outside the influence of foundations, trenches up to one foot wide and two feet deep may be backfilled with sand and consolidated by jetting, flooding or by mechanical means. If on-site materials are utilized, they should be wheel-rolled, tamped or otherwise compacted to a firm condition. For minor interior trenches, density testing may be deleted or spot testing may be elected if deemed necessary, based on review of backfill operations during construction.

If utility contractors indicate that it is undesirable to use compaction equipment in close proximity to a buried conduit, the contractor may elect the utilization of light weight mechanical compaction equipment and/or shading of the conduit with clean, granular material, which should be thoroughly jetted in-place above the conduit, prior to initiating mechanical compaction procedures. Other methods of utility trench compaction may also be appropriate, upon review of the geotechnical consultant at the time of construction.

In cases where clean granular materials are proposed for use in lieu of native materials or where flooding or jetting is proposed, the procedures should be considered subject to review by the geotechnical consultant. Clean granular backfill and/or bedding are not recommended in slope areas.

Section 9 - Drainage

Where deemed appropriate by the geotechnical consultant, canyon subdrain systems should be installed in accordance with CTE's recommendations during grading.

Typical subdrains for compacted fill buttresses, slope stabilization or sidehill masses, should be installed in accordance with the specifications.

Roof, pad and slope drainage should be directed away from slopes and areas of structures to suitable disposal areas via non-erodible devices (i.e., gutters, downspouts, and concrete swales).

For drainage in extensively landscaped areas near structures, (i.e., within four feet) a minimum of 5 percent gradient away from the structure should be maintained. Pad drainage of at least 2 percent should be maintained over the remainder of the site.

Drainage patterns established at the time of fine grading should be maintained throughout the life of the project. Property owners should be made aware that altering drainage patterns could be detrimental to slope stability and foundation performance.

Section 10 - Slope Maintenance

10.1 - Landscape Plants

To enhance surficial slope stability, slope planting should be accomplished at the completion of grading. Slope planting should consist of deep-rooting vegetation requiring little watering. Plants native to the southern California area and plants relative to native plants are generally desirable. Plants native to other semi-arid and arid areas may also be appropriate. A Landscape Architect should be the best party to consult regarding actual types of plants and planting configuration.

10.2 - Irrigation

Irrigation pipes should be anchored to slope faces, not placed in trenches excavated into slope faces.

Slope irrigation should be minimized. If automatic timing devices are utilized on irrigation systems, provisions should be made for interrupting normal irrigation during periods of rainfall.

10.3 - Repair

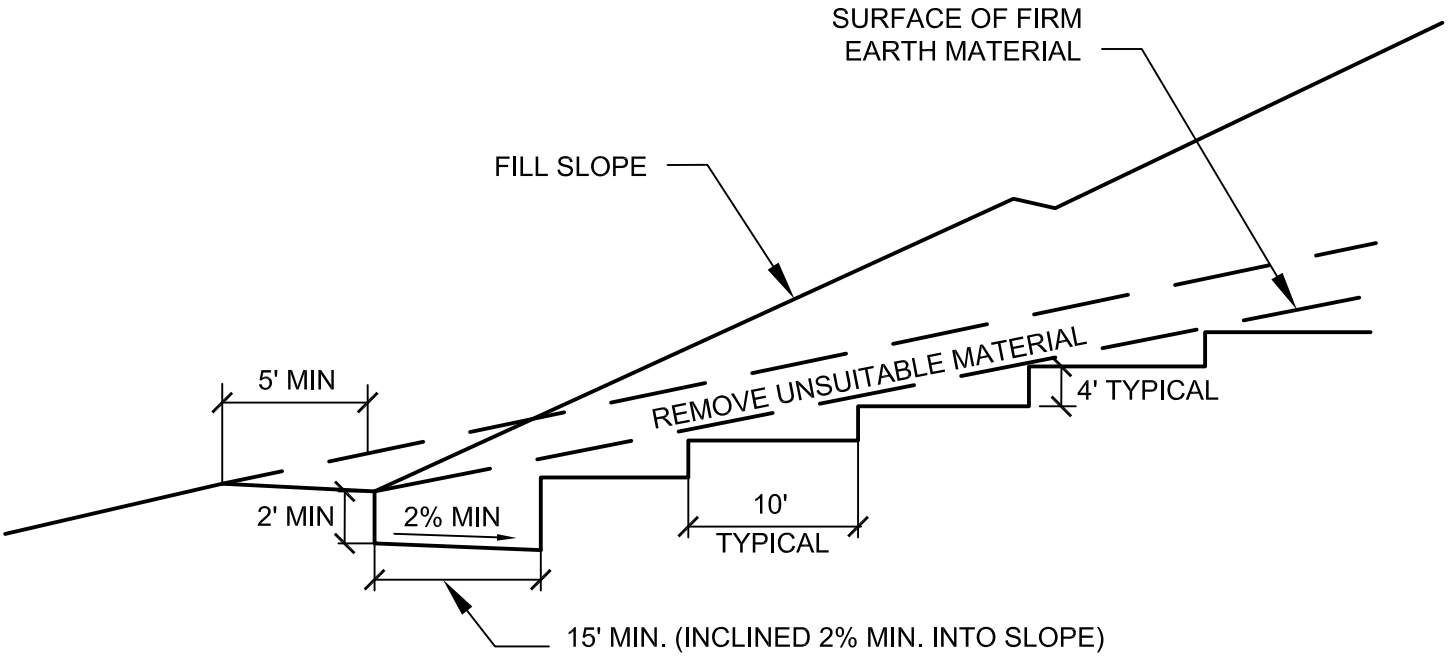
As a precautionary measure, plastic sheeting should be readily available, or kept on hand, to protect all slope areas from saturation by periods of heavy or prolonged rainfall. This measure is strongly recommended, beginning with the period prior to landscape planting.

If slope failures occur, the geotechnical consultant should be contacted for a field review of site conditions and development of recommendations for evaluation and repair.

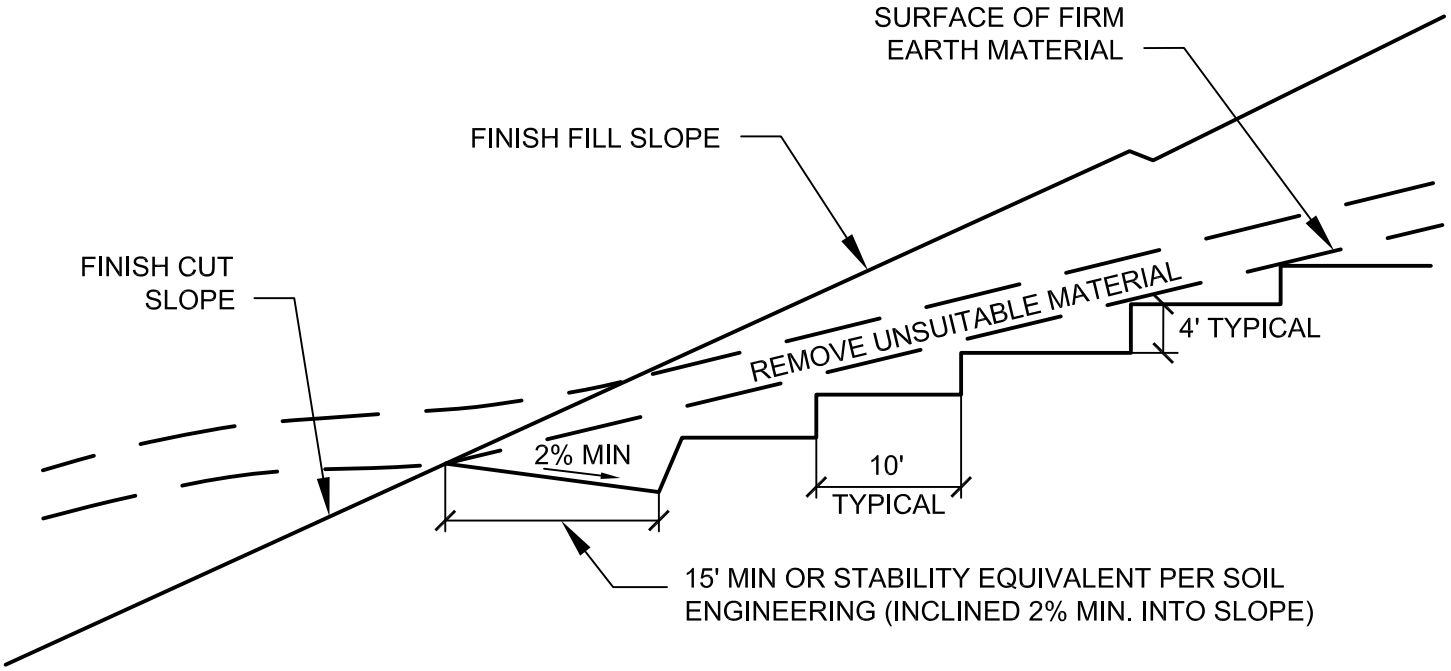
If slope failures occur as a result of exposure to period of heavy rainfall, the failure areas and currently unaffected areas should be covered with plastic sheeting to protect against additional saturation.

In the accompanying Standard Details, appropriate repair procedures are illustrated for superficial slope failures (i.e., occurring typically within the outer one foot to three feet of a slope face).

BENCHING FILL OVER NATURAL

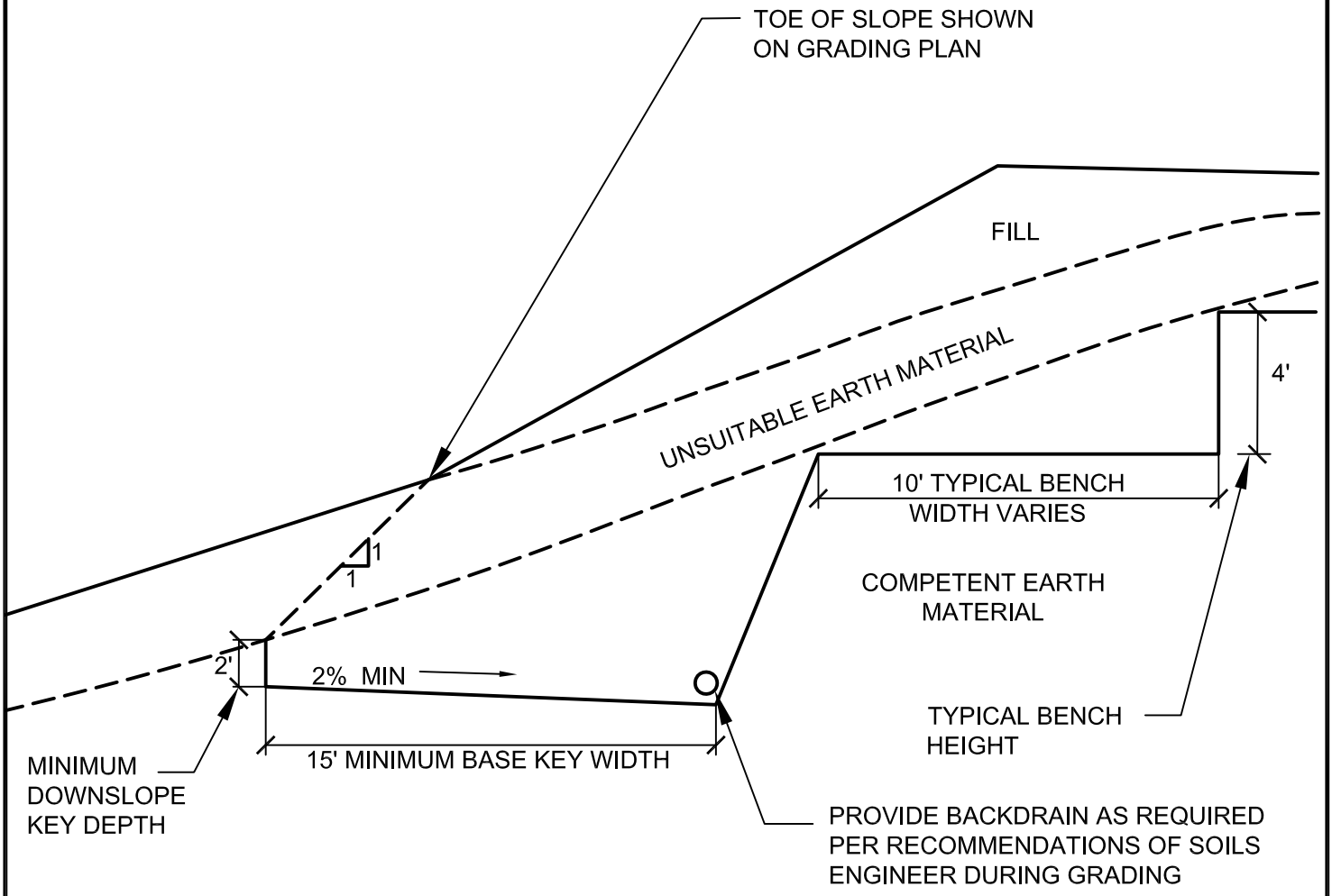


BENCHING FILL OVER CUT



NOT TO SCALE

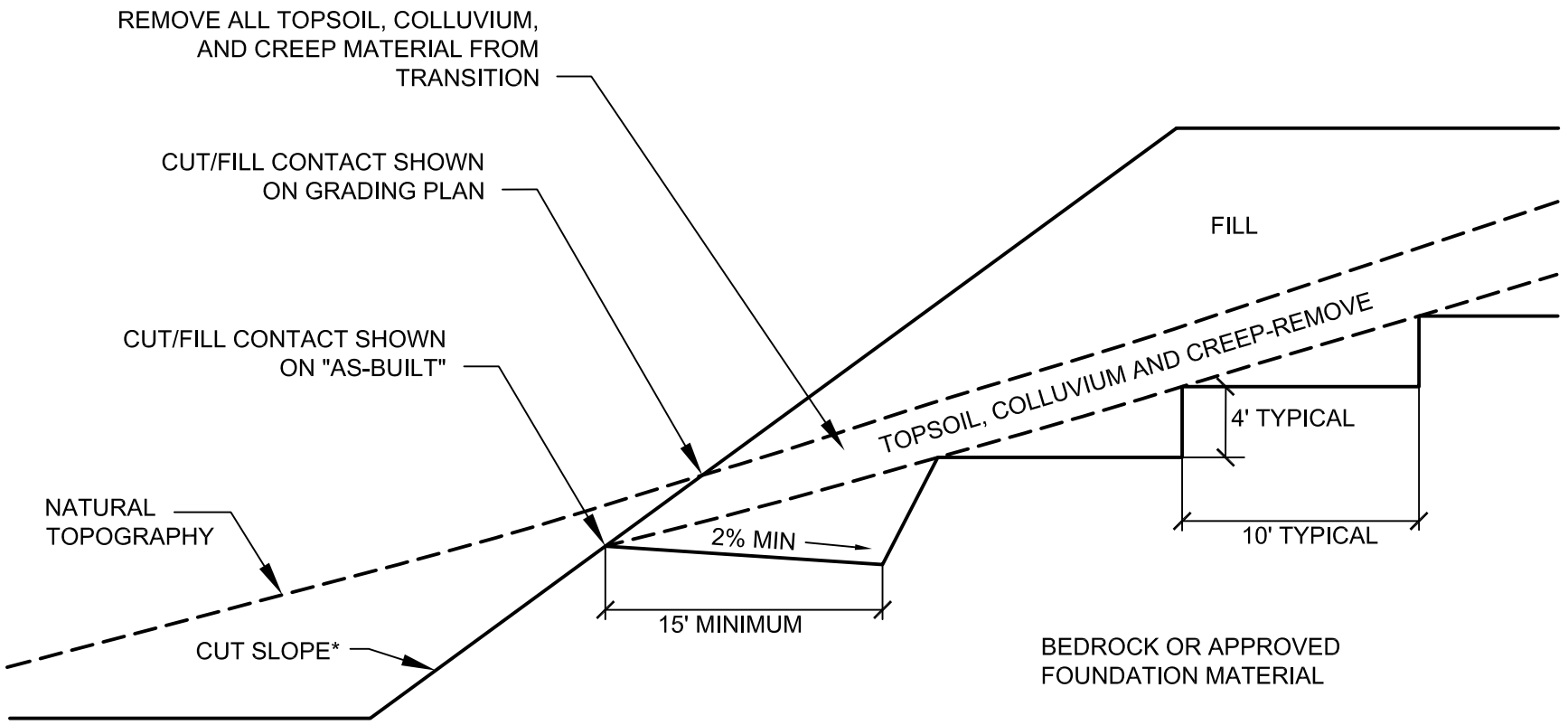
BENCHING FOR COMPACTED FILL DETAIL



WHERE NATURAL SLOPE GRADIENT IS 5:1 OR LESS, BENCHING IS NOT NECESSARY. FILL IS NOT TO BE PLACED ON COMPRESSIBLE OR UNSUITABLE MATERIAL.

NOT TO SCALE

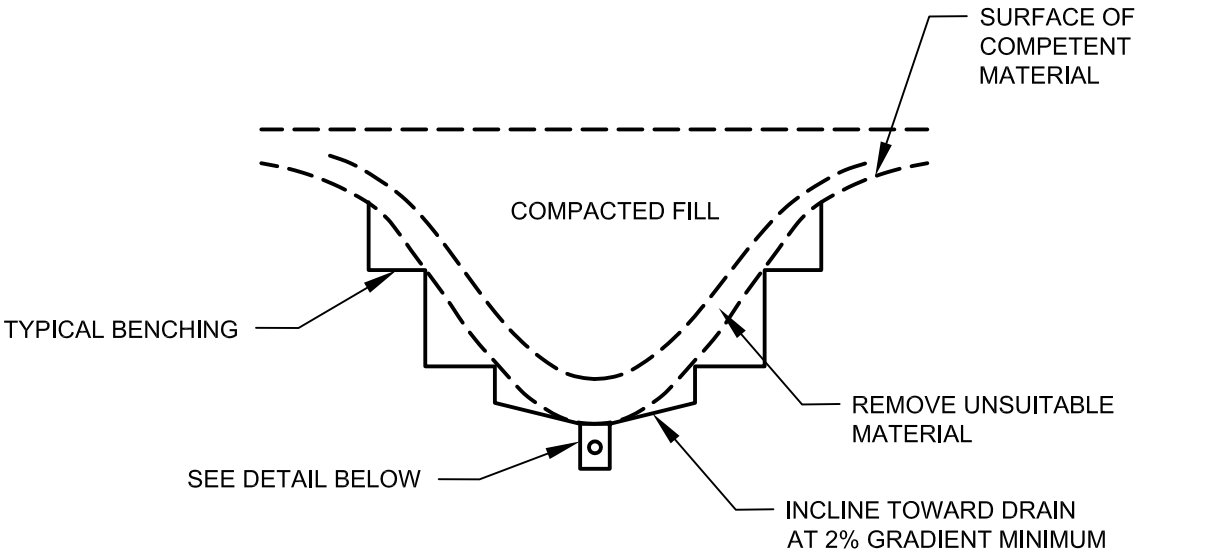
FILL SLOPE ABOVE NATURAL GROUND DETAIL



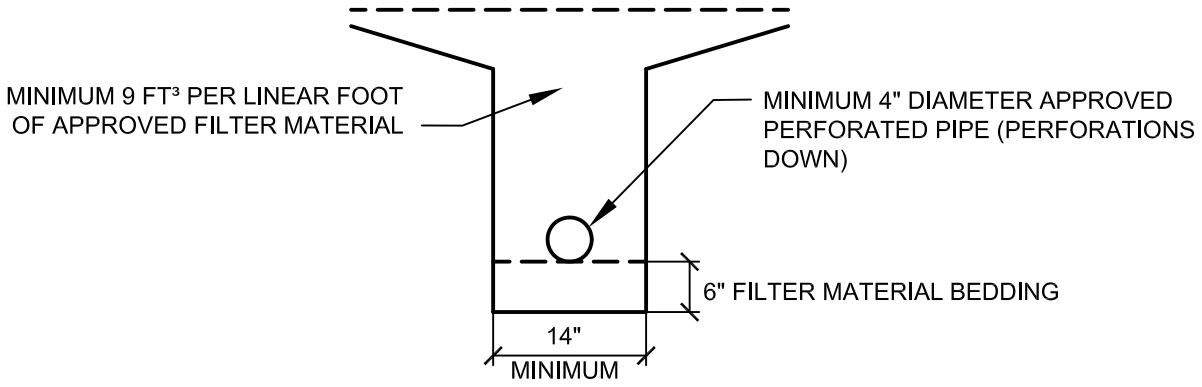
*NOTE: CUT SLOPE PORTION SHOULD BE MADE PRIOR TO PLACEMENT OF FILL

NOT TO SCALE

FILL SLOPE ABOVE CUT SLOPE DETAIL



DETAIL



FILTER MATERIAL TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUAL:

SIEVE SIZE	PERCENTAGE PASSING
1"	100
¾"	90-100
⅜"	40-100
NO. 4	25-40
NO. 30	18-33
NO. 8	5-15
NO. 50	0-7
NO. 200	0-3

APPROVED PIPE TO BE SCHEDULE 40 POLY-VINYL-CHLORIDE (P.V.C.) OR APPROVED EQUAL. MINIMUM CRUSH STRENGTH 1000 psi

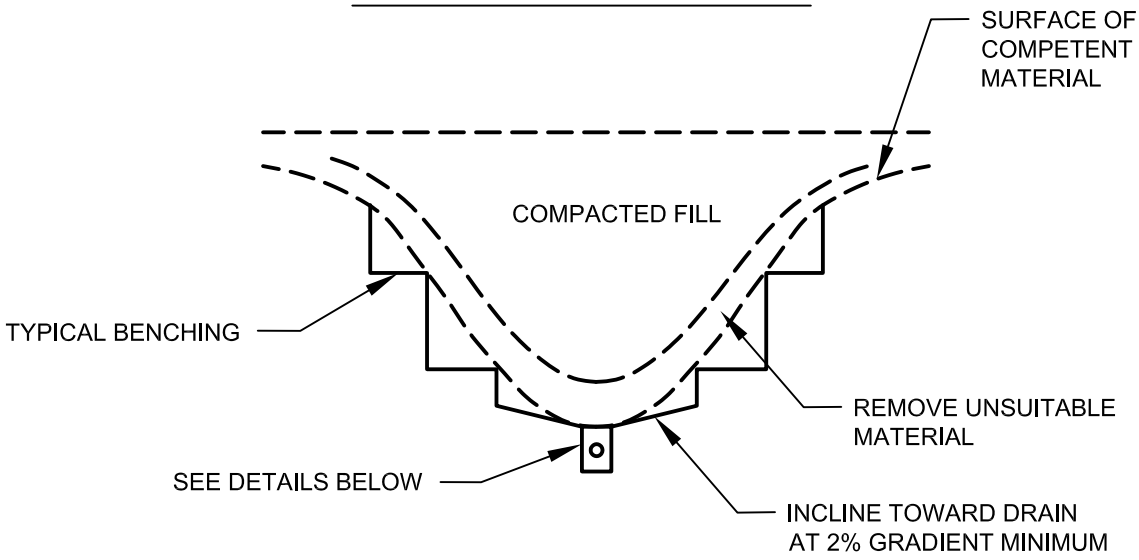
PIPE DIAMETER TO MEET THE FOLLOWING CRITERIA, SUBJECT TO FIELD REVIEW BASED ON ACTUAL GEOTECHNICAL CONDITIONS ENCOUNTERED DURING GRADING

LENGTH OF RUN	PIPE DIAMETER
INITIAL 500'	4"
500' TO 1500'	6"
> 1500'	8"

NOT TO SCALE

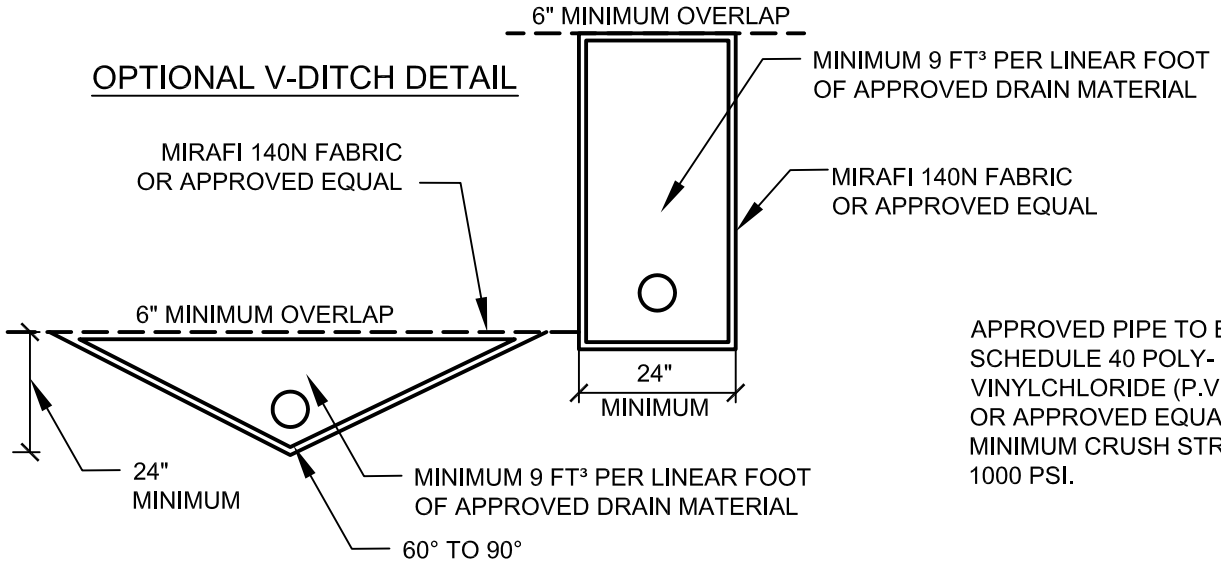
TYPICAL CANYON SUBDRAIN DETAIL

CANYON SUBDRAIN DETAILS



TRENCH DETAILS

OPTIONAL V-DITCH DETAIL



APPROVED PIPE TO BE SCHEDULE 40 POLY-VINYLCHLORIDE (P.V.C.) OR APPROVED EQUAL. MINIMUM CRUSH STRENGTH 1000 PSI.

DRAIN MATERIAL TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUAL:

SIEVE SIZE	PERCENTAGE PASSING
1 ½"	88-100
1"	5-40
¾"	0-17
⅜"	0-7
NO. 200	0-3

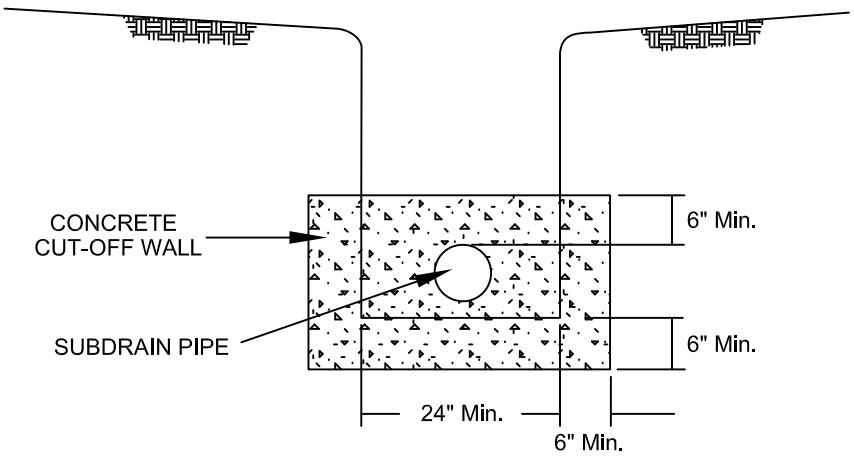
PIPE DIAMETER TO MEET THE FOLLOWING CRITERIA, SUBJECT TO FIELD REVIEW BASED ON ACTUAL GEOTECHNICAL CONDITIONS ENCOUNTERED DURING GRADING

LENGTH OF RUN	PIPE DIAMETER
INITIAL 500'	4"
500' TO 1500'	6"
> 1500'	8"

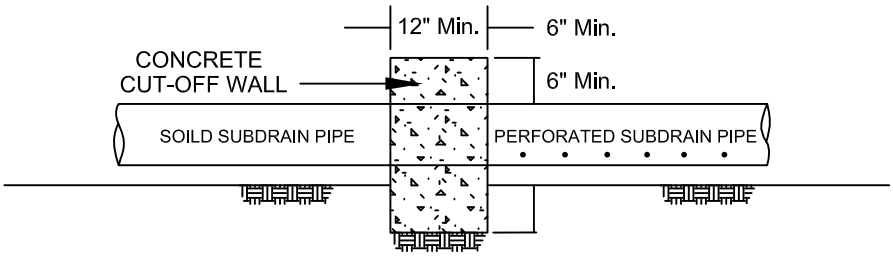
NOT TO SCALE

GEOFABRIC SUBDRAIN

FRONT VIEW



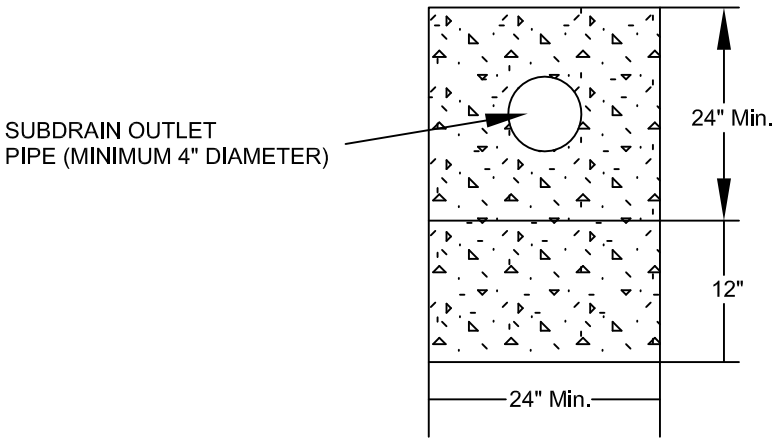
SIDE VIEW



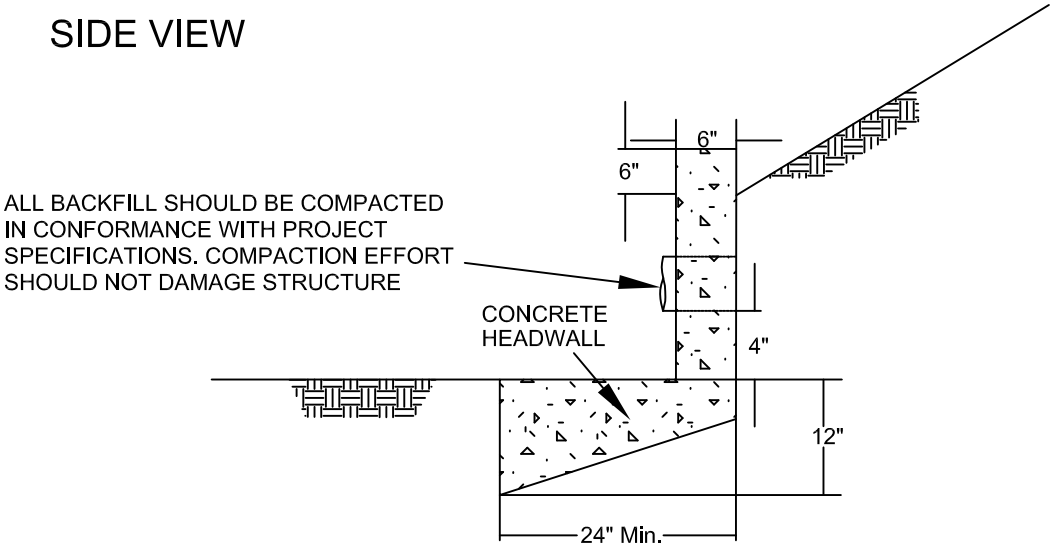
NOT TO SCALE

RECOMMENDED SUBDRAIN CUT-OFF WALL

FRONT VIEW



SIDE VIEW



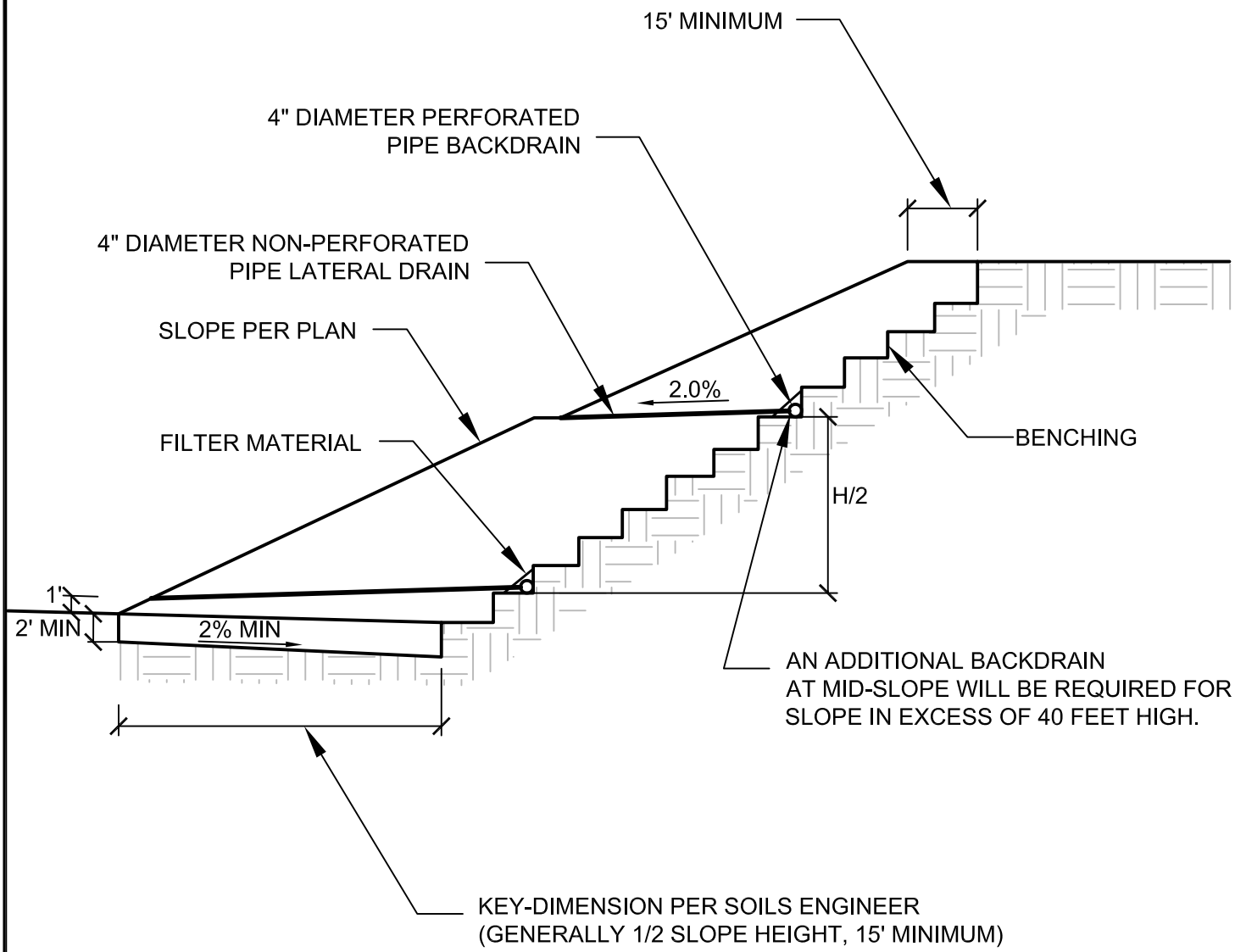
NOTE: HEADWALL SHOULD OUTLET AT TOE OF SLOPE
OR INTO CONTROLLED SURFACE DRAINAGE DEVICE

ALL DISCHARGE SHOULD BE CONTROLLED

THIS DETAIL IS A MINIMUM DESIGN AND MAY BE
MODIFIED DEPENDING UPON ENCOUNTERED
CONDITIONS AND LOCAL REQUIREMENTS

NOT TO SCALE

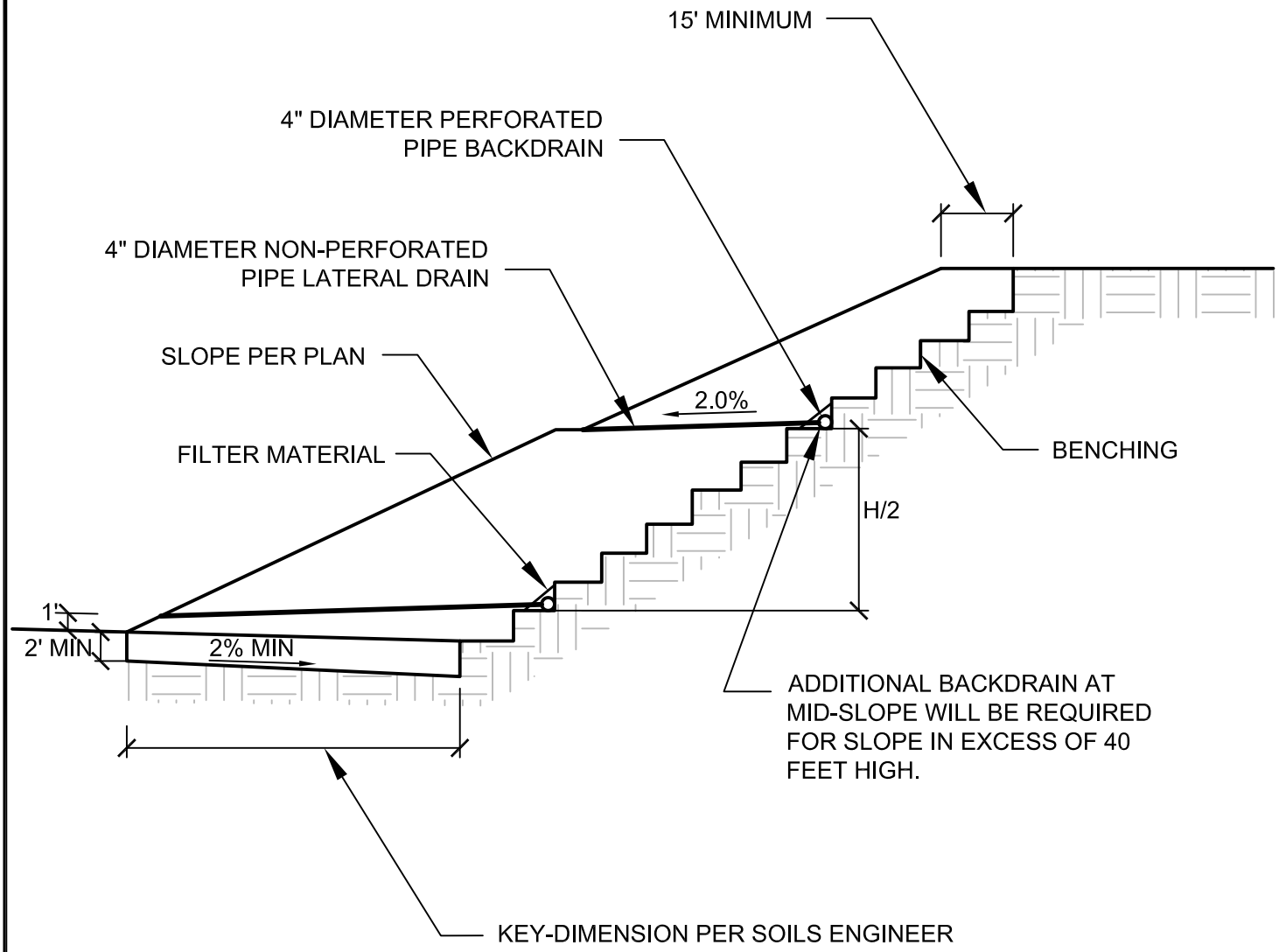
TYPICAL SUBDRAIN OUTLET HEADWALL DETAIL



DIMENSIONS ARE MINIMUM RECOMMENDED

NOT TO SCALE

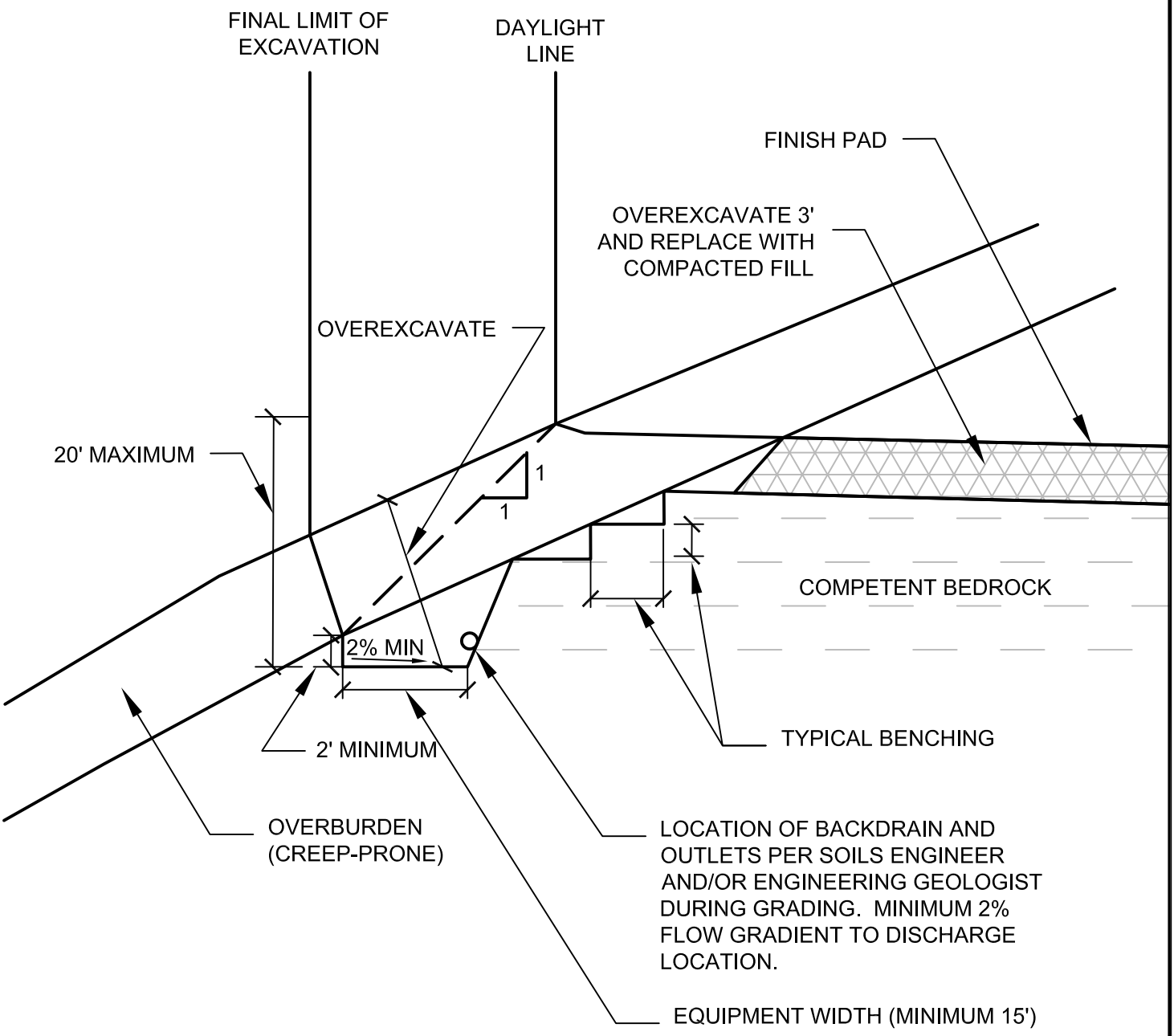
TYPICAL SLOPE STABILIZATION FILL DETAIL



DIMENSIONS ARE MINIMUM RECOMMENDED

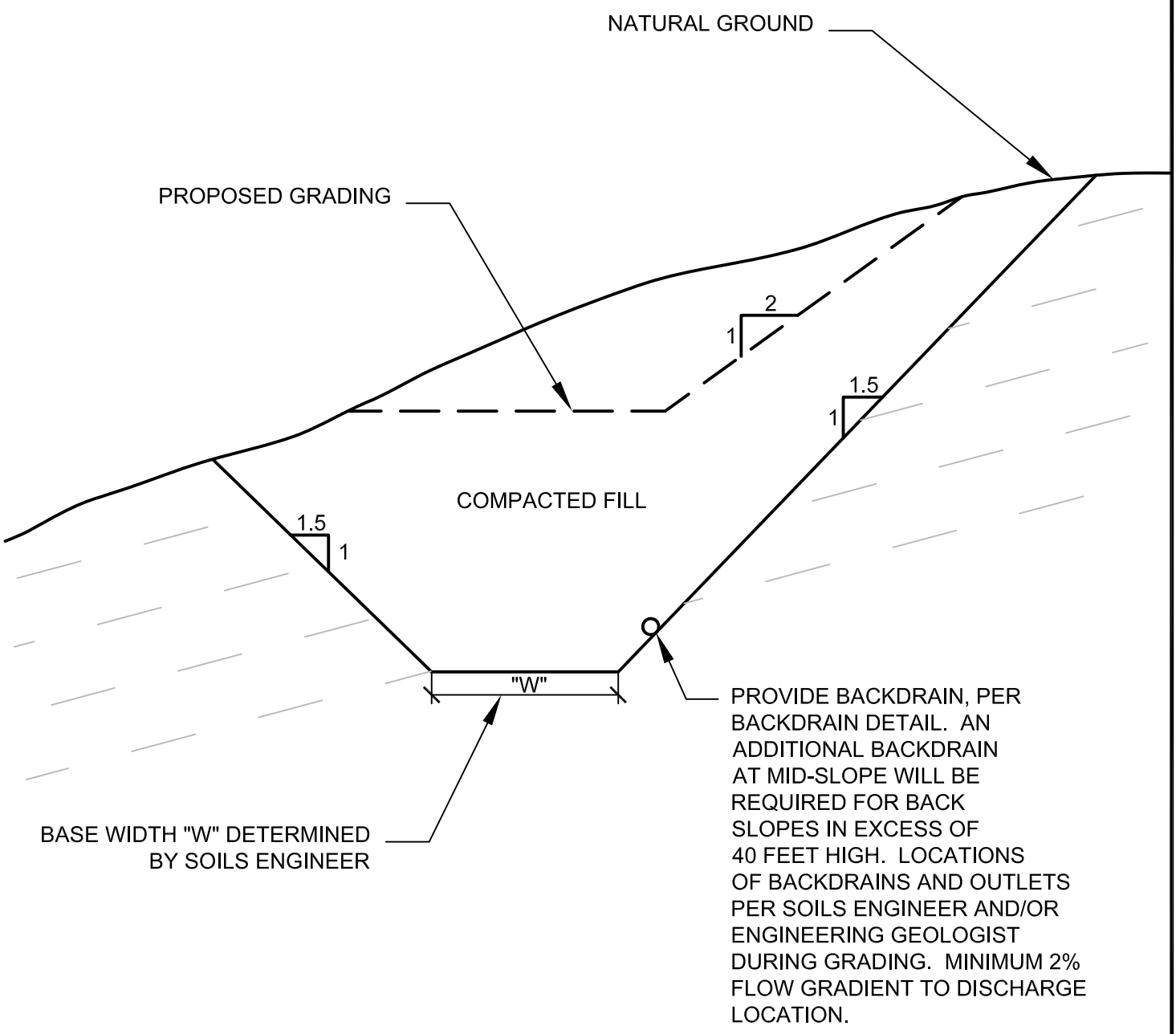
NOT TO SCALE

TYPICAL BUTTRESS FILL DETAIL



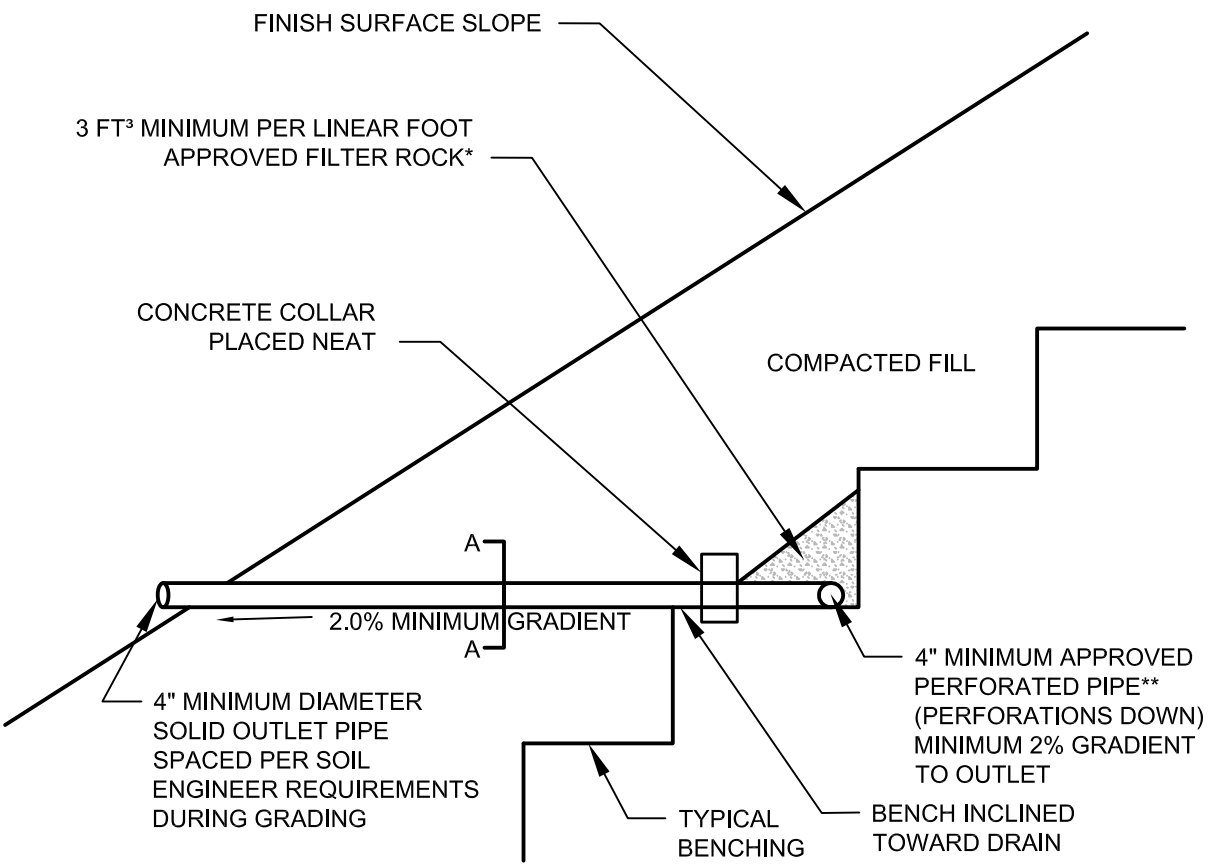
NOT TO SCALE

DAYLIGHT SHEAR KEY DETAIL

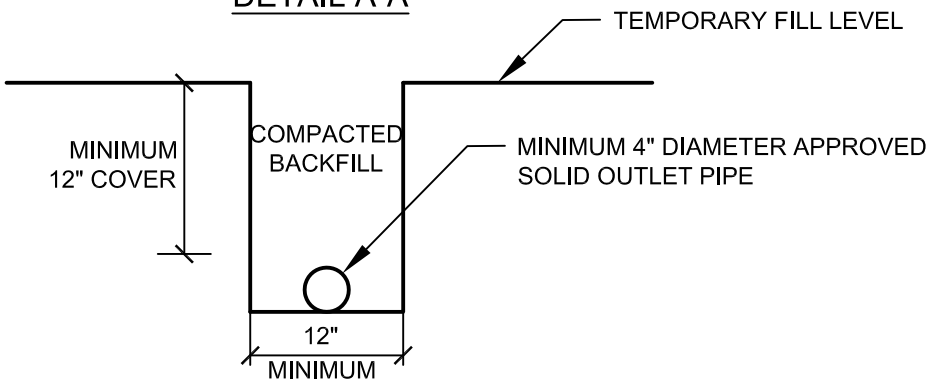


NOT TO SCALE

TYPICAL SHEAR KEY DETAIL



DETAIL A-A



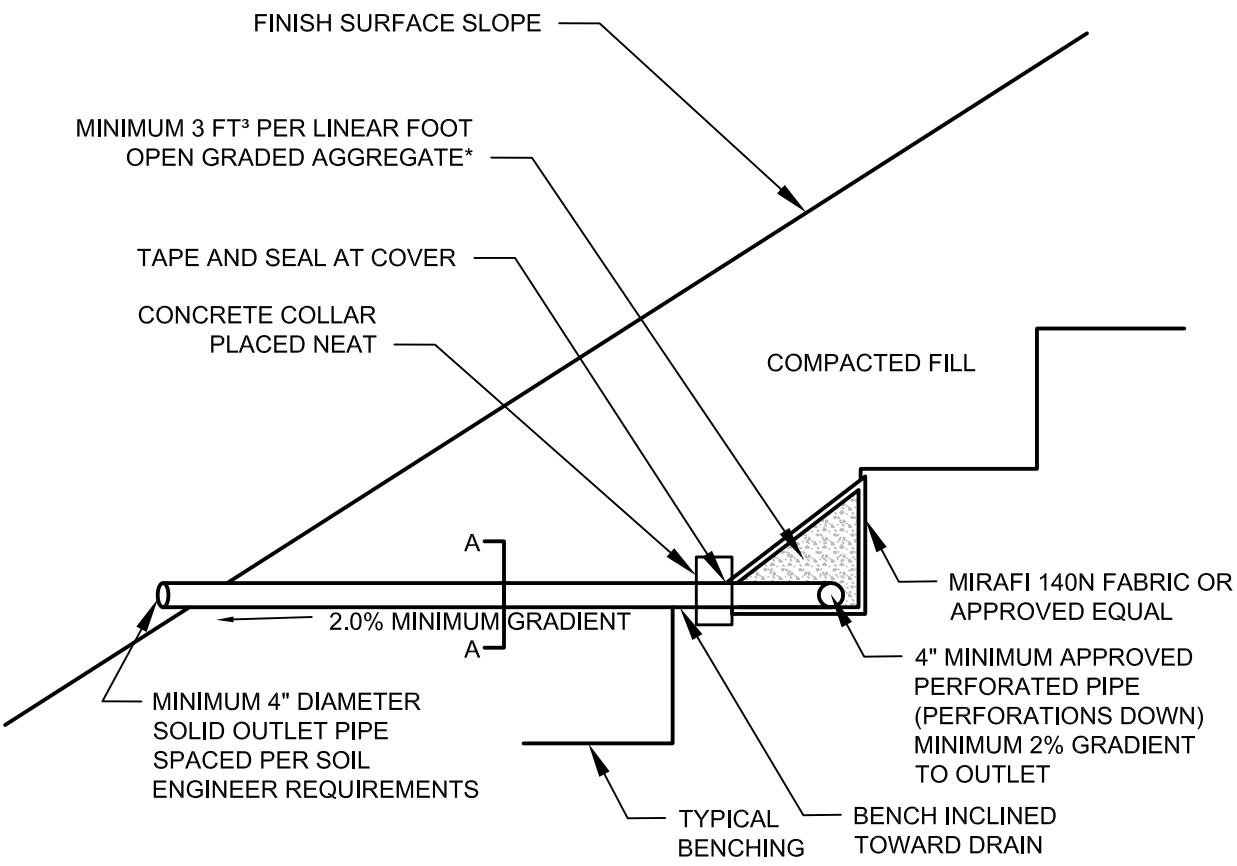
**APPROVED PIPE TYPE:
SCHEDULE 40 POLYVINYL CHLORIDE
(P.V.C.) OR APPROVED EQUAL.
MINIMUM CRUSH STRENGTH 1000 PSI

*FILTER ROCK TO MEET FOLLOWING
SPECIFICATIONS OR APPROVED EQUAL:

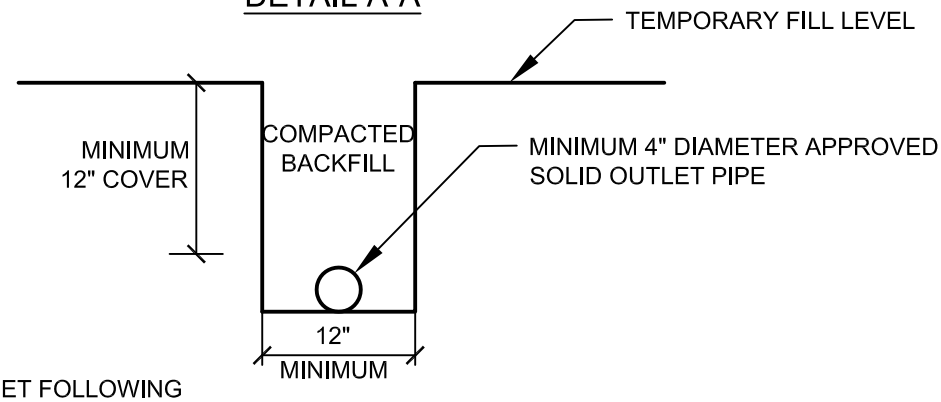
SIEVE SIZE	PERCENTAGE PASSING
1"	100
¾"	90-100
⅜"	40-100
NO. 4	25-40
NO. 30	5-15
NO. 50	0-7
NO. 200	0-3

NOT TO SCALE

TYPICAL BACKDRAIN DETAIL



DETAIL A-A

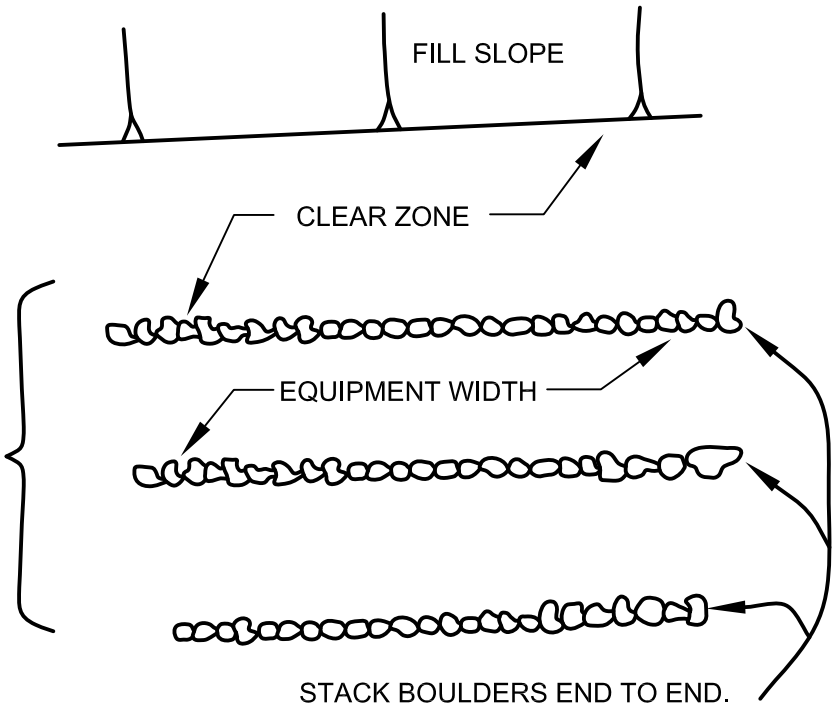


*NOTE: AGGREGATE TO MEET FOLLOWING SPECIFICATIONS OR APPROVED EQUAL:

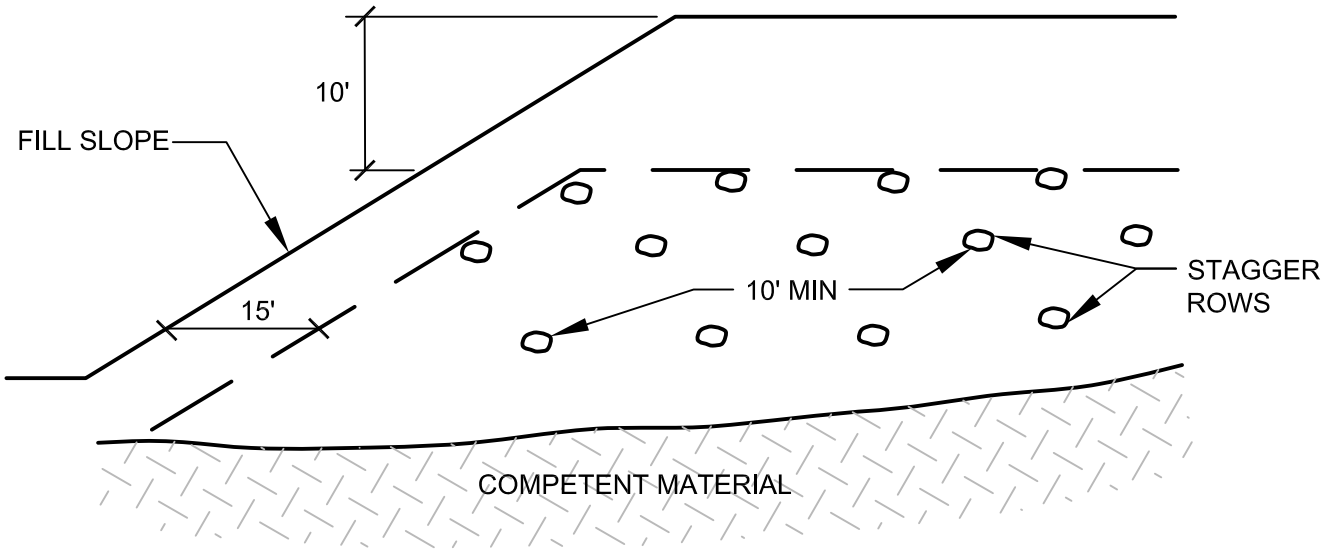
SIEVE SIZE	PERCENTAGE PASSING
1 ½"	100
1"	5-40
¾"	0-17
⅜"	0-7
NO. 200	0-3

NOT TO SCALE

BACKDRAIN DETAIL (GEOFRABIC)

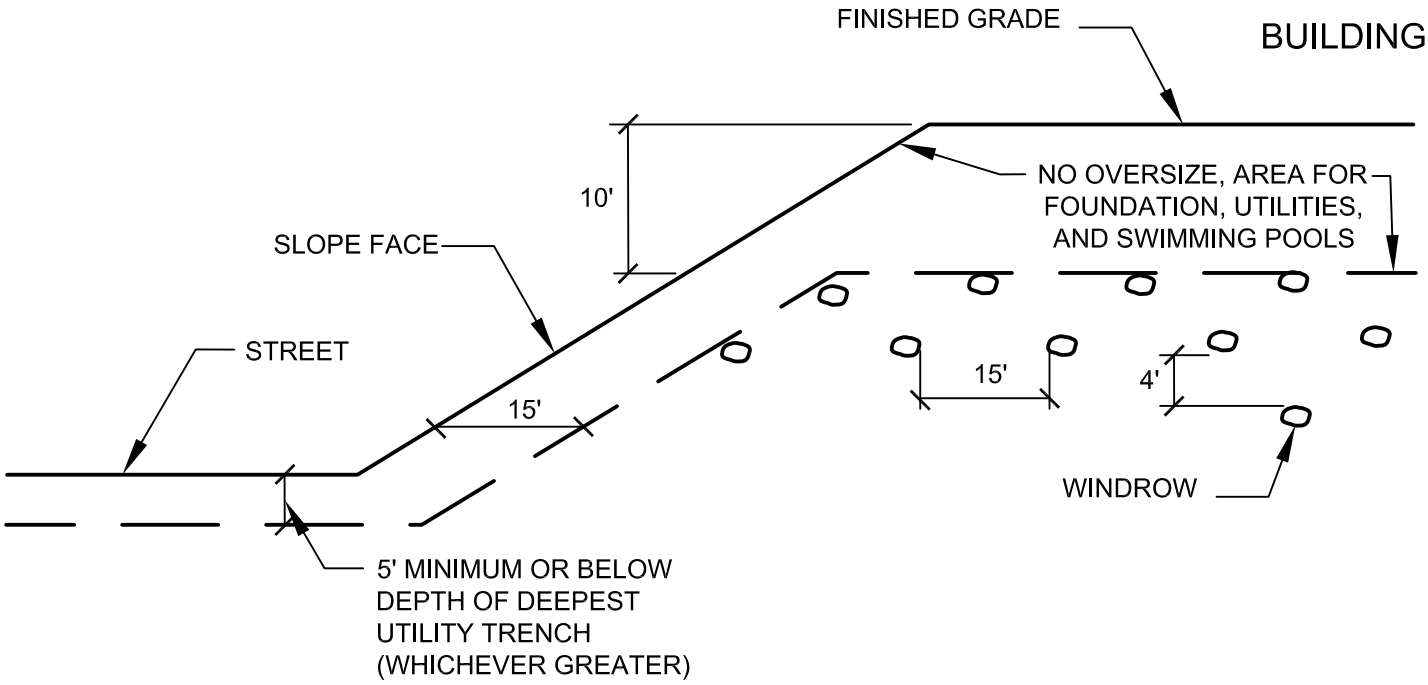


SOIL SHALL BE PUSHED OVER ROCKS AND FLOODED INTO VOIDS. COMPACT AROUND AND OVER EACH WINDROW.

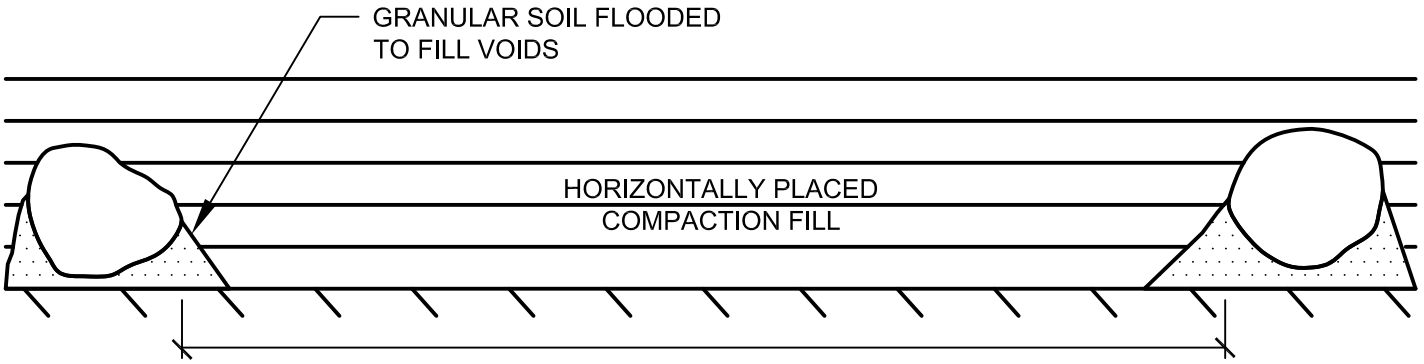


NOT TO SCALE

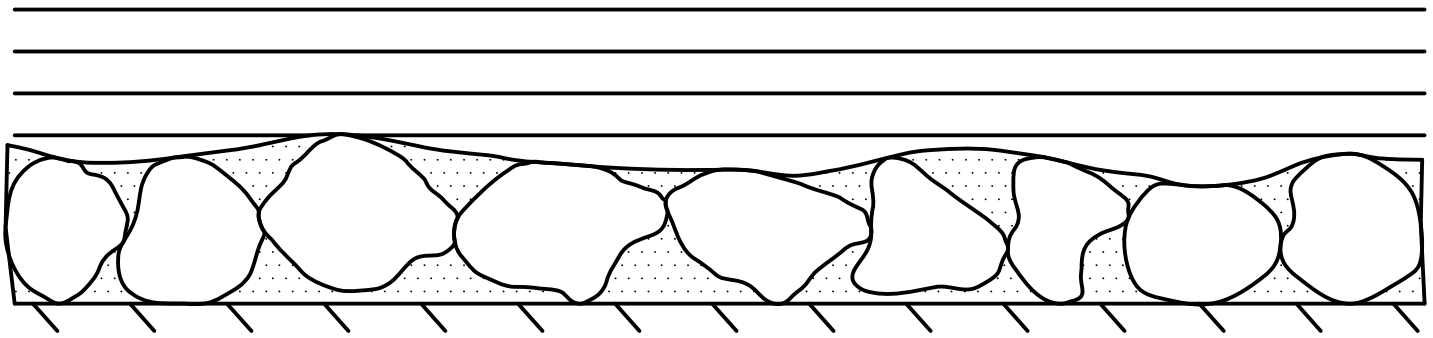
ROCK DISPOSAL DETAIL



TYPICAL WINDROW DETAIL (EDGE VIEW)



PROFILE VIEW

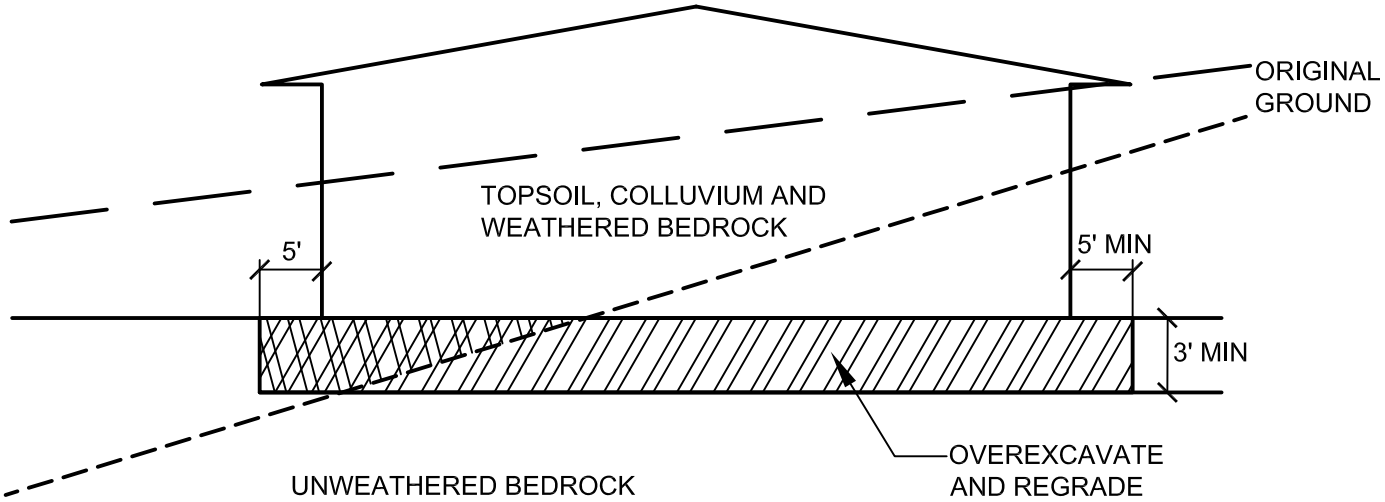


NOT TO SCALE

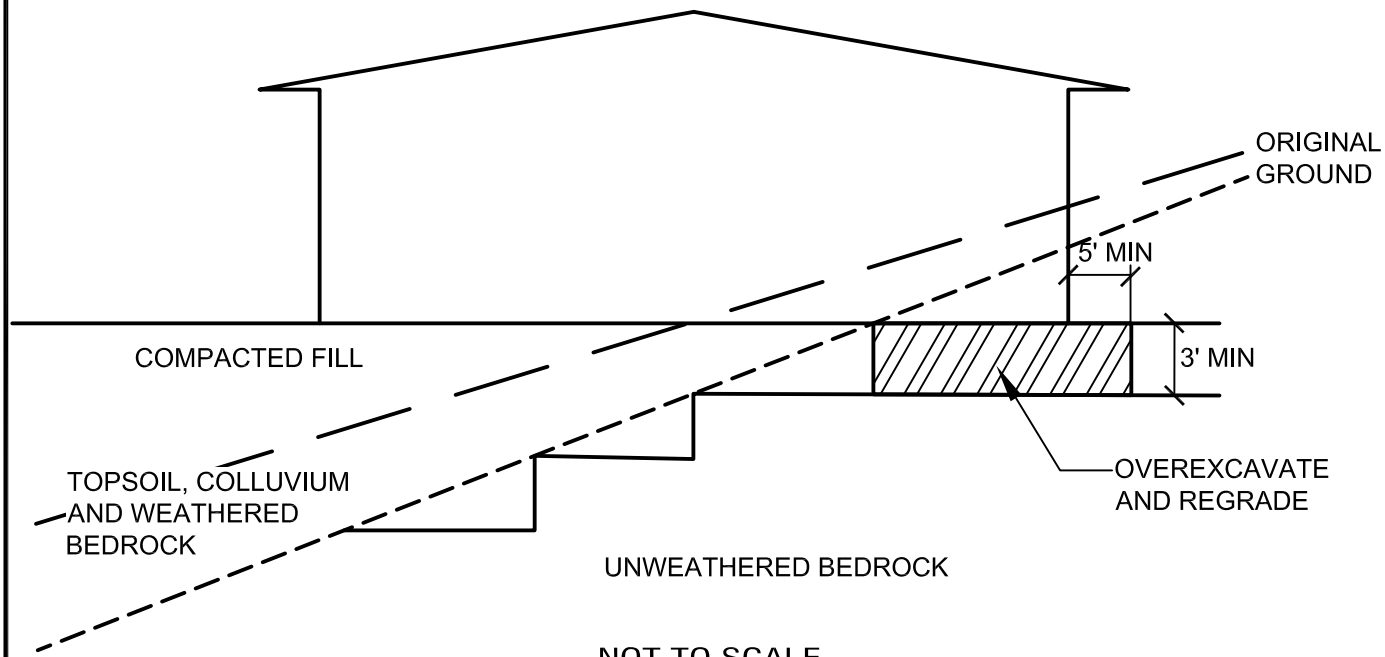
ROCK DISPOSAL DETAIL

GENERAL GRADING RECOMMENDATIONS

CUT LOT



CUT/FILL LOT (TRANSITION)



NOT TO SCALE

TRANSITION LOT DETAIL

APPENDIX E

US SEISMIC DESIGN VALUES

Hazards by Location

Search Information

Coordinates: 37.77885672, -121.2208596

Elevation: 31 ft

Timestamp: 2021-07-26T21:08:14.592Z

Hazard Type: Seismic

Reference Document: ASCE7-16

Risk Category: III

Site Class: D-default



Basic Parameters

Name	Value	Description
S_S	0.798	MCE_R ground motion (period=0.2s)
S_1	0.301	MCE_R ground motion (period=1.0s)
S_{MS}	0.957	Site-modified spectral acceleration value
S_{M1}	* null	Site-modified spectral acceleration value
S_{DS}	0.638	Numeric seismic design value at 0.2s SA
S_{D1}	* null	Numeric seismic design value at 1.0s SA

* See Section 11.4.8

Additional Information

Name	Value	Description
SDC	* null	Seismic design category
F_a	1.2	Site amplification factor at 0.2s

F_V	* null	Site amplification factor at 1.0s
CR_S	0.946	Coefficient of risk (0.2s)
CR_1	0.951	Coefficient of risk (1.0s)
PGA	0.332	MCE_G peak ground acceleration
F_{PGA}	1.268	Site amplification factor at PGA
PGA_M	0.421	Site modified peak ground acceleration
T_L	8	Long-period transition period (s)
SsRT	0.798	Probabilistic risk-targeted ground motion (0.2s)
SsUH	0.843	Factored uniform-hazard spectral acceleration (2% probability of exceedance in 50 years)
SsD	1.5	Factored deterministic acceleration value (0.2s)
S1RT	0.301	Probabilistic risk-targeted ground motion (1.0s)
S1UH	0.316	Factored uniform-hazard spectral acceleration (2% probability of exceedance in 50 years)
S1D	0.6	Factored deterministic acceleration value (1.0s)
PGAd	0.5	Factored deterministic acceleration value (PGA)

* See Section 11.4.8

The results indicated here DO NOT reflect any state or local amendments to the values or any delineation lines made during the building code adoption process. Users should confirm any output obtained from this tool with the local Authority Having Jurisdiction before proceeding with design.

Disclaimer

Hazard loads are provided by the U.S. Geological Survey Seismic Design Web Services.

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Appendix H:
Greenhouse Gas Emissions Supporting Information

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Appendix G: Greenhouse Gas Emissions Supporting Information

Table of Contents

Project GHG Emissions Summary 1

Project GHG Emissions BAU Analysis Year 2005 2

Project BAU Annual CalEEMod Output File 3

Project GHG Emissions Summary

Construction - GHG Emissions

Manteca Marketplace at Main - San Joaquin County, Annual

CalEEMod Run: Annual Date: 3/26/2022 4:03 PM

Emissions Source	CO_2e (Metric Tons per Year)	
	Main Project Site	Offsite
Demolition - 2022	36	35
Site Preparation - 2022	17	9
Grading - 2022	224	11
Building Construction - 2022	247	212
Building Construction - 2023	539	192
Paving - 2023	21	16
Architectural Coating - 2023	5	3
Total	**1,567**	
Amortized Over 30 Years	52	

Operations - GHG Emissions

Manteca Marketplace at Main - San Joaquin County, Annual

CalEEMod Run: Annual Date: 3/26/2022 4:03 PM

Emissions Source	CO_2e (Metric Tons per Year)	
	2023	2030
Amortized Construction	52	52
Area	0	0
Energy	468	440
Mobile	7,286	5,862
Waste	250	250
Water	22	21
Total	**8,079**	**6,626**

Project GHG Emissions BAU Analysis Year 2005

Operations - GHG Emissions

Manteca Marketplace at Main - San Joaquin County, Annual

CalEEMod Run: Annual Date: 4/18/2022 8:21 AM

Emissions Source	CO_2e (Metric Tons per Year)		
	2005	2023	2030
Amortized Construction	52	52	52
Area	0	0	0
Energy	766	468	440
Mobile	10,286	7,286	5,862
Waste	250	250	250
Water	31	22	21
Total	**11,384**	**8,079**	**6,626**
Reduction from BAU		3,306	4,759
Percent Reduction		**29%**	**42%**
SJVAPCD Significance Threshold		29	29
Meets Threshold?		Yes	Yes

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

Manteca Marketplace at Main

San Joaquin County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	244.68	1000sqft	5.62	244,677.00	0
City Park	2.29	Acre	2.29	99,752.40	0
Fast Food Restaurant with Drive Thru	9.00	1000sqft	0.21	9,000.00	0
Automobile Care Center	3.60	1000sqft	0.08	3,596.00	0
Hardware/Paint Store	38.00	1000sqft	0.87	38,000.00	0
Strip Mall	12.50	1000sqft	0.29	12,500.00	0
Supermarket	50.07	1000sqft	1.15	50,071.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	51
Climate Zone	2			**Operational Year**	2005
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	427	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Note 8; Updated CO2 intensity factory from PG&E GHG Emission Factor Guidance for the year 2013.

Land Use - Note 1

Construction Phase - Note 7

Demolition -

Grading - Note 7

Vehicle Trips - Note 4

Manteca Marketplace at Main - San Joaquin County, Annual

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

Area Coating - Note 2

Table Name	Column Name	Default Value	New Value
tblGrading	AcresOfGrading	90.00	0.00
tblGrading	AcresOfGrading	15.00	0.00
tblLandUse	LandUseSquareFeet	244,680.00	244,677.00
tblLandUse	LandUseSquareFeet	3,600.00	3,596.00
tblLandUse	LandUseSquareFeet	50,070.00	50,071.00
tblProjectCharacteristics	CO2IntensityFactor	203.98	427
tblVehicleTrips	ST_TR	23.72	891.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	616.12	595.62
tblVehicleTrips	ST_TR	9.14	114.48
tblVehicleTrips	ST_TR	42.04	114.48
tblVehicleTrips	ST_TR	177.62	114.48
tblVehicleTrips	SU_TR	11.88	446.25
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	472.58	456.86
tblVehicleTrips	SU_TR	9.14	83.65
tblVehicleTrips	SU_TR	20.43	83.65
tblVehicleTrips	SU_TR	166.47	83.65
tblVehicleTrips	WD_TR	23.72	891.00
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	470.95	451.93
tblVehicleTrips	WD_TR	9.14	93.13
tblVehicleTrips	WD_TR	44.32	93.13
tblVehicleTrips	WD_TR	106.78	93.13

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					
2022	0.2118	1.9435	1.7779	4.1200e-003	0.2754	0.0851	0.3605	0.1250	0.0793	0.2043	0.0000	368.3105	368.3105	0.0696	0.0123	373.7300
2023	1.0846	1.9844	2.3864	5.9300e-003	0.2054	0.0812	0.2866	0.0558	0.0764	0.1322	0.0000	533.1523	533.1523	0.0681	0.0261	542.6294
Maximum	**1.0846**	**1.9844**	**2.3864**	**5.9300e-003**	**0.2754**	**0.0851**	**0.3605**	**0.1250**	**0.0793**	**0.2043**	**0.0000**	**533.1523**	**533.1523**	**0.0696**	**0.0261**	**542.6294**

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	0.2118	1.9435	1.7779	4.1200e-003	0.2754	0.0851	0.3605	0.1250	0.0793	0.2043	0.0000	368.3102	368.3102	0.0696	0.0123	373.7297
2023	1.0846	1.9844	2.3864	5.9300e-003	0.2054	0.0812	0.2866	0.0558	0.0764	0.1322	0.0000	533.1520	533.1520	0.0681	0.0261	542.6291
Maximum	**1.0846**	**1.9844**	**2.3864**	**5.9300e-003**	**0.2754**	**0.0851**	**0.3605**	**0.1250**	**0.0793**	**0.2043**	**0.0000**	**533.1520**	**533.1520**	**0.0696**	**0.0261**	**542.6291**

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**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**6-1-2022**	**8-31-2022**	1.1690	1.1690
2	**9-1-2022**	**11-30-2022**	0.7361	0.7361
3	**12-1-2022**	**2-28-2023**	0.6811	0.6811
4	**3-1-2023**	**5-31-2023**	0.6640	0.6640
5	**6-1-2023**	**8-31-2023**	0.6613	0.6613
6	**9-1-2023**	**9-30-2023**	0.2156	0.2156
		Highest	1.1690	1.1690

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	0.5955	5.0000e-005	4.2100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	6.4400e-003	6.4400e-003	3.0000e-005	0.0000	7.1800e-003
Energy	0.0192	0.1748	0.1468	1.0500e-003		0.0133	0.0133		0.0133	0.0133	0.0000	761.7021	761.7021	0.0478	8.8400e-003	765.5320
Mobile	20.3505	34.6312	161.4641	0.2128	7.2583	0.6266	7.8849	1.9442	0.5944	2.5386	0.0000	9,856.4594	9,856.4594	2.0712	1.2664	10,285.6275
Waste						0.0000	0.0000		0.0000	0.0000	169.4021	0.0000	169.4021	10.0114	0.0000	419.6864
Water						0.0000	0.0000		0.0000	0.0000	4.1190	17.3988	21.5178	0.4244	0.0102	35.1533
Total	**20.9653**	**34.8060**	**161.6151**	**0.2138**	**7.2583**	**0.6399**	**7.8982**	**1.9442**	**0.6077**	**2.5519**	**173.5210**	**10,635.5667**	**10,809.0877**	**12.5548**	**1.2854**	**11,506.0063**

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

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

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	0.5955	5.0000e-005	4.2100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	6.4400e-003	6.4400e-003	3.0000e-005	0.0000	7.1800e-003
Energy	0.0192	0.1748	0.1468	1.0500e-003		0.0133	0.0133		0.0133	0.0133	0.0000	761.7021	761.7021	0.0478	8.8400e-003	765.5320
Mobile	20.3505	34.6312	161.4641	0.2128	7.2583	0.6266	7.8849	1.9442	0.5944	2.5386	0.0000	9,856.4594	9,856.4594	2.0712	1.2664	10,285.6275
Waste						0.0000	0.0000		0.0000	0.0000	169.4021	0.0000	169.4021	10.0114	0.0000	419.6864
Water						0.0000	0.0000		0.0000	0.0000	4.1190	17.3988	21.5178	0.4244	0.0102	35.1533
Total	**20.9653**	**34.8060**	**161.6151**	**0.2138**	**7.2583**	**0.6399**	**7.8982**	**1.9442**	**0.6077**	**2.5519**	**173.5210**	**10,635.5667**	**10,809.0877**	**12.5548**	**1.2854**	**11,506.0063**

	ROG	NOx	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	6/1/2022	6/28/2022	5	20	
2	Site Preparation	Site Preparation	6/29/2022	7/12/2022	5	10	
3	Grading	Grading	7/13/2022	8/23/2022	5	30	

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

4	Building Construction	Building Construction	8/24/2022	10/17/2023	5	300	
5	Paving	Paving	10/18/2023	11/14/2023	5	20	
6	Architectural Coating	Architectural Coating	11/15/2023	12/12/2023	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 5.62

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 169,752; Non-Residential Outdoor: 56,584; Striped Parking Area: 14,681 (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
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
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	0.00	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	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	182.00	75.00	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	36.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0264	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**	**0.0000**	**0.0124**	**0.0124**	**0.0000**	**0.0116**	**0.0116**	**0.0000**	**33.9902**	**33.9902**	**9.5500e-003**	**0.0000**	**34.2289**

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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	4.7000e-004	3.3000e-004	3.7300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9702	0.9702	3.0000e-005	3.0000e-005	0.9797
Total	**4.7000e-004**	**3.3000e-004**	**3.7300e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9702**	**0.9702**	**3.0000e-005**	**3.0000e-005**	**0.9797**

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

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0264	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**	**0.0000**	**0.0124**	**0.0124**	**0.0000**	**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	4.7000e-004	3.3000e-004	3.7300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9702	0.9702	3.0000e-005	3.0000e-005	0.9797
Total	**4.7000e-004**	**3.3000e-004**	**3.7300e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9702**	**0.9702**	**3.0000e-005**	**3.0000e-005**	**0.9797**

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					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0159	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**	**0.0903**	**8.0600e-003**	**0.0984**	**0.0497**	**7.4200e-003**	**0.0571**	**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	2.8000e-004	2.0000e-004	2.2400e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5821	0.5821	2.0000e-005	2.0000e-005	0.5878
Total	**2.8000e-004**	**2.0000e-004**	**2.2400e-003**	**1.0000e-005**	**7.2000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.5821**	**0.5821**	**2.0000e-005**	**2.0000e-005**	**0.5878**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0159	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**	**0.0903**	**8.0600e-003**	**0.0984**	**0.0497**	**7.4200e-003**	**0.0571**	**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	2.8000e-004	2.0000e-004	2.2400e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5821	0.5821	2.0000e-005	2.0000e-005	0.5878
Total	**2.8000e-004**	**2.0000e-004**	**2.2400e-003**	**1.0000e-005**	**7.2000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.5821**	**0.5821**	**2.0000e-005**	**2.0000e-005**	**0.5878**

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					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0544	0.5827	0.4356	9.3000e-004		0.0245	0.0245		0.0226	0.0226	0.0000	81.8019	81.8019	0.0265	0.0000	82.4633
Total	**0.0544**	**0.5827**	**0.4356**	**9.3000e-004**	**0.0903**	**0.0245**	**0.1149**	**0.0497**	**0.0226**	**0.0722**	**0.0000**	**81.8019**	**81.8019**	**0.0265**	**0.0000**	**82.4633**

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	9.5000e-004	6.6000e-004	7.4600e-003	2.0000e-005	2.3900e-003	1.0000e-005	2.4000e-003	6.4000e-004	1.0000e-005	6.5000e-004	0.0000	1.9403	1.9403	6.0000e-005	6.0000e-005	1.9594
Total	**9.5000e-004**	**6.6000e-004**	**7.4600e-003**	**2.0000e-005**	**2.3900e-003**	**1.0000e-005**	**2.4000e-003**	**6.4000e-004**	**1.0000e-005**	**6.5000e-004**	**0.0000**	**1.9403**	**1.9403**	**6.0000e-005**	**6.0000e-005**	**1.9594**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0544	0.5827	0.4356	9.3000e-004		0.0245	0.0245		0.0226	0.0226	0.0000	81.8018	81.8018	0.0265	0.0000	82.4632
Total	**0.0544**	**0.5827**	**0.4356**	**9.3000e-004**	**0.0903**	**0.0245**	**0.1149**	**0.0497**	**0.0226**	**0.0722**	**0.0000**	**81.8018**	**81.8018**	**0.0265**	**0.0000**	**82.4632**

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	9.5000e-004	6.6000e-004	7.4600e-003	2.0000e-005	2.3900e-003	1.0000e-005	2.4000e-003	6.4000e-004	1.0000e-005	6.5000e-004	0.0000	1.9403	1.9403	6.0000e-005	6.0000e-005	1.9594
Total	**9.5000e-004**	**6.6000e-004**	**7.4600e-003**	**2.0000e-005**	**2.3900e-003**	**1.0000e-005**	**2.4000e-003**	**6.4000e-004**	**1.0000e-005**	**6.5000e-004**	**0.0000**	**1.9403**	**1.9403**	**6.0000e-005**	**6.0000e-005**	**1.9594**

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	0.0793	0.7261	0.7609	1.2500e-003		0.0376	0.0376		0.0354	0.0354	0.0000	107.7522	107.7522	0.0258	0.0000	108.3976
Total	**0.0793**	**0.7261**	**0.7609**	**1.2500e-003**		**0.0376**	**0.0376**		**0.0354**	**0.0354**	**0.0000**	**107.7522**	**107.7522**	**0.0258**	**0.0000**	**108.3976**

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	7.3500e-003	0.1923	0.0530	7.3000e-004	0.0231	2.1100e-003	0.0252	6.6600e-003	2.0200e-003	8.6800e-003	0.0000	69.8174	69.8174	5.0000e-004	0.0106	72.9829
Worker	0.0268	0.0187	0.2105	6.0000e-004	0.0674	3.5000e-004	0.0678	0.0179	3.2000e-004	0.0183	0.0000	54.7365	54.7365	1.8000e-003	1.6600e-003	55.2754
Total	**0.0341**	**0.2109**	**0.2635**	**1.3300e-003**	**0.0905**	**2.4600e-003**	**0.0929**	**0.0246**	**2.3400e-003**	**0.0269**	**0.0000**	**124.5539**	**124.5539**	**2.3000e-003**	**0.0122**	**128.2583**

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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	0.0793	0.7261	0.7609	1.2500e-003		0.0376	0.0376		0.0354	0.0354	0.0000	107.7521	107.7521	0.0258	0.0000	108.3975
Total	**0.0793**	**0.7261**	**0.7609**	**1.2500e-003**		**0.0376**	**0.0376**		**0.0354**	**0.0354**	**0.0000**	**107.7521**	**107.7521**	**0.0258**	**0.0000**	**108.3975**

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	7.3500e-003	0.1923	0.0530	7.3000e-004	0.0231	2.1100e-003	0.0252	6.6600e-003	2.0200e-003	8.6800e-003	0.0000	69.8174	69.8174	5.0000e-004	0.0106	72.9829
Worker	0.0268	0.0187	0.2105	6.0000e-004	0.0674	3.5000e-004	0.0678	0.0179	3.2000e-004	0.0183	0.0000	54.7365	54.7365	1.8000e-003	1.6600e-003	55.2754
Total	**0.0341**	**0.2109**	**0.2635**	**1.3300e-003**	**0.0905**	**2.4600e-003**	**0.0929**	**0.0246**	**2.3400e-003**	**0.0269**	**0.0000**	**124.5539**	**124.5539**	**2.3000e-003**	**0.0122**	**128.2583**

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

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1628	1.4888	1.6813	2.7900e-003		0.0724	0.0724		0.0682	0.0682	0.0000	239.9179	239.9179	0.0571	0.0000	241.3447
Total	**0.1628**	**1.4888**	**1.6813**	**2.7900e-003**		**0.0724**	**0.0724**		**0.0682**	**0.0682**	**0.0000**	**239.9179**	**239.9179**	**0.0571**	**0.0000**	**241.3447**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.1900e-003	0.3434	0.1011	1.5600e-003	0.0513	2.2000e-003	0.0535	0.0148	2.1000e-003	0.0169	0.0000	149.5598	149.5598	7.4000e-004	0.0226	156.3161
Worker	0.0547	0.0362	0.4285	1.2900e-003	0.1500	7.4000e-004	0.1508	0.0399	6.8000e-004	0.0406	0.0000	117.9024	117.9024	3.5900e-003	3.3800e-003	119.0008
Total	**0.0629**	**0.3796**	**0.5296**	**2.8500e-003**	**0.2013**	**2.9400e-003**	**0.2043**	**0.0547**	**2.7800e-003**	**0.0575**	**0.0000**	**267.4622**	**267.4622**	**4.3300e-003**	**0.0260**	**275.3169**

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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	0.1628	1.4888	1.6813	2.7900e-003		0.0724	0.0724		0.0682	0.0682	0.0000	239.9176	239.9176	0.0571	0.0000	241.3444
Total	**0.1628**	**1.4888**	**1.6813**	**2.7900e-003**		**0.0724**	**0.0724**		**0.0682**	**0.0682**	**0.0000**	**239.9176**	**239.9176**	**0.0571**	**0.0000**	**241.3444**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.1900e-003	0.3434	0.1011	1.5600e-003	0.0513	2.2000e-003	0.0535	0.0148	2.1000e-003	0.0169	0.0000	149.5598	149.5598	7.4000e-004	0.0226	156.3161
Worker	0.0547	0.0362	0.4285	1.2900e-003	0.1500	7.4000e-004	0.1508	0.0399	6.8000e-004	0.0406	0.0000	117.9024	117.9024	3.5900e-003	3.3800e-003	119.0008
Total	**0.0629**	**0.3796**	**0.5296**	**2.8500e-003**	**0.2013**	**2.9400e-003**	**0.2043**	**0.0547**	**2.7800e-003**	**0.0575**	**0.0000**	**267.4622**	**267.4622**	**4.3300e-003**	**0.0260**	**275.3169**

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

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0103	0.1019	0.1458	2.3000e-004		5.1000e-003	5.1000e-003		4.6900e-003	4.6900e-003	0.0000	20.0269	20.0269	6.4800e-003	0.0000	20.1888
Paving	7.3600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0177**	**0.1019**	**0.1458**	**2.3000e-004**		**5.1000e-003**	**5.1000e-003**		**4.6900e-003**	**4.6900e-003**	**0.0000**	**20.0269**	**20.0269**	**6.4800e-003**	**0.0000**	**20.1888**

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	4.4000e-004	2.9000e-004	3.4100e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9389	0.9389	3.0000e-005	3.0000e-005	0.9476
Total	**4.4000e-004**	**2.9000e-004**	**3.4100e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9389**	**0.9389**	**3.0000e-005**	**3.0000e-005**	**0.9476**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0103	0.1019	0.1458	2.3000e-004		5.1000e-003	5.1000e-003		4.6900e-003	4.6900e-003	0.0000	20.0268	20.0268	6.4800e-003	0.0000	20.1888
Paving	7.3600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0177**	**0.1019**	**0.1458**	**2.3000e-004**		**5.1000e-003**	**5.1000e-003**		**4.6900e-003**	**4.6900e-003**	**0.0000**	**20.0268**	**20.0268**	**6.4800e-003**	**0.0000**	**20.1888**

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	4.4000e-004	2.9000e-004	3.4100e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9389	0.9389	3.0000e-005	3.0000e-005	0.9476
Total	**4.4000e-004**	**2.9000e-004**	**3.4100e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9389**	**0.9389**	**3.0000e-005**	**3.0000e-005**	**0.9476**

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

3.7 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	0.8378					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	**0.8398**	**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	1.0500e-003	6.9000e-004	8.1900e-003	2.0000e-005	2.8700e-003	1.0000e-005	2.8800e-003	7.6000e-004	1.0000e-005	7.8000e-004	0.0000	2.2533	2.2533	7.0000e-005	6.0000e-005	2.2743
Total	**1.0500e-003**	**6.9000e-004**	**8.1900e-003**	**2.0000e-005**	**2.8700e-003**	**1.0000e-005**	**2.8800e-003**	**7.6000e-004**	**1.0000e-005**	**7.8000e-004**	**0.0000**	**2.2533**	**2.2533**	**7.0000e-005**	**6.0000e-005**	**2.2743**

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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	0.8378					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	**0.8398**	**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	1.0500e-003	6.9000e-004	8.1900e-003	2.0000e-005	2.8700e-003	1.0000e-005	2.8800e-003	7.6000e-004	1.0000e-005	7.8000e-004	0.0000	2.2533	2.2533	7.0000e-005	6.0000e-005	2.2743
Total	**1.0500e-003**	**6.9000e-004**	**8.1900e-003**	**2.0000e-005**	**2.8700e-003**	**1.0000e-005**	**2.8800e-003**	**7.6000e-004**	**1.0000e-005**	**7.8000e-004**	**0.0000**	**2.2533**	**2.2533**	**7.0000e-005**	**6.0000e-005**	**2.2743**

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	20.3505	34.6312	161.4641	0.2128	7.2583	0.6266	7.8849	1.9442	0.5944	2.5386	0.0000	9,856.4594	9,856.4594	2.0712	1.2664	10,285.6275
Unmitigated	20.3505	34.6312	161.4641	0.2128	7.2583	0.6266	7.8849	1.9442	0.5944	2.5386	0.0000	9,856.4594	9,856.4594	2.0712	1.2664	10,285.6275

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	3,207.60	3,207.60	1606.50	2,967,510	2,967,510
City Park	0.00	0.00	0.00		
Fast Food Restaurant with Drive Thru	4,067.37	5,360.58	4111.74	3,978,779	3,978,779
Hardware/Paint Store	3,538.94	4,350.24	3178.70	5,242,034	5,242,034
Parking Lot	0.00	0.00	0.00		
Strip Mall	1,164.13	1,431.00	1045.63	1,825,434	1,825,434
Supermarket	4,663.02	5,732.01	4188.36	5,400,495	5,400,495
Total	16,641.05	20,081.43	14,130.92	19,414,253	19,414,253

4.3 Trip Type Information

	Miles	Trip %	Trip Purpose %

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

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
Automobile Care Center	9.50	7.30	7.30	33.00	48.00	19.00	21	51	28
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Fast Food Restaurant with Drive Thru	9.50	7.30	7.30	2.20	78.80	19.00	29	21	50
Hardware/Paint Store	9.50	7.30	7.30	13.60	67.40	19.00	45	29	26
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15
Supermarket	9.50	7.30	7.30	6.50	74.50	19.00	34	30	36

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.478144	0.082544	0.158845	0.173414	0.040049	0.005566	0.014964	0.013570	0.000493	0.000374	0.021822	0.000745	0.009470
City Park	0.478144	0.082544	0.158845	0.173414	0.040049	0.005566	0.014964	0.013570	0.000493	0.000374	0.021822	0.000745	0.009470
Fast Food Restaurant with Drive Thru	0.478144	0.082544	0.158845	0.173414	0.040049	0.005566	0.014964	0.013570	0.000493	0.000374	0.021822	0.000745	0.009470
Hardware/Paint Store	0.478144	0.082544	0.158845	0.173414	0.040049	0.005566	0.014964	0.013570	0.000493	0.000374	0.021822	0.000745	0.009470
Parking Lot	0.478144	0.082544	0.158845	0.173414	0.040049	0.005566	0.014964	0.013570	0.000493	0.000374	0.021822	0.000745	0.009470
Strip Mall	0.478144	0.082544	0.158845	0.173414	0.040049	0.005566	0.014964	0.013570	0.000493	0.000374	0.021822	0.000745	0.009470
Supermarket	0.478144	0.082544	0.158845	0.173414	0.040049	0.005566	0.014964	0.013570	0.000493	0.000374	0.021822	0.000745	0.009470

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

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Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	571.4084	571.4084	0.0442	5.3500e-003	574.1076
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	571.4084	571.4084	0.0442	5.3500e-003	574.1076
NaturalGas Mitigated	0.0192	0.1748	0.1468	1.0500e-003		0.0133	0.0133		0.0133	0.0133	0.0000	190.2936	190.2936	3.6500e-003	3.4900e-003	191.4245
NaturalGas Unmitigated	0.0192	0.1748	0.1468	1.0500e-003		0.0133	0.0133		0.0133	0.0133	0.0000	190.2936	190.2936	3.6500e-003	3.4900e-003	191.4245

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					
Automobile Care Center	66346.2	3.6000e-004	3.2500e-003	2.7300e-003	2.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004	0.0000	3.5405	3.5405	7.0000e-005	6.0000e-005	3.5615
City Park	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
Fast Food Restaurant with Drive Thru	981090	5.2900e-003	0.0481	0.0404	2.9000e-004		3.6600e-003	3.6600e-003		3.6600e-003	3.6600e-003	0.0000	52.3547	52.3547	1.0000e-003	9.6000e-004	52.6658
Hardware/Paint Store	440040	2.3700e-003	0.0216	0.0181	1.3000e-004		1.6400e-003	1.6400e-003		1.6400e-003	1.6400e-003	0.0000	23.4822	23.4822	4.5000e-004	4.3000e-004	23.6218
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	144750	7.8000e-004	7.1000e-003	5.9600e-003	4.0000e-005		5.4000e-004	5.4000e-004		5.4000e-004	5.4000e-004	0.0000	7.7244	7.7244	1.5000e-004	1.4000e-004	7.7703
Supermarket	1.93374e+006	0.0104	0.0948	0.0796	5.7000e-004		7.2000e-003	7.2000e-003		7.2000e-003	7.2000e-003	0.0000	103.1918	103.1918	1.9800e-003	1.8900e-003	103.8051
Total		**0.0192**	**0.1748**	**0.1468**	**1.0500e-003**		**0.0133**	**0.0133**		**0.0133**	**0.0133**	**0.0000**	**190.2937**	**190.2937**	**3.6500e-003**	**3.4800e-003**	**191.4245**

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

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					
Automobile Care Center	66346.2	3.6000e-004	3.2500e-003	2.7300e-003	2.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004	0.0000	3.5405	3.5405	7.0000e-005	6.0000e-005	3.5615
City Park	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
Fast Food Restaurant with Drive Thru	981090	5.2900e-003	0.0481	0.0404	2.9000e-004		3.6600e-003	3.6600e-003		3.6600e-003	3.6600e-003	0.0000	52.3547	52.3547	1.0000e-003	9.6000e-004	52.6658
Hardware/Paint Store	440040	2.3700e-003	0.0216	0.0181	1.3000e-004		1.6400e-003	1.6400e-003		1.6400e-003	1.6400e-003	0.0000	23.4822	23.4822	4.5000e-004	4.3000e-004	23.6218
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	144750	7.8000e-004	7.1000e-003	5.9600e-003	4.0000e-005		5.4000e-004	5.4000e-004		5.4000e-004	5.4000e-004	0.0000	7.7244	7.7244	1.5000e-004	1.4000e-004	7.7703
Supermarket	1.93374e+006	0.0104	0.0948	0.0796	5.7000e-004		7.2000e-003	7.2000e-003		7.2000e-003	7.2000e-003	0.0000	103.1918	103.1918	1.9800e-003	1.8900e-003	103.8051
Total		**0.0192**	**0.1748**	**0.1468**	**1.0500e-003**		**0.0133**	**0.0133**		**0.0133**	**0.0133**	**0.0000**	**190.2937**	**190.2937**	**3.6500e-003**	**3.4800e-003**	**191.4245**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
Automobile Care Center	29774.9		5.7669	4.5000e-004	5.0000e-005	5.7942
City Park	0		0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant with Drive Thru	276300		53.5149	4.1400e-003	5.0000e-004	53.7677
Hardware/Paint Store	432060		83.6831	6.4700e-003	7.8000e-004	84.0784
Parking Lot	85636.9		16.5865	1.2800e-003	1.6000e-004	16.6649
Strip Mall	142125		27.5273	2.1300e-003	2.6000e-004	27.6574
Supermarket	1.98431e+006		384.3297	0.0297	3.6000e-003	386.1452
Total			**571.4084**	**0.0442**	**5.3500e-003**	**574.1076**

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

Mitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
Automobile Care Center	29774.9		5.7669	4.5000e-004	5.0000e-005	5.7942
City Park	0		0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant with Drive Thru	276300		53.5149	4.1400e-003	5.0000e-004	53.7677
Hardware/Paint Store	432060		83.6831	6.4700e-003	7.8000e-004	84.0784
Parking Lot	85636.9		16.5865	1.2800e-003	1.6000e-004	16.6649
Strip Mall	142125		27.5273	2.1300e-003	2.6000e-004	27.6574
Supermarket	1.98431e+006		384.3297	0.0297	3.6000e-003	386.1452
Total			**571.4084**	**0.0442**	**5.3500e-003**	**574.1076**

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	0.5955	5.0000e-005	4.2100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	6.4400e-003	6.4400e-003	3.0000e-005	0.0000	7.1800e-003
Unmitigated	0.5955	5.0000e-005	4.2100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	6.4400e-003	6.4400e-003	3.0000e-005	0.0000	7.1800e-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	0.1362					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4587					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.4000e-004	5.0000e-005	4.2100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	6.4400e-003	6.4400e-003	3.0000e-005	0.0000	7.1800e-003
Total	**0.5955**	**5.0000e-005**	**4.2100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**6.4400e-003**	**6.4400e-003**	**3.0000e-005**	**0.0000**	**7.1800e-003**

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

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	0.1362					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4587					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.4000e-004	5.0000e-005	4.2100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	6.4400e-003	6.4400e-003	3.0000e-005	0.0000	7.1800e-003
Total	**0.5955**	**5.0000e-005**	**4.2100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**6.4400e-003**	**6.4400e-003**	**3.0000e-005**	**0.0000**	**7.1800e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

		Total CO2	CH4	N2O	CO2e
Category	tons/yr	MT/yr			
Mitigated		21.5178	0.4244	0.0102	35.1533
Unmitigated		21.5178	0.4244	0.0102	35.1533

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

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
Automobile Care Center	0.338692 / 0.207585		0.6031	0.0111	2.7000e-004	0.9590
City Park	0 / 2.72849		1.8496	1.4000e-004	2.0000e-005	1.8584
Fast Food Restaurant with Drive Thru	2.7318 / 0.17437		3.8479	0.0893	2.1300e-003	6.7137
Hardware/Paint Store	2.81476 / 1.72517		5.0124	0.0920	2.2000e-003	7.9702
Parking Lot	0 / 0		0.0000	0.0000	0.0000	0.0000
Strip Mall	0.925907 / 0.567491		1.6488	0.0303	7.3000e-004	2.6218
Supermarket	6.17204 / 0.190888		8.5560	0.2016	4.8100e-003	15.0302
Total			**21.5178**	**0.4244**	**0.0102**	**35.1533**

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

Mitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
Automobile Care Center	0.338692 / 0.207585		0.6031	0.0111	2.7000e-004	0.9590
City Park	0 / 2.72849		1.8496	1.4000e-004	2.0000e-005	1.8584
Fast Food Restaurant with Drive Thru	2.7318 / 0.17437		3.8479	0.0893	2.1300e-003	6.7137
Hardware/Paint Store	2.81476 / 1.72517		5.0124	0.0920	2.2000e-003	7.9702
Parking Lot	0 / 0		0.0000	0.0000	0.0000	0.0000
Strip Mall	0.925907 / 0.567491		1.6488	0.0303	7.3000e-004	2.6218
Supermarket	6.17204 / 0.190888		8.5560	0.2016	4.8100e-003	15.0302
Total			**21.5178**	**0.4244**	**0.0102**	**35.1533**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

		Total CO2	CH4	N2O	CO2e
	Appendix G				

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

	tons/yr	MT/yr			
Mitigated		169.4021	10.0114	0.0000	419.6864
Unmitigated		169.4021	10.0114	0.0000	419.6864

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

8.2 Waste by Land Use

Unmitigated

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
Automobile Care Center	13.75		2.7911	0.1650	0.0000	6.9149
City Park	0.2		0.0406	2.4000e-003	0.0000	0.1006
Fast Food Restaurant with Drive Thru	103.67		21.0441	1.2437	0.0000	52.1358
Hardware/Paint Store	421.39		85.5384	5.0552	0.0000	211.9177
Parking Lot	0		0.0000	49 Cit	y Park	0.2 0.
406	-003	.	0000	1006	ast Foo	d Resta
rant with Dr	ive Thr	u			1	7
2.1358			Hardware/	int Stor	421.39	5.5384
			0		0	0

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Appendix I:
Hazards and Hazardous Materials Supporting Information

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PARTNER
Engineering and Science, Inc.®



PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT

Proposed Retail Shopping Center
1601 and 1669 South Main Street
Manteca, California 95337

Report Date: August 12, 2021
Partner Project No. 21-329585.1



Prepared for:

California Gold Development Corporation
133 Old Wards Ferry Road
Sonora, California 95370

PARTNER
Engineering and Science, Inc.

August 12, 2021

Mr. Scot Patterson
California Gold Development Corporation
133 Old Wards Ferry Road
Sonora, California 95370

Subject: Phase I Environmental Site Assessment
Proposed Retail Shopping Center
1601 and 1669 South Main Street
Manteca, California 95337
Partner Project No. 21-329585.1

Dear Mr. Patterson:

Partner Engineering and Science, Inc. (Partner) is pleased to provide the results of the *Phase I Environmental Site Assessment* (Phase I ESA) report of the abovementioned address (the "subject property"). This assessment was performed in conformance with the scope and limitations as detailed in the ASTM Practice E1527-13 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.

This assessment included a site reconnaissance as well as research and interviews with representatives of the public, property ownership, site manager, and regulatory agencies. An assessment was made, conclusions stated, and recommendations outlined.

We appreciate the opportunity to provide environmental services to you. If you have any questions concerning this report, or if we can assist you in any other matter, please contact me at (559) 917-9700 or CTaylor@partneresi.com.

Sincerely,

Cody Taylor
National Client Manager

EXECUTIVE SUMMARY

Partner Engineering and Science, Inc. (Partner) has performed a Phase I Environmental Site Assessment (ESA) in accordance with the scope of work and limitations of ASTM Standard Practice E1527-13, the Environmental Protection Agency Standards and Practices for All Appropriate Inquiries (AAI) (40 CFR Part 312) and set forth by California Gold Development Corporation for the property located at 1601 and 1669 South Main Street in Manteca, San Joaquin County, California (the "subject property"). The Phase I Environmental Site Assessment is designed to provide California Gold Development Corporation with an assessment concerning environmental conditions (limited to those issues identified in the report) as they exist at the subject property.

Property Description

The subject property is located on the western side of South Main Street and the southern side of West Atherton Drive within a residential, agricultural, and commercial area of Manteca, California. Please refer to the table below for further description of the subject property:

Subject Property Data	
Addresses:	1601 and 1669 South Main Street, Manteca, California
Historical Addresses	1623, 1635, 1641, 1653, South Main Street
Property Use:	Vacant Land (Parcel A); Single-Family Residential (Parcel B)
Land Acreage (Ac):	19.68 Ac
Number of Buildings:	Two (Residence and Garage)
Number of Floors:	One
Gross Building Area (SF):	1,510 SF
Net Rentable Area (SF):	1,510 SF
Date of Construction:	1944
Assessor's Parcel Number (APN):	224-021-470 (Parcel A); 224-021-300 (Parcel B)
Type of Construction:	Conventional wood framing; Pier and post foundation
Current Tenants:	Private residents
Site Assessment Performed By:	Zachary Oretsky of Partner
Site Assessment Conducted On:	July 29, 2021

The subject property is currently vacant land (Parcel A) and developed with a single-family residence and garage (Parcel B). On-site operations consist of general residential living activities. In addition to the current structures, the subject property is also improved with a septic tank system and a domestic well, a paved driveway, and landscaped grounds associated with the residence on Parcel B, and an irrigation well located on the southern side of Parcel A.

According to available historical sources, the subject property was formerly undeveloped land as early as 1914; was developed as agricultural land circa 1937; and was developed with the current residence in 1944. The subject property was used for residential and agricultural use until circa 2012. Parcel A has been vacant land since at least 2016.

The immediately surrounding properties consist of agricultural land to the north across West Atherton Drive; residential properties and orchards to the south; vacant land and residential properties to the east across South Main Street; and residential properties and a municipal park to the west.

According to information obtained from the California Department of Water Resources (DWR) *Sustainable Groundwater Management Act (SGMA) Data Viewer,* groundwater in the vicinity of the subject property is inferred to be approximately 30 feet below ground surface (bgs) and groundwater flow direction is inferred to be toward the northwest.

Findings

A *recognized environmental condition (REC)* refers to the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: due to release to the environment; under conditions indicative of a release to the environment; or under conditions that pose a material threat of a future release to the environment. The following was identified during the course of this assessment:

- Partner did not identify evidence of RECs during the course of this assessment.

A *controlled recognized environmental condition (CREC)* refers to a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls. The following was identified during the course of this assessment:

- Partner did not identify evidence of CRECs during the course of this assessment.

A *historical recognized environmental condition (HREC)* refers to a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls. The following was identified during the course of this assessment:

- Partner did not identify evidence of HRECs during the course of this assessment.

An *environmental issue* refers to environmental concerns identified by Partner, which do not qualify as RECs; however, warrant further discussion. The following was identified during the course of this assessment:

- The residence on the subject property is connected to an on-site domestic well and septic system. Additionally, an irrigation well is located within the southern portion of Parcel A. If the wells and septic systems are not planned for future use, they should be property abandoned/destroyed in accordance with applicable regulations.
- Due to the age of the subject property buildings, there is a potential that asbestos-containing materials (ACMs) and/or lead-based paint (LBP) are present. Readily visible suspect ACMs and painted surfaces were observed in good condition. Prior to the disturbance of any suspect ACMs or LBP at the subject property, a comprehensive survey, designed to determine if the suspect materials are regulated, is recommended. If such materials are identified and need to be disturbed, repaired, or removed, a licensed abatement contractor should be consulted.

Conclusions, Opinions, and Recommendations

Partner has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527-13 of the property located at 1601 and 1669 South Main Street in Manteca, San Joaquin County, California (the "subject property"). Any exceptions to, or deletions from, this practice are described in Section 1.5 of this report.

This assessment has revealed no evidence of RECs in connection with the subject property; however, environmental issues were identified. Based on the conclusions of this assessment, Partner recommends no further investigation of the subject property at this time.

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Appendix A Site Photographs
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1.0 INTRODUCTION

Partner Engineering and Science, Inc. (Partner) has performed a Phase I Environmental Site Assessment (ESA) in conformance with the scope and limitations of ASTM Standard Practice E1527-13 and the Environmental Protection Agency Standards and Practices for All Appropriate Inquiries (AAI) (40 CFR Part 312) for the property located at 1601 and 1669 South Main Street in Manteca, San Joaquin County, California (the "subject property"). Any exceptions to, or deletions from, this scope of work are described in the report.

1.1 Purpose

The purpose of this ESA is to identify existing or potential Recognized Environmental Conditions (as defined by ASTM Standard E1527-13) affecting the subject property that: 1) constitute or result in a material violation or a potential material violation of any applicable environmental law; 2) impose any material constraints on the operation of the subject property or require a material change in the use thereof; 3) require clean-up, remedial action or other response with respect to Hazardous Substances or Petroleum Products on or affecting the subject property under any applicable environmental law; 4) may affect the value of the subject property; and 5) may require specific actions to be performed with regard to such conditions and circumstances. The information contained in the ESA Report will be used by Client to: 1) evaluate its legal and financial liabilities for transactions related to foreclosure, purchase, sale, loan origination, loan workout or seller financing; 2) evaluate the subject property's overall development potential, the associated market value and the impact of applicable laws that restrict financial and other types of assistance for the future development of the subject property; and/or 3) determine whether specific actions are required to be performed prior to the foreclosure, purchase, sale, loan origination, loan workout or seller financing of the subject property.

This ESA was performed to permit the *User* to satisfy one of the requirements to qualify for the innocent landowner, contiguous property owner, or bona fide prospective purchaser limitations on scope of Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (42 U.S.C. §9601) liability (hereinafter, the "*landowner liability protections*," or "*LLPs*"). ASTM Standard E1527-13 constitutes "*all appropriate inquiry* into the previous ownership and uses of the *property* consistent with good commercial or customary practice" as defined at 42 U.S.C. §9601(35)(B).

1.2 Scope of Work

The scope of work for this ESA is in accordance with the requirements of ASTM Standard E1527-13. This assessment included: 1) a property and adjacent site reconnaissance; 2) interviews with key personnel; 3) a review of historical sources; 4) a review of regulatory agency records; and 5) a review of a regulatory database report provided by a third-party vendor. Partner contacted local agencies, such as environmental health departments, fire departments and building departments in order to determine any current and/or former hazardous substances usage, storage and/or releases of hazardous substances on the subject property.

Additionally, Partner researched information on the presence of activity and use limitations (AULs) at these agencies. As defined by ASTM E1527-13, AULs are the legal or physical restrictions or limitations on the use of, or access to, a site or facility: 1) to reduce or eliminate potential exposure to hazardous substances or petroleum products in the soil or groundwater on the subject property; or 2) to prevent activities that could interfere with the effectiveness of a response action, in order to ensure maintenance of a condition of no significant risk to public health or the environment. These legal or physical restrictions, which may include institutional and/or engineering controls (IC/ECs), are intended to prevent adverse impacts to individuals or populations that may be exposed to hazardous substances and petroleum products in the soil or groundwater on the property.

If requested by Client, this report may also include the identification, discussion of, and/or limited sampling of asbestos-containing materials (ACMs), lead-based paint (LBP), mold, and/or radon.

1.3 Limitations

Partner warrants that the findings and conclusions contained herein were accomplished in accordance with the methodologies set forth in the Scope of Work. These methodologies are described as representing good commercial and customary practice for conducting an ESA of a property for the purpose of identifying recognized environmental conditions. There is a possibility that even with the proper application of these methodologies there may exist on the subject property conditions that could not be identified within the scope of the assessment or which were not reasonably identifiable from the available information. Partner believes that the information obtained from the record review and the interviews concerning the subject property is reliable. However, Partner cannot and does not warrant or guarantee that the information provided by these other sources is accurate or complete. The conclusions and findings set forth in this report are strictly limited in time and scope to the date of the evaluations. The conclusions presented in the report are based solely on the services described therein, and not on scientific tasks or procedures beyond the scope of agreed-upon services or the time and budgeting restraints imposed by the Client. No other warranties are implied or expressed.

Some of the information provided in this report is based upon personal interviews, and research of available documents, records, and maps held by the appropriate government and private agencies. This report is subject to the limitations of historical documentation, availability, and accuracy of pertinent records, and the personal recollections of those persons contacted.

This practice does not address requirements of any state or local laws or of any federal laws other than the all appropriate inquiry provisions of the LLPs. Further, this report does not intend to address all of the safety concerns, if any, associated with the subject property.

Environmental concerns, which are beyond the scope of a Phase I ESA as defined by ASTM include the following: ACMs, LBP, radon, and lead in drinking water. These issues may affect environmental risk at the subject property and may warrant discussion and/or assessment; however, are considered non-scope issues. If specifically requested by the Client, these non-scope issues are discussed in Section 6.3.

1.4 User Reliance

California Gold Development Corporation engaged Partner to perform this assessment in accordance with an agreement governing the nature, scope and purpose of the work as well as other matters critical to the engagement. All reports, both verbal and written, are for the sole use and benefit of California Gold Development Corporation. Either verbally or in writing, third parties may come into possession of this report or all or part of the information generated as a result of this work. In the absence of a written agreement with Partner granting such rights, no third parties shall have rights of recourse or recovery whatsoever under any course of action against Partner, its officers, employees, vendors, successors or assigns. Any such unauthorized user shall be responsible to protect, indemnify and hold Partner, Client and their respective officers, employees, vendors, successors and assigns harmless from any and all claims, damages, losses, liabilities, expenses (including reasonable attorneys' fees) and costs attributable to such Use. Unauthorized use of this report shall constitute acceptance of and commitment to these responsibilities, which shall be irrevocable and shall apply regardless of the cause of action or legal theory pled or asserted. Additional legal penalties may apply.

1.5 Limiting Conditions

The findings and conclusions contain all of the limitations inherent in these methodologies that are referred to in ASTM E1527-13. Specific limitations and exceptions to this ESA are more specifically set forth below:

- Partner was unable to determine the property use at five-year intervals, which constitutes a data gap. Except for property tax files and recorded land title records, which were not considered to be sufficiently useful, Partner reviewed all standard historical sources and conducted appropriate interviews.
- Partner submitted a Freedom of Information Act (FOIA) request to the Manteca Fire Department (MFD) for information pertaining to hazardous substances, underground storage tanks (USTs), releases, inspection records, etc. for the subject property. As of this writing, this agency has not responded to Partner's request. Based on information obtained from other sources, this limitation is not expected to alter the overall findings of this assessment.
- Interviews with past owners, operators, and occupants were not reasonably ascertainable and thus constitute a data gap. Based on information obtained from other historical sources (as discussed in Section 3.0), this data gap is not expected to alter the findings of this assessment.
- Partner was not engaged by the User to perform a review of title records for environmental liens or activity and use limitations (AULs) recorded against the subject property; and these documents were not provided to Partner for review. The absence of an environmental lien and AUL search represents a data gap. However, based on information obtained from the other sources, this data gap is not expected to alter the findings of this assessment.

2.0 SITE DESCRIPTION

2.1 Site Location and Legal Description

The subject property at 1601 and 1669 South Main Street in Manteca, California, is located on the western side of South Main Street and the southern side of West Atherton Drive. According to information obtained from the San Joaquin County Assessor, the subject property is identified as Assessor Parcel Numbers (APNs) 224-021-470 and 224-021-300, and ownership is currently vested in Brocchini Family Partnership. Legal descriptions of the subject property parcels were not identified.

Please refer to Figure 1: Site Location Map, Figure 2: Site Plan, Figure 3: Topographic Map, and Appendix A: Site Photographs for the location and site characteristics of the subject property.

2.2 Current Property Use

The subject property is currently vacant land (Parcel A) and developed with a single-family residence and garage (Parcel B). On-site operations consist of general residential living activities. In addition to the current structures, the subject property is also improved with a septic tank system and a domestic well, a paved driveway, and landscaped grounds associated with the residence on Parcel B, and an irrigation well located on the southern side of Parcel A.

The subject property is designated for commercial (Parcel A) and residential (Parcel B) development by the City of Manteca.

The subject property is not identified in the regulatory database report, discussed in Section 4.2.

2.3 Current Use of Adjacent Properties

The subject property is located within a residential, agricultural, and commercial area of San Joaquin County. During the vicinity reconnaissance, Partner observed the following land use on properties in the immediate vicinity of the subject property:

Immediately Surrounding Properties

North: West Atherton Drive, beyond which is agricultural land

South: Residential properties and orchards (1700, 1701 Jackie Place; 7201, 7365 East Woodward Avenue; 1695 South Main Street)

East: South Main Street, beyond which are vacant land and residential properties (1532, 1574 South Main Street; 125 Catmint Street; 1731 Tickseed Way)

West: Residential properties and a municipal park (603-657 Monte Casa Street; 1630 Luna Bella Lane)

The adjacent property to the south is identified as a Hazardous Substances Storage Tank (HIST UST) site in the regulatory database report, as further discussed in Section 4.2.

2.4 Physical Setting Sources

2.4.1 Topography

The United States Geological Survey (USGS) *Manteca, California* Quadrangle 7.5-minute series topographic map was reviewed for this ESA. According to the contour lines on the topographic map, the subject property is located at approximately 35 feet above mean sea level (MSL). The contour lines on the map indicate the area is sloping gently toward the west.

A copy of the reviewed topographic map is included as Figure 3 of this report.

2.4.2 Hydrology

The nearest surface water in the vicinity of the subject property is Oakwood Lake located approximately 3.5 miles to the west. No settling ponds, lagoons, surface impoundments, wetlands, or natural catch basins were observed at the subject property during this assessment.

The subject property is not currently serviced by a public water system. Potable water is supplied to the subject property via an on-site domestic well. Additionally, an irrigation well is located on Parcel A. No information regarding analytical testing or construction specifications of the on-site wells was found during the course of this assessment. Water sampling was not conducted to verify water quality.

According to information obtained from the DWR *SGMA Data Viewer*, groundwater in the vicinity of the subject property is inferred to be approximately 30 feet bgs and groundwater flow direction is inferred to be toward the northwest.

2.4.3 Geology/Soils

The subject property is situated within the eastern portion of the San Joaquin Valley. The San Joaquin Valley comprises the southern portion of the Great Valley Physiographic Province of California. The Great Valley is a long structural trough situated between the Sierra Nevada and Cascade Range to the east, the Coast Range to the west, and the Tehachapi Mountains to the south. The San Joaquin Valley has been filled with several thousand feet of sedimentary deposits derived from the erosion of the Sierra Nevada and Coast Range and deposited by major to minor drainages and their tributaries. Near-surface sediments are dominated by sands and silty sands with lesser silts, minor clays, and gravel. The sedimentary deposits in the region form large coalescing alluvial fans with gentle slopes deposited primarily during Plio-Pleistocene time by the streams that drain the adjacent uplands. Sediments consist of recent and older alluvium derived primarily from the Sierra Nevada. Older (Pleistocene) alluvium unconformably overlies Pliocene-Pleistocene continental and marine deposits. The valley basement, consisting of pre-Tertiary granitic and metamorphic rocks, underlies the clastic section at a depth in excess of 2,000 feet bgs.

Based on information obtained from the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) *Web Soil Survey* online database, the subject property is mapped as Timor loamy sand. The Timor series consists of deep, well-drained to excessively drained sands and gravel alluvium derived from granitic sources. Slopes range from 0 to 2 percent.

2.4.4 Flood Zone Information

Partner performed a review of the Flood Insurance Rate Map, published by the Federal Emergency Management Agency. According to Community Panel Number 06077C0640F, dated October 16, 2009, the subject property appears to be located in Zone X (unshaded), an area of minimal flood hazard.

3.0 HISTORICAL INFORMATION

Partner obtained historical use information about the subject property from a variety of sources. A chronological listing of the historical data found is summarized in the table below:

Historical Use Information		
Period/Date	**Source**	**Description/Use**
1914	Topographic Map	Undeveloped land
1937	Aerial Photograph	Agricultural land
1944-2012	Aerial Photographs, City Directories, Topographic Maps, Agency Records, Interviews	Residential and agricultural land
2016-present	Aerial Photographs, City Directories, Agency Records, Interviews, Site Observations	Residential and vacant land

The subject property (Parcel A) was historically used for agricultural purposes. There is a potential that agricultural chemicals such as pesticides and fertilizers may have been used and applied to the crops grown on-site. However, no specific areas of concern (e.g. product mishandling, releases, spills, incidents, etc.) related to agricultural chemical storage and use at the subject property have been identified during the course of this assessment. It is likely that residual agricultural chemicals (if any) would have degraded since the site was last utilized for agricultural purposes. Additionally, during recent site grading activities, near surface soils (where residual agricultural chemical concentrations would have most likely been present, if at all) were generally mixed with fill material or disturbed during grading. Furthermore, Partner's experience with sampling and analysis of near surface soils from properties with similar agricultural histories has typically returned non-detectable or very low concentrations of environmentally persistent agricultural chemicals. Based on these factors coupled with the current zoning and planned use of the subject property for commercial purposes, Partner concludes that the possible former use of agricultural chemicals is not expected to represent an environmental concern at this time.

No other potential environmental concerns were identified in association with the current or former uses of the subject property.

3.1 Aerial Photograph Review

Partner obtained available aerial photographs of the subject property and surrounding area from Environmental Data Resources, Inc. (EDR) on July 15, 2021. The following was observed on the subject property and adjacent properties during the aerial photograph review:

Date: 1937	***Scale: 1"=500'***
Subject Property:	Appears to be agricultural land
North:	Appears to be agricultural land with two residential or agricultural buildings to the northeast
South:	Appears to be agricultural land
East:	Appears to be agricultural land with two small residential or agricultural buildings across a road
West:	Appears to be agricultural land; appears to be agricultural land across an irrigation canal

Date: 1957, 1963	***Scale: 1"=500'***
Subject Property:	Appears to be agricultural land with the current residence in the southeastern corner of the property
North:	Appears to be agricultural land with a residence to the northeast
South:	No significant changes visible
East:	No significant changes visible
West:	No significant changes visible

Date: 1968	***Scale: 1"=500'***
Subject Property:	Appears to be an orchard with the current residence in the southeastern corner of the property
North:	No significant changes visible
South:	No significant changes visible
East:	No significant changes visible
West:	No significant changes visible

Date: 1975, 1982, 1993	***Scale: 1"=500'***
Subject Property:	No significant changes visible
North:	No significant changes visible
South:	Appears to be developed residentially with multiple residences surrounded by orchards
East:	No significant changes visible
West:	No significant changes visible

Date: 2006	***Scale: 1"=500'***
Subject Property:	No significant changes visible
North:	No significant changes visible
South:	No significant changes visible
East:	Appears to be agricultural land with ongoing residential development to the southeast across a road
West:	Appears to be ongoing residential development; appears to be vacant grassland and surrounding a small pond

Date: 2009	***Scale: 1"=500'***
Subject Property:	No significant changes visible
North:	Appears to be agricultural land across a road
South:	Appears to be developed residentially with multiple residences surrounded by orchards and ongoing residential development of a cul-de-sac
East:	No significant changes visible
West:	No significant changes visible; appears to be a municipal park

Date: 2012	***Scale: 1"=500'***
Subject Property:	No significant changes visible
North:	No significant changes visible
South:	Appears to be developed with additional residences
East:	Appears to be developed with additional residences
West:	No significant changes visible

Date: 2016	*Scale: 1"=500'*
Subject Property:	Appears to be vacant land
North:	No significant changes visible
South:	No significant changes visible
East:	No significant changes visible
West:	Appears to be developed residentially; no significant changes visible to municipal park

Copies of reviewed aerial photographs are included in Appendix B of this report.

3.2 Fire Insurance Maps

Partner contracted with EDR to search for Sanborn fire insurance map coverage of the subject property and surrounding area on July 15, 2021. EDR's Sanborn map search revealed no coverage for the subject property or adjacent properties.

A copy of the EDR, *Certified Sanborn Map Report* is included in Appendix B of this report.

3.3 City Directories

Partner reviewed historical city directories obtained from EDR on July 21, 2021 for past names and businesses that were listed for the subject property and adjacent properties. The findings are presented in the following table:

City Directory Search for 1601 and 1669 South Main Street (Subject Property)	
Year(s)	**Occupant Listed**
1985	Elliott Glenn (1653 South Main Street)
1992	Quaresma, George R (1669 South Main Street)
1995	Residences (1623, 1635, 1641, 1653, 1663, 1669 South Main Street)
2000	Richards, F A (1663 South Main Street); Occupant Unknown (1669 South Main Street)
2014	Swanson, J R (1669 South Main Street)

Based on the city directory review, no environmentally sensitive listings were identified for the subject property addresses.

City Directory Search for Adjacent Properties	
Year(s)	**Occupant Listed**
1973	Residences (7201, 7285, 7385 East Woodward Road)
1977	Residences (7201, 7285, 7385 East Woodward Road)
1981	Residences (7201, 7285, 7385 East Woodward Road)
1985	Vigil Phillip (1553 South Main Street); Residences (7201, 7385 East Woodward Road)
1992	Residences (1536, 1695 South Main Street; 7201, 7385 East Woodward Road)
1995	Residences (1530, 1532, 1536, 1548, 1549, 1562, 1563, 1574, 1695 South Main Street; 7201, 7285, 7385 East Woodward Road)
2000	Residences (1532, 1536, 1695 South Main Street; 7201, 7285, 7365, 7385 East Woodward Road)
2005	Residences (1532, 1695 South Main Street; 7201, 7285, 7365, 7385 East Woodward Road)
2010	Residences (1532, 1695 South Main Street; 1700, 1701 Jackie Place; 7201, 7365, 785 East Woodward Avenue; 1731 Tickseed Lane)

City Directory Search for Adjacent Properties	
Year(s)	**Occupant Listed**
2014	Residences (1532, 1563, 1574, 1695 South Main Street; 603, 611, 623, 631, 639, 651, 657 Monte Casa Street; 1700, 1701 Jackie Place; 7201, 7385 East Woodward Avenue; 125 Catmint Street)
2017	Residences (1532, 1695 South Main Street; 603, 611, 623, 631, 639, 651, 657 Monte Casa Street; 1701 Jackie Place; 7201, 7365, 7385 East Woodward Avenue; 125 Catmint Street; 1731 Tickseed Lane)

Based on the city directory review, no environmentally sensitive listings were identified for the adjacent property addresses.

Copies of reviewed city directories are included in Appendix B of this report.

3.4 Historical Topographic Maps

Partner reviewed historical topographic maps obtained from EDR on July 15, 2021. The following was observed on the subject property and adjacent properties during the topographic map review:

Date: 1914	
Subject Property:	Depicted as undeveloped land
North:	Depicted as undeveloped land
South:	Depicted as undeveloped land
East:	Depicted as undeveloped land across a road
West:	Depicted as undeveloped land

Date: 1952, 1968	
Subject Property:	Depicted as developed with a small building in the southeastern corner of the property
North:	Depicted as orchards with a small building to the northeast
South:	Depicted as orchards
East:	Depicted as orchards with a small building across a road
West:	Depicted as undeveloped land across an irrigation canal; depicted as undeveloped land

Date: 1976, 1987, 1991, 1994	
Subject Property:	No significant changes depicted
North:	No significant changes depicted
South:	Depicted as small commercial buildings surrounded by orchards
East:	No significant changes depicted
West:	No significant changes depicted; no significant changes depicted

Copies of reviewed topographic maps are included in Appendix B of this report.

4.0 REGULATORY RECORDS REVIEW

4.1 Regulatory Agencies

4.1.1 State Department

Regulatory Agency Data	
Name of Agency:	California Environmental Protection Agency (CalEPA)
Point of Contact:	Regulated Sites Portal
Agency Address:	https://siteportal.calepa.ca.gov/nsite/
Date of Contact:	August 12, 2021
Method of Communication:	Online Research
Summary of Communication:	No records regarding hazardous substance use, storage, or releases, or the presence of USTs and AULs on the subject property were identified in the Regulated Site Portal database.

4.1.2 Health Department

Regulatory Agency Data	
Name of Agency:	San Joaquin County Environmental Health Department (SCEHD)
Point of Contact:	Public Records Coordinator
Agency Address:	1868 East Hazelton Avenue Stockton, California
Agency Phone Number:	(209) 468-3420)
Date of Contact:	July 16, 2021
Method of Communication:	Online Request
Summary of Communication:	According to records reviewed, a permit to advance seven soil borings on the subject property to depths ranging between 20 to 30 feet below ground surface was filed in 2017 with the SCEHD by Pacific Development (subject property owner). West Coast Exploration, Inc., was contracted to perform subsurface drilling on the subject property for an apparent geotechnical investigation. No records regarding hazardous substance use, storage, or releases, or the presence of USTs and AULs on the subject property were on file with the SCEHD.

4.1.3 Fire Department

Regulatory Agency Data	
Name of Agency:	Manteca Fire Department (MFD)
Point of Contact:	fire@mantecafire.org
Agency Address:	1154 Union Road Manteca, California
Agency Phone Number:	(209) 239-8435
Date of Contact:	July 16, 2021
Method of Communication:	Email
Summary of Communication:	As of the date of this report, Partner has not received a response from the MFD for inclusion in this report.

4.1.4 Air Pollution Control Agency

Regulatory Agency Data	
Name of Agency:	San Joaquin Valley Pollution Control District (SJVPCD)
Point of Contact:	Ms. Theresa Haywood
Agency Address:	4800 Enterprise Way Modesto, California
Agency Phone Number:	(209) 557-6406
Date of Contact:	July 21, 2021
Method of Communication:	Email
Summary of Communication:	No Permits to Operate (PTO), Notices of Violation (NOV), or Notices to Comply (NTC), or records indicating the presence of AULs, dry cleaning machines, or USTs were on file for the subject property with the SJVPCD.

4.1.5 Regional Water Quality Agency

Regulatory Agency Data	
Name of Agency:	State Water Resources Control Board (SWRCB)
Point of Contact:	GeoTracker Database
Agency Address:	http://geotracker.waterboards.ca.gov/
Date of Contact:	July 20, 2021
Method of Communication:	Online Research
Summary of Communication:	No records regarding hazardous substance use, storage, or releases, or the presence of USTs and AULs on the subject property were on file with the CVRWQCB.

4.1.6 Department of Toxic Substances Control

Regulatory Agency Data	
Name of Agency:	California Department of Toxic Substances Control (DTSC)
Point of Contact:	EnviroStor and Hazardous Waste Tracking System (HWTS) Databases
Agency Address:	http://www.envirostor.dtsc.ca.gov/public/ https://hwts.dtsc.ca.gov/report_search.cfm?id=5
Date of Contact:	July 20, 2021
Method of Communication:	Online Research
Summary of Communication:	No records regarding hazardous substance use, storage, or releases, or the presence of USTs and AULs on the subject property were on file with the DTSC.

4.1.7 Building Department

Regulatory Agency Data	
Name of Agency:	Manteca Building Department (MDB)
Point of Contact:	City Clerk; Ms. Olivia Nashed
Agency Address:	1001 West Center Street Manteca, California
Agency Phone Number:	(209) 923-8960
Date of Contact:	July 20, 2021

Regulatory Agency Data	
Method of Communication:	Email
Summary of Communication:	According to the City of Manteca City Clerk's Office, no records regarding any building/demolition permits or certificates of occupancy were on file with the MBD.

4.1.8 Planning Department

Regulatory Agency Data	
Name of Agency:	City of Manteca Planning Division
Point of Contact:	Online Zoning Map
Agency Address:	https://zoning.manteca.city/
Date of Contact:	July 20, 2021
Method of Communication:	Online Research
Summary of Communication:	According to records reviewed, Parcel A is zoned CG for general commercial development and Parcel B is zoned R-1 for one-family dwelling by the City of Manteca Planning Division.

4.1.9 Oil & Gas Exploration

Regulatory Agency Data	
Name of Agency:	California Geologic Energy Management Division (CalGEM)
Point of Contact:	Well Finder Database
Agency Address:	https://www.conservation.ca.gov/calgem/Pages/WellFinder.aspx
Date of Contact:	July 20, 2021
Method of Communication:	Online Research
Summary of Communication:	According to CalGEM, no oil or gas wells are located on or adjacent to the subject property.

4.1.10 Assessor's Office

Regulatory Agency Data	
Name of Agency:	San Joaquin County Assessor's Office
Point of Contact:	Administrative Personnel and Parcel Search Database
Agency Address:	44 North San Joaquin Street #260, Stockton, California https://www.sjmap.org/DistrictViewerV2/
Agency Phone Number:	(209) 468-3939
Date of Contact:	July 20, 2021
Method of Communication:	Online Research and Telephone
Summary of Communication:	According to records reviewed, the subject property is identified as APNs 224-021-470 and 224-021-300, which are currently owned by Brocchini Family Partnership. The current property building was constructed in 1944 and totals 1,510 square-feet on a 0.28-acre lot.

Copies of pertinent documents obtained from the above-referenced regulatory agencies, if available, are included in Appendix B of this report.

4.2 Mapped Database Records Search

Information from standard federal, state, county, and city environmental record sources was provided by EDR. Data from governmental agency lists are updated and integrated into one database, which is updated as these data are released. The information contained in this report was compiled from publicly available sources and the locations of the sites are plotted utilizing a geographic information system, which geocodes the site addresses. The accuracy of the geocoded locations is approximately +/-300 feet.

Using the ASTM definition of migration, Partner considers the migration of hazardous substances or petroleum products in any form onto the subject property during the evaluation of each site listed on the radius report, which includes solid, liquid, and vapor.

4.2.1 Regulatory Database Summary

Radius Report Data

Database	Search Radius (mile)	Subject Property	Adjacent Properties	Sites of Concern
Federal NPL or Delisted NPL Site	1.00	No	No	No
Federal SEMS Site	0.50	No	No	No
Federal SEMS-Archive Site	0.50	No	No	No
Federal RCRA CORRACTS Facility	1.00	No	No	No
Federal RCRA TSDF Facility	0.50	No	No	No
Federal RCRA Generators Site	0.25	No	No	N/A
Federal IC/EC Registries	0.50	No	No	No
Federal ERNS Site	Subject Property	No	N/A	N/A
State/Tribal Equivalent NPL	1.00	No	No	No
State/Tribal Equivalent CERCLIS	1.00	No	No	No
State/Tribal Landfill/Solid Waste Disposal Site	0.50	No	No	No
State/Tribal Leaking Storage Tank Site	0.50	No	No	No
State/Tribal Registered Storage Tank Sites	0.25	No	**Yes**	N/A
State/Tribal Voluntary Cleanup Sites (VCP)	0.50	No	No	No
State/Tribal Spills	0.50	No	No	No
Federal Brownfield Sites	0.50	No	No	No
State Brownfield Sites	0.50	No	No	No
Miscellaneous Databases	Varies	No	No	No
EDR MGP	1.00	No	No	No
EDR Hist Auto	0.125	No	No	N/A
EDR Hist Cleaner	0.125	No	No	N/A

4.2.2 Subject Property Listings

The subject property is not identified in the regulatory database report.

4.2.3 Adjacent Property Listings

The adjacent property to the south is identified as a HIST UST site in the regulatory database report, as discussed below:

- The property, identified as Norman Aman at 7385 East Woodward Avenue, is located adjacent to the south of the subject property (Parcel A) and situated hydrologically cross to upgradient. According to the HIST UST database, a 1,000-gallon steel UST containing unleaded motor vehicle fuel, was installed on the property in 1980. No information pertaining to the current status of the UST is provided in the database. However, this site is not listed on databases that report releases of hazardous substances, including the Leaking UST (LUST) database. Based on the absence of documented releases, this listing is not expected to represent an environmental concern.

Based on the findings, vapor migration from the adjacent properties is not expected to represent an environmental concern at this time.

4.2.4 Sites of Concern Listings

No vicinity sites of potential environmental concern to the subject property are identified in the regulatory database report. Based on various mitigating factors including relative distance from the subject property, inferred direction of groundwater flow, media affected, and/or regulatory status, the sites listed within the specified search radius of the subject property which appeared on local, State, or Federally published databases that report releases of hazardous substances, are not expected to represent an environmental concern.

Based on the findings, vapor migration from the surrounding properties is not expected to represent an environmental concern at this time.

4.2.5 Orphan Listings

No orphan listings of potential environmental concern to the subject property are identified in the regulatory database report

A copy of the regulatory database report is included in Appendix C of this report.

5.0 USER PROVIDED INFORMATION AND INTERVIEWS

In order to qualify for one of the *Landowner Liability Protections (LLPs)* offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the *Brownfields Amendments*), the *User* must conduct the following inquiries required by 40 CFR 312.25, 312.28, 312.29, 312.30, and 312.31. The *User* should provide the following information to the *environmental professional*. Failure to provide this information could result in a determination that *all appropriate inquiries* is not complete. The *User* is asked to provide information or knowledge of the following:

- Review Title and Judicial Records for Environmental Liens and AULs
- Specialized Knowledge or Experience of the User
- Actual Knowledge of the User
- Reason for Significantly Lower Purchase Price
- Commonly Known or *Reasonably Ascertainable* information
- Degree of Obviousness
- Reason for Preparation of this Phase I ESA

Fulfillment of these user responsibilities is key to qualification for the identified defenses to CERCLA liability. Partner requested our Client to provide information to satisfy User Responsibilities as identified in Section 6 of the ASTM guidance.

Pursuant to ASTM E1527-13, Partner requested the following site information from California Gold Development Corporation (User of this report).

User Responsibilities				
Item	**Provided By User**	**Not Provided By User**	**Discussed Below**	**Does Not Apply**
AAI User Questionnaire			**X**	
Title Records, Environmental Liens, and AULs			**X**	
Specialized Knowledge			**X**	
Actual Knowledge			**X**	
Valuation Reduction for Environmental Issues			**X**	
Identification of Key Site Manager	**Section 5.1.3**			
Reason for Performing Phase I ESA	**Section 1.1**			
Prior Environmental Reports		**X**		
Other				**X**

5.1 Interviews

5.1.1 Interview with Owner

Ms. Lori Mackey, subject property owner, was not aware of any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the subject property; any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the subject property; or any notices from a governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products.

According to Ms. Mackey, an almond orchard used to exist on the subject property (Parcel A), until approximately ten years ago when West Atherton Drive was developed. Ms. Mackey further stated that there are no USTs, ASTs, clarifiers, oil/water separators, groundwater monitoring wells, or hazardous substance use/storage/generation on the subject property to the best of her knowledge.

5.1.2 Interview with Report User

Mr. Mark Patterson, report user, was not aware of any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the subject property; any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the subject property; or any notices from a governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products.

According to Mr. Patterson, the subject property was previously developed agriculturally. Mr. Patterson further stated that are no USTs, ASTs, clarifiers, oil/water separators, groundwater monitoring wells, or hazardous substance use/storage/generation on the subject property to the best of his knowledge.

5.1.3 Interview with Key Site Manager

Mr. Aaron Mackey, key site manager, indicated that he had no information pertaining to any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the subject property; any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the subject property; or any notices from a governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products.

According to Mr. Mackey, there are no USTs, ASTs, clarifiers, oil/water separators, groundwater monitoring wells, or hazardous substance use/storage/generation on the subject property to the best of his knowledge. Mr. Mackey was aware of a septic system that existed on the subject property (Parcel B). Information regarding the septic system is further discussed in Section 6.1.7.

5.1.4 Interviews with Past Owners, Operators, and Occupants

Interviews with past owners, operators, and occupants were not reasonably ascertainable and thus constitute a data gap.

5.1.5 *Interviews with Others*

As the subject property is not an abandoned property as defined in ASTM 1527-13, interviews with others were not performed.

5.2 User Provided Information

5.2.1 *Title Records, Environmental Liens, and AULs*

Partner was not provided with title records or environmental lien and AUL information for review as part of this assessment.

5.2.2 *Specialized Knowledge*

The User did not have specialized knowledge of environmental conditions associated with the subject property at the time of the assessment.

5.2.3 *Actual Knowledge of the User*

The User was not aware of environmental liens and/or AULs encumbering the subject property or in connection with the subject property at the time of the assessment.

5.2.4 *Valuation Reduction for Environmental Issues*

The User was not aware of any reductions in property value due to environmental issues.

5.2.5 *Commonly Known or Reasonably Ascertainable Information*

The User did not provide information that is commonly known or *reasonably ascertainable* within the local community about the subject property at the time of the assessment.

5.2.6 *Previous Reports and Other Provided Documentation*

No previous reports or other pertinent documentation was provided to Partner for review during the course of this assessment.

6.0 SITE RECONNAISSANCE

The weather at the time of the site visit was sunny and clear. Refer to Section 1.5 for a discussion of limitations encountered during the site reconnaissance and Sections 2.1 and 2.2 for a discussion of subject property operations. The table below provides the site assessment details:

Site Assessment Data	
Site Assessment Performed By:	Zachary Oretsky
Site Assessment Conducted On:	July 29, 2021

The table below provides the subject property personnel interviewed during the site reconnaissance:

Site Visit Personnel for 1601 and 1669 South Main Street (Subject Property)			
Name	**Title/Role**	**Contact Number**	**Site Walk* Yes/No**
Aaron Mackey	Key Site Manager	(209) 900-4505	Yes

** Accompanied Partner during the site reconnaissance activities and provided information pertaining to the current operations and maintenance of the subject property*

No potential environmental concerns were identified during the site reconnaissance.

6.1 General Site Characteristics

6.1.1 Solid Waste Disposal

Solid waste generated at the subject property is disposed of in domestic waste bins located on the southeastern corner of the subject property. The City of Manteca removes solid waste from the subject property. No evidence of illegal dumping of solid waste was observed during the site reconnaissance.

6.1.2 Sewage Discharge and Disposal

Sanitary discharges from the subject property are directed to an on-site septic system, as further discussed in Section 6.1.7.

6.1.3 Surface Water Drainage

Stormwater is removed from the subject property primarily by direct infiltration to site soils or by runoff toward the adjacent rights-of-way.

The subject property does not appear to be a designated wetland area, based on information obtained from the United States Fish & Wildlife Service; however, a comprehensive wetlands survey would be required in order to formally determine actual wetlands on the subject property. No surface impoundments, wetlands, natural catch basins, settling ponds, or lagoons were observed on the subject property. No drywells were identified on the subject property.

6.1.4 Source of Heating and Cooling

Heating and cooling systems as well as domestic hot water equipment are fueled by electricity and natural gas provided by Pacific Gas & Electric (PG&E) Company. The mechanical system is comprised of a split system with a central unit and interior air-handler and an exterior heating, ventilation, air conditioning (HVAC) unit. Hot water is provided by a central natural gas-fired water heater.

6.1.5 Wells and Cisterns

An active domestic well was observed on the western side of the residential property (Parcel B) and according to the subject property owner, the well is in good working condition. An irrigation well was observed on the southern side of the subject property (Parcel A). According to the South San Joaquin Irrigation District (SSJID), this well is likely privately owned by the previous occupants of the former almond orchard and is likely no longer in use, but the status is currently unknown. If the wells are not planned for future use, they should be destroyed in accordance with applicable regulations.

6.1.6 Wastewater

Domestic wastewater generated at the subject property is disposed by means of the septic system. No industrial wastewater streams were identified at the subject property.

6.1.7 Septic Systems

A septic system was observed on the northeastern side of the residence (Parcel B). The septic system is serviced by Mountain Valley Septic Services. Mountain Valley last serviced the septic system in March 2021. The septic tank system only receives sanitary wastes via the on-site restrooms and domestic sinks. Based on the reported routine servicing and its use solely for the collection of domestic wastewater, the septic system is not expected to represent an environmental concern. If the septic system is not planned for future use, it should be properly abandoned in accordance with applicable regulations.

6.1.8 Additional Site Observations

No additional general site characteristics were observed during the site reconnaissance.

6.2 Potential Environmental Hazards

6.2.1 Hazardous Substances and Petroleum Products Used or Stored at the Site

No hazardous substances or petroleum products were observed on the subject property during the site reconnaissance.

6.2.2 Aboveground & Underground Hazardous Substance or Petroleum Product Storage Tanks (ASTs/USTs)

No evidence of current or former ASTs or USTs was observed during the site reconnaissance.

6.2.3 Evidence of Releases

No spills, stains, or other indications that a surficial release has occurred at the subject property were observed.

6.2.4 Polychlorinated Biphenyls (PCBs)

Older transformers and other electrical equipment could contain PCBs at a level that subjects them to regulation by the U.S. EPA. PCBs in electrical equipment are controlled by United States Environmental Protection Agency regulations 40 CFR, Part 761. Under the regulations, there are three categories into which electrical equipment can be classified: 1) Less than 50 parts per million (ppm) of PCBs – "*Non-PCB;*" 2) 50 ppm-500 ppm – "*PCB-Contaminated;*" and, 3) Greater than 500 ppm – "*PCB-Containing.*" The manufacture, process, or distribution in commerce or use of any PCB in any manner other than in a totally enclosed manner was prohibited after July 2, 1979.

The site reconnaissance addressed indoor and outdoor transformers that may contain PCBs. Two pole-mounted transformers were observed on the subject property. The transformers are not labeled indicating PCB content. No staining or leakage was observed in the vicinity of the transformers. Based on the good condition of the equipment, the transformers are not expected to represent an environmental concern.

No other potential PCB-containing equipment (interior transformers, oil-filled switches, hoists, lifts, dock levelers, hydraulic elevators, balers, etc.) was observed on the subject property during the site reconnaissance.

6.2.5 Strong, Pungent, or Noxious Odors

No strong, pungent, or noxious odors were evident during the site reconnaissance.

6.2.6 Pools of Liquid

No pools of liquid were observed on the subject property during the site reconnaissance.

6.2.7 Drains, Sumps, and Clarifiers

No drains, sumps, or clarifiers were observed on the subject property during the site reconnaissance.

6.2.8 Pits, Ponds, and Lagoons

No pits, ponds, or lagoons were observed on the subject property.

6.2.9 Stressed Vegetation

No stressed vegetation was observed on the subject property.

6.2.10 Additional Potential Environmental Hazards

No additional environmental hazards, including landfill activities or radiological hazards, were observed.

6.3 Non-ASTM Services

6.3.1 Asbestos-Containing Materials (ACMs)

Asbestos is the name given to a number of naturally occurring, fibrous silicate minerals mined for their useful properties such as thermal insulation, chemical and thermal stability, and high tensile strength. The Occupational Safety and Health Administration (OSHA) regulation 29 CFR 1926.1101 requires certain construction materials to be presumed to contain asbestos, for purposes of this regulation. All thermal system insulation (TSI), surfacing material, and asphalt/vinyl flooring that are present in a building that have not been appropriately tested are "presumed asbestos-containing material" (PACM).

The subject property buildings were constructed in 1944. A limited, visual evaluation of accessible areas for the presence of suspect ACMs at the subject property was conducted. The objective of this visual survey was to note the presence and condition of suspect ACM observed. Please refer to the table below for identified suspect ACMs:

Suspect ACMs			
Suspect ACM	**Location**	**Friable Yes/No**	**Physical Condition**
Drywall Systems	Throughout Building Interior	No	Good
Floor Tiles/Mastic	Throughout Building Interior	No	Good
Stucco	Throughout Building Exterior	Yes	Good
Roofing Materials	Building Roofs	No	Not Assessed

Based on the date of construction, prior to disturbance, Partner recommends a comprehensive asbestos survey of the property be completed to determine the presence, condition, friability and likely future condition of suspect or confirmed ACM. All suspect materials must be handled as ACM according to local, state and federal regulations until the results of sampling and analysis indicate the material is a non-ACM. According to the US EPA, ACM that is intact and in good condition can, in general, be managed safely in-place under an Operations and Maintenance (O&M) Program until removal is dictated by renovation, demolition, or deteriorating material condition.

6.3.2 Lead-Based Paint (LBP)

Lead is a highly toxic metal that affects virtually every system of the body. LBP is defined as any paint, varnish, stain, or other applied coating that has 1 mg/cm^2 (or 5,000 ug/g or 0.5% by weight) or more of lead. Congress passed the Residential Lead-Based Paint Hazard Reduction Act of 1992, also known as "Title X", to protect families from exposure to lead from paint, dust, and soil. Under Section 1017 of Title X, intact LBP on most walls and ceilings is not considered a "hazard," although the condition of the paint should be monitored and maintained to ensure that it does not become deteriorated. Further, Section 1018 of this law directed the Housing and Urban Development (HUD) and the US EPA to require the disclosure of known information on LBP and LBP hazards before the sale or lease of most housing built before 1978.

Based on the age of the subject property buildings (pre-1978), there is a potential that LBP is present. Interior and exterior painted surfaces were observed in good condition and therefore not expected to represent a "hazard," although the condition of the paint should be monitored and maintained to ensure that it does not become deteriorated. Actual material samples would need to be collected or an XRF Survey would need to be completed in order to determine if LBP is present.

6.3.3 Radon

Radon is a colorless, odorless, naturally occurring, radioactive, inert, gaseous element formed by radioactive decay of radium (Ra) atoms. The US EPA has prepared a map to assist National, State, and local organizations to target their resources and to implement radon-resistant building codes. The map divides the country into three Radon Zones, according to the table below:

EPA Radon Zones		
EPA Zones	**Average Predicted Radon Levels**	**Potential**
Zone 1	Exceed 4.0 pCi/L	Highest
Zone 2	Between 2.0 and 4.0 pCi/L	Moderate
Zone 3	Less than 2.0 pCi/L	Low

It is important to note that the EPA has found homes with elevated levels of radon in all three zones, and the US EPA recommends site-specific testing in order to determine radon levels at a specific location. However, the map does give a valuable indication of the propensity of radon gas accumulation in structures.

Radon sampling was not conducted as part of this assessment. Review of the US EPA Map of Radon Zones places the subject property in Zone 3. Based upon the radon zone classification, radon is not considered to be an environmental concern.

6.3.4 Lead in Drinking Water

The subject property is not currently serviced by a public water system. Potable water is supplied to the subject property via an on-site domestic well. Additionally, an irrigation well is located on Parcel A. No information regarding analytical testing or construction specifications of the on-site wells was found during the course of this assessment. Water sampling was not conducted to verify water quality.

6.3.5 Mold

Molds are microscopic organisms found virtually everywhere, indoors and outdoors. Mold will grow and multiply under the right conditions, needing only sufficient moisture (e.g.in the form of very high humidity, condensation, or water from a leaking pipe, etc.) and organic material (e.g., ceiling tile, drywall, paper, or natural fiber carpet padding).

Partner observed accessible, interior areas for the subject property building for significant evidence of mold growth with the exceptions detailed in Section 1.5 of this report; however, this ESA should not be used as a mold survey or inspection. Additionally, this limited assessment was not designed to assess all areas of potential mold growth that may be affected by mold growth on the subject property. Rather, it is intended to give the client an indication as to whether or not conspicuous (based on observed areas) mold growth is present at the subject property. This evaluation did not include a review of pipe chases, mechanical systems, or areas behind enclosed walls and ceilings.

No obvious indications of water damage or mold growth were observed during Partner's visual assessment

6.4 Adjacent Property Reconnaissance

The adjacent property reconnaissance consisted of observing the adjacent properties from the subject property premises. Partner observed the following:

6.4.1 PCBs

A single pole-mounted transformer was observed on the adjacent property to the east across South Main Street. No staining or leakage was observed in the vicinity of the transformer. Based on these observations, the presence of adjacent transformers is not expected to represent an environmental concern.

No other items of environmental concern were identified on the adjacent properties during the site assessment, including hazardous substances, petroleum products, ASTs, USTs, evidence of releases, strong or noxious odors, pools of liquids, sumps or clarifiers, pits or lagoons, stressed vegetation, or any other potential environmental hazards.

7.0 FINDINGS AND CONCLUSIONS

Findings

A *REC* refers to the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: due to release to the environment; under conditions indicative of a release to the environment; or under conditions that pose a material threat of a future release to the environment. The following was identified during the course of this assessment:

- Partner did not identify evidence of RECs during the course of this assessment.

A *CREC* refers to a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls. The following was identified during the course of this assessment:

- Partner did not identify evidence of CRECs during the course of this assessment.

A *HREC* refers to a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls. The following was identified during the course of this assessment:

- Partner did not identify evidence of HRECs during the course of this assessment.

An *environmental issue* refers to environmental concerns identified by Partner, which do not qualify as RECs; however, warrant further discussion. The following was identified during the course of this assessment:

- The residence on the subject property is connected to an on-site domestic well and septic system. Additionally, an irrigation well is located within the southern portion of Parcel A. If the wells and septic systems are not planned for future use, they should be property abandoned/destroyed in accordance with applicable regulations.
- Due to the age of the subject property buildings, there is a potential that ACMs and/or LBP are present. Readily visible suspect ACMs and painted surfaces were observed in good condition. Prior to the disturbance of any suspect ACMs or LBP at the subject property, a comprehensive survey, designed to determine if the suspect materials are regulated, is recommended. If such materials are identified and need to be disturbed, repaired, or removed, a licensed abatement contractor should be consulted.

Conclusions, Opinions, and Recommendations

Partner has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527-13 of the property located at 1601 and 1669 South Main Street in Manteca, San Joaquin County, California (the "subject property"). Any exceptions to, or deletions from, this practice are described in Section 1.5 of this report.

This assessment has revealed no evidence of RECs in connection with the subject property; however, environmental issues were identified. Based on the conclusions of this assessment, Partner recommends no further investigation of the subject property at this time.

8.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

Partner has performed a Phase I Environmental Site Assessment of the property located at 1601 and 1669 South Main Street in Manteca, San Joaquin County, California in conformance with the scope and limitations of the protocol and the limitations stated earlier in this report. Exceptions to or deletions from this protocol are discussed earlier in this report.

By signing below, Partner declares that, to the best of our professional knowledge and belief, we meet the definition of *Environmental Professional* as defined in §312.10 of 40 CFR §312. Partner has the specific qualifications based on education, training, and experience to assess a *property* of the nature, history, and setting of the subject *property*. Partner has developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Prepared By:

Zachary Oretsky
Environmental Scientist

Reviewed By:

Joel Redding
Environmental Professional
Senior Project Manager

9.0 REFERENCES

Reference Documents

American Society for Testing and Materials, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, ASTM Designation: E1527-13.

Environmental Data Resources, Inc. (EDR), 6 Armstrong Road, 4th Floor, Shelton, Connecticut 06484

EDR, Aerial Photo Decade Package, July 2021

EDR, Certified Sanborn Map Report, July 2021

EDR, City Directory Image Report, July 2021

EDR, Historical Topo Map Report, July 2021

EDR, Radius Map Report, July 2021

Federal Emergency Management Agency, Federal Insurance Administration, National Flood Insurance Program, Flood Insurance Map, accessed via the internet, July 2021

United States Department of Agriculture, Natural Resources Conservation Service, *Web Soil Survey,* accessed via the internet, July 2021

United States Environmental Protection Agency, EPA Map of Radon Zones (Document EPA-402-R-93-071), accessed via the internet, July 2021

United States Geological Survey (USGS), accessed via the Internet, July 2021

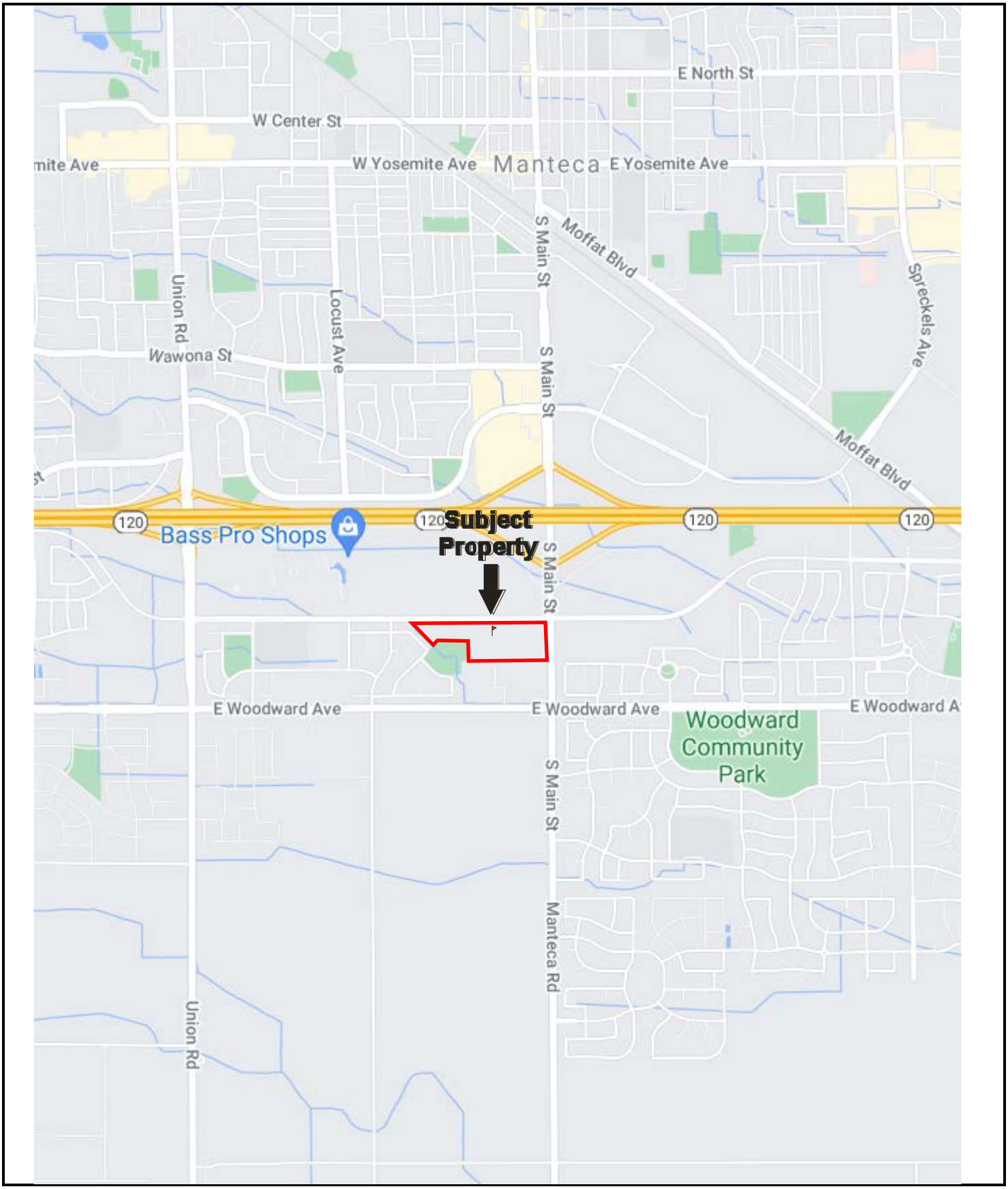
USGS Topographic Map 2012, 7.5-minute series, accessed via the internet, July 2021

FIGURES

1 SITE LOCATION MAP

2 SITE PLAN

3 TOPOGRAPHIC MAP



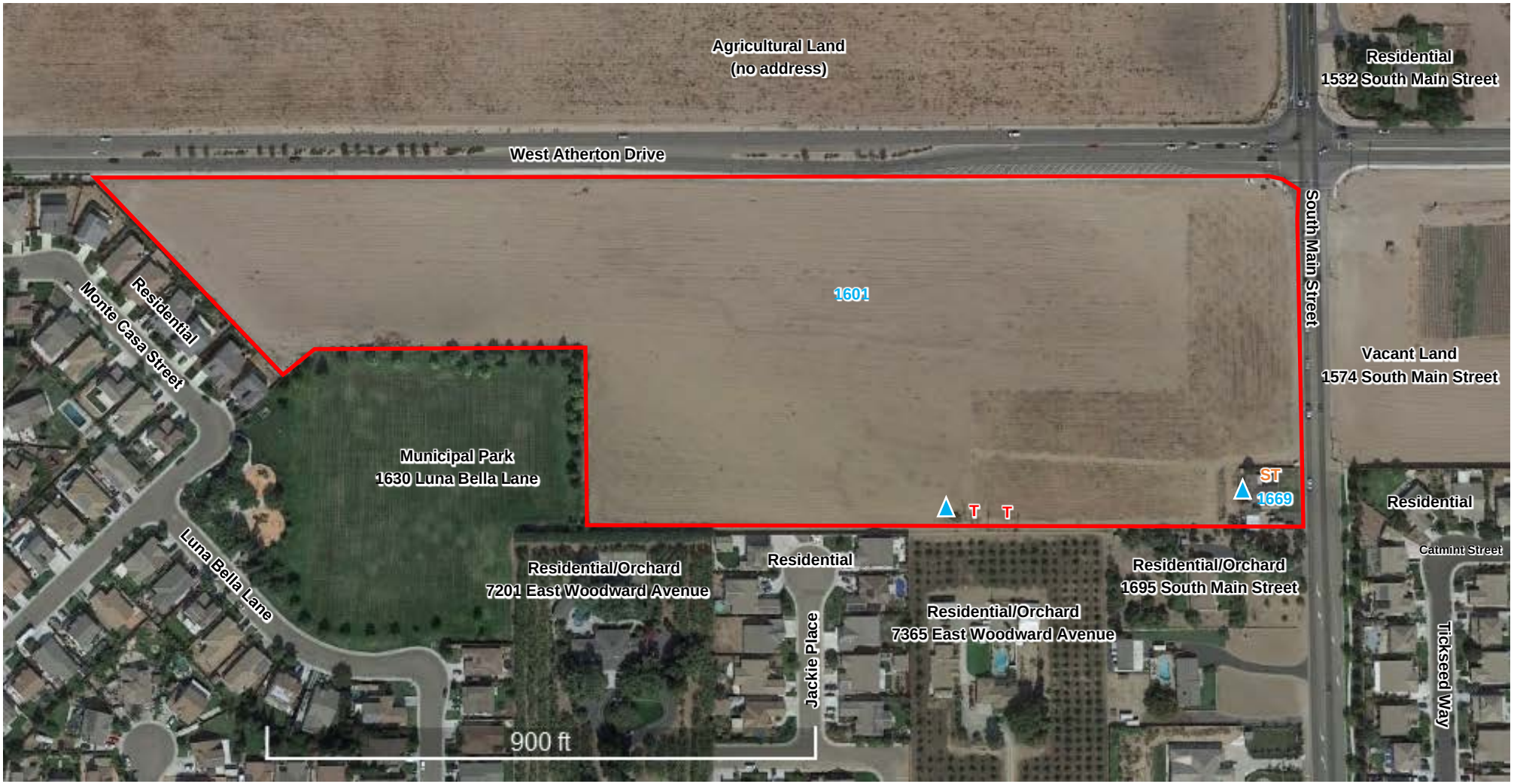
N

Drawing Not To Scale

KEY:
Subject Property

FIGURE 1: SITE LOCATION MAP
Project No. 21-329585.1

PARTNER



N

GROUNDWATER FLOW

KEY:

------	Subject Property Boundary	▲	Well
T	Transformer	ST	Septic Tank

FIGURE 2: SITE PLAN

Project No. 21-329585.1

PARTNER



N

USGS 7.5-Minute *Manteca, California* Quadrangle
Created: 2021

KEY:
Subject Property

FIGURE 3: TOPOGRAPHIC MAP
Project No. 21-329585.1

PARTNER

APPENDIX A: SITE PHOTOGRAPHS



1. View looking west of the residence on Parcel B of subject property.



2. View looking east of residential property on Parcel B of subject property.



3. View looking west of vacant land on Parcel A of subject property.



4. View looking east of vacant land on Parcel A of subject property.



5. View looking northwest of the residence on Parcel B of subject property.



6. View of single-car garage on Parcel B of subject property.



7. HVAC unit located on the western side of the residence on Parcel B of subject property.



8. Domestic well located on the western side of the residence on Parcel B of subject property.



9. Water heater located on the western side of the residence on Parcel B of subject property.



10. Close-up view of water heater.



11. Storage area and grill located south of the single-car garage.



12. View looking east at the residential yard.



13. Underground septic system located north of the residential building.



14. Two single pole-mounted transformers located on the southern portion of vacant land (Parcel A).



15. View of the western transformer connected to an irrigation well.



16. Irrigation well on the southern portion of vacant land (Parcel A).



17. Close-up view of the irrigation pump looking northwest.



18. Close-up view of the irrigation pump looking south.



19. Southern-adjacent property and irrigation well as viewed from the subject property (Parcel B).



20. Eastern-adjacent residences across South Main Street as viewed from the subject property (Parcel



21. View of the eastern-adjacent vacant land across South Main Street.



22. View of the northern-adjacent agricultural land across West Atherton Drive.



23. View of the southern-adjacent orchard as viewed from the subject property (Parcel A).



24. View of the southern-adjacent residences as viewed from the subject property (Parcel A).



25. View of the western adjacent municipal park as viewed from the subject property (Parcel A).



26. View of the western-adjacent residences as viewed from the subject property (Parcel A).



27. Eastern-adjacent single pole-mounted transformer across South Main Street.



28. Close-up view of single pole-mounted transformer.

APPENDIX B: HISTORICAL/REGULATORY DOCUMENTATION

PARTNER



500 1000 2000

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Key: Subject Property



500 1000 2000

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Key: Subject Property



500 1000 2000

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Key: Subject Property



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500 1000 2000

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Key: Subject Property



500 1000 2000

N

Key: Subject Property

Proposed Retail Shopping Center
1601 & 1669 South Main Street
Manteca, CA 95337

Inquiry Number: 6578793.3
July 15, 2021

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

07/15/21

Site Name:

Proposed Retail Shopping Cen
1601 & 1669 South Main Stree
Manteca, CA 95337
EDR Inquiry # 6578793.3

Client Name:

Partner Engineering and Science, Inc.
2154 Torrance Blvd, Suite 200
Torrance, CA 90501-0000
Contact: Evelyn Perez

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Certified Sanborn Results:

Certification # E16E-48BE-BA8F

PO # 21-329585.1

Project 21-329585.1

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

Sanborn® Library search results

Certification #: E16E-48BE-BA8F

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- ☑ Library of Congress
- ☑ University Publications of America
- ☑ EDR Private Collection

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Proposed Retail Shopping Center
1601 & 1669 South Main Street
Manteca, CA 95337

Inquiry Number: 6578793.5
July 21, 2021

The EDR-City Directory Image Report

EDR® Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

Executive Summary

Findings

City Directory Images

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with any questions or comments.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

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RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

Year	Target Street	Cross Street	Source
2017	☑	☑	EDR Digital Archive
2014	☑	☑	EDR Digital Archive
2010	☑	☑	EDR Digital Archive
2005	☑	☑	EDR Digital Archive
2000	☑	☑	EDR Digital Archive
1995	☑	☑	EDR Digital Archive
1992	☑	☑	EDR Digital Archive
1985	☑	☑	Haines Criss-Cross Directory
1981	☐	☑	Haines Criss-Cross Directory
1977	☐	☑	Haines Criss-Cross Directory
1973	☐	☑	POLK DIRECTORY CO
1968	☐	☑	POLK DIRECTORY CO

FINDINGS

TARGET PROPERTY STREET

1601 & 1669 South Main Street
Manteca, CA 95337

Year	*CD Image*	*Source*	
S MAIN ST			
2017	pg A6	EDR Digital Archive	
2014	pg A13	EDR Digital Archive	
2010	pg A19	EDR Digital Archive	
2005	pg A23	EDR Digital Archive	
2000	pg A28	EDR Digital Archive	
1995	pg A32	EDR Digital Archive	
1992	pg A35	EDR Digital Archive	
1985	pg A37	Haines Criss-Cross Directory	
1981	-	Haines Criss-Cross Directory	Target and Adjoining not listed in Source
1977	-	Haines Criss-Cross Directory	Target and Adjoining not listed in Source
1973	-	POLK DIRECTORY CO	Target and Adjoining not listed in Source
1968	-	POLK DIRECTORY CO	Target and Adjoining not listed in Source

FINDINGS

CROSS STREETS

Year	*CD Image*	*Source*	
CATMINT ST			
2017	pg. A1	EDR Digital Archive	
2014	pg. A8	EDR Digital Archive	
2010	pg. A15	EDR Digital Archive	
2005	-	EDR Digital Archive	Target and Adjoining not listed in Source
2000	-	EDR Digital Archive	Target and Adjoining not listed in Source
1995	-	EDR Digital Archive	Target and Adjoining not listed in Source
1992	-	EDR Digital Archive	Target and Adjoining not listed in Source
1985	-	Haines Criss-Cross Directory	Street not listed in Source
1981	-	Haines Criss-Cross Directory	Street not listed in Source
1977	-	Haines Criss-Cross Directory	Street not listed in Source
1973	-	POLK DIRECTORY CO	Street not listed in Source
1968	-	POLK DIRECTORY CO	Street not listed in Source
E WOODWARD AVE			
2017	pg. A2	EDR Digital Archive	
2014	pg. A9	EDR Digital Archive	
2010	pg. A16	EDR Digital Archive	
2005	pg. A20	EDR Digital Archive	
E WOODWARD RD			
2000	pg. A25	EDR Digital Archive	
1995	pg. A29	EDR Digital Archive	
1992	pg. A33	EDR Digital Archive	
1985	pg. A36	Haines Criss-Cross Directory	
1981	pg. A38	Haines Criss-Cross Directory	
1977	pg. A39	Haines Criss-Cross Directory	
1973	pg. A40	POLK DIRECTORY CO	
1973	pg. A41	POLK DIRECTORY CO	

FINDINGS

Year	*CD Image*	*Source*	
1968	pg. A42	POLK DIRECTORY CO	
1968	pg. A43	POLK DIRECTORY CO	
1968	pg. A44	POLK DIRECTORY CO	

JACKIE PL

2017	pg. A4	EDR Digital Archive	
2014	pg. A11	EDR Digital Archive	
2010	pg. A18	EDR Digital Archive	
2005	-	EDR Digital Archive	Target and Adjoining not listed in Source
2000	-	EDR Digital Archive	Target and Adjoining not listed in Source
1995	-	EDR Digital Archive	Target and Adjoining not listed in Source
1992	-	EDR Digital Archive	Target and Adjoining not listed in Source
1985	-	Haines Criss-Cross Directory	Street not listed in Source
1981	-	Haines Criss-Cross Directory	Street not listed in Source
1977	-	Haines Criss-Cross Directory	Street not listed in Source
1973	-	POLK DIRECTORY CO	Street not listed in Source
1968	-	POLK DIRECTORY CO	Street not listed in Source

MONTE CASA ST

2017	pg. A5	EDR Digital Archive	
2014	pg. A12	EDR Digital Archive	
2010	-	EDR Digital Archive	Target and Adjoining not listed in Source
2005	-	EDR Digital Archive	Target and Adjoining not listed in Source
2000	-	EDR Digital Archive	Target and Adjoining not listed in Source
1995	-	EDR Digital Archive	Target and Adjoining not listed in Source
1992	-	EDR Digital Archive	Target and Adjoining not listed in Source
1985	-	Haines Criss-Cross Directory	Street not listed in Source
1981	-	Haines Criss-Cross Directory	Street not listed in Source
1977	-	Haines Criss-Cross Directory	Street not listed in Source
1973	-	POLK DIRECTORY CO	Street not listed in Source
1968	-	POLK DIRECTORY CO	Street not listed in Source

FINDINGS

Year	*CD Image*	*Source*	
TICKSEED LN			
2017	pg. A7	EDR Digital Archive	
2014	pg. A14	EDR Digital Archive	
2010	-	EDR Digital Archive	Target and Adjoining not listed in Source
2005	-	EDR Digital Archive	Target and Adjoining not listed in Source
2000	-	EDR Digital Archive	Target and Adjoining not listed in Source
1995	-	EDR Digital Archive	Target and Adjoining not listed in Source
1992	-	EDR Digital Archive	Target and Adjoining not listed in Source
1985	-	Haines Criss-Cross Directory	Street not listed in Source
1981	-	Haines Criss-Cross Directory	Street not listed in Source
1977	-	Haines Criss-Cross Directory	Street not listed in Source
1973	-	POLK DIRECTORY CO	Street not listed in Source
1968	-	POLK DIRECTORY CO	Street not listed in Source

City Directory Images

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

CATMINT ST 2017

125	HERMANN, SCOTT A
135	LOPEZ, GASPAR
151	WILLIAMS, MARK R
161	PERRY, SUSAN R
169	SOUSA, ANTONIO M
174	REYNAGA, SILVIANO D
179	BRISSON, DENNIS R
182	GOLD GAMING CONSULTANTS
	GOLDSTEIN, MITCH A
187	KAUR, KULVINDER K
192	ROMO, ABIGAIL
195	GASPAR, TOMAS M
211	BETTENCOURT, EDWIN B
233	LUCAS, C
255	JACKSON, RONALD A
277	SINGH, HARMINDER
301	GAURAV, KUNAL
333	PETERSON, JENNIFER A
350	MILLER, PAUL D
351	CABILAN, NILO B
369	RAJ, BALDEVE
372	HOUSEMASTER
	MAHONY, MARUSSA
385	BUENROSTRO, JOSE R
420	NGONGVONGSITHI, KHONESAVANH
421	LAROSA, CYNTHIA L
443	OROZA, MICHEAL
551	MELTON, JEFF W
552	BEGAY, MICHAEL G
575	WALKER, CHAD W
576	BYRD, RICHARD E
587	SIMPSON, CLIFFORD J
588	BHINDER, IKAGAR S
601	BARNETT, RAYMOND L
619	LITTLE, LORINA D
622	HUNTER, BRUCE L
633	HOLBROOK, ALLEN W
634	RICHARDSON, JOHN M
641	WYNN, TERRY S
642	MENDEZ, LOUIE E

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

E WOODWARD AVE 2017

920	CARDOZA, JOSEPH R
952	GOODWIN, RANDALL S
984	ALBERS, LARRY W
1020	ZAMBRANO, RICARDO
1056	SINGH, JAGJIT
1186	OROZCO, MARCOS
1272	WINTERS, GARY D
1380	SERRANO, SYNDEE
1418	PEREZ, DAVINA
1452	MORSE, JENNIFER E
1720	BETSCHART, LISA A
1925	VITE TRANSPORT INC
2368	STREHLOW, TABETHA
3883	CRANE, GLENN H
3915	LEYVA, FRANKIE P
3939	ANDERSON, PETER D
3989	CLIFT, BRAD
4353	RANDALL, MICHAEL D
4395	PEDRAZA, RICHARD L
4447	SCHWAB, VALARIE
4475	LABARE, LEANNE E
4950	WACKERLY, JERRY A
6404	KLAVERSTIJN, CATHARINA W
6405	SCHWARTZ, JANE A
6407	JACOBS, JIM A
6445	FARFAN, VINCENT A
6454	LEAL, JOSEPH A
6479	AMARAL, SUSIE
6488	LOONEYS 24 HOUR TOW
	NORBY, TRAVIS D
6500	GUILLEN, JOSE L
6511	BURDEN, JASON A
6528	SIGGINS, ELEANOR M
6540	SIMMONS, FENEESA M
6549	GOULET, KATHLEEN A
6572	PAINTER, DAVID M
6575	ESPINOZA, PETER J
6606	RICH, DEWARD R
6643	SANDI, DANIEL H
6648	TRUJILLO, JOE A
6726	SHAFFER, ROLINDA L
6728	SHAFFER, DEBRA A
6770	ARIZCUREN, JACK J
6796	CRANNELL, GARY R
6826	HULL, JONATHAN L
6860	MAY, PAUL
6894	COSTA, MARIA F
6926	BROCCHINI ALDO INVESTMENTS
	BROCCHINI, MARVIN D
7058	BEECHER, BRENT L

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

E WOODWARD AVE 2017 (Cont'd)

7201	LOWERY, ANTHONY R
7208	HAHN, HILARY H
7365	AMAN, CURTIS J
7385	MARTIN, JESSE D
7402	HAHN, HAROLD H

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

JACKIE PL 2017

1701	HAENA, WILLIAM P
1708	SCHWIEGER, CHRISTIANE N
1709	ANDREWS, JASON L
1720	MILLER, KARALYN K
1721	EHLEN, DEANA L
1728	GANSBERGER, DALE G
1741	HOVELING, MICHAEL S

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

MONTE CASA ST 2017

603	ROBERTS, JEREMY
611	ALVARADO, CHRISTIAN
612	WRIGHT, RONALD B
620	WORD, JAMES W
623	SIANTURI, TARULI
628	CARLOS, NORBERTO
631	FERNANDEZ, SANFORD G
636	DOUGLAS, JAMES E
639	SPAGNOLETTA, MYRIAN L
648	TUDDAO, JUDITH
651	COFFEY, RICHARD
657	PEDRO, JUNABEL M
663	LEPITEN, MARISSA T
670	AGUILAR, JOSE M
671	GULLEM, CHERRYL
678	BRIGHT DEVELOPMENT
	GARCIA, FRANK A
679	BARNES, WILLIAM R
681	GOLDSMITH, DEBORAH
690	NAGINENI, SASIKANTH
711	HAYES, KENNETH J
719	AVILES, GIUDITHA A
728	SALAS, ALLAN R
731	BIOC, RUSSELL G
739	FLORES, ALEXANDER
751	SINGH, SURJIT
759	BYRD, JASON W
771	FOOTE, AARON P
779	GRIMES, SHELLI R
791	THORNTON, SCOTT L

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

S MAIN ST 2017

1100	GARAGE DOOR EXPERTS OF SAN JOACIUIN
1103	CHEVRON
1111	BASKINROBBINS
1113	GARAGE DOOR EXPERTS OF MANTECA LLC
	GREAT CLIPS
1115	TOGOS
1119	EL JARDIN
1125	STRINGS ITALIAN CAFE
1135	DENNYS
1138	DAIRY QUEEN
1140	ELITE ARMS
1142	CHECK N GO
1144	EDWARD JONES
1148	ELITE ARMS
	RHODE REAL ESTATE PMZ
1152	COSMOPROF
	MELROSE LOCK PRO
1156	DAVITA
1158	MONTEREY WATER COMPANY
1160	JACKSON HEWITT
1161	OLIVE OIL PANTRY
1163	SALLY BEAUTY SUPPLY
1165	GNC
	PAN PACIFIC RETAIL
1166	LESLIES SWIMMING POOL SUPPLIES
1167	NEW YORK DIAMONDS
1169	MUNCHKINLAND CHIHUAHUAS
	THE UPS STORE
1172	BANK OF AMERICA ATM
1187	MANIS LOCKSMITHS
	REDBOX
	SAFEWAY
	SPARKLE GARAGE DOORS
1190	MANTECA AUTO PLAZA BUICK PONTIAC GMC
	UHAUL
	UHAUL MOVING & STORAGE OF MANTECA
1205	GOLDEN LOCKSMITH
	MCDONALDS
	REDBOX
	WALMART
1490	DURAO, ANTHONY M
1532	BREITENBUCHER, DONALD W
1695	SILVA, MICHAEL
1717	GOUDY, KIRK R
1751	SINGH, GURDIP
2112	BOWMAN, ANDREW M
2250	MACHADO, ED
2426	LARSEN, C
2438	MOULES, MARIA G
2444	SYLVIA, GEORGE F

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

TICKSEED LN 2017

1731	KRISKO, MADELINE A
1736	TOLENTINO, RONALD P
1737	TIERRA, EDISON M
1744	HERMESKY, ANGELA A
1745	ORTIZ, RAMON M
1752	WALLJASPER, TROY A
1758	NELSON, ALEXANDER R
1759	KRASCHINSKY, ALYSSA E
1766	GARDNER, JAMES A
1767	SHMUCKLER, DAVID B
1772	MUNOZ, CIRILO
1773	PINTOR, LORENZO P
1781	LANGDON, WILLIAM B

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

CATMINT ST 2014

125	HERMANN, SCOTT A
135	LOPEZ, GASPAR
143	BLANCO, PURIFICACION F
151	WILLIAMS, MARK R
161	RISS, GERALD W
169	SOUSA, EDUARDO F
174	MEJIA, CLEMENT L
179	BRISSON, DENNIS R
182	GOLDSTEIN, MITCH A
187	SEGALLA, JONATHEN L
192	FERNANDEZ, DANIEL
195	GASPAR, TOMAS M
211	BETTENCOURT, EDWIN B
233	SILVA, ANGELO J
255	JACKSON, CHRISTOPHER M
277	SINGH, HARMINDER
315	WILLIAMS, BRIAN A
333	SMITH, DEBRA L
350	MILLER, PAUL D
351	OCCUPANT UNKNOWN,
369	RAJ, BALDEV
372	HOUSEMASTER
	MAHONY, MARUSSA
385	DWYER, RICHARD D
420	NGONGVONGSITHI, KHONE
421	LAROSA, CYNTHIA L
442	STAFFORD, LANCE N
443	OROZA, MICHEAL
539	GONZALES, TRISHA S
551	JM DESIGN & ASSOCIATES
	MELTON, JEFF W
552	ALCOCER, ALEJANDRO
563	CHANDLER, CARL M
575	FENSKE, LEAH C
576	ALVES, EDWARD A
587	SIMPSON, CLIFFORD J
588	BHINDER, BHAJAN S
601	BARNETT, RAYMOND L
610	RODRIGUES, KENNETH J
619	FULLMER, KELLIE D
622	HUNTER, KRISLYN F
633	HOLBROOK, ALLEN W
634	OCCUPANT UNKNOWN,
641	ALONZO, RAUL G
	TERRY WYNN
642	MENDEZ, LOUIE E

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

E WOODWARD AVE 2014

920	CARDOZA, JOSEPH R
952	GOODWIN, RANDALL S
984	ALBERS, LARRY W
1020	ZAMBRANO, RICARDO
1056	MCGEE, ALEXANDRIA M
1184	PEREZ, JUSTINO T
1186	OROZCO, MARCOS
1272	WINTERS, GARY D
1380	OCCUPANT UNKNOWN,
1436	OCCUPANT UNKNOWN,
1452	OCCUPANT UNKNOWN,
1720	BETSCHART, LISA A
1873	SOUSA, RUSS
2368	SOLSBERY, AMANDA
3504	CASTELLANOS, FRANCISCO
3825	LUDWIG, WILLIAM R
3877	CALVILLO, ALEJANDRO
3883	CRANE, GLENN H
3915	LEYVA, FRANKIE P
3939	ANDERSON, PETER D
4353	RANDALL MIKE
	RANDALL, MICHAEL D
	RANDALLS RABBIT RANCH CAGES
4395	PEDRAZA, RICHARD L
4447	DOUGLASS, THERESA A
4475	LABARE, LEANNE E
4640	SINGH, JARNAIL
4950	WACKERLY, JERRY A
5188	OCCUPANT UNKNOWN,
6058	OCCUPANT UNKNOWN,
6404	KLAVERSTIJN, CATHARINA W
6405	SCHWARTZ, JANE A
6445	FARFAN, VINCENT A
6454	LEAL, JOSEPH A
6479	AMARAL, SUSIE
6488	SANCHEZ, JUAN C
6500	KAPSINOW, MARCY G
6511	BURDEN, JASON A
6528	SIGGINS, GEORGE H
6549	GOULET, PAUL R
6572	PAINTER, DAVID M
6575	ESPINOZA, PRESILIANO J
6606	RICH, DEWARD R
6631	WHEELER, VINCENT D
6643	SANDI, DANIEL H
6648	OCCUPANT UNKNOWN,
6726	SHAFFER, ROLINDA L
6728	BARTON, MATTHEW A
6770	ARIZCUREN, JACK J
6796	CRANNELL, GARY R

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

E WOODWARD AVE 2014 (Cont'd)

6826	ARIZCUREN, PETE M
6860	BEAUCHAMP, MARLENE L
6894	RUDOLPH, KENNETH J
6926	BROCCHINI ALDO INVESTMENTS
	BROCCHINI, MARVIN
7000	BORDENKIRCHER, DONNA R
7030	CAMARA, TONY T
7058	BEECHER, BRENT L
7114	OCCUPANT UNKNOWN,
7201	LOWERY, ANTHONY R
7208	HACKETT, CHEVIOT W
7209	LASSITER, BRYCE E
7276	SAFDARI, KARIMA
7385	AMAN, CURTIS J
7402	HAHN, HAROLD H
7485	FLORES, SERGIO A
8832	HELLER, ALAN R

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

JACKIE PL 2014

1700	SILVA, LIONEL J
1701	HAENA, WILLIAM P
1708	SCHWIEGER, CHRISTIANE N
1709	ANDREWS, JASON L
1720	MILLER, KARALYN K
1721	EHLEN, DEANA L
1728	GANSBERGER, DALE G
1729	WU, GUILIAN
1740	GATHANY, TIMOTHY A
1741	HOVELING, MICHAEL S

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

MONTE CASA ST 2014

603 OCCUPANT UNKNOWN,
611 OCCUPANT UNKNOWN,
612 OCCUPANT UNKNOWN,
620 OCCUPANT UNKNOWN,
623 OCCUPANT UNKNOWN,
628 OCCUPANT UNKNOWN,
631 OCCUPANT UNKNOWN,
636 OCCUPANT UNKNOWN,
639 OCCUPANT UNKNOWN,
648 OCCUPANT UNKNOWN,
651 OCCUPANT UNKNOWN,
657 OCCUPANT UNKNOWN,
663 OCCUPANT UNKNOWN,
670 OCCUPANT UNKNOWN,
671 OCCUPANT UNKNOWN,
678 BRIGHT DEVELOPMENT
OCCUPANT UNKNOWN,
679 OCCUPANT UNKNOWN,
681 OCCUPANT UNKNOWN,
690 OCCUPANT UNKNOWN,
711 OCCUPANT UNKNOWN,
719 OCCUPANT UNKNOWN,
728 OCCUPANT UNKNOWN,
731 OCCUPANT UNKNOWN,
739 OCCUPANT UNKNOWN,
751 OCCUPANT UNKNOWN,
759 OCCUPANT UNKNOWN,
771 OCCUPANT UNKNOWN,
779 OCCUPANT UNKNOWN,
791 OCCUPANT UNKNOWN,

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

S MAIN ST 2014

1100	ARCO STATION
1103	CHEVRON
	CHEVRON STATION EXTRA MILE MANTECA
1111	BASKINROBBINS
1113	GREAT CLIPS
1115	TOGOS
1119	EL JARDIN
	EL JARDIN FINE MEXICAN FOOD
	EL JARDIN MEXICAN RESTAURANT
1125	STRINGS ITALIAN CAFE
1135	DENNYS
1138	DAIRY QUEEN
1140	ELITE ARMS
	HERTZ RENTACAR
1142	CHECK N GO
1144	EDWARD JONES FINANCIAL ADVISOR DA
1148	PMZ REAL ESTATE
	RHODE TIM REALTOR
1156	DAVITA
1158	MONTEREY WATER COMPANY
1160	JACKSON HEWITT
1161	OLIVE OIL PANTRY
1163	SALLY BEAUTY SUPPLY
1165	GNC
1166	LESLIES SWIMMING POOL SUPPLIES
1167	NEW YORK DIAMONDS
1169	CENTRAL ESTATE MANAGEMENT
	MAIL BOXES ETC
	THE UPS STORE
1187	SAFEWAY
1190	UHAUL
	UHAUL CENTER OF MANTECA
1205	MCDONALDS
	VZW AT WALMART 01840 MANTECA
	WALMART
1490	DURAO, ANTHONY M
1532	BREITENBUCHER, DONALD W
1563	FERNANDEZ, OLIVIA
1574	OCCUPANT UNKNOWN,
1669	SWANSON, J R
1695	SILVEIRA, TERRY F
1717	GOUDY, KIRK R
1751	ARRELLANO, PETER
2112	BOWMAN, ANDREW M
2250	MACHADO, ED
2426	LARSEN, C
2438	MOULES, MARIA G
2444	SYLVIA, GEORGE F
2450	OCCUPANT UNKNOWN,
2474	DIAZ, DANIEL U

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

TICKSEED LN 2014

1731	KRISKO, MADELINE A
1736	TOLENTINO, ANTOINETTE P
1737	TIERRA, EDISON M
1744	HERMESKY, JUSTIN D
1745	ORTIZ, RAMON M
1752	MEDEIROS, GEORGE
1758	NELSON, ALEXANDER R
1759	KRASCHINSKY, ALYSSA E
1766	HA, KY M
1767	SHMUCKLER, DAVID B
1772	SANTAYANA, CHARISSE
1773	PINTOR, LORENZO P
1781	LANGDON, LANNY D

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

CATMINT ST 2010

174	PEREZ, SUSAN G
350	MILLER, PAUL D
372	MAHONY, PAUL
421	LAROSA, CYNTHIA L
539	GONZALES, TRISHA S
551	TRAN, DANG M
552	BEGAY, MICHAEL L
563	SEIDLITZ, STEVE J
575	FENSKE, STEVEN A
576	PETERS, BARBI
587	SIMPSON, CLIFFORD B
588	BHINDER, BHAJAN S
601	BARNETT, RAYMOND L
610	RIZZUTO, CRYSTAL
619	OCCUPANT UNKNOWN,
622	HENSLEY, JESSICA M
633	HOLBROOK, ALLEN
634	RICHARDSON, TRACY
641	OCCUPANT UNKNOWN,
642	MICHELETTI, ANTHONY M

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

E WOODWARD AVE 2010

874	CHILDS, KAREN A
920	CARDOZA, JOSEPH R
952	GOODWIN, RANDALL S
984	ALBERS, LARRY W
1020	OCCUPANT UNKNOWN,
1056	OCCUPANT UNKNOWN,
1184	DOYLE, ED
1186	OROZCO, MARCOS
1380	WHITE, RALPH J
1873	SOUSA, RUSS
2368	BROCCHINI, JOSEPH D
3504	CASTELLANOS, FRANCISCO
3825	LUDWIG, WILLIAM R
3877	TUCKER, DAVID B
3883	CRANE, GLENN H
3915	LEYVA, FRANKIE P
3939	ANDERSON, PETER D
3989	NEYER, JEFFREY S
4353	RANDALL, MICHAEL D
	RANDALLS RABBIT RANCH
4395	SILVA, FRANK A
4447	DOUGLASS, THERESA A
4475	MAGINCALDA, MARSHALL L
4640	SINGH, JARNAIL
4705	AYALA, JOANNA A
4707	OCCUPANT UNKNOWN,
4950	WACKERLY, JERRY A
5188	OCCUPANT UNKNOWN,
5232	ETTLE, GERALD
5287	OCCUPANT UNKNOWN,
5299	OCCUPANT UNKNOWN,
5647	REVIVES, CLAUDIO A
5791	LOPEZ, FRANK
5827	SCHMIDT, MARGARET M
5961	HEWEY, DALE
6046	SILVEIRA, DAVID L
6058	OCCUPANT UNKNOWN,
6404	VANDERWEIJ, MARTIN J
6405	SCHWARTZ, JANE A
6445	FARFAN, VINCENT A
6454	LEAL, ELAINE M
6456	MILLER, G
6479	DUTRA, MARGARET M
6500	OCCUPANT UNKNOWN,
6528	SIGGINS, GAIL H
6549	GOULET, PAUL R
6572	OCCUPANT UNKNOWN,
6575	ESPINOZA, PETER J
6606	RICH, DEWARD R
6631	WHEELER, VINCENT D

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

E WOODWARD AVE 2010 (Cont'd)

6648	JUNG, DAVID G
6726	WINDER, LYNNETTE
6728	BARTON, MATTHEW A
6770	ARIZCUREN, JACK P
6796	CRANNELL, GARY R
6826	ARIZCUREN, PETE M
6860	OCCUPANT UNKNOWN,
6894	RUDOLPH, KENNETH J
6926	ALDO BROCCHINI INVESTMENTS
	BROCCHINI, MABEL S
7000	BORDENKIRCHER, DONNA R
7030	CAMARA, TONY T
7058	EAVENSON, WILLIAM H
7114	OCCUPANT UNKNOWN,
7201	QUEIROLO, ANGELO E
7208	OCCUPANT UNKNOWN,
7209	LASSITER, BRYCE E
7276	HELMANDY, MARIAM
7350	HAHN, HAROLD H
7365	OCCUPANT UNKNOWN,
7385	AMAN, CURTIS J
7402	OCCUPANT UNKNOWN,
7485	FLORES, SERGIO A
8832	HELLER, ALAN R
9202	WINTERS, GARY D
9308	OCCUPANT UNKNOWN,
9336	FARTHING, CHARLA
9362	OCCUPANT UNKNOWN,
9820	BETSCHART, JOSHUA W

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

JACKIE PL 2010

1700 OCCUPANT UNKNOWN,
1701 OCCUPANT UNKNOWN,
1708 OCCUPANT UNKNOWN,
1709 OCCUPANT UNKNOWN,
1720 OCCUPANT UNKNOWN,
1721 OCCUPANT UNKNOWN,
1728 OCCUPANT UNKNOWN,
1729 OCCUPANT UNKNOWN,
1740 OCCUPANT UNKNOWN,

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

S MAIN ST 2010

1100	ARCO
1103	CHEVRON
1111	BASKINROBBINS
1113	GREAT CLIPS
1115	TOGOS
1119	EL JARDIN FINE MEXICAN FOOD
1125	STRINGS ITALIAN CAFE
1135	DENNYS
1138	DAIRY QUEEN
1140	HERTZ RENT A CAR
1142	CHECK N GO
1144	EDWARD JONES
1148	RHODE TIM
1152	EXPRESS WIRELESS
1156	DA VITA INC
1158	MONTEREY WATER CO
1160	JACKSON HEWITT TAX SVC
1161	JAVA MAKERS
1163	SALLY BEAUTY SUPPLY
1165	GNC
1166	LESLIES SWIMMING POOL SUPPLY
1167	NEW YORK DIAMONDS
1169	DESIGN STUDIO
	UPS STORE
	VOLLENVENTS MANAGEMENT GROUP
	WALLYBALLCOM
1187	SAFEWAY
	SAFEWAY PHARMACY
1190	MANTECA AUTO PLAZA
1205	H&R BLOCK
	MC DONALDS
	PICTURE ME PORTRAIT STUDIOS
	VISION CENTER AT WALMART
	WALMART
1490	DURAO, JACK M
1532	BREITENBUCHER, DONALD W
1695	SILVA, MARIO A
1717	GOUDY, KIRK R
1751	ARELLANO, PEDRO B
2112	SCHMIEDT, FRANCES E
	TRAHAN, RAYMOND E

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

E WOODWARD AVE 2005

874	BAKER, YOLANDA
	BORRERO, VINCENT
	BOURASSA, DEBRA L
	BROWN, JAMES G
	BURGOS, EDWARD Y
	CANCILLA, MICHAEL J
	CHILDS, KAREN A
	CONSUELO DANTES DIZON MD
	CREWS, CAROLEE S
	CUMMINS, BERNIE D
	DIZON, CONSUELO D
	DOLLAR, JODIE S
	DOYLE, MARLENE F
	EKLUND, CHARLES L
	EMMENEGGER, FRANK T
	ERWIN, JESSICA D
	FIBER GLASS SHAPES LTD
	FIELD, WILLIAM
	FRENCH, JIMMIE D
	HANSEN, DANIEL M
	HELSTROM, LYLE V
	JOHNSON, MICHAEL R
	KEITH, SHAWN M
	KERLING, JACKLYN P
	KNIFFIN, WILLIAM B
	LATER, BRETT P
	LEESCH, WYNOMA E
	LUCERO, DON E
	LUCK, DONALD
	MCDANIEL, JOAN A
	MENDES, JOE A
	MURPHY, DALE R
	NAUTA, JOHANNA
	OAKWOOD LAKE INC
	OAKWOOD LAKE MANTECA WATER SLIDE
	OCHOA, MIKE
	OSTLER, JERRY A
	REIF, CHRIS E
	RICE, SAMMIE L
	ROGERS, RAYMOND E
	ROOT, HAROLD L
	RUFUS, DRURY S
	SAFETY, RAILS
	SCHOEPPE, SANDRA F
	SMITHCAMP, EARL A
	SWEET TREATS
	TERRELL, BENNY O
	TOMLINSON, REDA A
	TREVETHAN, JAMES E
	TWEEDLE, GEORGE W

E WOODWARD AVE 2005 (Cont'd)

874	VIRAY, CYNTHIA M
	WHITT, FRED H
920	CARDOZA, JOSEPH R
952	GOODWIN, BENJAMIN F
984	OCCUPANT UNKNOWN,
1020	SCHMIDT, ALEX E
1050	HELLER, ALAN R
1056	OCCUPANT UNKNOWN,
1201	OCCUPANT UNKNOWN,
1229	ALEXANDER, KRISTINA M
1380	LUNDBOM, ROBERT L
1731	OCCUPANT UNKNOWN,
1887	BAY AREA LA EXPRESS
1925	ATHERTON HOMES CUSTOMER SERVICE
2368	BROCCHINI, JOSEPH D
3504	SOLARI, JERRY J
3731	CROSSLAND, DWAYNE D
3883	LEYVA, FRANK P
3915	GUIZAR, JAVIER J
3939	ANDERSON, PETER D
3989	ROCHA, TONY N
4353	RANDALL, MICHAEL D
4395	SILVA, FRANK A
4447	DOUGLASS, BRUCE L
4475	MAGINCALDA, MARSHALL L
4640	SINGH, D
4705	OCCUPANT UNKNOWN,
4707	KENT, NORMAN H
4950	OCCUPANT UNKNOWN,
5188	OCCUPANT UNKNOWN,
5232	ETTLE, GERALD
5287	OCCUPANT UNKNOWN,
5299	DUTRA, JAMES L
5555	DUTRA, GEORGE L
5647	REVIVES, CLAUDIO A
5790	PEREZ, ANNA M
5827	SCHMIDT, LEO M
5961	ATHERTON, MICHAEL
6046	SILVEIRA, DAVID L
6058	OCCUPANT UNKNOWN,
6404	TINEKA KLAVERSTYN
	VANDERWEIJ, MARTIN J
6445	FARFAN, VINCENT A
6454	LEAL, ELAINE M
6479	DUTRA, MARGARET M
6488	COIL, D M
6500	CHAVEZ, GERALDINE G
6528	SALARA POOLS
	WRIGHT, RONALD
6549	GOULET, PAUL R

E WOODWARD AVE 2005 (Cont'd)

6572 PAINTER, DAVID S
6575 ESPINOZA, PRESILIANO J
6606 MACDOUGALL, GEORGE A
6631 WHEELER, VINCENT D
6643 OCCUPANT UNKNOWN,
6648 OCCUPANT UNKNOWN,
6655 COLLINS, LARRY B
6728 BARTON, MATT A
6731 ENGEL, TRUDY
6770 ARIZCUREN, JACK J
JANS INTERIORS
6793 OCCUPANT UNKNOWN,
6796 CRANNELL, GARY R
JUST BEDSPREADS
6826 ARIZCUREN, PETE M
6860 LOOMIS, JACK C
6894 RUDOLPH ELECTRIC
RUDOLPH, KEN L
6926 BROCCHINI ALDO INVESTMENTS
BROCCHINI, ALDO A
7000 BORDENKIRCHER, DONNA R
7030 CAMARA, TONY T
7058 EAVENSON, WILLIAM H
7114 HAHNS CONSTRUCTION
7201 QUEIROLO, ANGELO E
7208 BOHL, LESLIE D
7276 BRIGHT WORLD MULTI MEDIA
MUSHEER, JEHAWN N
7285 OCCUPANT UNKNOWN,
7365 AMAN, NORMAN J
7385 OCCUPANT UNKNOWN,
7402 HAHN, HAROLD H
7485 FLORES, SERGIO A
9202 WINTERS, GARY D
9308 CLARY, MIKE L
9336 DONNELLY, RAYMOND
9362 WILSON, MICHAEL J
9820 OCCUPANT UNKNOWN,

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

S MAIN ST 2005

1100	AM PM MINI MARKET
1103	CHEVRON STATIONS INC
1113	GREAT CLIPS FOR HAIR
1115	TOGOS EATERY
1119	EL JARDIN
1125	STRINGS ITALIAN CAFE
1135	DENNYS RESTAURANT MANTECA
1138	DAIRY QUEEN
1140	CHECK N GO
	HERTZ LOCAL EDITION
1142	CHECK N GO OF CALIFORNIA INC
1144	EDWARD JONES
1148	JACKIE DEZARN
	PAPWORTH MIHOVICH REAL ESTATE SOLUTI
	PMZ REAL ESTATE
	RHODE & ASSOCIATES INC
	RHODE TIM REALTOR
1152	EXPRESS VIDEO CELLUL
1156	GAMBRO HEALTHCARE PATIENT SERVICE IN
1158	MONTEREY WATER CO
1161	CHUBBYS RESTAURANT
	JAVA MAKERS
1163	SALLY BEAUTY SUPPLY
1165	GENERAL NUTRITION CENTER
1167	NEW YORK DIAMONDS
1169	AIS
	COLOR GLO UPHOLSTERY OF SAN JOAQUIN
	DESIGN STUDIO
	HOME HELPER HANDYMAN
	INTERQUEST GROUP INC
	LEADERSHIP UNIVERSITY INC
	MAIL BOXES ETC
	NALAN CO
	RESIDENTIAL MORTGAGE CORP
	SIMPSON CONCRETE
	TEAM DEJOURNETT INC
	THE DESIGN STUDIO INC
	UPS STORE THE
	VALLEY BLINDS
	VOLLENVENTS MANAGEMENT INC
1187	ACE AMERICAS CASH EXPRESS
	PAK N SAVE
	SAFEWAY
1205	JACKSON HEWITT TAX SERVICE
	KHANH DAO OD
	PCA WALMRT PORTRAIT 01840
	VISION CARE SYSTEMS
	WAL MART
	WAL MART NATIONAL VISION CENTER
	WAL MART PHARMACY # 1840

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

S MAIN ST 2005 (Cont'd)

1269	IMAGEMAKERS SIGNS
1490	DURAO, JACK M
1532	BREITENBUCHER, DONALD W
1695	SILVA, MARIO A
1717	GOUDY, KIRK R
1751	ARRELLANO, PETER
2112	SCHMIEDT, FRANCES E

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

E WOODWARD RD 2000

874	ALAMANO, JAMES M
	ALDERETE, EDWARD
	ARNOLD, DARREN
	BORRERO, VINCENT
	BOURASSA, MAURICE M
	BROFAM TRUCKING
	BROWN GROUP
	BROWN SAND INCORPORATED SCALE
	BROWN SAND INCORPORATED SHOP
	BROWN, ROBERT H
	BURGOS, SANDRA
	C BARNETT ENVIRONMENTAL SERVICES
	CREWS, C
	DANIELL, JAMES
	DONNELLY, PATTY D
	ELLSWORTH, JAMES T
	EUREST DINING SERVICES
	FLANAGAN, LARRY
	FRENCH, JIMMIE
	HALL, V
	HANSEN, DONNA
	HELSTROM, LYLE
	HOLLINGSHEAD, DIANA
	JOHNSON, MICHAEL
	KNIFFIN, WILLIAM
	LANE, EARLE E
	LATER, TERRY
	MANTECA WATER SLIDES
	MARRIO, CHERYL
	MARRO, MARK
	MAUPIN, CARA
	MEEK, MARK A
	MENDES, J
	NAUTA, MATT
	OAKWOOD LAKE GROUP PICNICS
	OAKWOOD LAKE MOBILE HOME PARK
	OCHOA, MIKE
	PRYOR, ROBERT C
	RICE, RONALD
	RODGERS, TROY
	ROGERS, GRANT D
	RUFUS, DRURY S
	SMITHCAMP, EARL A
	TREVETHAN, PATTI R
	WHITELEY, BRIAN D
	WINK, RONALD
1201	CASCIARO, DENA M
1229	CONTE, MARY L
2368	BARRIOS, BERTHA V
3504	SOLARI, JERRY

E WOODWARD RD 2000 (Cont'd)

3825	CORNELL, LAURIE
3877	TUCKER, DAVID
3883	OCCUPANT UNKNOWN,
3915	CROSS, KENNETH R
3939	OCCUPANT UNKNOWN,
3989	ROCHA, TONY N
4111	WILLIAMS, DIANNA M
4151	OCCUPANT UNKNOWN,
4353	RANDALL, MICHAEL D
4395	SILVA, FRANK
4707	KENT, NORMAN
4764	WACKERLY, JERRY A
4950	OCCUPANT UNKNOWN,
5188	DUTRA, MARIA A
5232	ETTLE, JERRY
5299	DUTRA, JAMES L
5647	REINHARDT, THOMAS
5790	ROGERS, C R
5827	OCCUPANT UNKNOWN,
5961	OCCUPANT UNKNOWN,
6046	OCCUPANT UNKNOWN,
6404	KLAVERSTIJN, C
	VANDERWEIJ, MARTIN
6407	LEE, ROBERT C
6445	FARFAN, VINCENT
6456	BALL, G
	MILLER, THOMAS E
6479	DUTRA, JOHN L
6488	COIL, DONNA M
6500	OCCUPANT UNKNOWN,
6504	OCCUPANT UNKNOWN,
6511	OCCUPANT UNKNOWN,
6528	OCCUPANT UNKNOWN,
6572	PAINTER, DAVID M
6575	ESPINOZA, P
6606	MANNING, JOYCE
6631	OCCUPANT UNKNOWN,
6643	OCCUPANT UNKNOWN,
6647	BUCK, MONTY
6648	JUNG, DAVID G
6655	COLLINS, LARRY
6680	CAMPBELL, LESTER
6770	ARIZCUREN, JACK
6793	OCCUPANT UNKNOWN,
6796	CRANNELL, GARY R
6826	ARIZCUREN, PETER
6860	LOOMIS, JACK C
6894	RUDOLPH, KEN
6926	BROCCHINI ALDO INVESTMENTS
	BROCCHINI, ALDO

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

E WOODWARD RD 2000 (Cont'd)

7000	BORDENKIRCHER, DALE
7030	CAMARA, TONY
7058	OCCUPANT UNKNOWN,
7114	OCCUPANT UNKNOWN,
7201	OCCUPANT UNKNOWN,
7208	BOHL, LESLIE
7276	OCCUPANT UNKNOWN,
7285	QUARESMA, DARYLL
7350	HAHN, HAROLD
7365	AMAN, NORMAN J
7385	OCCUPANT UNKNOWN,
7402	HAHN, HAROLD
8592	PEREZ, JOSE L
8630	POWER, GARY D
8700	GOODWIN, B F
8744	MORSE, ELSIE L
8800	SCHMIDT, ALEX
8832	SESSER, EZRA J
8980	OCCUPANT UNKNOWN,
9009	BANDONI, ROBERT
9081	OCCUPANT UNKNOWN,
9202	WINTERS, GARY
9260	PRO PAINTING
9308	CLARY, MIKE
9336	CAMPBELL, AMY R
9362	OCCUPANT UNKNOWN,
9717	OCCUPANT UNKNOWN,
9820	OCCUPANT UNKNOWN,
9975	SHIPPERS IMPERIAL INCORPORATED

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

S MAIN ST 2000

1119	BLUETT, CHRIS
1148	CARR, CELINE
1152	BLOCK H & R
1162	JOBS PLUS
1190	GEWEKE BUICK OLDS PONTIAC & GMC
1205	WALMART DISCOUNT CITIES PHARMACY
	WALMART DISCOUNT CITIES STORE INFORMATION
	WALMART VISION CENTER
1490	DURAO, JACK
1532	BREITENBUCHER, DONALD W
1536	OCCUPANT UNKNOWN,
1663	RICHARDS, F A
1669	OCCUPANT UNKNOWN,
1695	SILVA, MARIO

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

E WOODWARD RD 1995

874	BARAJAS, JASONN
	BENNETT, TODD
	BROFAM TRUCKING
	BROWN SAND INC
	CANTEEN CORP
	CONAWAY, RAY
	DUFUR, GENESE J
	ECKERT, MILES
	FORSMAN, EDWIN N
	FRENCH, JIMMIE
	GOREHAM, RICHARD
	HALEY, ANGEL
	HART, DERRELL
	HELSTROM, LYLE
	HOLLINGSHEAD, D
	KNIFFIN, WILLIAM
	KOSCIELECKI, V
	LUGO, ELVA
	NETTLE, DOTTIE
	OAKWOOD LAKE
	PRYOR, ROBERT C
	RAMSDELL, REBECCA
	RHODES, JOHN
	ROACH, JOHN L
	ROGERS, GRANT D JR
	RONTAL, LOIS
	RUFUS, DRURY S
	SMITHCAMP, EARL A
	TREFZ, C J
	TREVETHAN, JAMES
	WILSON, LARRY
3504	SOLARI, JERRY
3877	TUCKER, DAVID
3883	HOLT, LYNELL J
3915	OCCUPANT UNKNOWNN
3939	RUSSELL, ALFRED E
3989	ROCHA, TONY N JR
4123	LANGUM, GALE
4353	RANDALL, MICHAEL D
	RANDALLS RABBIT RANCH
4395	SILVA, FRANK
4475	LEIGHTON, BERNARD X
4640	TAYLOR, LEONARD B
4705	OCCUPANT UNKNOWNN
4707	KENT, NORMAN
4764	WACKERLY, JERRY A
4950	WACKERLY, JERRY A
5232	ETTLE, JERRY
5287	DUTRA, SHIRLEY
5299	DUTRA, MARION

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

E WOODWARD RD 1995 (Cont'd)

5555	DUTRA, GEORGE L
5647	REINHARDT, THOMAS
5790	MASON, KURT
5827	FREW, ADAM C
5961	OCCUPANT UNKNOWNN
6046	MORRISON, STACIE L
6404	WELCH, COOKIE L
6407	LEE, ROBERT C
6445	OCCUPANT UNKNOWNN
6454	LEAL, ELAINE
6456	BALL, HAROLD
	MILLER, THOMAS E
6479	DUTRA, JOHN L
6488	OCCUPANT UNKNOWNN
6511	OCCUPANT UNKNOWNN
6528	WRIGHT, JAMES L
6549	JOHNSON, J
6572	PAINTER, DAVID M
6575	ESPINOZA, P
6606	RICH, DEWARD R
6647	BUCK, MONTY
6648	OCCUPANT UNKNOWNN
6655	COLLINS, LARRY
6680	CAMPBELL, LESTER
6726	WINDER, L
6731	BRESHEARS, RONALD G
6770	ARIZCUREN, JACK
6796	CRANNELL, GARY R
6826	ARIZCUREN, MARIE G
6860	LOOMIS, JACK C
6894	RUDOLPH, KEN
6926	BROCCHINI, ALDO
7000	BORDENKIRCHER, DALE
7030	CAMARA, TONY
7114	HAHN, HILARY
7201	FRY, PAUL
7208	BOHL, LESLIE
7276	MANNING, JOHN D
7285	QUARESMA, DARYLL
7385	OCCUPANT UNKNOWNN
7402	HAHN, HAROLD
7485	OCCUPANT UNKNOWNN
8700	GOODWIN, B F
8744	MORSE, ELSIE L
8800	CARDOZA, MANUEL
8832	SESSER, EZRA J
8980	OCCUPANT UNKNOWNN
9009	BANDONI, ROBERT
9081	OCCUPANT UNKNOWNN
9202	WINTERS, GARY

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

E WOODWARD RD 1995 (Cont'd)

9308 GONZALES, EVY D
9362 OCCUPANT UNKNOWNN
9717 VALDEZ, G
9820 BETSCHART, JOHN
9909 BAY AREA LOS ANGELES EXP
9975 PERFORMANCE LEASING INC

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

S MAIN ST 1995

1113	MANTECA TRAVEL SVC
1138	DAIRY QUEEN
1142	SALARA POOL & PATIO
1144	AQUATECH SCUBA CTR
1148	DEZARN, JACKIE
	GIBSON, BOB
	STANKEVICH, SANDY
	STANLEY, MARIA
	WILSON, DON
	ZEPEDA, V
1152	H & R BLOCK INC
1156	OAK VALLEY DIALYSIS CLINIC
1158	COSTA, SHIRLEY
	NORWEST MORTGAGE CO
1169	BROGAN, LISA
	CARTER, KAY
	GOMEZ, SAMUEL
	HOAGLAND, JILL K
	MCCRACKEN, DEANNA L
	PARSONS, LOREN
	WATTS, SHARI L
1190	GEWEKE BUICK OLDS PONTIAC
1205	WAL MART DISCOUNT CITY
1490	DURAO, JACK
1530	ACOSTA, TONI
1532	BREITENBUCHER, DONALD
1536	BREITENBUCHER, DONALD W
1548	CAZIN, NORMAN
1549	RUCKMAN, DAVID
1562	GOSS, GREGORY
1563	BUSTAMANTE, CHARLES
1574	PENKO, FRANK
1623	SPEARS, JIMMY J
1635	WRIGHT, C M
1641	OCONNOR, WILMA
1653	COOK, BRYAN R
1663	RICHARDS, F A
1669	QUARESMA, GEORGE R
1695	SILVA, MARIO

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

E WOODWARD RD 1992

874	BROFAM TRUCKING
	BROWN SAND INC
	CANTEEN COMPANY
	DRAPER, KENNETH
	DUTTON, ROBERT L
	ECKERT, MILES
	HELSTROM, LYLE
	HYDROGLASS SYSTEMS
	JASPER, TIMOTHY
	LUGO, ELVA
	OAKWOOD LAKE MBL HM
	OBRIAN, DESMOND
	SIZELOVE, STEVEN
	TREFZ, CARL J
	TREVETHAN, JAMES
3504	SOLARI, JERRY
3877	TUCKER, DAVID
3915	COEY, ELMER W
3939	HENSLEY, F L
	RUSSELL, ALFRED E
3989	ROCHA, TONY N JR
4123	LANGUM, GALE
4395	SILVA, FRANK
4475	BACON, DELLA
4705	GONIGAN, M
4707	KENT, NORMAN
5232	ETTLE, JERRY
5299	DUTRA, MARION
5555	DUTRA, GEORGE L
5827	FREW, ADAM C
	WALKER, E D
6407	LEE, ROBERT C
6445	FARFAN, VINCENT
6454	LEAL, MANUEL
6456	BALL, HAROLD
	MILLER, THOMAS E
6479	DUTRA, JOHN L
6488	COIL, H R
6511	MCKENZIE, ASA
6549	JOHNSON, J
6572	MCCOMB, LLOYD
6575	ESPINOZA, P
6643	WHEELER, VINCE D
6655	COLLINS, LARRY
6731	HERZFELD, OTIS
6770	ARIZCUREN, JACK
6796	CRANNELL, GARY R
6860	LOOMIS, JACK C
6894	RUDOLPH, KEN
6926	BROCCHINI A INVST

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

E WOODWARD RD 1992 (Cont'd)

6926	BROCCHINI, ALDO
7000	BORDENKIRCHER, DALE
7030	CAMARA, TONY
7201	FRY, PAUL
7385	AMAN, NORMAN
7402	HAHN, HAROLD
8592	GUZMAN, ALFONSO R
8700	GOODWIN, B F
8744	GENIE CONCRETE INC
	MARTINEZ, C B
8748	CARLSON, DONALD
8832	SESSER, EZRA J
9009	BANDONI, ROBERT
9081	NORDELL, TIMOTHY J
9202	WINTERS, GARY
9260	LUNDBON, ROBERT
9717	VALDEZ, G
9909	BAY AREA LA EXPRSS
9959	PERFRMNC LEASING
9975	SHIPPERS IMPRL INC

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

S MAIN ST 1992

1129	SOBRERO, J M
1138	DAIRY QUEEN
1142	SALARA POOL&PATIO
1144	AQUATECH DIVE CNTR
1158	SPRING MTN ESCROW
1190	GEWEKE BUICK OLDS
1490	DURAO, JACK
1536	BREITENBUCHER, DONALD W
1669	QUARESMA, GEORGE R
1695	SILVA, MARIO
1717	GOUDY, KIRK

Target Street	Cross Street	Source
-	✓	Haines Criss-Cross Directory

E WOODWARD RD 1985

6511	MCKENZIE ASA	823-5812	
6549	HOUSE CALVIN	239-6235	2
6572	MCCOMB LLOYD	823-2912	
6575	ESPINOZA P	823-4628	
6606	FILECCIA F M	823-3402	
6643	SANO HENRY P JR	239-2242	9
6647	COLLINS DEARL B	823-5711	
6731	HERZFELD OTIS	823-6050	6
6770	ARIZCUREN JACK	823-2245	6
6860	LOOMIS JACK C	239-2268	
6894	XXXX	00	
6926	BROCCHINI ALDO	823-4624	
6945	PERRY FRANK	823-2946	
7000	BORDENKIRCHER DALE	823-3566	
7030	CAMARA TONY	823-4973	
7058	ROGERS ROCKY	239-5518	+5
7114	HAHN HILA (	239-9428	2
7201	FRY COLETTE	823-9838	1
	FRY PAUL G	823-2893	
7276	XXXX	00	
7385	AMAN NORMAN	239-2907	
7402	HAHN HAROLD	623-5327	4
7485	CHAPMAN A O	823-5687	8
8592	GUZMAN ALFONSO R	239-2556	6
	GUZMAN BENITO	239-2420	
8700	GOODWIN B F	823-2170	
8744	MORSE ELSIE LEE	823-3641	
	QUALITY CNCRTE CNST	239-4412	4
8832	SESSER EZRA J	823-5041	
8980	NORDELL TIMOTHY	823-1572	+5
9009	XXXX	00	
9081	BANDONI ROBERT	823-5652	0
9122	FIGUEIREDO CONSTR	239-2728	1
	FIGUEIREDO DAVID	239-2776	
9308	XXXX	00	
9336	XXXX	00	
9362	LEBLANC J	239-2239	+5
9717	RODRIGUEZ G	823-1925	6
9959	MAR RON DEN&CO INC	823-4595	1
9975	SHIPPERS IMPAL INC	239-4145	D
NO #	ARIZCUREN PETE	823-3749	
NO #	CROWN ZELLERBACH	823-2681	1
*	16 BUS 110 RES	21 NEW	

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

S MAIN ST 1985

807	XXXX	00	
815	BAUM GEORGE A	823-5057	8
821	XXXX	00	
907	XXXX	00	
915	LUIS ELMER	823-4690	7
925	CABRERA OARAYL	239-9426	7
1490	DURAO JACK	823-2913	2
1550	VIGIL PHILIP	599-6607	*5
1653	ELLIOTT GLENN	823-6600	4
1751	GATHERCOAL M S	239-6737	4
*	16 BUS 31 RES	6 NEW	

Target Street	Cross Street	Source
-	✓	Haines Criss-Cross Directory

E WOODWARD RD 1981

6511	MCKENZIE ASA	823-5812	5
6528	DAHLSEID RON	823-9129	0
6549	XXXX	00	
6572	MCCOMB LLOYD	823-2912	
6575	ESPINOZA P	823-4628	
6606	FILECCIA F M	823-3402	
6643	SAND HENRY P JR	239-2242	9
6647	COLLINS DEARL B	823-5711	
6648	XXXX	00	
6728	XXXX	00	
6731	HERZFELD OTIS	823-5050	6
6770	ARIZCUREN JACK	823-2245	6
6793	XXXX	00	
6796	XXXX	00	
6860	LOOMIS JACK C	239-2268	4
6894	LIEL EDWIN	239-1740	4
6926	BROCCHINI ALDO	823-4624	
6945	PERRY FRANK	823-2946	
7000	BORDENKIRCHER DALE	823-3566	
7030	CAMARA TONY	823-4973	5
7114	HUNTER STEPHEN	823-8683	0
7201	FRY COLLETTE	823-9838	+1
	FRY PAUL G	823-2893	5
7208	XXXX	00	
7276	MANNING JOHN D	823-7531	7
7285	XXXX	00	
7385	AMAN NORMAN	239-2907	4
7402	HAHN&SON	823-5327	0
7485	CHAPMAN A D	823-5687	8
7550	XXXX	00	
8214	MARTINEZ A	823-0902	+1
8592	GUZMAN ALFONSO R	239-2556	6
	GUZMAN BENITO	239-2420	
8700	GOODWIN B F	823-2170	4
8744	ALBERS LARRY	239-4412	8
	MORSE ELSIE LEE	823-3641	
8800	CARDOZA MANUEL J	823-2349	
8832	SESSER EZRA J	823-5041	
9000	XXXX	00	
9009	FERREIRA TONY	239-2735	5
9037	XXXX	00	
9081	BANDONI ROBERT	823-5652	0
9117	XXXX	00	
9122	FIGUEIREDO CONSTR	239-2776	0
	FIGUEIREDO DAVID	239-2776	+1
9308	MORRIS DELMAR R	823-8888	9
9336	TOWNSEND THOMAS	239-3816	+1
9717	RODRIGUEZ G	823-1925	6
9727	XXXX	00	
9959	MAR RON DEN&CO INC	823-4595	+1
9975	SHIPPERS IMPRL INC	239-4145	0

Target Street	Cross Street	Source
-	✓	Haines Criss-Cross Directory

E WOODWARD RD 1977

6488	MORRIS FRED	823-8595	
6511	MCKENZIE ASA	823-5812	5
6549	XXXX	00	
6572	MCCOMB LLOYD	823-2912	
6575	ESPINOZA P	823-4628	
6606	FILECCIA F M	823-3402	
6643	SUMPTER ROBERT	823-7946	4
6647	COLLINS DEARL B	823-5711	
6648	BROWN C	823-3854	5
	BROWN JERRY R	823-7532	
6726	XXXX	00	
6728	*AAARDVARK CNCRT CTG	823-7968	6
	LEFLORE WILLIAM JR	823-7968	6
6731	HERZFELD OTIS	823-5050	6
6770	ARIZCUREN JACK	823-2245	6
6793	XXXX	00	
6796	XXXX	00	
6860	LOOMIS JACK C	239-2268	4
6894	LIEL EDWIN	239-1740	4
6926	BROCCHINI ALDO	823-4624	
6945	PERRY FRANK	823-2946	
7000	BORDENKIRCHER DALE	823-3566	
7030	CAMARA TONY	823-4973	5
7114	XXXX	00	
7201	FRY PAUL G	823-2893	5
7208	BOHL LESLIE	823-7000	5
7276	MANNING JOHN D	823-7531	+7
7285	XXXX	00	
7385	AMAN NORMAN	239-2907	4
7402	HAHN HAROLD	823-5327	5
7550	XXXX	00	
8214	BRAVO VICENTE	239-3473	+7
8592	GUZMAN ALFONSO R	239-2556	6
	GUZMAN BENITO	239-2420	
8700	GOODWIN B F	823-2170	4
8744	MORSE ELSIE LEE	823-3641	
8800	CARDOZA MANUEL J	823-2349	
8832	SESSER EZRA J	823-5041	
9000	BANDONI NELLO	823-5652	+7
9009	EDLER ERNEST	239-2576	6
	FERREIRA TONY	239-2735	5
9037	XXXX	00	
9117	XXXX	00	
9122	BANDONI KAREN	239-1761	+7
9308	BANNERT GRAYDON	823-7249	4
9717	RODRIGUEZ G	823-1925	6

Target Street	Cross Street	Source
-	✓	POLK DIRECTORY CO

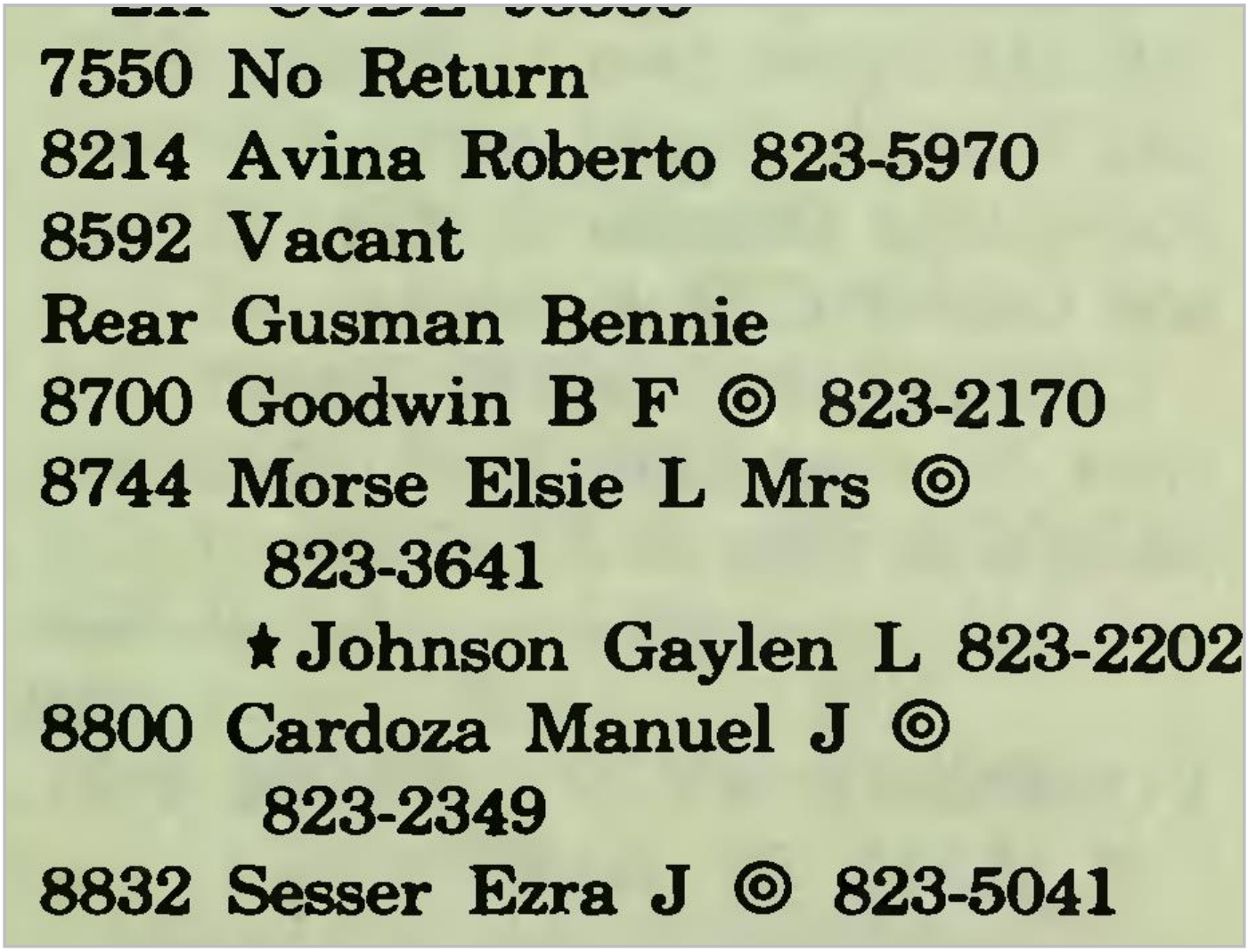
E WOODWARD RD 1973

6575 Vacant
6606 Fileccia Frances Mrs ◎
823-3402
6643 Sumpter Robt ◎ 823-7946
6647 Collins Dearl B ◎ 823-5711
6648 Brown Jerry R ◎ 823-7532
6726 Woodruff Rick
6680 Campbell Lester L ◎
6731 Medeiros John S
6793 Gillit Charles R ◎
TINNIN RD INTERSECTS
6796 Yee Richd D ◎
6860 ★ Loomis Jack C ◎ 239-2268
6894 ★ Liel Edwin C
6926 Rocchini Aldo ◎
6945 Perry Frank L R ◎
823-2946
7000 Bordenkircher Dale E ◎
823-3566
7030 ★ Camara Tony
7058 Eavenson Clarence D ◎
823-6440
7114 Pace Charles A ◎
7201 ★ Fry Paul G ◎ 823-1882
7285 ★ Killingsworth John ◎
239-1749
7385 ★ Aman Norman ◎ 239-2907

RESIDENTIAL / COMMERCIAL / APPRAISAL

Target Street	Cross Street	Source
-	✓	POLK DIRECTORY CO

E WOODWARD RD 1973



7550 No Return
8214 Avina Roberto 823-5970
8592 Vacant
Rear Gusman Bennie
8700 Goodwin B F ◎ 823-2170
8744 Morse Elsie L Mrs ◎
823-3641
★Johnson Gaylen L 823-2202
8800 Cardoza Manuel J ◎
823-2349
8832 Sesser Ezra J ◎ 823-5041

Target Street	Cross Street	Source
-	✓	POLK DIRECTORY CO

E WOODWARD RD 1968

6606 FILECCIA FRANCES MRS
● 823-3402
6643 NUNES WM ● 823-6319
6648 BROWN JERRY R ●
823-7532
6726 MEDINA LAURANCE A JR
823-6660
6728 FURTADA EDW E ●
823-2934
6680 CAMPBELL LESTER L ●
823-2942
6731 MEDEIROS JOHN S
823-5801
6793 GILLIT CHARLES R ●
823-2952
---S UNION RD INTERSECTS
6796 YEE RICHD D ●
823-5141
6860 COTRELL ROBT J ●
823-2933
6894 NO RETURN
6926 ROCCHINI ALDO ●
823-4624
6945 PERRY FRANK L R ●
823-2946
7000 BORDENKIRCHER DALE E
● 823-3566
7030 ACQUISTAPACE DON J ●
823-6467
7058 EAVENSON CLARENCE D ●
823-6440
---TINNIN RD INTERSECTS
7114 STELLING JOHN ●
823-2944

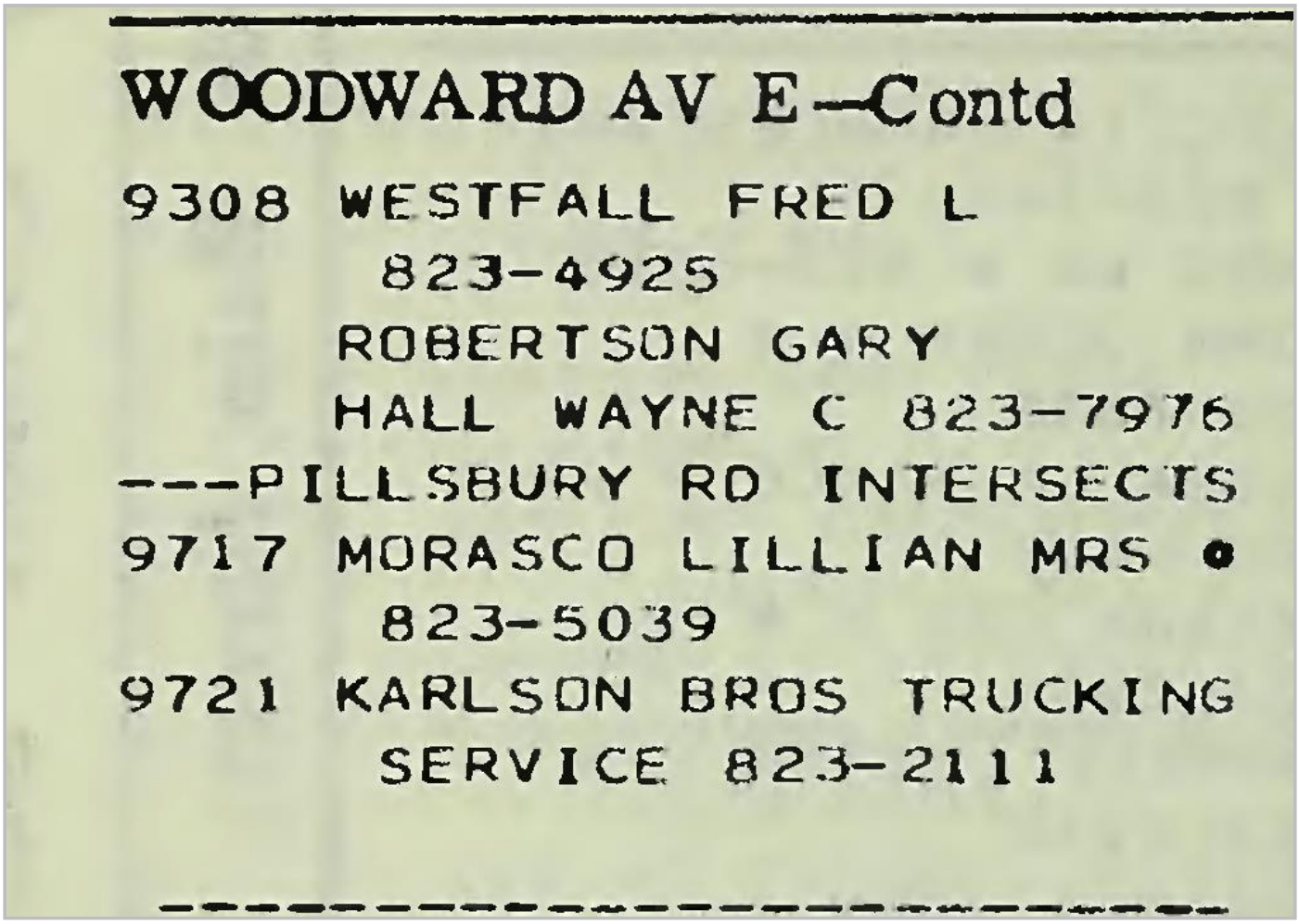
Target Street	Cross Street	Source
-	✓	POLK DIRECTORY CO

E WOODWARD RD 1968

7550 FRANCO G C
8214 SCHMIEDT ALAN G ⊙
823-6028
8592 AVINA OCTAVIO
823-6623
REAR GUSMAN BENNIE
8744 MORSE ELSIE L MRS ⊙
823-3641
8800 CARDOZA MANUEL J ⊙
823-2349
8832 SESSER EZRA J ⊙
823-5041
C & T ELECTRIC GOLF CART
REPR ⊙ 823-4800
---SPRECKELS RD INTERSECTS
9009 BOWDEN RICHD V
823-2712
9037 AHLERICH JOHN E

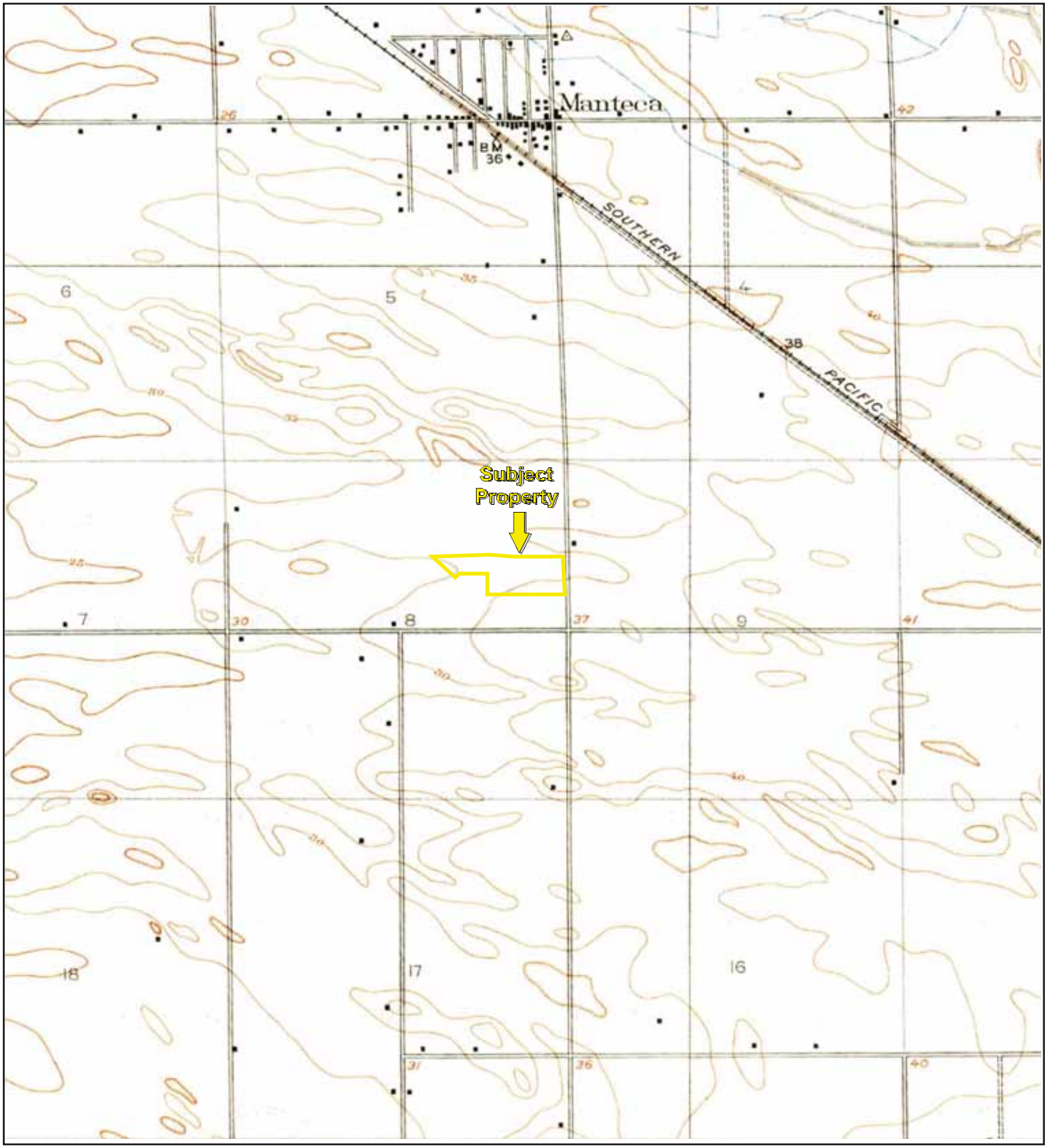
Target Street	Cross Street	Source
-	✓	POLK DIRECTORY CO

E WOODWARD RD 1968



WOODWARD AV E—Contd

9308 WESTFALL FRED L
823-4925
ROBERTSON GARY
HALL WAYNE C 823-7976
---PILLSBURY RD INTERSECTS
9717 MORASCO LILLIAN MRS
823-5039
9721 KARLSON BROS TRUCKING
SERVICE 823-2111

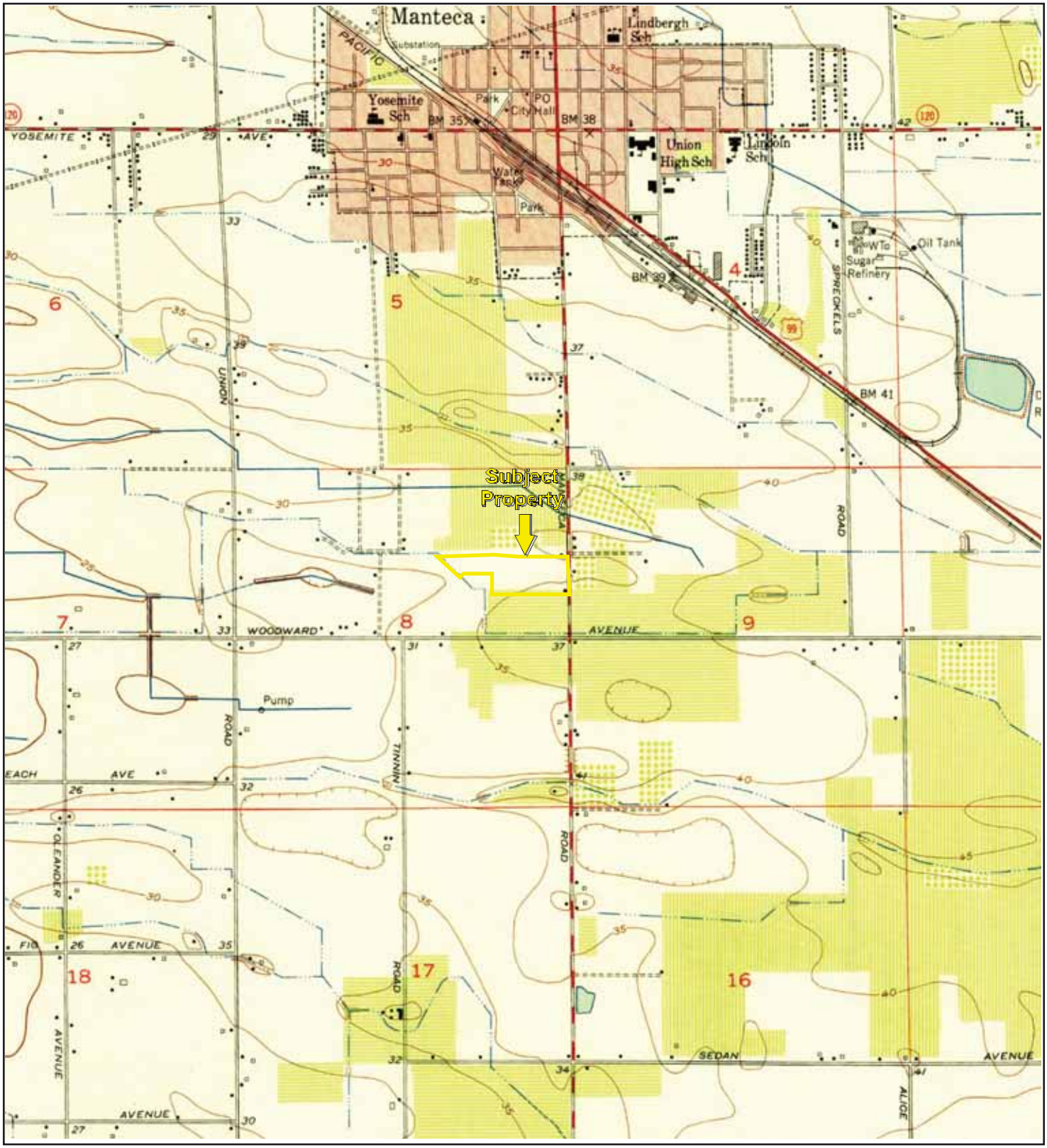


TP, Manteca, 1914, 7.5-minute

0 Miles 0.25 0.5 1 1.5

N

Key: Subject Property



TP, Manteca, 1952, 7.5-minute

0 Miles 0.25 0.5 1 1.5

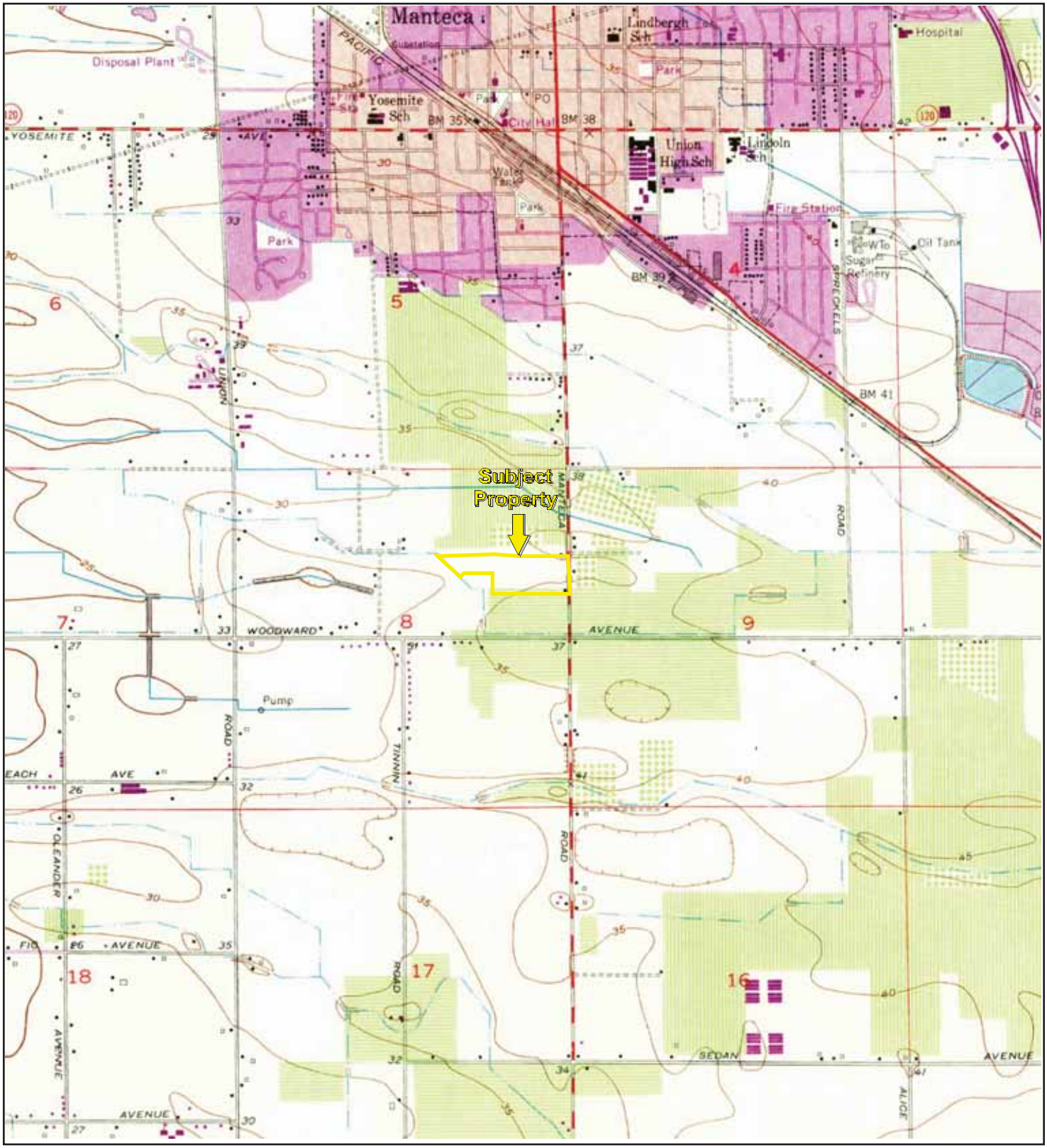
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Key: Subject Property

APPENDIX B: Topographic Maps

Project No. 21-329585.1

PARTNER

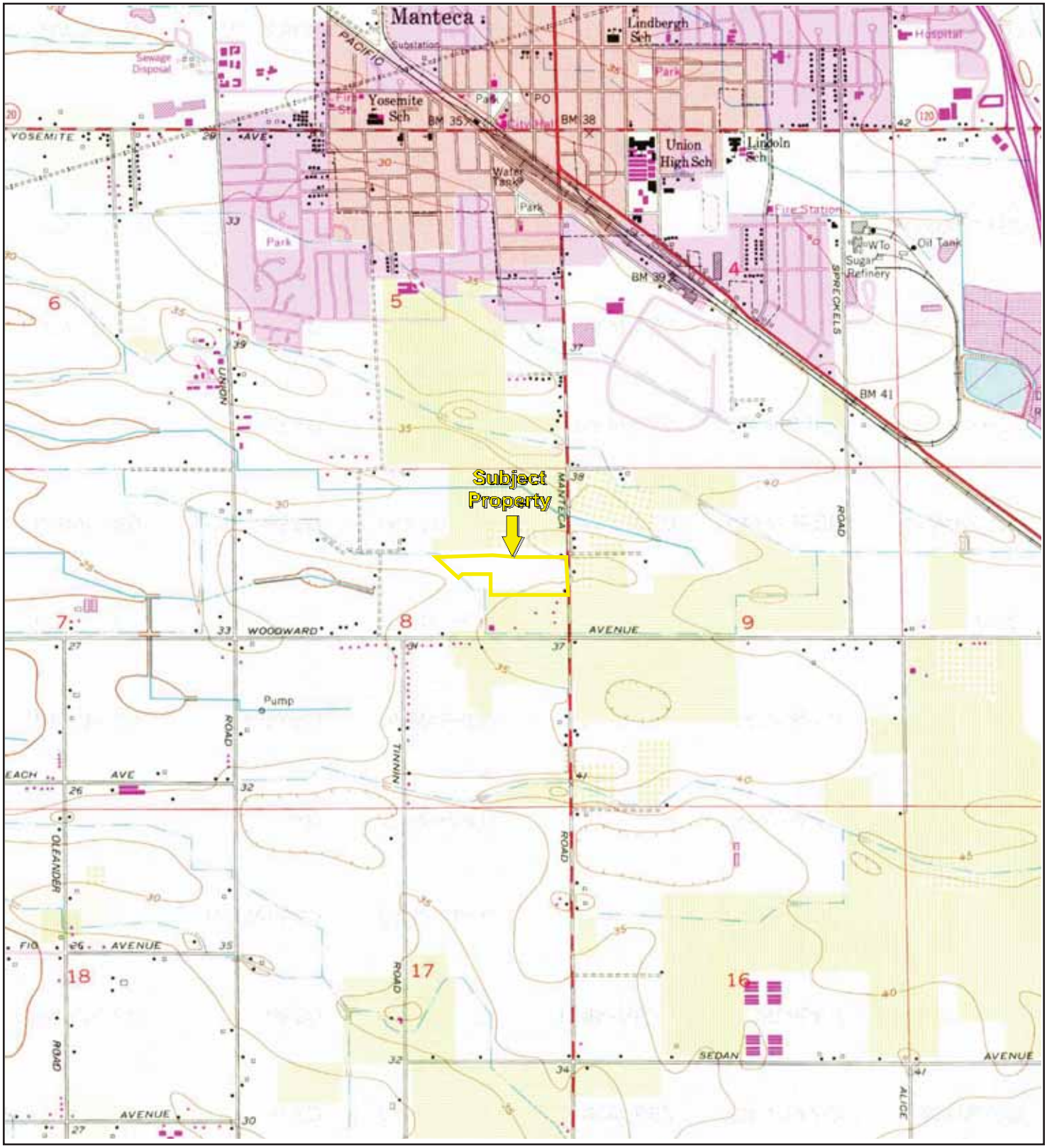


TP, Manteca, 1968, 7.5-minute

0 Miles 0.25 0.5 1 1.5

N

Key: Subject Property



TP, Manteca, 1976, 7.5-minute

0 Miles 0.25 0.5 1 1.5

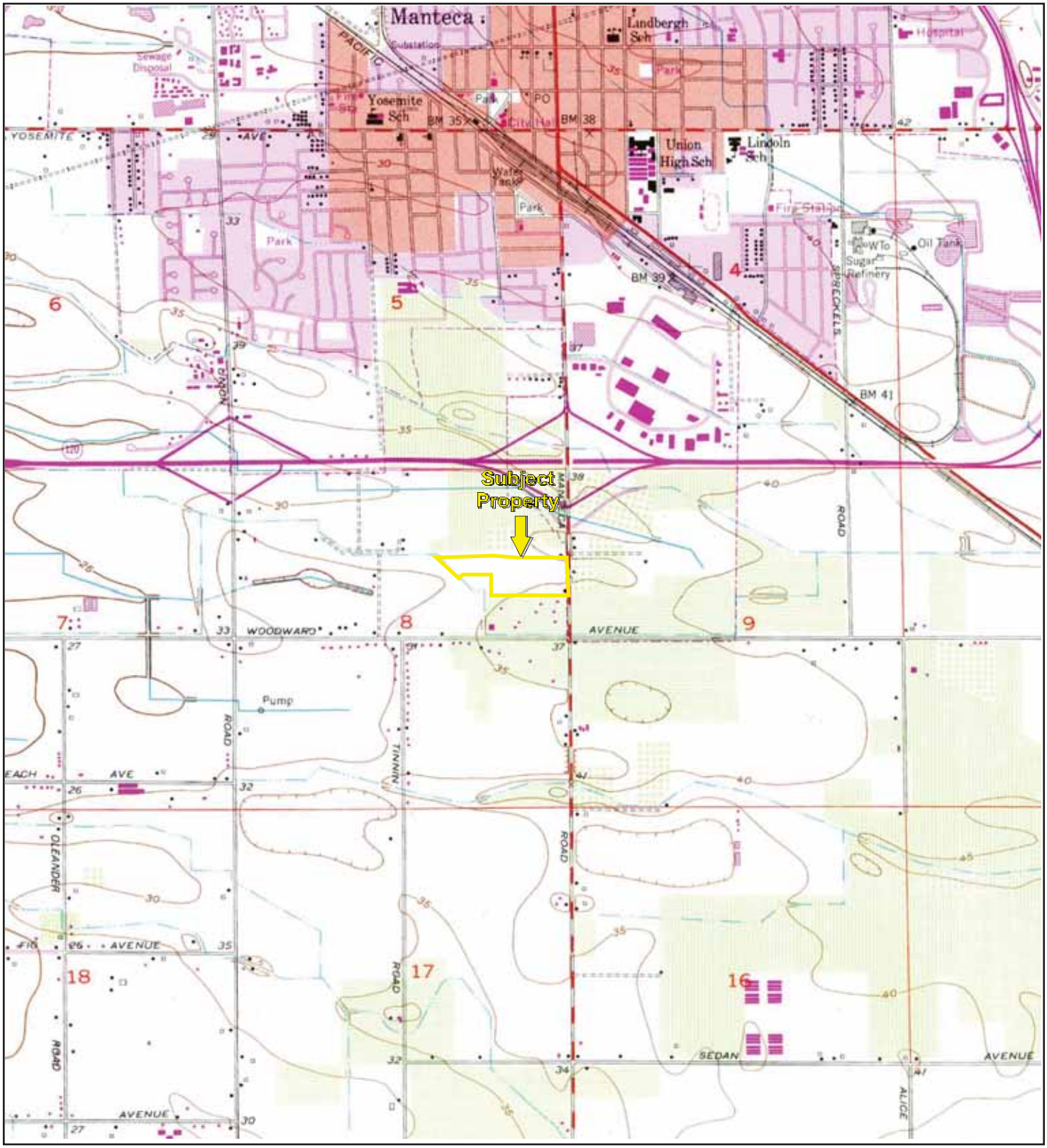
N

Key: Subject Property

APPENDIX B: Topographic Maps

Project No. 21-329585.1

PARTNER



TP, Manteca, 1987, 7.5-minute

0 Miles 0.25 0.5 1 1.5

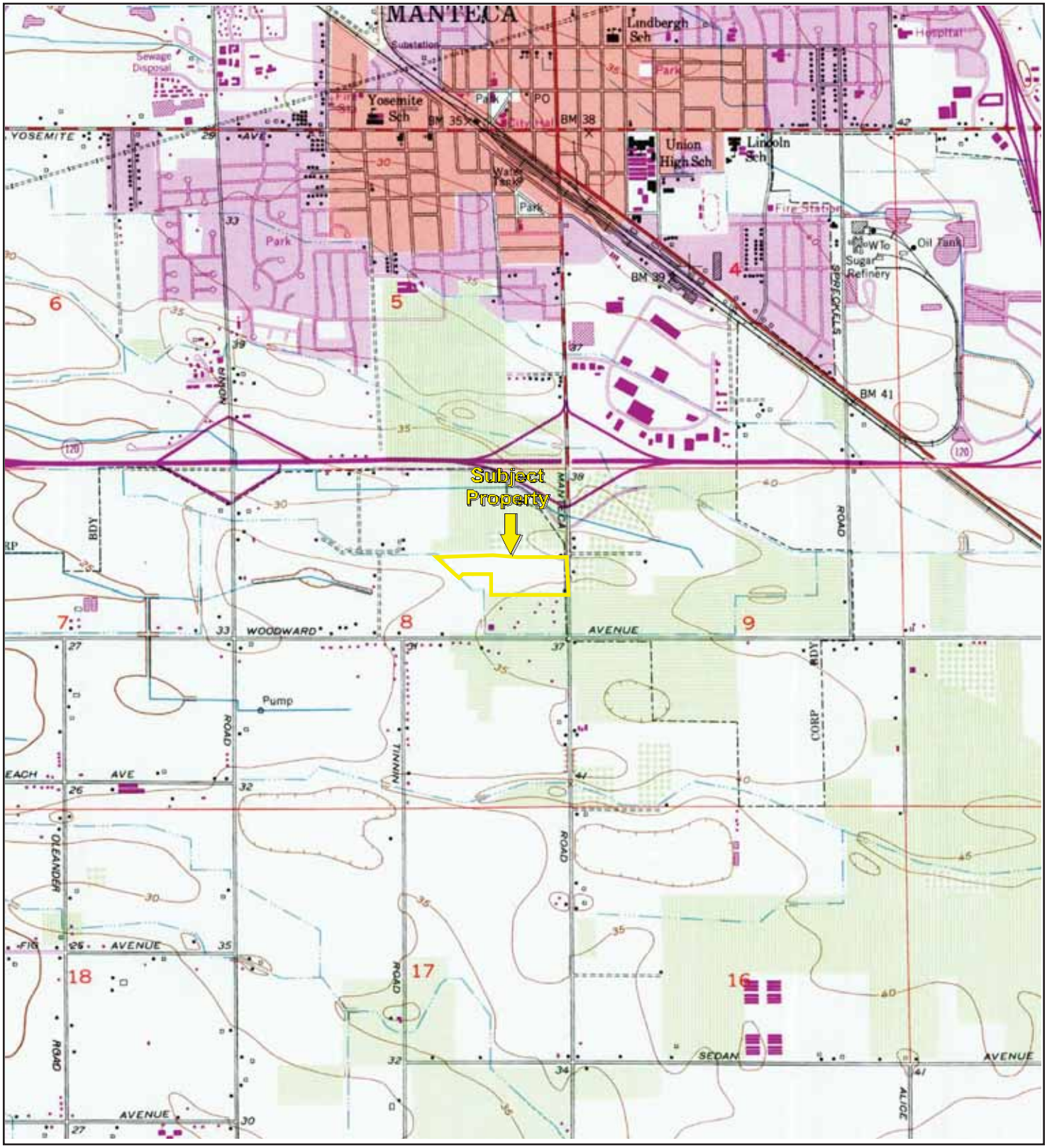
N

Key: Subject Property

APPENDIX B: Topographic Maps

Project No. 21-329585.1

PARTNER



TP, Manteca, 1991, 7.5-minute

0 Miles 0.25 0.5 1 1.5

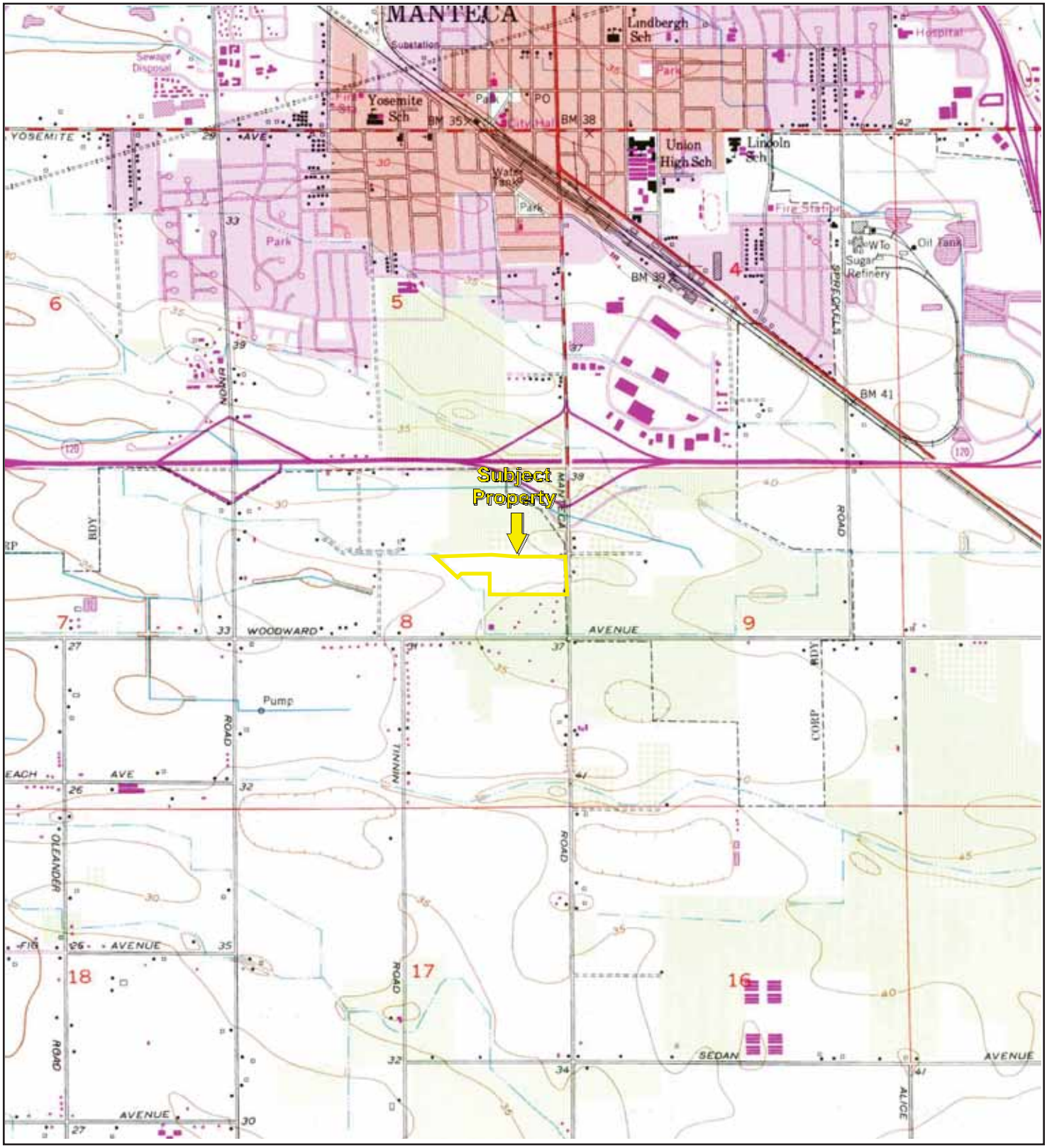
N

Key: Subject Property

APPENDIX B: Topographic Maps

Project No. 21-329585.1

PARTNER



TP, Manteca, 1994, 7.5-minute

0 Miles 0.25 0.5 1 1.5

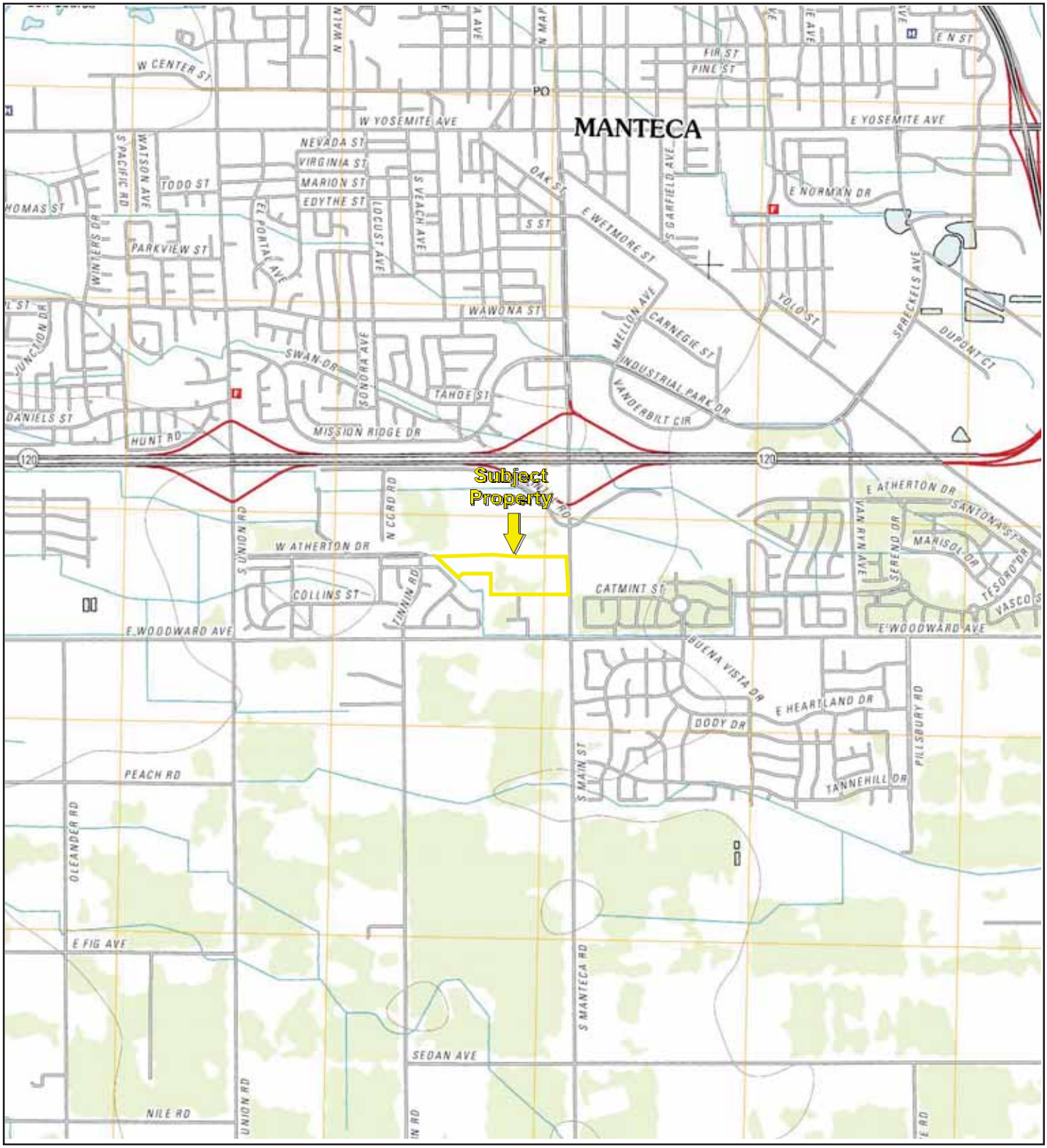
N

Key: Subject Property

APPENDIX B: Topographic Maps

Project No. 21-329585.1

PARTNER



TP, Manteca, 2012, 7.5-minute

0 Miles 0.25 0.5 1 1.5

N

Key: Subject Property

APPENDIX B: Topographic Maps

Project No. 21-329585.1

Initial Scan 3-3-17 DSM

P √ E

WELL/PUMP PERMIT

SAN JOAQUIN COUNTY ENVIRONMENTAL HEALTH DEPARTMENT — 1868 EAST HAZELTON AVENUE - STOCKTON CA 95205 - (209) 468-3420

NON-REFUNDABLE PERMIT — **CALL (209) 953-7697 FOR INSPECTIONS** — **EXPIRES 1 YEAR FROM DATE ISSUED**

SITE ADDRESS:

JOB ADDRESS 1601 S. Main Street — CITY/ZIP Manteca, CA 95337

CROSS STREET W. Atherton — APN 224-021-47 — PARCEL SIZE 18.4 — LAND USE APPLICATION #

OWNER NAME Pacific Development — PHONE 949 760-8591

OWNER ADDRESS PO Box 3060 Newport Beach — CITY/STATE/ZIP Newport Beach

CONTRACTOR West Coast Exploration — PHONE 985-7541

CONTRACTOR ADDRESS P.O. Box 133 — CITY/STATE/ZIP Escalon, CA 95320

SUBCONTRACTOR N/A — PHONE 985-7541

SUBCONTRACTOR ADDRESS N/A — CITY/STATE/ZIP —

LICENSE ☒C-57 ☐C-61 ☐D-09 ☐Other — NUMBER 870761 — EXPIRATION DATE

DOMESTIC WELL SAMPLING: ☐General Mineral/Coliform Bacteria (4391) ☐Dibromochloropropane (4392) ☐Arsenic (4393)

INTENDED USE ☒Domestic/Private ☐Irrigation/Agricultural ☐Industrial ☐Water Quality Monitoring ☐Soil Sampling/Characterization
☐Public Water System If different from Owner: ____ (Water System Name) ____ (Contact Name or Phone Number)

TYPE OF WORK ☐New Well ☐Replacement Well ☐Well Alteration/Modification ☐Other ____
☐Monitoring Well(s) ____ # of wells ☒Soil Boring(s) 7 # of borings ☐Geotechnical ____ # of borings
☐Out-Of-Service Well ☐Out-Of-Service Well Renewal ☐Cross-Connection Repair
☐New Pump ☐Pump Replacement ☐Pump Repair ☐Raise Well Casing

WELL CONSTRUCTION

Drilling Method ☐Mud Rotary ☐Air Rotary ☒Auger ☐Cable Tool ☐Push Point ☐Other ____

Proposed Well Depth 20-30 ft Excavation 4 in diameter ☐Open Bottom ☐Gravel Pack/Gravel Size ____ in diameter
☐Conductor Casing ____ in diameter / Conductor Casing Depth ____ ft

Well Casing Diameter ____ in Thickness/Gauge/ASTM Sched ____ ☐Steel ☐Plastic ☐Stainless Steel ☐Other ____

Grout Seal Depth 20-30 ft ☐Neat Cement *(94 lb bag/5-10 gal water)* ☐Sand Cement ____ *sack mix*/7 gal water
☒Bentonite (20% solids) ☐Other ____

Grout Placement Method ☒Pumped ☐Free Fall ☐Other ____ ☐Retardant / Accelerator (name) ____

PEDESTAL **Installed By** ☐Driller ☐Pump Contractor ☐ Other ____
☐**Concrete Pedestal** ☐**Dimensions**: Width ____ ft Length ____ ft Thick ____ in ☐**Christy Box** ☐**Stove Pipe**

PUMP ☐Submersible ☐Turbine ☐Other ____ HP ____ Pump Set ____ ft Standing Water Level ____ ft

I HEREBY CERTIFY THAT I HAVE PREPARED THIS APPLICATION AND THAT THE WORK WILL BE DONE IN ACCORDANCE WITH SAN JOAQUIN COUNTY ORDINANCES, STATE LAWS, AND RULES AND REGULATIONS. I ALSO CERTIFY THAT MY REQUIRED LICENSE IS CURRENT AND ACTIVE WITH THE CALIFORNIA CONTRACTORS STATE LICENSE BOARD AND THAT I AM IN COMPLIANCE WITH ALL WORKERS COMPENSATION LAWS.

MINIMUM 24 HOUR ADVANCE NOTICE REQUIRED FOR INSPECTIONS - PLEASE CALL (209) 953-7697

SIGNED ____ TITLE Vice President DATE 2/24/2017

See ATTached Site MAP

PAYMENT RECEIVED MAR 03 2017 SAN JOAQUIN COUNTY ENVIRONMENTAL HEALTH DEPARTMENT

DEPARTMENT USE ONLY

Application Accepted By ____ Date ~~2/24/17~~ 3/2/17 Area 5/MANT Employee ID# TASioporlos

Grout Inspection By ____ Date ____ ☐ **SPECIAL Well Permit**

Pump Inspection By ____ Date ____ ☐ **WAIVER Received**

Soil Boring Inspection By ____ Date ____ **Constructed Well Depth** ____ ft

COMMENTS ____

PE Codes	SC Info	Received By	Check# / Cash	Amount Remitted	Date	Permit/ Service Request #	Invoice #	Well ID#
4312	150	MD	8125	399.00	3/3/17	SR0076875		

JOB ADDRESS: _____ **PERMIT #:** _____

LICENSED CONTRACTORS DECLARATION

I hereby affirm that I am licensed under the provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code and my license is in full force and effect.

License # _____ **Expiration Date** _____

Date _____ **Contractor** _____

OWNER-BUILDER DECLARATION

I hereby affirm that I am exempt from the Contractor's License Law for the following reason (Section 7031.5, Business and Professions Code: Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he is licensed pursuant to the provisions of the Contractor's License Law (Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code) or that he is exempt herefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500)):

☐ I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Section 7044, Business and Professions Code: The contractor's License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or through his own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he did not build or improve for the purpose of sale.)

☐ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Section 7044, Business and Professions Code (B&PC): The Contractor's License Law does not apply to an owner of property who builds or improves hereon, and who constructs for such projects with a contractor(s) licensed pursuant to the Contractor's License Law.)

☐ I am exempt under Section _____, B&PC for this reason _____

_____

Date: _____ **Owner** _____

WORKERS' COMPENSATION DECLARATION

I hereby affirm that I have a certificate of consent to self-insure or a certificate of Workers' Compensation Insurance, or a certified copy thereof (Section 3800, Labor Code).

Expiration Date _____ **Company** _____

☐ Certified copy is hereby furnished

☐ Certified copy is filed with the Environmental Health Department

CERTIFICATE OF EXEMPTION FROM WORKERS' COMPENSATION INSURANCE

(This section need not be completed if the permit is for one hundred dollars ($100) or less)

I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Workers' Compensation Laws of California.

Date: _____ **Applicant** _____

NOTICE TO APPLICANT: If, after making this Certificate of Exemption, you should become subject to the Workers' Compensation provisions of the Labor Code, you must forthwith comply with such provisions or this permit shall be deemed revoked.

CONSTRUCTION LENDING AGENCY

I hereby affirm that there is a construction lending agency for the performance of the work for which this permit is issued (Section 3097, Civil Code).

Lender's Name _____

Lender's Address _____

DIVISION OF INDUSTRIAL SAFETY PERMIT CERTIFICATION

☐ I hereby certify that no excavation five (5) or more feet in depth into which a person is required to descend, will be made in connection with work authorized by the permit, and that no building structure, scaffolding, falsework, or demolition or dismantling thereof, will be more than thirty-six (36) feet high. (Chapter 3.2, Group 2, Article 2, Section 341, Title 8, California Administrative Code).

☐ As owner-builder, I will not employ anyone to do work which would require a permit from the Division of Industrial Safety, as noted above, unless such person has a permit to do such work from the division.

☐ Division of Industrial Safety Permit # _____

I certify that I have read this application and state that the above information is correct. I agree to comply with all city and county ordinances and state laws relating to well construction and or sewage system construction, and hereby authorize representatives of this county to enter upon the above-mentioned property for inspection purposes.

Date _____ **Applicant** _____

TE CA

Job Address: 1601 S. Main St. W. Atherton Dr. Manteca

- TE Cal, Inc.



San Joaquin County Environmental Health Department

WELL & BORING PERMIT APPLICATION SUPPLEMENTAL

JOB ADDRESS: _____ PERMIT SR #: _____

LICENSED CONTRACTORS DECLARATION

I hereby affirm that I am licensed under the provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the California Business and Professions Code and my license is in full force and effect.

Contractor Name: West Coast Exploration, Inc

License #: 870761 Expiration Date: 1/31/2018

Signature: _____ Title: Owner

Print Name: Andrew Hernandez Date: 2/14/17

WORKERS' COMPENSATION DECLARATION

I hereby affirm under penalty of perjury one of the following declarations: (check one)

☐ I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

☐ I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy numbers are:

Carrier: _____ Policy #: _____ Exp. Date: _____

I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation law of California, and agree that if I should become subject to workers' compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions.

Signature: _____

Print Name: Andrew Hernandez

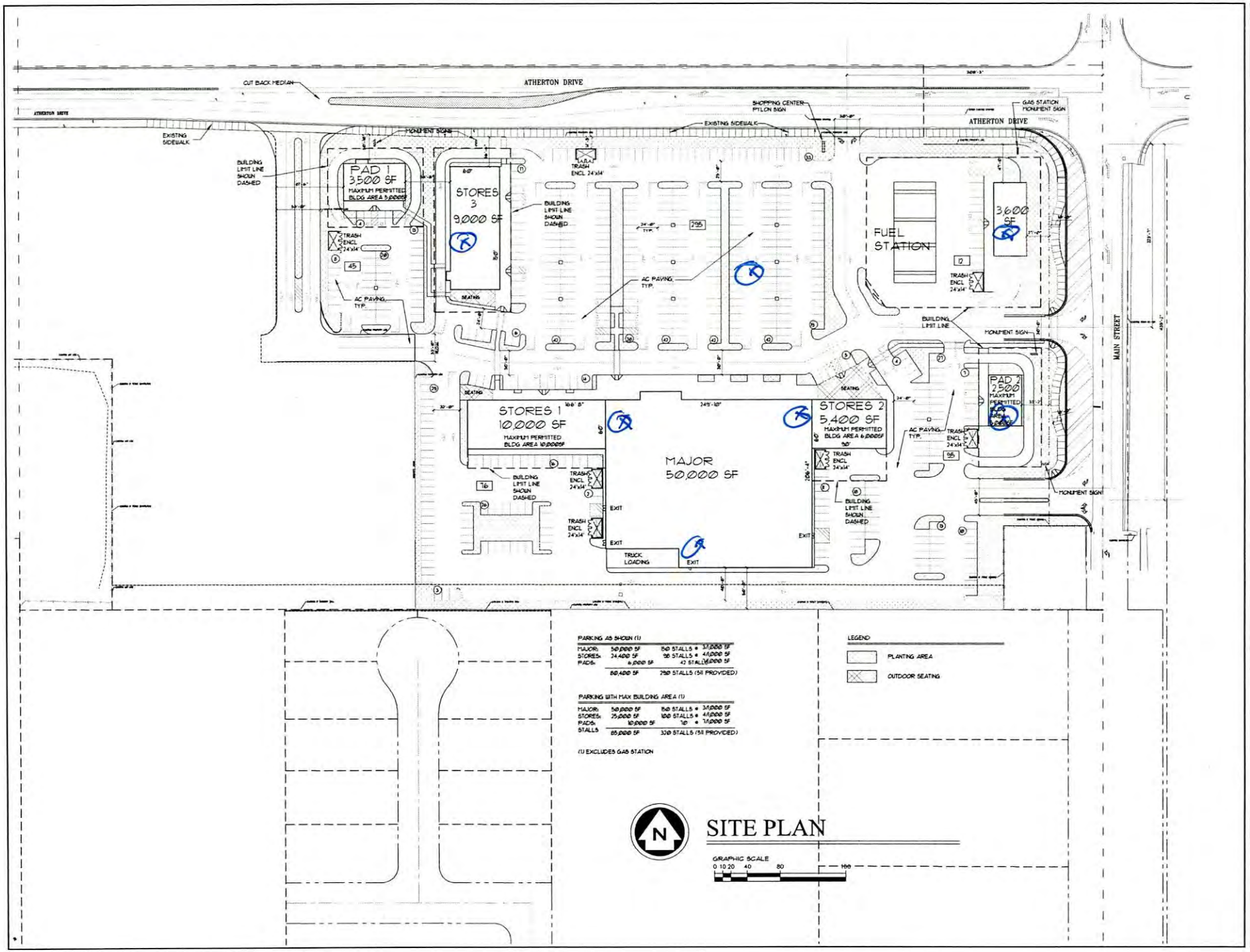
WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO $100,000, IN ADDITION TO THE COST OF COMPENSATION, INTEREST, ATTORNEY'S FEES, AND DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE

AUTHORIZATION FOR OTHER THAN C-57 SIGNING PERMIT APPLICATION

I, Andrew Hernandez, hereby authorize CTE Inc and employee's
(Name of C-57 Licensed Authorized Representative) (Print Name of Authorized Agent)

to sign this San Joaquin County Well & Boring Permit Application on my behalf. I understand this authorization is valid for one year and is limited to the work plan dated on the front page of this application.

_____
(Signature of C-57 Licensed Authorized Representative)



PARKING AS SHOWN (1)

MAJOR:	50,000 SF	250 STALLS @ 1/200 SF
STORES:	24,400 SF	98 STALLS @ 1/250 SF
PADS:	6,000 SF	42 STALLS @ 1/150 SF
	80,400 SF	290 STALLS (58 PROVIDED)

PARKING WITH MAX BUILDING AREA (1)

MAJOR:	50,000 SF	250 STALLS @ 1/200 SF
STORES:	25,000 SF	100 STALLS @ 1/250 SF
PADS:	10,000 SF	70 @ 1/150 SF
STALLS	85,000 SF	320 STALLS (58 PROVIDED)

(1) EXCLUDES GAS STATION

LEGEND

PLANTING AREA

OUTDOOR SEATING

SITE PLAN

GRAPHIC SCALE

0 10 20 40 80 160

REVISION:

JOB TITLE:
MANTECA
COMMERCIAL DEVELOPMENT
WEST ATHERTON DR. & SOUTH MAIN ST. MANTECA, CA

OWNER:
PACIFIC DEVELOPMENT GROUP II
P.O. BOX 3040
NEWPORT BEACH, CA 92658

SHEET TITLE:
NEW SITE PLAN

CHK BY:

DATE: 10-24-16

SHEET:
SW1

Oretsky, Z

From: Oretsky, Z
Sent: Friday, July 16, 2021 9:15 AM
To: fire@mantecafire.org
Subject: Public Records Request

Hello,

We would like to review any UST, HAZMAT, AST, dry-cleaning operations, septic tank systems, groundwater wells, chemical spills/cleanups, and soil/groundwater investigations for the following property addresses:

1601 S Main Street Manteca, CA
1669 S Main Street Manteca, CA
(APN – 224-021-470)
(APN – 224-021-300)

Thank you,

Zachary "Z" Oretsky, M.S.

Staff Scientist

PARTNER ENGINEERING AND SCIENCE, INC.
1544 Eureka Road, Roseville, CA 95661

C: 209-843-3567

More Than Just Assessments. *Solutions* – For a complete list of services, click here.

San Joaquin Valley
Air Pollution Control District
1990 E. Gettysburg Avenue, Fresno, CA 93726-0244
www.valleyair.org

Office Use Only
CONTROL NUMBER

PUBLIC RECORDS REQUEST FORM

ATTENTION REQUESTOR: To expedite your request for District records, please fill out this form completely. Identify specifically the type of records you are requesting. Please limit your request to one facility or site address for each request form filed. Additional forms or pages may be used if requesting information for more than one facility or site address. Requests should reasonably describe identifiable records prepared, owned, used or retained by the District. District staff is available to assist you in identifying those records on the District's possession. The District is not required by law to create a new record or list from an existing record. By submission of this form I hereby agree to reimburse the District for the direct cost of duplicating the requested records in accordance with Gov. Code Sec. 6253(b).

REQUESTOR INFORMATION

NAME: Zachary Oretsky DATE: 07/19/2021
COMPANY: Partner Engineering and Science, Inc.
MAILING ADDRESS: 1544 Eureka Road, Suite 180
CITY: Manteca STATE: California ZIP CODE: 95661
PHONE #: (209) 843-3567 FAX #: EMAIL: zoretsky@partneresi.com

DOCUMENTS REQUESTED

- ☐ Permit Application(s)
- ■ Permit(s) to Operate
- ☐ Authorities to Construct
- ☐ Engineering Evaluations
- ☐ Emissions Inventory Statement(s)
- ☐ Health Risk Assessment(s)
- ☐ New School Site Review (Toxic Sources within ¼ mile)
- ■ Site Inspection Report(s)
- ☐ Source Test Report(s)
- ■ Complaint Investigation Report(s)
- ■ Enforcement Action(s)
- ☐ Asbestos Notification(s)/Record(s)
- ☐ Air Monitoring Data
- ☐ Other (*please detail below*)

If requesting any records not listed above, please describe below in detail. If you need assistance, please call (559) 230-6000.

DATE OF DOCUMENTS REQUESTED: From: To:

FACILITY/ADDRESS FOR WHICH INFORMATION IS REQUESTED (*If Applicable*)

FACILITY NAME: APN 224-021-470; 224-021-300 FACILITY ID # (*if known*):
FACILITY ADDRESS: 1601 South Main Street; 1669 South Main Street
CITY: Manteca STATE: California ZIP CODE: 95337

METHOD OF DELIVERY (*Check all that apply*)

- ☐ Pick Up
- ☐ US Mail
- ☐ FAX (Max 30 pages)
- ☐ CD/DVD
- ■ Email (Max 5 MB)
- ☐ Other:
- ☐ Inspection of records only, no copies required (District will contact you to setup up an appointment to view records)

■ I request that the District contact me prior to completing the records request if the cost exceeds $ 50

Oretsky, Z

From: Theresa Haywood <Theresa.Haywood@valleyair.org>
Sent: Wednesday, July 21, 2021 11:16 AM
To: Oretsky, Z
Subject: Public Records Request N-2021-7-5; APN: 224-021-470; 224-021-300

July 21, 2021

Zachary Oretsky
Partner Engineering and Science Inc.
1544 Eureka Road
Roseville, CA 95661

SUBJECT: Public Records Request
LOCATION: 1601 & 1669 S Main St, Manteca

Dear Zachary Oretsky:

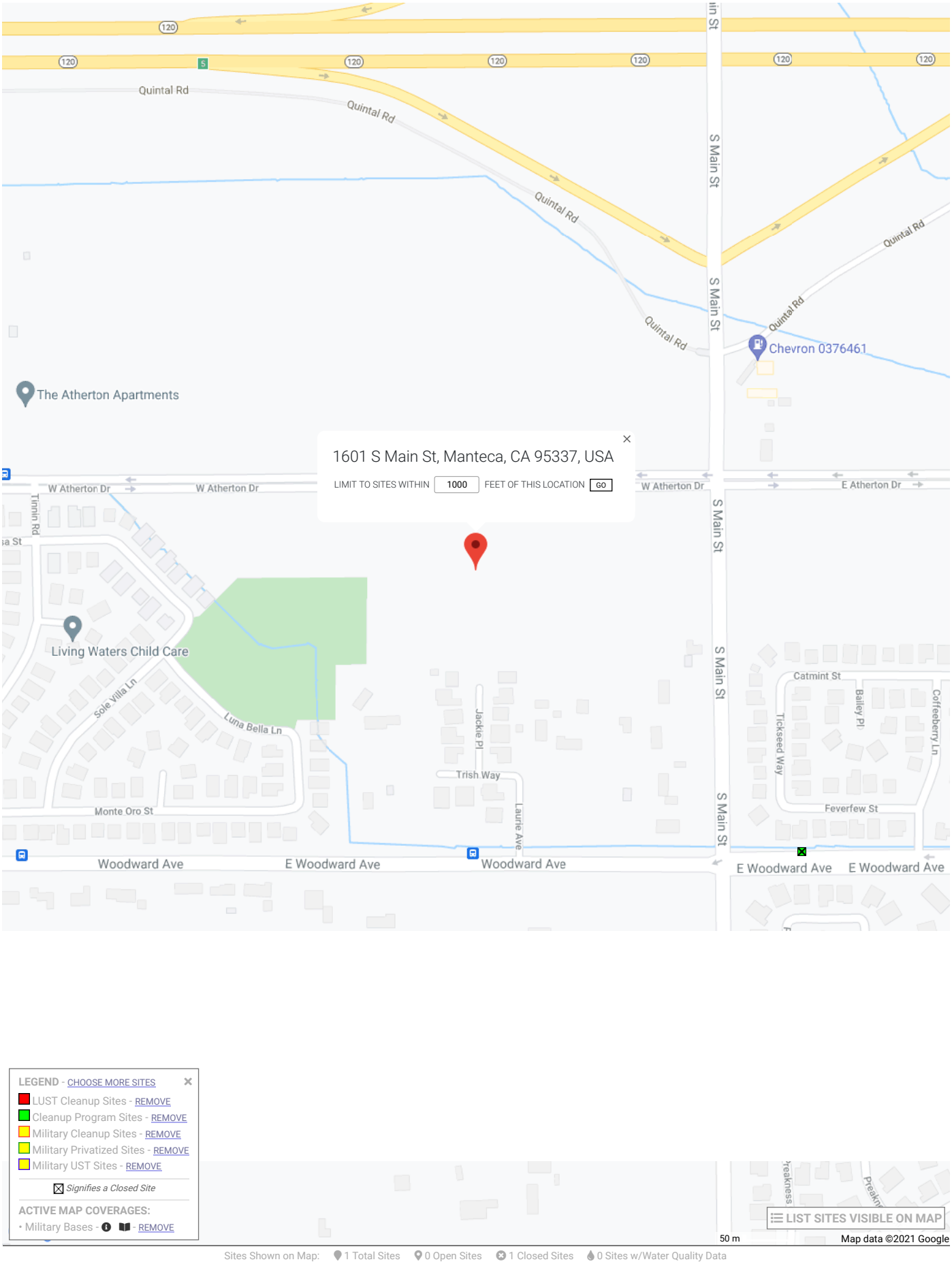
The District has processed your request for information regarding the above mentioned site address/location. A search of the District's databases has returned no records on file for this location.

If you have any questions, or need additional information, please contact me at the number below.

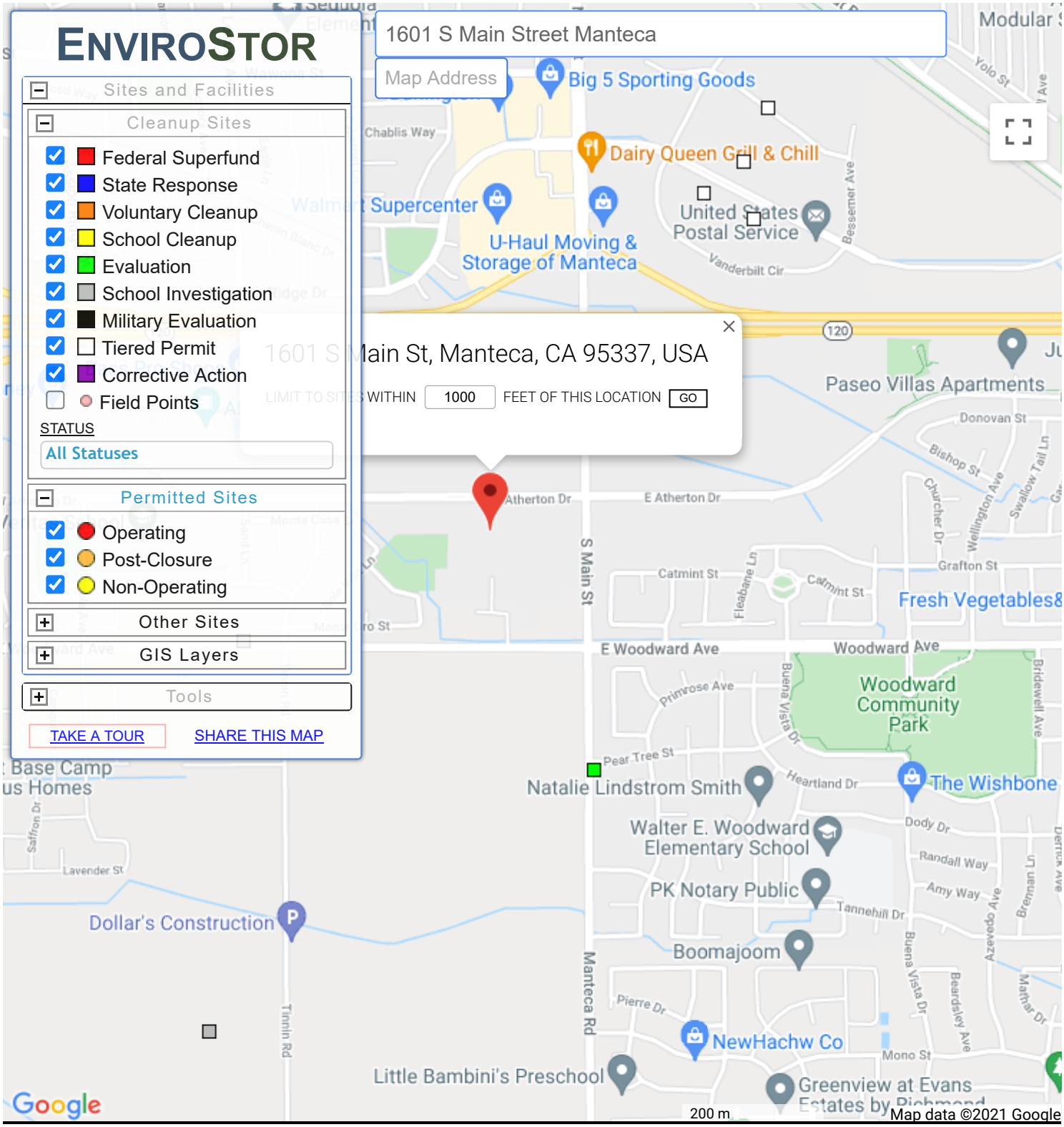
Respectfully,

Theresa Haywood
Senior Office Assistant
San Joaquin Valley
Air Pollution Control District
4800 Enterprise Way
Modesto, CA 95356.8718
Phone: (209) 557.6406
Fax: (209) 557.6475
Theresa.Haywood@valleyair.org Service * Teamwork * Attitude * Respect

Search for a Project | Search for an Address | Home | Download Data | Tools | Contact Us

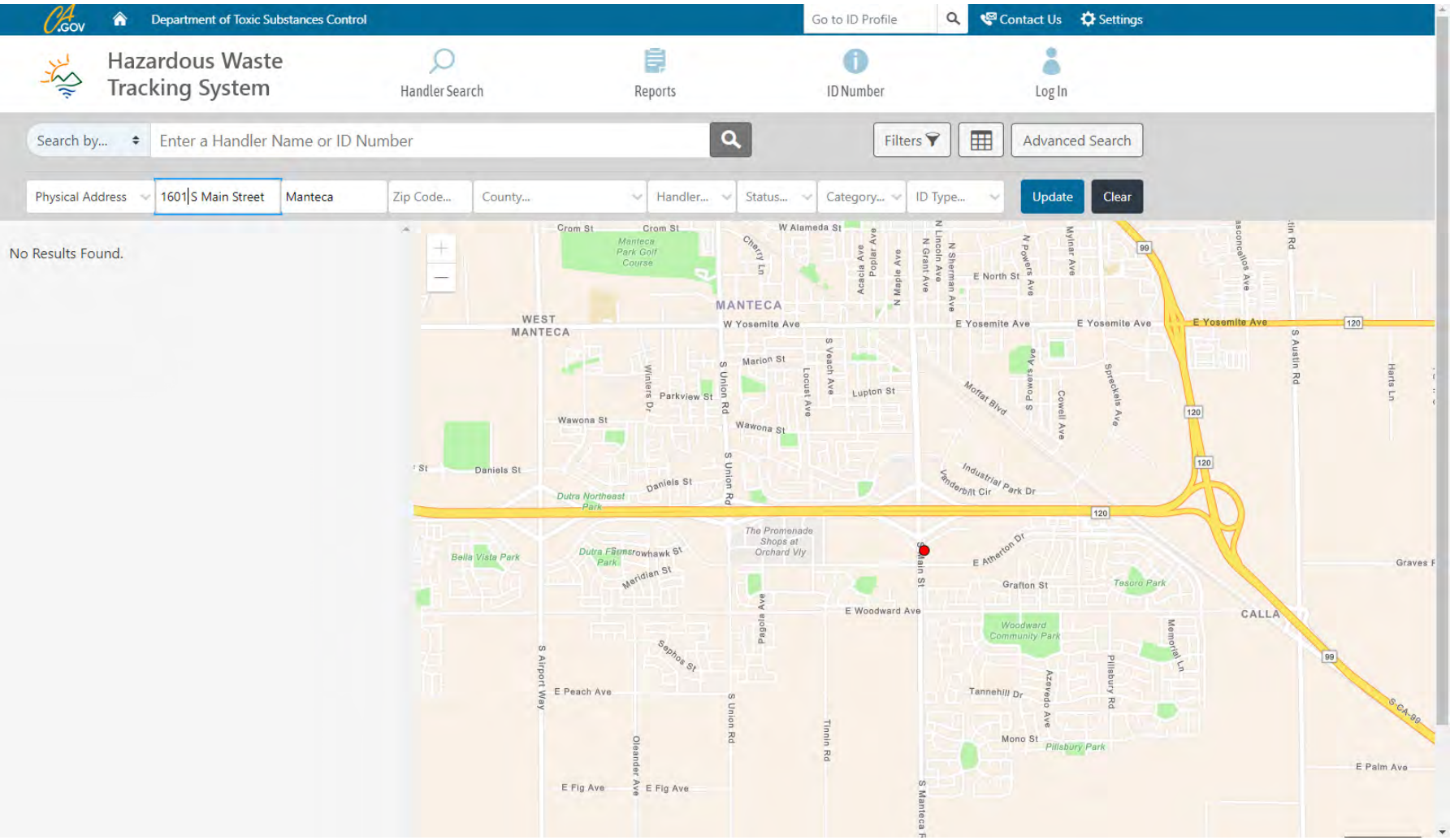


Sites Shown on Map: 1 Total Sites | 0 Open Sites | 1 Closed Sites | 0 Sites w/Water Quality Data



SITES CURRENTLY VISIBLE ON MAP — 11 SITES LISTED — EXPORT THIS LIST TO EXCEL

PROJECT NAME	STATUS	PROJECT TYPE	ADDRESS	CITY
ADVANCED TECH INTERCONNECT, INC.	NO FURTHER ACTION	TIERED PERMIT	555 CARNEGIE STREET	MANTECA
GORDON RESEARCH COMPANY	CERTIFIED	STATE RESPONSE	1085 SOUTH UNION ROAD	MANTECA
ISE LABS, INC., ASSEMBLY OPERATIONS	INACTIVE - NEEDS EVALUATION	TIERED PERMIT	400 INDUSTRIAL PARK DRIVE	MANTECA
NUR-AL-HUDA ACADEMY	CERTIFIED	STATE RESPONSE	1085 SOUTH UNION ROAD	MANTECA
OLIN INTERCONNECT TECHNOLOGIES	NO FURTHER ACTION	TIERED PERMIT	544 INDUSTRIAL PARK DRIVE	MANTECA
PROPOSED SOUTH MANTECA HIGH SCHOOL	NO FURTHER ACTION	SCHOOL INVESTIGATION	21143 S. TINNIN ROAD	MANTECA
QUALEX, INC. - MANTECA	INACTIVE - NEEDS EVALUATION	TIERED PERMIT	555 INDUSTRIAL PARK DRIVE	MANTECA


Department of Toxic Substances Control
Go to ID Profile
Contact Us
Settings
Hazardous Waste Tracking System
Handler Search
Reports
ID Number
Log In
Search by...
Enter a Handler Name or ID Number
Filters
Advanced Search
Physical Address
1601 S Main Street
Manteca
Zip Code...
County...
Handler...
Status...
Category...
ID Type...
Update
Clear
No Results Found.
MANTECA
WEST MANTECA
CALLA
W Yosemite Ave
E Yosemite Ave
E North St
W Alameda St
Crom St
Manteca Park Golf Course
Marion St
Parkview St
Wawona St
Daniels St
Lupton St
Moffat Blvd
Industrial Park Dr
Dutra Northeast Park
Dutra Farms
Bella Vista Park
The Promenade Shops at Orchard Vly
Meridian St
Grafton St
E Atherton Dr
E Woodward Ave
Tesoro Park
Woodward Community Park
Pillsbury Park
Sephos St
E Peach Ave
E Fig Ave
Tannehill Dr
Mono St
E Palm Ave
S Main St
S Union Rd
S Airport Way
Tinnin Rd
Pillsbury Rd
Memorial Ln
S Austin Rd
S CA-99
120
99

Oretsky, Z

From: Oretsky, Z
Sent: Friday, July 16, 2021 9:47 AM
To: Mayorcouncilclerk@ci.manteca.ca.us
Subject: Public Records Request

Hello,

We would like to review any building/demolitions permits and certificates of occupancy for the following property addresses:

1601 S Main Street Manteca, CA
1669 S Main Street Manteca, CA
APN – 224-021-470
APN – 224-021-300

Thank you,

Zachary "Z" Oretsky, M.S.

Staff Scientist

PARTNER ENGINEERING AND SCIENCE, INC.
1544 Eureka Road, Roseville, CA 95661

C: 209-843-3567

More Than Just Assessments. *Solutions* – For a complete list of services, click here.

Oretsky, Z

From: Nashed, Olivia <onashed@ci.manteca.ca.us>
Sent: Tuesday, July 20, 2021 8:25 AM
To: Oretsky, Z
Cc: MayorCouncilClerk
Subject: PRA 2021-156 1601& 1669 S. Main St - Closed

Good morning Zachary,

The City of Manteca is in receipt of your public records request for the following:

"…requesting any building/demolitions permits and certificates of occupancy for the following property addresses:

1601 S Main Street Manteca, CA
1669 S Main Street Manteca, CA
APN – 224-021-470
APN – 224-021-300"

The City of Manteca City Clerk's Office worked with the Development Services Department on your request. The Development Services Department has confirmed that there are no responsive records for your request.

City staff will now consider your request closed. Should you have any questions, please don't hesitate to contact me. Have a great day!

Thank you,

Olivia Nashed
Assistant Director of Legislative Services/Assistant City Clerk
City of Manteca | Office of the City Clerk
1001 W. Center St. | Manteca, CA 95337
Office: 209.456.8013 | Fax: 209.923.8960
www.mantecagov.com

From: Oretsky, Z <zoretsky@partneresi.com>
Sent: Friday, July 16, 2021 9:47 AM
To: MayorCouncilClerk <MayorCouncilClerk@ci.manteca.ca.us>
Subject: Public Records Request

Hello,

We would like to review any building/demolitions permits and certificates of occupancy for the following property addresses:

1601 S Main Street Manteca, CA
1669 S Main Street Manteca, CA
APN – 224-021-470
APN – 224-021-300

Thank you,

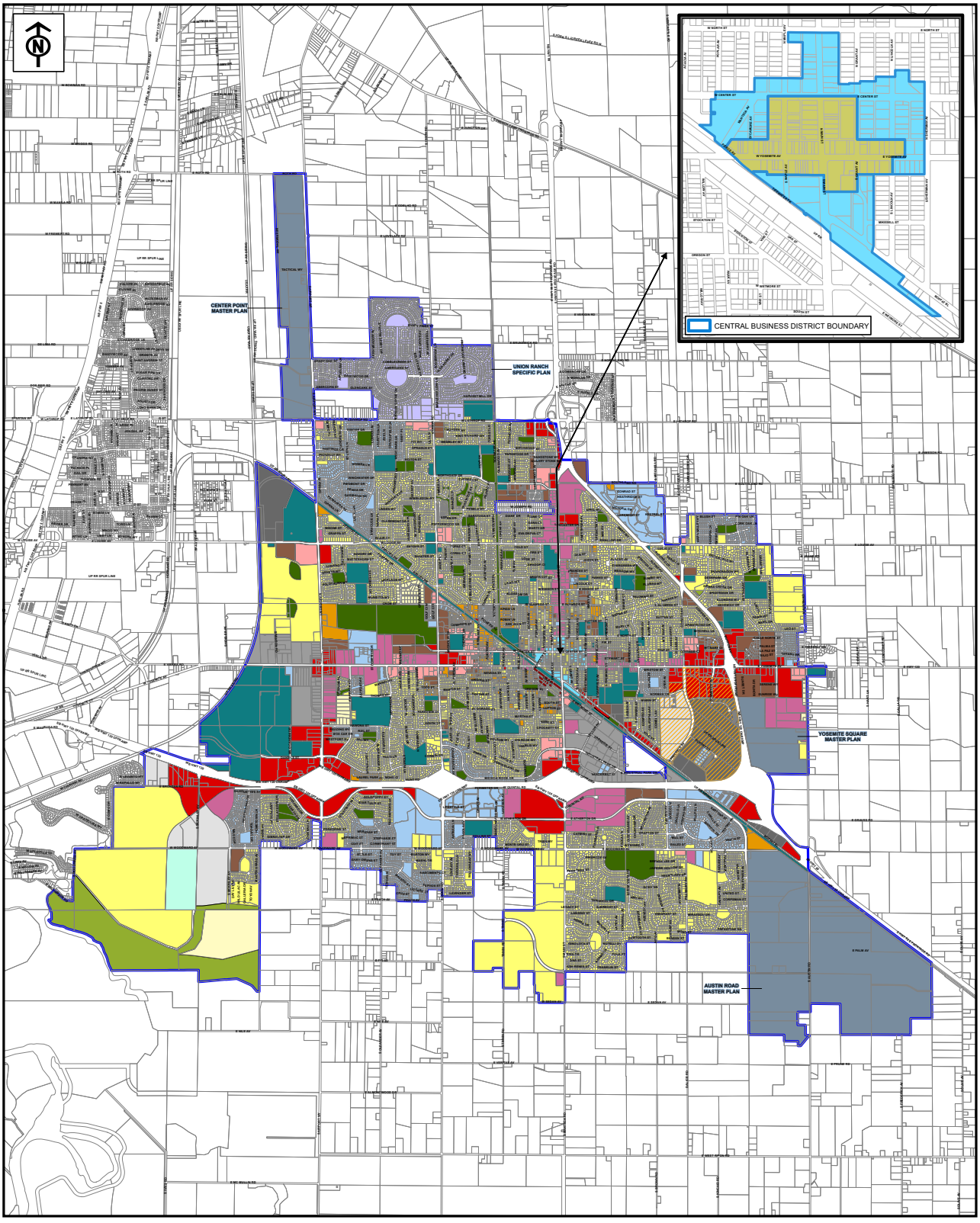
Zachary “Z” Oretsky, M.S.

Staff Scientist

PARTNER ENGINEERING AND SCIENCE, INC.
1544 Eureka Road, Roseville, CA 95661

C: 209-843-3567

More Than Just Assessments. *Solutions* – For a complete list of services, click here.



ZONING

CITY OF MANTECA

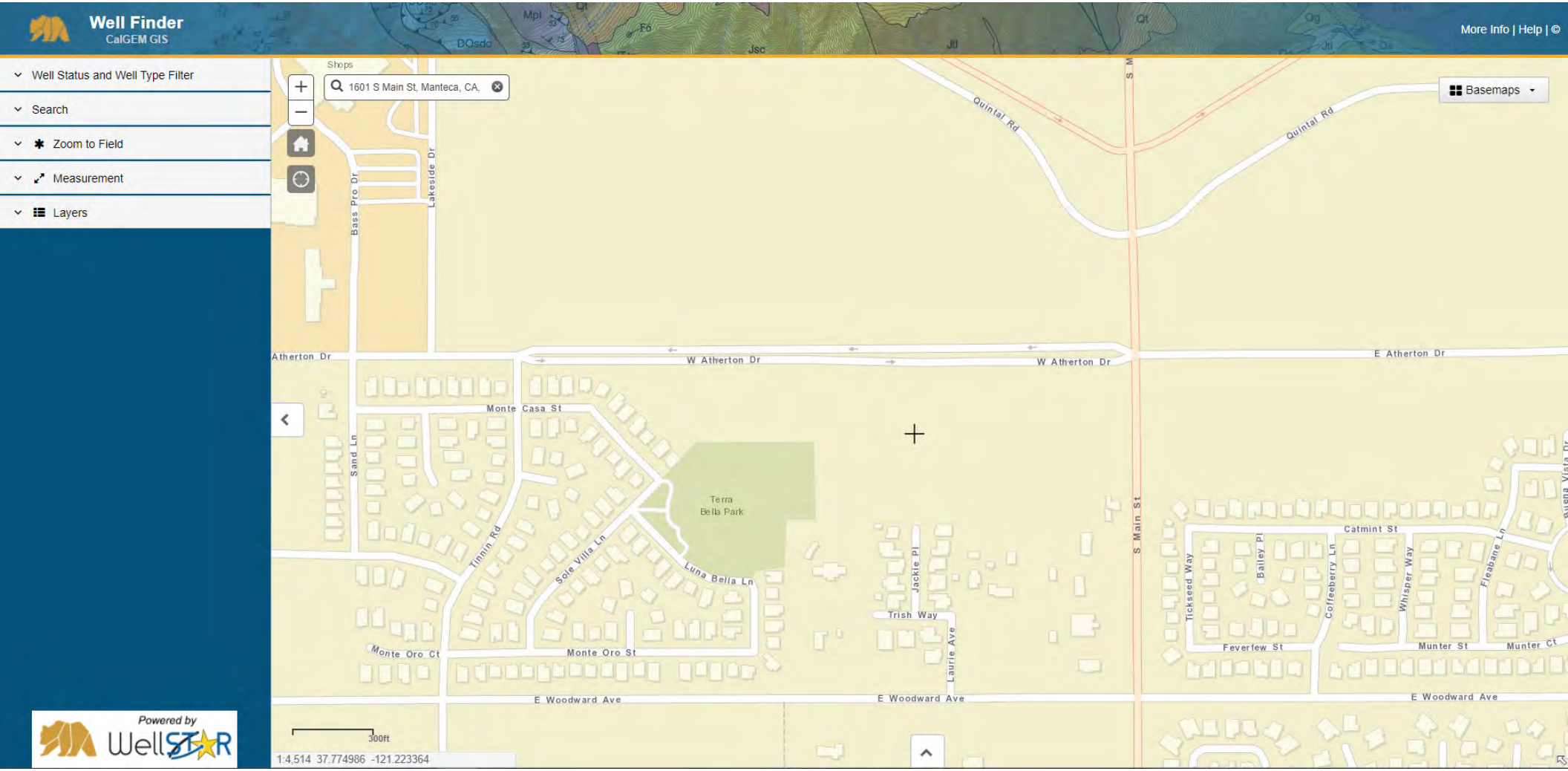
- R-E (RESIDENTIAL ESTATE)
- R-1 (ONE-FAMILY DWELLING)
- R-2 (LIMITED MULTIPLE-FAMILY DWELLING)
- R-3 (MULTIPLE-FAMILY DWELLING)
- CN (NEIGHBORHOOD COMMERCIAL)
- CMU (MIXED USE COMMERCIAL)
- CG (GENERAL COMMERCIAL)
- CM (COMMERCIAL MANUFACTURING)
- BIP (BUSINESS INDUSTRIAL PARK)
- M1 (LIGHT INDUSTRIAL)
- M2 (HEAVY INDUSTRIAL)
- A (AGRICULTURAL)
- OS (OPEN SPACE)
- P (PARK)
- PQP (PUBLIC/QUASI-PUBLIC)
- MP (MASTER PLAN)
- SP (SPECIFIC PLAN)
- CBD-1 (CENTRAL BUSINESS DISTRICT ZONE 1)
- CBD-2 (CENTRAL BUSINESS DISTRICT ZONE 2)
- PD (PLANNED DEVELOPMENT OVERLAY)
- UND (UNDESIGNATED)
- SPRECKELS PARK DEVELOPMENT AGREEMENT
- PARCELS
- CITY LIMIT

0 1,000 2,000 3,000 4,000 5,000 Feet

Data on this map is intended for general use and informational purposes only. The City of Manteca does not warrant the accuracy, quality, or completeness of data or suitability for any particular purpose. Information on this map is not intended to replace engineering, survey, or other primary research methods.

CITY OF MANTECA
INFORMATION TECHNOLOGY DIVISION
GEOGRAPHIC INFORMATION SYSTEMS
1001 W CENTER ST
MANTECA, CA 95337

V: Map
\\fs01\GIS\CityProjects\Planning\Zoning_24x36.mxd
MAY 2019


Well Finder
CalGEM GIS
More Info | Help | ©
Well Status and Well Type Filter
Search
Zoom to Field
Measurement
Layers
Shops
1601 S Main St, Manteca, CA,
Basemaps
Quintal Rd
Bass Pro Dr
Lakeside Dr
Atherton Dr
W Atherton Dr
E Atherton Dr
Monte Casa St
Sand Ln
Terra
Bella Park
Tinnin Rd
Sole Villa Ln
Luna Bella Ln
Jackie Pl
Trish Way
Laurie Ave
S Main St
Catmint St
Tickseed Way
Bailey Pl
Coffeeberry Ln
Whisper Way
Fleabane Ln
Feverfew St
Munter St
Munter Ct
Monte Oro Ct
Monte Oro St
E Woodward Ave
300ft
1:4,514 37.774986 -121.223364
Powered by
WellSTAR

Property Address: **1669 S MAIN ST MANTECA CA 95337-9502**

General Information

County:	**SAN JOAQUIN**
Parcel # (APN):	**224-021-300-000** Open Map
Owner:	See Full Detail
Mailing Address:	**5451 E FIG AVE MANTECA CA 95337**
Legal Description:	
Use Type:	**RESID. SINGLE FAMILY**
Tax Rate Area:	**002-090**



Full Detail $14.95 Add to Cart

PLEASE NOTE: If a field is empty on this page, there is no data available, and the field will also be empty on the Full Detail property report.

Assessment

Total Value:	**$45,289**	Year Assd:	**2021**
Land:	**$9,056**	Zoning:	
Structures:	**$36,233**	Use Code:	See Full Detail
Other:		Census Tract:	See Full Detail
% Improved:	See Full Detail	Price/SqFt:	See Full Detail
Exempt Amt:			
HO Exempt:	**N**		

Sale History

	Sale 1	Sale 2	Sale 3	Transfer
Document Date:	**01/12/2021**	See Full Detail	See Full Detail	See Full Detail
Document Number:	**2021R006888**	See Full Detail	See Full Detail	See Full Detail
Document Type:	See Full Detail	See Full Detail	See Full Detail	
Transfer Amount:	**$400,000**			
Seller (Grantor):	See Full Detail			

Property Characteristics

Bedrooms:	**3**	Fireplace:	See Full Detail	Units:	
Baths (Full):	**2**	A/C:	See Full Detail	Stories:	See Full Detail
Baths (Half):		Heating:	See Full Detail	Quality:	See Full Detail
Total Rooms:		Pool:	See Full Detail	Building Class:	See Full Detail
Bldg/Liv Area:	**1,510**	Park Type:		Condition:	
Lot Acres:	**0.280**	Spaces:		Site Influence:	
Lot SqFt:	**12,197**	Garage SqFt:		Timber Preserve:	
Year Built:	**1944**			Ag Preserve:	
Effective Year:	See Full Detail				

**The information provided here is deemed reliable, but is not guaranteed.

Additional reports on this property

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Property Address: **1601 S MAIN ST MANTECA CA 95337-9502**

General Information

County:	**SAN JOAQUIN**
Parcel # (APN):	**224-021-470-000** Open Map
Owner:	See Full Detail
Mailing Address:	**5451 E FIG AVE MANTECA CA 95337-8555**
Legal Description:	
Use Type:	**RESIDENTIAL**
Tax Rate Area:	**002-074**



Full Detail $14.95 Add to Cart

PLEASE NOTE: If a field is empty on this page, there is no data available, and the field will also be empty on the Full Detail property report.

Assessment

Total Value:	**$189,975**	Year Assd:	**2021**
Land:	**$83,441**	Zoning:	
Structures:	**$28,613**	Use Code:	See Full Detail
Other:	**$77,921**	Census Tract:	See Full Detail
% Improved:	See Full Detail	Price/SqFt:	
Exempt Amt:			
HO Exempt:	**N**		

Sale History

	Sale 1	Sale 2	Sale 3	Transfer
Document Date:				
Document Number:				
Document Type:				
Transfer Amount:				
Seller (Grantor):				

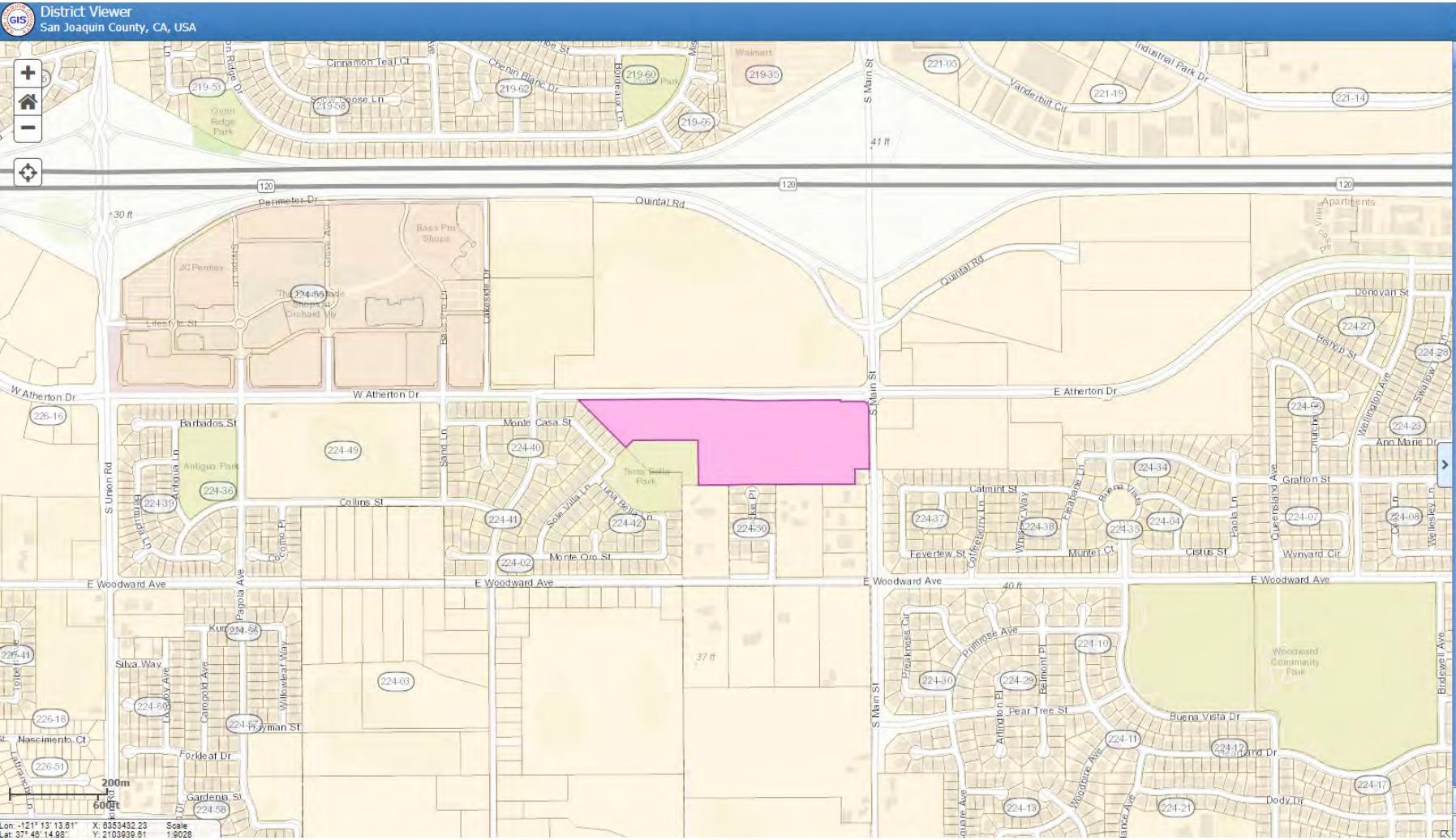
Property Characteristics

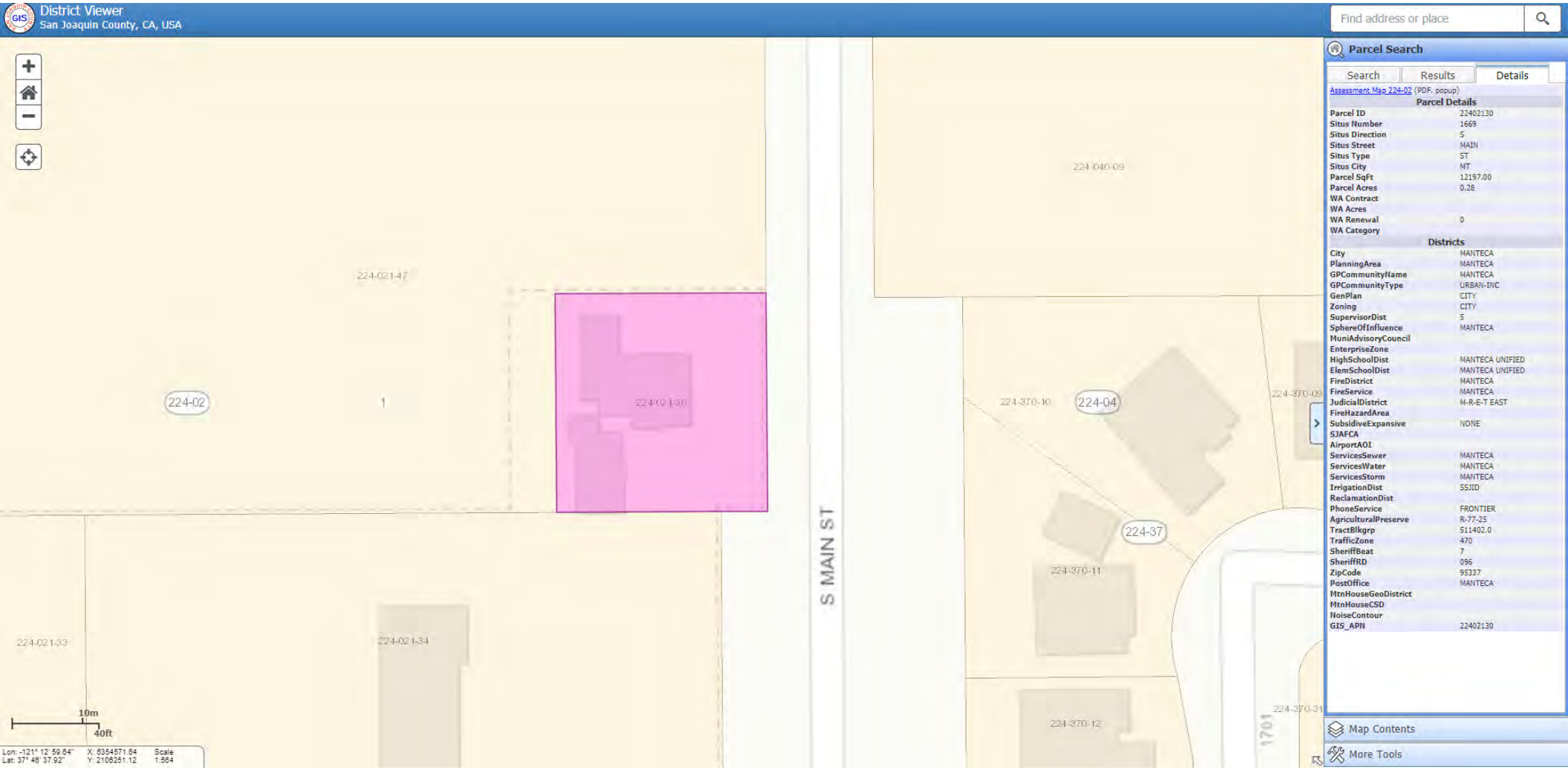
Bedrooms:		Fireplace:		Units:	
Baths (Full):		A/C:		Stories:	
Baths (Half):		Heating:		Quality:	
Total Rooms:		Pool:		Building Class:	
Bldg/Liv Area:		Park Type:		Condition:	
Lot Acres:	**18.400**	Spaces:		Site Influence:	
Lot SqFt:	**801,503**	Garage SqFt:		Timber Preserve:	
Year Built:				Ag Preserve:	
Effective Year:					

**The information provided here is deemed reliable, but is not guaranteed.

Additional reports on this property

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District Viewer
San Joaquin County, CA, USA
Find address or place
Parcel Search
Search
Results
Details
Assessment Map 224-02 (PDF, popup)
Parcel Details
Parcel ID 22402147
Situs Number 1601
Situs Direction S
Situs Street MAIN
Situs Type ST
Situs City MT
Parcel SqFt 801504.00
Parcel Acres 18.40
WA Contract
WA Acres
WA Renewal 0
WA Category
Districts
City MANTECA
PlanningArea MANTECA
GPCommunityName MANTECA
GPCommunityType URBAN-INC
GenPlan CITY
Zoning CITY
SupervisorDist 5
SphereOfInfluence MANTECA
MuniAdvisoryCouncil
EnterpriseZone IN (2008)
HighSchoolDist MANTECA UNIFIED
ElemSchoolDist MANTECA UNIFIED
FireDistrict MANTECA
FireService MANTECA
JudicialDistrict M-R-E-T EAST
FireHazardArea
SubsidiveExpansive NONE
SJAFCA
AirportAOI
ServicesSewer MANTECA
ServicesWater MANTECA
ServicesStorm MANTECA
IrrigationDist SSJID
ReclamationDist
PhoneService FRONTIER
AgriculturalPreserve R-77-25
TractBlkgrp 511402.0
TrafficZone 470
SheriffBeat 7
SheriffRD 096
ZipCode 95337
PostOffice MANTECA
MtnHouseGeoDistrict
MtnHouseCSD
NoiseContour
GIS_APN 22402147
Map Contents
More Tools
Perimeter Dr
Quinta Rd
W Atherton Dr
E Atherton Dr
S Main St
S Union Rd
Barbados St
Monte Casa St
Collins St
Monte Oro St
E Woodward Ave
Pear Tree St
Buena Vista Dr
Dody Dr
Gardenia St
Forkleaf Dr
Silva Way
Kurtzel St
Bryman St
Nascimento Ct
Donovan St
Grafton St
Catmint St
Fevertew St
Munet Ct
Cistus St
Wynyard Cir
Ann Marie Dr
Primrose Ave
Woodward Community Park
Quail Ridge Park
Bass Pro Shops
JC Penney
Walmart
Terra Bella Park
Antigua Park
Cinnamon Teal Ct
Chenin Blanc Dr
Bordeaux Ln
Vanderbilt Cir
Industrial Park Dr
Apartments
41 ft
30 ft
40 ft
37 ft
200m
600ft
Lon: -121° 13' 13.61"
Lat: 37° 46' 14.98"
X: 6353432.23
Y: 2103939.61
Scale
1:9028


District Viewer
San Joaquin County, CA, USA
Find address or place
Parcel Search
Search
Results
Details
Assessment Map 224-02 (PDF, popup)
Parcel Details
Parcel ID 22402130
Situs Number 1669
Situs Direction S
Situs Street MAIN
Situs Type ST
Situs City MT
Parcel SqFt 12197.00
Parcel Acres 0.28
WA Contract
WA Acres
WA Renewal 0
WA Category
Districts
City MANTECA
PlanningArea MANTECA
GPCommunityName MANTECA
GPCommunityType URBAN-INC
GenPlan CITY
Zoning CITY
SupervisorDist 5
SphereOfInfluence MANTECA
MuniAdvisoryCouncil
EnterpriseZone
HighSchoolDist MANTECA UNIFIED
ElemSchoolDist MANTECA UNIFIED
FireDistrict MANTECA
FireService MANTECA
JudicialDistrict M-R-E-T EAST
FireHazardArea
SubsidiveExpansive NONE
SJAFCA
AirportAOI
ServicesSewer MANTECA
ServicesWater MANTECA
ServicesStorm MANTECA
IrrigationDist SSJID
ReclamationDist
PhoneService FRONTIER
AgriculturalPreserve R-77-25
TractBlkgrp 511402.0
TrafficZone 470
SheriffBeat 7
SheriffRD 096
ZipCode 95337
PostOffice MANTECA
MtnHouseGeoDistrict
MtnHouseCSD
NoiseContour
GIS_APN 22402130
224-040-09
224-021-47
224-02
1
224-021-30
224-021-33
224-021-34
S MAIN ST
224-370-10
224-04
224-370-09
224-37
224-370-11
224-370-12
224-370-31
1701
10m
40ft
Lon: -121° 12' 59.64"
Lat: 37° 48' 37.92"
X: 6354571.64
Y: 2106251.12
Scale
1:564
Map Contents
More Tools

APPENDIX C: REGULATORY DATABASE REPORT

PARTNER

Proposed Retail Shopping Center
1601 & 1669 South Main Street
Manteca, CA 95337

Inquiry Number: 6578793.2s
July 15, 2021

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

1601 & 1669 SOUTH MAIN STREET
MANTECA, CA 95337

COORDINATES

Latitude (North):	37.7785030 - 37˚ 46' 42.61''
Longitude (West):	121.2183630 - 121˚ 13' 6.10''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	656902.6
UTM Y (Meters):	4182529.5
Elevation:	37 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5640398 MANTECA, CA
Version Date:	2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140628
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
1601 & 1669 SOUTH MAIN STREET
MANTECA, CA 95337

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	AGS FUEL INC DBA CHE	1490 S MAIN STREET	RCRA NonGen / NLR	Higher	461, 0.087, NE
A2	MANTECA CHEVRON	1490 S MAIN ST	UST	Higher	461, 0.087, NE
A3	AGS FUEL INC DBA CIR	1490 S MAIN ST	CERS HAZ WASTE, CERS TANKS, HAZNET, CERS, HWTS	Higher	461, 0.087, NE
4	NORMAN AMAN	7385 E WOODWARD	HIST UST	Higher	632, 0.120, SSE
B5	HAHN'S CONSTRUCTION	7114 E WOODWARD RD	HIST UST	Higher	710, 0.134, SSW
B6	HAHNS CONSTRUCTION	7114 E WOODWARD AVE	UST	Higher	744, 0.141, SSW
B7	HAHN'S CONSTRUCTION	7114 E WOODWARD AVE	SWEEPS UST, HIST UST, CA FID UST	Higher	744, 0.141, SSW
8	SAND LANE ELEMENTARY	6647 EAST WOODWARD A	ENVIROSTOR, SCH, CERS	Lower	1554, 0.294, WSW
9	KIM MARTIN	2112 S MAIN ST	CPS-SLIC, HAZNET, Notify 65, CERS, HWTS	Higher	2270, 0.430, SSE
10	CAL-WEST CONCRETE CU	1153 VANDERBILT	LUST, Cortese, HIST CORTESE, CERS	Higher	2272, 0.430, NNE
11	HOUSE OF REDWOOD	1199 VANDERBILT CIR	LUST, SWEEPS UST, Cortese, HIST CORTESE, CERS	Higher	2364, 0.448, NE
12	MOUNTAIN VALLEY EXPR	1299 VANDERVILT CR	LUST, SWEEPS UST, HIST UST, CA FID UST, RCRA...	Higher	2467, 0.467, NE
13	OLIN INTERCONNECT TE	544 INDUSTRIAL PARK	ENVIROSTOR	Higher	2966, 0.562, NE
14	SILICON TURNKEY SOLU	400 INDUSTRIAL PARK	RCRA-SQG, ENVIROSTOR, SWEEPS UST, HIST UST, CA FID...	Higher	2971, 0.563, NNE
15	QUALEX INC	555 INDUSTRIAL PARK	RCRA-SQG, ENVIROSTOR, FINDS, ECHO, HAZNET, HWTS	Higher	3140, 0.595, NE
C16	SCHMIEDT SOIL SERVIC	20696 SOUTH MANTECA	ENVIROSTOR	Higher	3317, 0.628, SSE
C17	LESTER SCHMIEDT	20696 S MANTECA RD	HIST UST, Notify 65	Higher	3317, 0.628, SSE
18	ADVANCED TECHNOLOGY	555 CARNEGIE ST	RCRA-SQG, ENVIROSTOR, FINDS, ECHO, HAZNET, WDS,...	Higher	3828, 0.725, NNE
19	PROPOSED SOUTH MANTE	21143 S. TINNIN ROAD	ENVIROSTOR, SCH	Lower	3981, 0.754, SSW
20	WOODWARD ANNEX SITE	WOODWARD AVENUE/SPRE	ENVIROSTOR, SCH, CERS	Higher	4514, 0.855, East
21	UNITED AGRI PRODUCTS	301 WETMORE	ENVIROSTOR, CERS, NON-CASE INFO, HWTS	Higher	4915, 0.931, NNE
22	GORDON RESEARCH COMP	1085 SOUTH UNION ROA	RESPONSE, ENVIROSTOR, LIENS, CERS	Higher	4964, 0.940, NW
23	CITY OF MANTECA	210 WETMORE ST E	LUST, Cortese, HIST CORTESE, Notify 65, CERS	Higher	5092, 0.964, NNE
24	BOB'S MUFFLER AND RA	466 MOFFAT BLVD	Cortese, HAZNET, Notify 65, HWTS	Higher	5156, 0.977, NNE

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL ---------- National Priority List
Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ---------- National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY ---------- Federal Facility Site Information listing
SEMS ---------- Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE ---------- Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS ---------- Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ---------- RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG ---------- RCRA - Large Quantity Generators
RCRA-SQG ---------- RCRA - Small Quantity Generators
RCRA-VSQG ---------- RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

Federal institutional controls / engineering controls registries

LUCIS ---------- Land Use Control Information System

US ENG CONTROLS ..... Engineering Controls Sites List
US INST CONTROLS ..... Institutional Controls Sites List

Federal ERNS list

ERNS ..... Emergency Response Notification System

State and tribal landfill and/or solid waste disposal site lists

SWF/LF ..... Solid Waste Information System

State and tribal leaking storage tank lists

INDIAN LUST ..... Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

FEMA UST ..... Underground Storage Tank Listing
AST ..... Aboveground Petroleum Storage Tank Facilities
INDIAN UST ..... Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

VCP ..... Voluntary Cleanup Program Properties
INDIAN VCP ..... Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

BROWNFIELDS ..... Considered Brownfieds Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS ..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT ..... Waste Management Unit Database
SWRCY ..... Recycler Database
HAULERS ..... Registered Waste Tire Haulers Listing
INDIAN ODI ..... Report on the Status of Open Dumps on Indian Lands
ODI ..... Open Dump Inventory
DEBRIS REGION 9 ..... Torres Martinez Reservation Illegal Dump Site Locations
IHS OPEN DUMPS ..... Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL ..... Delisted National Clandestine Laboratory Register
HIST Cal-Sites ..... Historical Calsites Database
SCH ..... School Property Evaluation Program
CDL ..... Clandestine Drug Labs
Toxic Pits ..... Toxic Pits Cleanup Act Sites
US CDL ..... National Clandestine Laboratory Register

PFAS	PFAS Contamination Site Location Listing

Local Land Records

LIENS	Environmental Liens Listing
LIENS 2	CERCLA Lien Information
DEED	Deed Restriction Listing

Records of Emergency Release Reports

HMIRS	Hazardous Materials Information Reporting System
CHMIRS	California Hazardous Material Incident Report System
LDS	Land Disposal Sites Listing
MCS	Military Cleanup Sites Listing
SPILLS 90	SPILLS 90 data from FirstSearch

Other Ascertainable Records

FUDS	Formerly Used Defense Sites
DOD	Department of Defense Sites
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR	Financial Assurance Information
EPA WATCH LIST	EPA WATCH LIST
2020 COR ACTION	2020 Corrective Action Program List
TSCA	Toxic Substances Control Act
TRIS	Toxic Chemical Release Inventory System
SSTS	Section 7 Tracking Systems
ROD	Records Of Decision
RMP	Risk Management Plans
RAATS	RCRA Administrative Action Tracking System
PRP	Potentially Responsible Parties
PADS	PCB Activity Database System
ICIS	Integrated Compliance Information System
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS	Material Licensing Tracking System
COAL ASH DOE	Steam-Electric Plant Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
RADINFO	Radiation Information Database
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS	Incident and Accident Data
CONSENT	Superfund (CERCLA) Consent Decrees
INDIAN RESERV	Indian Reservations
FUSRAP	Formerly Utilized Sites Remedial Action Program
UMTRA	Uranium Mill Tailings Sites
LEAD SMELTERS	Lead Smelter Sites
US AIRS	Aerometric Information Retrieval System Facility Subsystem
US MINES	Mines Master Index File
ABANDONED MINES	Abandoned Mines
FINDS	Facility Index System/Facility Registry System
DOCKET HWC	Hazardous Waste Compliance Docket Listing
UXO	Unexploded Ordnance Sites
ECHO	Enforcement & Compliance History Information
FUELS PROGRAM	EPA Fuels Program Registered Listing

CA BOND EXP. PLAN - Bond Expenditure Plan
CUPA Listings - CUPA Resources List
DRYCLEANERS - Cleaner Facilities
EMI - Emissions Inventory Data
ENF - Enforcement Action Listing
Financial Assurance - Financial Assurance Information Listing
HAZNET - Facility and Manifest Data
ICE - ICE
HWP - EnviroStor Permitted Facilities Listing
HWT - Registered Hazardous Waste Transporter Database
MINES - Mines Site Location Listing
MWMP - Medical Waste Management Program Listing
NPDES - NPDES Permits Listing
PEST LIC - Pesticide Regulation Licenses Listing
PROC - Certified Processors Database
UIC - UIC Listing
UIC GEO - UIC GEO (GEOTRACKER)
WASTEWATER PITS - Oil Wastewater Pits Listing
WDS - Waste Discharge System
WIP - Well Investigation Program Case List
MILITARY PRIV SITES - MILITARY PRIV SITES (GEOTRACKER)
PROJECT - PROJECT (GEOTRACKER)
WDR - Waste Discharge Requirements Listing
CIWQS - California Integrated Water Quality System
CERS - CERS
NON-CASE INFO - NON-CASE INFO (GEOTRACKER)
OTHER OIL GAS - OTHER OIL & GAS (GEOTRACKER)
PROD WATER PONDS - PROD WATER PONDS (GEOTRACKER)
SAMPLING POINT - SAMPLING POINT (GEOTRACKER)
WELL STIM PROJ - Well Stimulation Project (GEOTRACKER)
HWTS - Hazardous Waste Tracking System
MINES MRDS - Mineral Resources Data System

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP - EDR Proprietary Manufactured Gas Plants
EDR Hist Auto - EDR Exclusive Historical Auto Stations
EDR Hist Cleaner - EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF - Recovered Government Archive Solid Waste Facilities List
RGA LUST - Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

EXECUTIVE SUMMARY

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

State- and tribal - equivalent NPL

RESPONSE: Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

A review of the RESPONSE list, as provided by EDR, has revealed that there is 1 RESPONSE site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
GORDON RESEARCH COMP	***1085 SOUTH UNION ROA***	***NW 1/2 - 1 (0.940 mi.)***	***22***	***158***
Database: RESPONSE, Date of Government Version: 04/23/2021 Status: Certified Facility Id: 60000746 Facility Id: 60002130				

State- and tribal - equivalent CERCLIS

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 04/23/2021 has revealed that there are 10 ENVIROSTOR sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
OLIN INTERCONNECT TE Facility Id: 71003418 Status: No Further Action	544 INDUSTRIAL PARK	NE 1/2 - 1 (0.562 mi.)	13	54
SILICON TURNKEY SOLU Facility Id: 71003510 Status: Inactive - Needs Evaluation	***400 INDUSTRIAL PARK***	***NNE 1/2 - 1 (0.563 mi.)***	***14***	***55***
QUALEX INC	***555 INDUSTRIAL PARK***	***NE 1/2 - 1 (0.595 mi.)***	***15***	***75***

Facility Id: 71003156
Status: Inactive - Needs Evaluation

SCHMIEDT SOIL SERVIC Facility Id: 39070036 Status: Refer: Other Agency	20696 SOUTH MANTECA	SSE 1/2 - 1 (0.628 mi.)	C16	96
ADVANCED TECHNOLOGY Facility Id: 71003427 Status: No Further Action	***555 CARNEGIE ST***	***NNE 1/2 - 1 (0.725 mi.)***	***18***	***98***
WOODWARD ANNEX SITE Facility Id: 39010046 Status: No Further Action	***WOODWARD AVENUE/SPRE***	***E 1/2 - 1 (0.855 mi.)***	***20***	***152***
UNITED AGRI PRODUCTS Facility Id: 39510023 Status: Refer: Other Agency	***301 WETMORE***	***NNE 1/2 - 1 (0.931 mi.)***	***21***	***156***
GORDON RESEARCH COMP Facility Id: 60000746 Facility Id: 60002130 Status: Certified	***1085 SOUTH UNION ROA***	***NW 1/2 - 1 (0.940 mi.)***	***22***	***158***

Lower Elevation	Address	Direction / Distance	Map ID	Page
SAND LANE ELEMENTARY Facility Id: 39020001 Status: No Further Action	***6647 EAST WOODWARD A***	***WSW 1/4 - 1/2 (0.294 mi.)***	***8***	***27***
PROPOSED SOUTH MANTE Facility Id: 60000456 Status: No Further Action	***21143 S. TINNIN ROAD***	***SSW 1/2 - 1 (0.754 mi.)***	***19***	***149***

State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

A review of the LUST list, as provided by EDR, has revealed that there are 3 LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CAL-WEST CONCRETE CU Database: LUST REG 5, Date of Government Version: 07/01/2008 Database: LUST, Date of Government Version: 03/08/2021 Status: Completed - Case Closed Status: Case Closed Global Id: T0607700516	***1153 VANDERBILT***	***NNE 1/4 - 1/2 (0.430 mi.)***	***10***	***33***
HOUSE OF REDWOOD Database: LUST REG 5, Date of Government Version: 07/01/2008 Database: LUST, Date of Government Version: 03/08/2021 Status: Completed - Case Closed Status: Case Closed	***1199 VANDERBILT CIR***	***NE 1/4 - 1/2 (0.448 mi.)***	***11***	***35***

Global Id: T0607700090

MOUNTAIN VALLEY EXPR	***1299 VANDERVILT CR***	***NE 1/4 - 1/2 (0.467 mi.)***	***12***	***38***

Database: LUST REG 5, Date of Government Version: 07/01/2008
Database: LUST, Date of Government Version: 03/08/2021
Status: Completed - Case Closed
Status: Case Closed
Global Id: T0607700280

CPS-SLIC: Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

A review of the CPS-SLIC list, as provided by EDR, has revealed that there is 1 CPS-SLIC site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
KIM MARTIN	***2112 S MAIN ST***	***SSE 1/4 - 1/2 (0.430 mi.)***	***9***	***30***

Database: CPS-SLIC, Date of Government Version: 03/08/2021
Facility Status: Open - Site Assessment
Global Id: SLT5S4823431

State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the UST list, as provided by EDR, has revealed that there are 2 UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MANTECA CHEVRON	1490 S MAIN ST	NE 0 - 1/8 (0.087 mi.)	A2	11

Database: UST, Date of Government Version: 03/08/2021
Database: UST SAN JOAQUIN, Date of Government Version: 06/22/2018
Facility Id: FA0023750
Tank Status: 03 - Temporarily inactive, non-billable

HAHNS CONSTRUCTION	7114 E WOODWARD AVE	SSW 1/8 - 1/4 (0.141 mi.)	B6	25

Database: UST SAN JOAQUIN, Date of Government Version: 06/22/2018
Facility Id: FA0005263
Tank Status: 02 - Inactive, non-billable

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Hazardous waste / Contaminated Sites

CERS HAZ WASTE: List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

A review of the CERS HAZ WASTE list, as provided by EDR, and dated 04/19/2021 has revealed that there is 1 CERS HAZ WASTE site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
AGS FUEL INC DBA CIR	***1490 S MAIN ST***	***NE 0 - 1/8 (0.087 mi.)***	***A3***	***13***

Local Lists of Registered Storage Tanks

SWEEPS UST: Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there is 1 SWEEPS UST site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
HAHN'S CONSTRUCTION Comp Number: 1451	***7114 E WOODWARD AVE***	***SSW 1/8 - 1/4 (0.141 mi.)***	***B7***	***26***

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there are 3 HIST UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NORMAN AMAN Facility Id: 00000047670	7385 E WOODWARD	SSE 0 - 1/8 (0.120 mi.)	4	24
HAHN'S CONSTRUCTION Facility Id: 00000044296	7114 E WOODWARD RD	SSW 1/8 - 1/4 (0.134 mi.)	B5	24
HAHN'S CONSTRUCTION	***7114 E WOODWARD AVE***	***SSW 1/8 - 1/4 (0.141 mi.)***	***B7***	***26***

CERS TANKS: List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs.

A review of the CERS TANKS list, as provided by EDR, and dated 04/19/2021 has revealed that there is 1 CERS TANKS site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
AGS FUEL INC DBA CIR	***1490 S MAIN ST***	***NE 0 - 1/8 (0.087 mi.)***	***A3***	***13***

CA FID UST: The Facility Inventory Database contains active and inactive underground storage tank locations. The source is the State Water Resource Control Board.

A review of the CA FID UST list, as provided by EDR, and dated 10/31/1994 has revealed that there is 1 CA FID UST site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
HAHN'S CONSTRUCTION	***7114 E WOODWARD AVE***	***SSW 1/8 - 1/4 (0.141 mi.)***	***B7***	***26***
Facility Id: 39003486				
Status: I				

Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 03/22/2021 has revealed that there is 1 RCRA NonGen / NLR site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
AGS FUEL INC DBA CHE	1490 S MAIN STREET	NE 0 - 1/8 (0.087 mi.)	A1	9
EPA ID:: CAL000444794				

Cortese: The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

A review of the Cortese list, as provided by EDR, and dated 03/22/2021 has revealed that there are 3 Cortese sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CAL-WEST CONCRETE CU	***1153 VANDERBILT***	***NNE 1/4 - 1/2 (0.430 mi.)***	***10***	***33***
Cleanup Status: COMPLETED - CASE CLOSED				
HOUSE OF REDWOOD	***1199 VANDERBILT CIR***	***NE 1/4 - 1/2 (0.448 mi.)***	***11***	***35***
Cleanup Status: COMPLETED - CASE CLOSED				
MOUNTAIN VALLEY EXPR	***1299 VANDERVILT CR***	***NE 1/4 - 1/2 (0.467 mi.)***	***12***	***38***
Cleanup Status: COMPLETED - CASE CLOSED				

HIST CORTESE: The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there are 3 HIST CORTESE sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CAL-WEST CONCRETE CU	***1153 VANDERBILT***	***NNE 1/4 - 1/2 (0.430 mi.)***	***10***	***33***

Reg Id: 390665				
HOUSE OF REDWOOD	***1199 VANDERBILT CIR***	***NE 1/4 - 1/2 (0.448 mi.)***	***11***	***35***
Reg Id: 390126				
MOUNTAIN VALLEY EXPR	***1299 VANDERVILT CR***	***NE 1/4 - 1/2 (0.467 mi.)***	***12***	***38***
Reg Id: 390370				

Notify 65: Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

A review of the Notify 65 list, as provided by EDR, and dated 03/12/2021 has revealed that there are 4 Notify 65 sites within approximately 1 mile of the target property.

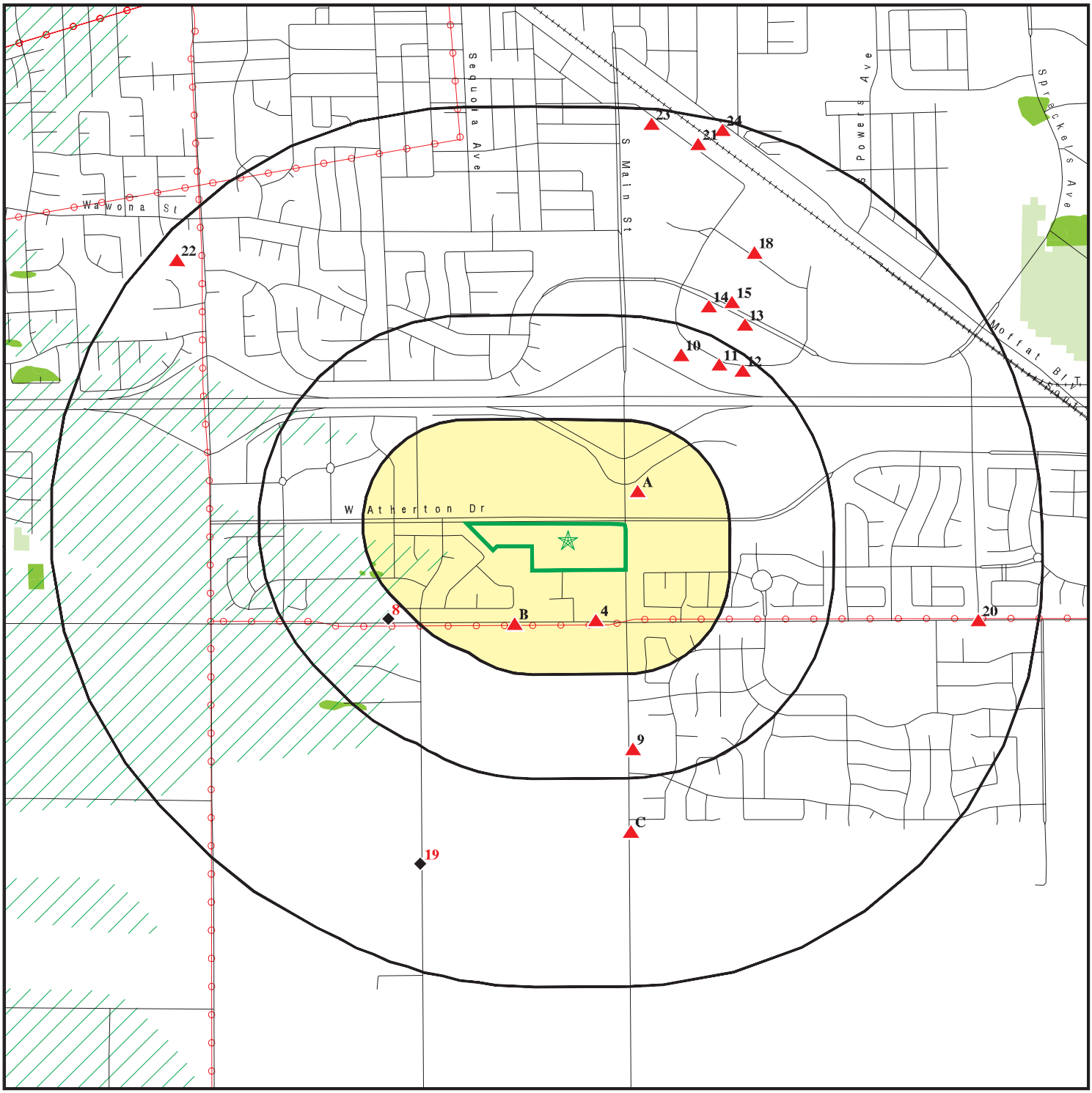
Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
KIM MARTIN	***2112 S MAIN ST***	***SSE 1/4 - 1/2 (0.430 mi.)***	***9***	***30***
LESTER SCHMIEDT	***20696 S MANTECA RD***	***SSE 1/2 - 1 (0.628 mi.)***	***C17***	***97***
CITY OF MANTECA	***210 WETMORE ST E***	***NNE 1/2 - 1 (0.964 mi.)***	***23***	***178***
BOB'S MUFFLER AND RA	***466 MOFFAT BLVD***	***NNE 1/2 - 1 (0.977 mi.)***	***24***	***182***

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 3 records.

Site Name	Database(s)
	CDL
	CDL
BALMAT & CO.**	CPS-SLIC

OVERVIEW MAP - 6578793.2S



0 1/4 1/2 1 Miles

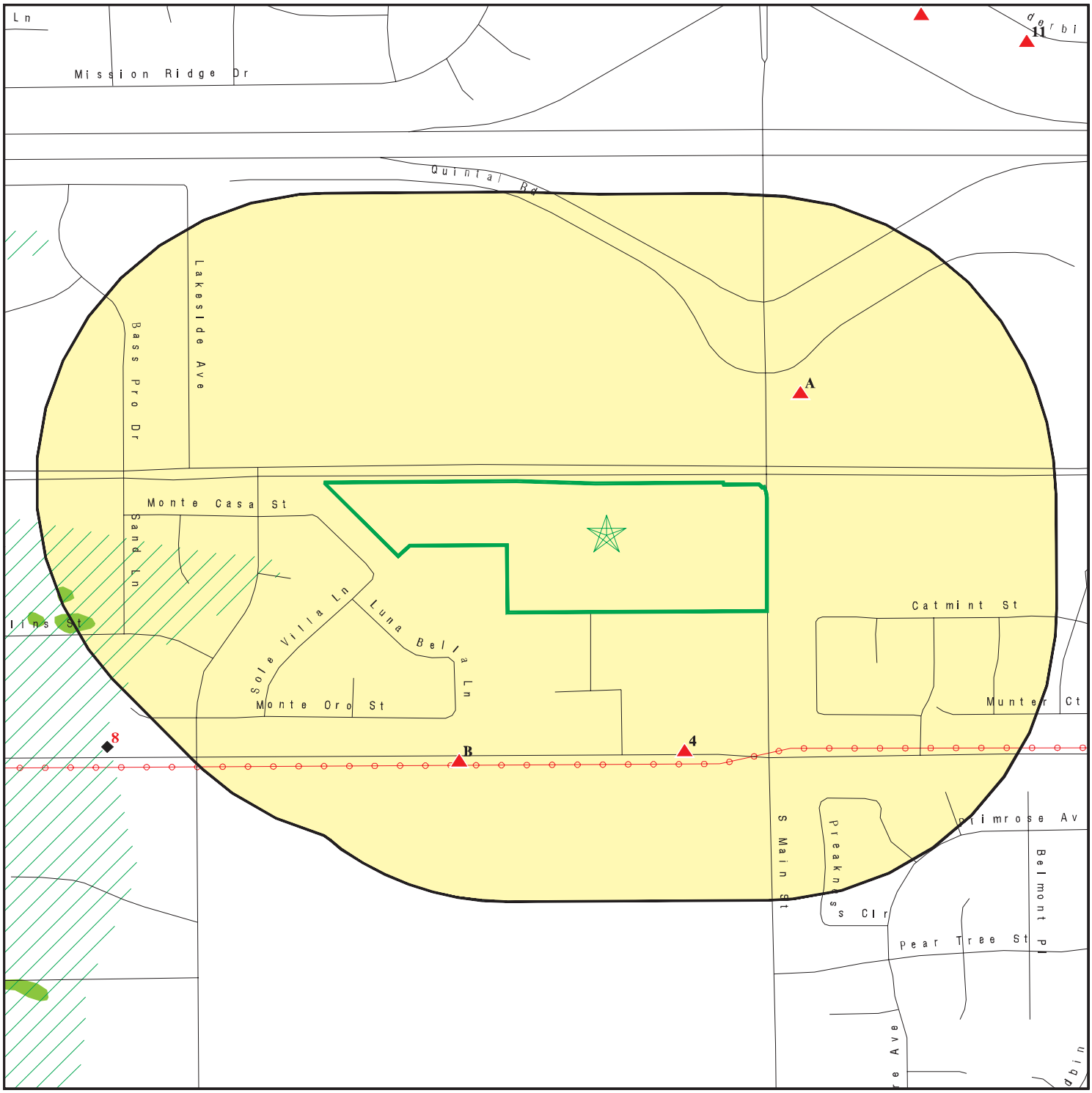
- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- Special Flood Hazard Area (1%)
- 0.2% Annual Chance Flood Hazard
- National Wetland Inventory
- State Wetlands
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	Proposed Retail Shopping Center	CLIENT:	Partner Engineering and Science, Inc.
ADDRESS:	1601 & 1669 South Main Street Manteca CA 95337	CONTACT:	Evelyn Perez
LAT/LONG:	37.778503 / 121.218363	INQUIRY #:	6578793.2s
		DATE:	July 15, 2021 1:21 pm

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DETAIL MAP - 6578793.2S



0 1/16 1/8 1/4 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- Special Flood Hazard Area (1%)
- 0.2% Annual Chance Flood Hazard
- National Wetland Inventory
- State Wetlands
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Proposed Retail Shopping Center ADDRESS: 1601 & 1669 South Main Street Manteca CA 95337 LAT/LONG: 37.778503 / 121.218363	CLIENT: Partner Engineering and Science, Inc. CONTACT: Evelyn Perez INQUIRY #: 6578793.2s DATE: July 15, 2021 1:23 pm

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROLS	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
RESPONSE	1.000		0	0	0	1	NR	1
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	1.000		0	0	1	9	NR	10
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST	0.500		0	0	3	NR	NR	3

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
CPS-SLIC	0.500		0	0	1	NR	NR	1
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		1	1	NR	NR	NR	2
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	TP		NR	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	TP		NR	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		0	0	NR	NR	NR	0
CDL	TP		NR	NR	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
CERS HAZ WASTE	0.250		1	0	NR	NR	NR	1
US CDL	TP		NR	NR	NR	NR	NR	0
PFAS	0.500		0	0	0	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250		0	1	NR	NR	NR	1
HIST UST	0.250		1	2	NR	NR	NR	3
CERS TANKS	0.250		1	0	NR	NR	NR	1
CA FID UST	0.250		0	1	NR	NR	NR	1
Local Land Records								
LIENS	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LIENS 2	TP		NR	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0
CHMIRS	TP		NR	NR	NR	NR	NR	0
LDS	TP		NR	NR	NR	NR	NR	0
MCS	TP		NR	NR	NR	NR	NR	0
SPILLS 90	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		1	0	NR	NR	NR	1
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
ECHO	TP		NR	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
Cortese	0.500		0	0	3	NR	NR	3
CUPA Listings	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EMI	TP		NR	NR	NR	NR	NR	0
ENF	TP		NR	NR	NR	NR	NR	0
Financial Assurance	TP		NR	NR	NR	NR	NR	0
HAZNET	TP		NR	NR	NR	NR	NR	0
ICE	TP		NR	NR	NR	NR	NR	0
HIST CORTESE	0.500		0	0	3	NR	NR	3
HWP	1.000		0	0	0	0	NR	0
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.250		0	0	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	TP		NR	NR	NR	NR	NR	0
PEST LIC	TP		NR	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	0	1	3	NR	4
UIC	TP		NR	NR	NR	NR	NR	0
UIC GEO	TP		NR	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	TP		NR	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
MILITARY PRIV SITES	TP		NR	NR	NR	NR	NR	0
PROJECT	TP		NR	NR	NR	NR	NR	0
WDR	TP		NR	NR	NR	NR	NR	0
CIWQS	TP		NR	NR	NR	NR	NR	0
CERS	TP		NR	NR	NR	NR	NR	0
NON-CASE INFO	TP		NR	NR	NR	NR	NR	0
OTHER OIL GAS	TP		NR	NR	NR	NR	NR	0
PROD WATER PONDS	TP		NR	NR	NR	NR	NR	0
SAMPLING POINT	TP		NR	NR	NR	NR	NR	0
WELL STIM PROJ	TP		NR	NR	NR	NR	NR	0
HWTS	TP		NR	NR	NR	NR	NR	0
MINES MRDS	TP		NR	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	TP		NR	NR	NR	NR	NR	0
RGA LUST	TP		NR	NR	NR	NR	NR	0
- Totals --		0	5	5	12	13	0	35

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1
NE
< 1/8
0.087 mi.
461 ft.

AGS FUEL INC DBA CHEVRON CIRCLE K
1490 S MAIN STREET
MANTECA, CA 95337

Site 1 of 3 in cluster A

RCRA NonGen / NLR | **1025871678** / **CAL000444794**

Relative:
Higher

Actual:
37 ft.

RCRA NonGen / NLR:

Date Form Received by Agency:	2019-03-25 00:00:00.0
Handler Name:	AGS FUEL INC DBA CHEVRON CIRCLE K
Handler Address:	1490 S MAIN STREET
Handler City,State,Zip:	MANTECA, CA 95337
EPA ID:	CAL000444794
Contact Name:	GURPREET D SANDHU
Contact Address:	1490 S MAIN STREET
Contact City,State,Zip:	MANTECA, CA 95337
Contact Telephone:	925-785-2000
Contact Fax:	Not reported
Contact Email:	ANNIESANDHU@LIVE.COM
Contact Title:	Not reported
EPA Region:	09
Land Type:	Not reported
Federal Waste Generator Description:	Not a generator, verified
Non-Notifier:	Not reported
Biennial Report Cycle:	Not reported
Accessibility:	Not reported
Active Site Indicator:	Handler Activities
State District Owner:	Not reported
State District:	Not reported
Mailing Address:	1490 S MAIN STREET
Mailing City,State,Zip:	MANTECA, CA 95337
Owner Name:	AGS FUEL INC
Owner Type:	Other
Operator Name:	GURPREET D SANDHU
Operator Type:	Other
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	Yes
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	Yes
Universal Waste Destination Facility:	Yes
Federal Universal Waste:	No
Active Site Fed-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site Converter Treatment storage and Disposal Facility:	Not reported
Active Site State-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	N
Sub-Part K Indicator:	Not reported
Commercial TSD Indicator:	No
Treatment Storage and Disposal Type:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
Permit Renewals Workload Universe:	Not reported

AGS FUEL INC DBA CHEVRON CIRCLE K (Continued) **1025871678**

Permit Workload Universe:	Not reported
Permit Progress Universe:	Not reported
Post-Closure Workload Universe:	Not reported
Closure Workload Universe:	Not reported
202 GPRA Corrective Action Baseline:	No
Corrective Action Workload Universe:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe:	No
TSDFs Only Subject to CA under Discretionary Auth Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Operating TSDF Universe:	Not reported
Full Enforcement Universe:	Not reported
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	2019-06-28 17:50:20.0
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No
Sub-Part P Indicator:	No

Handler - Owner Operator:

Owner/Operator Indicator:	Operator
Owner/Operator Name:	GURPREET D SANDHU
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	1490 S MAIN STREET
Owner/Operator City,State,Zip:	MANTECA, CA 95337
Owner/Operator Telephone:	925-785-2000
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Owner
Owner/Operator Name:	AGS FUEL INC
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	1490 SOUTH MAIN STREET
Owner/Operator City,State,Zip:	MANTECA, CA 95337
Owner/Operator Telephone:	925-785-2000
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

AGS FUEL INC DBA CHEVRON CIRCLE K (Continued) **1025871678**

Historic Generators:
- Receive Date: 2019-03-25 00:00:00.0
- Handler Name: AGS FUEL INC DBA CHEVRON CIRCLE K
- Federal Waste Generator Description: Not a generator, verified
- State District Owner: Not reported
- Large Quantity Handler of Universal Waste: No
- Recognized Trader Importer: No
- Recognized Trader Exporter: No
- Spent Lead Acid Battery Importer: No
- Spent Lead Acid Battery Exporter: No
- Current Record: Yes
- Non Storage Recycler Activity: Not reported
- Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:
- NAICS Code: 447190
- NAICS Description: OTHER GASOLINE STATIONS

Facility Has Received Notices of Violations:
- Violations: No Violations Found

Evaluation Action Summary:
- Evaluations: No Evaluations Found

A2 **MANTECA CHEVRON** **UST** **U004259405**
NE **1490 S MAIN ST** **N/A**
< 1/8 **MANTECA, CA 95337**
0.087 mi.
461 ft. **Site 2 of 3 in cluster A**

Relative: Higher
Actual: 37 ft.

UST:
- Name: AGS FUEL INC DBA CIRCLE-K CHEVRON
- Address: 1490 S MAIN ST
- City,State,Zip: MANTECA, CA 95337
- Facility ID: Not reported
- Permitting Agency: San Joaquin County Environmental Health
- Latitude: 37.78026
- Longitude: -121.2153

- Name: AGS FUEL INC DBA CIRCLE-K CHEVRON
- Address: 1490 S MAIN ST
- City,State,Zip: MANTECA, CA 95337
- Facility ID: Not reported
- Permitting Agency: San Joaquin County Environmental Health
- Latitude: 37.78026
- Longitude: -121.2153

UST SAN JOAQUIN:
- Name: MANTECA CHEVRON
- Address: 1490 S MAIN ST
- City,State,Zip: MANTECA, CA 95337
- Region: SJ
- Facility Id: FA0023750
- Mail Address: 2823 E SUGARHILL TERRACE

MANTECA CHEVRON (Continued) **U004259405**

Mail Address 2: Not reported
Mail Care of: SANHU, GURPREET (ANNIE)
Mail City,St,Zip: DUBLIN, CA 94568

Tank Rec ID: 1
Tank Number: 1
Tank Status: 03 - Temporarily inactive, non-billable
Tank Capacity: 20000
Product Type Desc: 1a - REGULAR UNLEADED
Program Element: 2350
Decode for Program Element: 2350 - UST - PER TANK FEE
Chemical Form: (none)
CAS#: Not reported
CERS ID: Not reported
Cross Ref Tank ID: Not reported
LEA ID: 14
Common Name: Not reported
Date Installed: 1/15/2017
Date of Closure: Not reported
Latitude: 37.7800209376
Longitude: -121.2157448578

Tank Rec ID: 2A
Tank Number: 2
Tank Status: 03 - Temporarily inactive, non-billable
Tank Capacity: 8000
Product Type Desc: 1b - PREMIUM UNLEADED
Program Element: 2350
Decode for Program Element: 2350 - UST - PER TANK FEE
Chemical Form: (none)
CAS#: Not reported
CERS ID: Not reported
Cross Ref Tank ID: Not reported
LEA ID: 14
Common Name: Not reported
Date Installed: 1/15/2017
Date of Closure: Not reported
Latitude: 37.7800209376
Longitude: -121.2157448578

Tank Rec ID: 2B
Tank Number: 3
Tank Status: 03 - Temporarily inactive, non-billable
Tank Capacity: 12000
Product Type Desc: 03 - DIESEL
Program Element: 2350
Decode for Program Element: 2350 - UST - PER TANK FEE
Chemical Form: (none)
CAS#: Not reported
CERS ID: Not reported
Cross Ref Tank ID: Not reported
LEA ID: 14
Common Name: Not reported
Date Installed: 1/15/2017
Date of Closure: Not reported

MANTECA CHEVRON (Continued) **U004259405**

Latitude: 37.7800209376
Longitude: -121.2157448578

A3 **AGS FUEL INC DBA CIRCLE-K CHEVRON** **CERS HAZ WASTE** **S118927655**
NE **1490 S MAIN ST** **CERS TANKS** **N/A**
< 1/8 **MANTECA, CA 95337** **HAZNET**
0.087 mi. **CERS**
461 ft. **Site 3 of 3 in cluster A** **HWTS**

Relative: Higher

Actual: 37 ft.

CERS HAZ WASTE:
Name: AGS FUEL INC DBA CIRCLE-K CHEVRON
Address: 1490 S MAIN ST
City,State,Zip: MANTECA, CA 95337
Site ID: 519115
CERS ID: 10785304
CERS Description: Hazardous Waste Generator

CERS TANKS:
Name: AGS FUEL INC DBA CIRCLE-K CHEVRON
Address: 1490 S MAIN ST
City,State,Zip: MANTECA, CA 95337
Site ID: 519115
CERS ID: 10785304
CERS Description: Underground Storage Tank

HAZNET:
Name: MANTECA INVESTMENTS LLC
Address: 1490 S. MAIN ST.
Address 2: Not reported
City,State,Zip: MANTECA, CA 95337
Contact: AMNIT SADHU
Telephone: 9257843000
Mailing Name: Not reported
Mailing Address: 2823 E SUGAR HILL TER

Year: 2015
Gepaid: CAC002827979
TSD EPA ID: CAL000190080
CA Waste Code: 151 - Asbestos containing waste
Disposal Method: H132 - Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 1.15

Additional Info:
Year: 2015
Gen EPA ID: CAC002827979

Shipment Date: 20150929
Creation Date: 11/17/2015 22:15:32
Receipt Date: 20150929
Manifest ID: 013905590JJK
Trans EPA ID: CAL000213881
Trans Name: ET ABATEMENT INC
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported

AGS FUEL INC DBA CIRCLE-K CHEVRON (Continued) **S118927655**

TSDF EPA ID:	CAL000190080
Trans Name:	FORWARD LANDFILL INC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	151 - Asbestos-containing waste
RCRA Code:	Not reported
Meth Code:	H132 - Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Quantity Tons:	1.15
Waste Quantity:	5
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

CERS:

Name:	AGS FUEL INC DBA CIRCLE-K CHEVRON
Address:	1490 S MAIN ST
City,State,Zip:	MANTECA, CA 95337
Site ID:	519115
CERS ID:	10785304
CERS Description:	Chemical Storage Facilities

Violations:

Site ID:	519115
Site Name:	AGS FUEL INC DBA CIRCLE-K CHEVRON
Violation Date:	03-03-2020
Citation:	HSC 6.75 25299.30-25299.34 - California Health and Safety Code, Chapter 6.75, Section(s) 25299.30-25299.34
Violation Description:	Failure to submit and maintain complete and current Certification of Financial Responsibility or other mechanism of financial assurance.
Violation Notes:	Returned to compliance on 06/08/2020. OBSERVATION: Current financial responsibility documents were not found on site. REGULATION GUIDANCE: A copy of current financial responsibility documents are required to be maintained on site. CORRECTIVE ACTION: Immediately obtain a copy of the facility's financial responsibility documents and maintain a copy on site.
Violation Division:	San Joaquin County Environmental Health
Violation Program:	UST
Violation Source:	CERS

Site ID:	519115
Site Name:	AGS FUEL INC DBA CIRCLE-K CHEVRON
Violation Date:	09-06-2019
Citation:	HSC 6.5 25123.3(h)(1) - California Health and Safety Code, Chapter 6.5, Section(s) 25123.3(h)(1)
Violation Description:	Failure to send hazardous waste offsite for treatment, storage, or disposal within 180 days (or 270 days if waste is transported over 200 miles) for a generator who generates less than 1000 kilogram per month if all of the following conditions are met: (1) The quantity of hazardous waste accumulated onsite never exceeds 6,000 kilograms. (2) The generator complies with the requirements of 40 Code of Federal Regulations section 262.34(d), (e) and (f). (3) The generator does not hold acutely hazardous waste or extremely hazardous waste in an amount greater than one kilogram for more than 90 days.

AGS FUEL INC DBA CIRCLE-K CHEVRON (Continued) **S118927655**

Violation Notes:	A 55 gallon black steel drum of hazardous waste liquids was observed in the dumpster area with an accumulation start date of 2/21/19. Facilities who generate less than 1000 kg of hazardous waste per month and do not exceed 6000 kg of waste stored on site at any time may store waste on site up to 180 days. Immediately contact a licensed hazardous waste hauler to dispose of this waste under manifest and submit a copy of the manifest to the EHD.
Violation Division:	San Joaquin County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	519115
Site Name:	AGS FUEL INC DBA CIRCLE-K CHEVRON
Violation Date:	05-01-2019
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to establish and electronically submit an adequate emergency response plan and procedures for a release or threatened release of a hazardous material.
Violation Notes:	Returned to compliance on 05/01/2019. The emergency response procedures were not complete. The wrong phone number was listed on line C1 the local Unified Program Agency (UPA) phone number. Please add 209-468-3420 as the local UPA phone number. A business plan shall include the following emergency response procedures for a release or threatened release of hazardous materials, including, but not limited to, the following: - immediate notification of local emergency personnel and the Environmental Health Department (EHD) - procedures for the mitigation of a release or threatened release to minimize any potential harm or damage to persons, property, or the environment - evacuation plans and procedures, including immediate notice, for the site Immediately log into the California Environmental Reporting System (CERS) at http://cers.calepa.ca.gov/, upload the correct or updated information, and submit to the EHD for approval.
Violation Division:	San Joaquin County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	519115
Site Name:	AGS FUEL INC DBA CIRCLE-K CHEVRON
Violation Date:	09-06-2019
Citation:	22 CCR 12 66262.11 - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.11
Violation Description:	Failure to determine if wastes generated are hazardous waste by using generator knowledge or applying testing method.
Violation Notes:	-According to Ms. Taran Maan, kitty litter has previously been used for spill clean up. No waste kitty litter was observed on site. No disposal records were available for waste solids. The only drum on site was labeled for waste liquids. A small amount of kitty litter was observed on the lid of the waste liquids drum. -According to Ms. Maan, the site has been using cleaning spray and paper towels to clean fuel spills. She stated that the paper towels are then placed in the trash. Any person who generates a waste shall determine if the waste is a hazardous waste as specified in Title 22 California Code of Regulations (CCR). There are wastes that are listed as hazardous wastes. There are wastes that exhibit one or more of the hazardous waste characteristics: toxic, corrosive, reactive or ignitable. Immediately stop disposal of these wastes in the trash, make a

AGS FUEL INC DBA CIRCLE-K CHEVRON (Continued) **S118927655**

	hazardous waste determination for each waste , and manage them according to Title 22 CCR. Use Safety Data Sheets
Violation Division:	San Joaquin County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	519115
Site Name:	AGS FUEL INC DBA CIRCLE-K CHEVRON
Violation Date:	03-03-2020
Citation:	23 CCR 16 2665(b) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2665(b)
Violation Description:	"Failure to submit a copy of the overfill prevention equipment inspection results on the G Overfill Prevention Equipment Inspection Report FormG to the UPA within 30 days after the inspection. "
Violation Notes:	Returned to compliance on 06/08/2020. OBSERVATION: Overfill Prevention Equipment Inspection was performed on 2/21/2019 and a test report has not been submitted to EHD. REGULATION GUIDANCE: A test report has not been submitted to the EHD or the California Environmental Reporting System (CERS). A copy of the ' Overfill Prevention Equipment Inspection Report' must be submitted within 30 days of the test. CORRECTIVE ACTION: Immediately provide this report to the EHD.
Violation Division:	San Joaquin County Environmental Health
Violation Program:	UST
Violation Source:	CERS
Site ID:	519115
Site Name:	AGS FUEL INC DBA CIRCLE-K CHEVRON
Violation Date:	03-03-2020
Citation:	23 CCR 16 2712(i) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(i)
Violation Description:	Failure to have current UST Monitoring Plan available on site.
Violation Notes:	Returned to compliance on 06/08/2020. OBSERVATION: An approved copy of the monitoring plans were not available for inspection. REGULATION GUIDANCE: A copy of these plans shall be accessible on site at all times. CORRECTIVE ACTION: Immediately locate and retain a copy on site.
Violation Division:	San Joaquin County Environmental Health
Violation Program:	UST
Violation Source:	CERS
Site ID:	519115
Site Name:	AGS FUEL INC DBA CIRCLE-K CHEVRON
Violation Date:	03-03-2020
Citation:	23 CCR 16 2712(i), 2632(d)(2), 2634(e), 2641(h) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(i), 2632(d)(2), 2634(e), 2641(h)
Violation Description:	Failure to submit a current UST Response Plan available on site.
Violation Notes:	Returned to compliance on 06/08/2020. OBSERVATION: An approved copy of the response plan was not available for inspection. REGULATION GUIDANCE: A copy of this plan shall be accessible on site at all times. CORRECTIVE ACTION: Immediately locate and retain a copy on site.
Violation Division:	San Joaquin County Environmental Health
Violation Program:	UST
Violation Source:	CERS
Site ID:	519115

AGS FUEL INC DBA CIRCLE-K CHEVRON (Continued) **S118927655**

Site Name:	AGS FUEL INC DBA CIRCLE-K CHEVRON
Violation Date:	09-06-2019
Citation:	22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description:	Failure to properly label hazardous waste accumulation containers and portable tanks with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes:	A 55 gallon black steel drum of hazardous waste liquids was observed in the dumpster area with no hazardous property and no specific contents listed. All hazardous waste containers shall be marked with the following information: - the words G Hazardous WasteG - name and address of generator - hazardous properties (flammable, corrosive, reactive, toxic) - physical state (liquid, solid) - composition (contents) - accumulation start date Immediately label this container and ensure that all hazardous waste containers are marked with all the required information.
Violation Division:	San Joaquin County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	519115
Site Name:	AGS FUEL INC DBA CIRCLE-K CHEVRON
Violation Date:	05-01-2019
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.
Violation Notes:	Returned to compliance on 05/01/2019. 450 pounds of carbon dioxide were found on site that have not been reported. Any material that meets or exceeds the reportable quantity shall be reported in the facility's business plan. Please add the average daily amount and the max container size to all of the chemical forms. This violation has been corrected on site.
Violation Division:	San Joaquin County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	519115
Site Name:	AGS FUEL INC DBA CIRCLE-K CHEVRON
Violation Date:	03-03-2020
Citation:	HSC 6.7 25291(a)(1) - California Health and Safety Code, Chapter 6.7, Section(s) 25291(a)(1)
Violation Description:	Failure to construct, operate, and maintain primary containment as product-tight.
Violation Notes:	Returned to compliance on 06/08/2020. OBSERVATION: Approximately 1 cup of liquid was found in UDC 5/6 and UDC 7/8, indicating a leak in the primary containment. The diesel meter in UDC 7/8 was actively leaking at the time of the inspection. REGULATION GUIDANCE: All primary containment for the UST system must be product tight. CORRECTIVE ACTION: Immediately have a properly licensed, trained, and certified contractor repair or replace the failed component(s), under permit and inspection of the EHD if necessary.
Violation Division:	San Joaquin County Environmental Health
Violation Program:	UST

AGS FUEL INC DBA CIRCLE-K CHEVRON (Continued) **S118927655**

Violation Source: CERS

Site ID: 519115
Site Name: AGS FUEL INC DBA CIRCLE-K CHEVRON
Violation Date: 09-06-2019
Citation: 40 CFR 1 265.32 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.32
Violation Description: Failure of the facility to maintain the following emergency equipment or equivalents: 1) An internal communications or alarm system; 2) A device, such as a telephone (immediately available at the scene of Operations/ Maintenance) or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or State or local emergency response teams; 3) Portable fire extinguishers, fire control equipment, spill control equipment, and decontamination equipment; and 4) Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems.
Violation Notes: Absorbent was not found on site. According to Ms. Maan, the site normally has kitty, but is currently out. All facilities shall be equipped with an internal communication or alarm system, a device capable of calling outside emergency help, spill control equipment, and decontamination equipment at all times. Immediately provide spill control equipment and maintain on site.
Violation Division: San Joaquin County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 519115
Site Name: AGS FUEL INC DBA CIRCLE-K CHEVRON
Violation Date: 03-03-2020
Citation: 23 CCR 16 2716(e) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2716(e)
Violation Description: For designated operator (DO) monthly inspections conducted before October 1, 2018, failure to comply with one or more of the following requirements: Be performed by an ICC certified DO. Inspect monthly alarm history report, check that alarms are documented and responded to appropriately, and attach a copy. Inspect for the presence of liquid/debris in spill containers. Inspect for the presence of liquid/debris in under dispenser containment (UDC) and ensure that the monitoring equipment is positioned correctly. Inspect for liquid or debris in containment sumps where an alarm occurred with no service visit. Check that all testing and maintenance has been completed and documented. Verify that all facility employees have been trained in accordance with 23 CCR 2715(c). For designated operator (DO) 30 day inspections conducted on and after October 1, 2018, failure to conduct the designated UST operator visual inspection at least once every 30 days.
Violation Notes: Returned to compliance on 06/08/2020. OBSERVATION: Designated operator reports were not signed within the required time frame. -The 3/28/2019 designated operator report was signed by the owner/operator on 4/18/2019. -The 6/13/2019 designated operator report was signed by the owner/operator on 8/8/2019. -The 7/11/2019 designated operator report was signed by the owner/operator on 8/18/2019. REGULATORY GUIDANCE: Within 48 hours of the completion of the designated UST operator visual inspection, the designated operator shall sign and provide the owner or operator with a copy of the inspection report. Within 48 hours of being provided a signed copy of the report, the owner or

AGS FUEL INC DBA CIRCLE-K CHEVRON (Continued) **S118927655**

operator shall provide a description of each corrective action taken or to be taken and shall sign and date the report, acknowledging the identified compliance issues. CORRECTIVE ACTION: Ensure all designated operator inspection reports are completed and signed within the required time frame in the future.

Violation Division: San Joaquin County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 519115
Site Name: AGS FUEL INC DBA CIRCLE-K CHEVRON
Violation Date: 05-01-2019
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit a site map with all required content.
Violation Notes: Returned to compliance on 05/01/2019. The site map was not complete as part of the business plan. The site map was missing a north loading areas, storm and sewer drains, access and exit points, emergency shutoffs (water and Electrical), evacuation staging areas, hazardous material handling and storage areas, and emergency response equipment (fire extinguishers) . If a site map element is not applicable for your facility then list it on the map and label as G NA". Immediately log into the California Environmental Reporting System (CERS) at http://cers.calepa.ca.gov/, upload the correct or updated information, and submit to the EHD for approval.
Violation Division: San Joaquin County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 519115
Site Name: AGS FUEL INC DBA CIRCLE-K CHEVRON
Violation Date: 03-03-2020
Citation: 23 CCR 16 2712(b)(2) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(b)(2)
Violation Description: Failure to maintain monitoring records for release detection and/or maintain records of appropriate follow-up actions.
Violation Notes: Returned to compliance on 06/08/2020. OBSERVATION: Maintenance and monitoring records for the last three years were not found on site. Overfill Prevention Equipment Inspection (2/21/2019) and Monitoring System Certification (3/6/2019) reports were not found on site. REGULATION GUIDANCE: These records shall be maintained on site for at least three years. Monitoring records include: (1) date and time of all monitoring or sampling; (2) monitoring equipment calibration and maintenance records; (3) results of any visual observations; (4) results of sample analysis performed a lab or in the field; (5) logs of all readings of gauges or other monitoring equipment, ground water elevations, or other test results; (6) results of inventory readings and reconciliations. CORRECTIVE ACTION: Immediately locate and maintain all missing maintenance and monitoring records for the last three years on site and submit copies to the EHD.
Violation Division: San Joaquin County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 519115
Site Name: AGS FUEL INC DBA CIRCLE-K CHEVRON

AGS FUEL INC DBA CIRCLE-K CHEVRON (Continued) **S118927655**

Violation Date: 03-03-2020
Citation: HSC 6.7 25290.1(c),25290.2(c),25291(a)(2),2529.1(e) - California Health and Safety Code, Chapter 6.7, Section(s) 25290.1(c),25290.2(c),25291(a)(2),2529.1(e)
Violation Description: Failure to maintain secondary containment (e.g., failure of secondary containment testing).
Violation Notes: Returned to compliance on 03/03/2020. OBSERVATION: Approximately 1 cup of brine was found in the 87, 91 and diesel fill sumps indicating a leak in the secondary containment. REGULATION GUIDANCE: Secondary containment shall be impervious to the liquid and vapor of the substance contained and constructed to prevent structural weakening as a result of contact with any hazardous substances released from the primary containment. CORRECTIVE ACTION: Immediately contact a properly licensed, trained, and certified contractor to make repairs to the UST system under permit and inspection of the EHD. This was corrected on site.
Violation Division: San Joaquin County Environmental Health
Violation Program: UST
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 03-03-2020
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Complete and submit a copy of the Return to Compliance Certification form to the EHD with a statement documenting the corrective actions that have been or will be taken for each violation, and any supporting paperwork, by 4/2/2020. Starting September 1, 2018, all in-office CERS help will be provided at EHD hourly rate ($152). To schedule an appointment, please call (209) 468-3420. Documents provided during inspection: -EHD class schedule -Return to compliance certification -Corrective Action Statement
Eval Division: San Joaquin County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 03-06-2019
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Onsite for a routine (post installation) Monitoring System Certification and a routine Underground Storage Tank (UST) inspection. This inspection was initiated on 3-6-2019 and was completed on 3-14-2019. Monitoring system certification was conducted on 3-6-2019 and routine UST inspection was conducted today, CERS submittal and DO training were verified. "All Functions Normal" was observed on the Veeder Root monitoring panel. This facility is NOT approved to operate until all the outstanding service request and UST operating permit fees have been paid and a permit to operate has been issued by the San Joaquin County Environmental Health Department.
Eval Division: San Joaquin County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-01-2019

AGS FUEL INC DBA CIRCLE-K CHEVRON (Continued) **S118927655**

Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	All violations were corrected on site. Starting September 1, 2018, all in-office CERS help will be provided at EHD hourly rate ($152). To schedule an appointment, please call (209) 468-3420.
Eval Division:	San Joaquin County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	09-06-2019
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Complete and submit a copy of the Return to Compliance Certification form to the EHD with a statement documenting the corrective actions that have been or will be taken for each violation, and any supporting paperwork, by October 6, 2019. Starting September 1, 2018, all in-office CERS help will be provided at EHD hourly rate ($152). To schedule an appointment, please call (209) 468-3420. Waste streams at this facility: Fuel filters, fuel contaminated solids, fuel contaminated liquids Documents provided: Return to Compliance Certification form, schedule of free CUPA classes
Eval Division:	San Joaquin County Environmental Health
Eval Program:	HW
Eval Source:	CERS

Coordinates:

Site ID:	519115
Facility Name:	AGS FUEL INC DBA CIRCLE-K CHEVRON
Env Int Type Code:	HMBP
Program ID:	10785304
Coord Name:	Not reported
Ref Point Type Desc:	Center of a facility or station.
Latitude:	37.780260
Longitude:	-121.215300

Affiliation:

Affiliation Type Desc:	Document Preparer
Entity Name:	GURPREET SANDHU
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Environmental Contact
Entity Name:	GURPREET D SANDHU
Entity Title:	Not reported
Affiliation Address:	1490 S Main St
Affiliation City:	Manteca
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	95337
Affiliation Phone:	Not reported

AGS FUEL INC DBA CIRCLE-K CHEVRON (Continued) **S118927655**

Affiliation Type Desc:	Operator
Entity Name:	GURPREET D SANDHU
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(925) 785-2000

Affiliation Type Desc:	Property Owner
Entity Name:	MANTECA INVESTMENTS LLC
Entity Title:	Not reported
Affiliation Address:	1490 S Main St
Affiliation City:	Manteca
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	95337
Affiliation Phone:	(925) 785-2000

Affiliation Type Desc:	UST Tank Operator
Entity Name:	GURPREET D SANDHU
Entity Title:	Not reported
Affiliation Address:	1490 SOUTH MAIN STREET
Affiliation City:	MANTECA
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	95337
Affiliation Phone:	(925) 785-2000

Affiliation Type Desc:	CUPA District
Entity Name:	San Joaquin Cnty Env Health
Entity Title:	Not reported
Affiliation Address:	1868 East Hazelton Avenue
Affiliation City:	Stockton
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	95205-6232
Affiliation Phone:	(209) 468-3420

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	1490 S Main St
Affiliation City:	Manteca
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	95337
Affiliation Phone:	Not reported

Affiliation Type Desc:	Identification Signer
Entity Name:	GURPREET SANDHU
Entity Title:	PRESIDENT/ OWNER
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported

AGS FUEL INC DBA CIRCLE-K CHEVRON (Continued) **S118927655**

Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Parent Corporation
Entity Name: AGS FUEL INC DBA CIRCLE-K CHEVRON
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: UST Property Owner Name
Entity Name: GURPREET D SANDHU
Entity Title: Not reported
Affiliation Address: 1490 SOUTH MAIN STREET
Affiliation City: MANTECA
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 95337
Affiliation Phone: (925) 785-2000

Affiliation Type Desc: Legal Owner
Entity Name: GURPREET D SANDHU
Entity Title: Not reported
Affiliation Address: 1490 S Main St
Affiliation City: Manteca
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 95337
Affiliation Phone: (925) 785-2000

Affiliation Type Desc: UST Tank Owner
Entity Name: GURPREET D SANDHU
Entity Title: Not reported
Affiliation Address: 1490 SOUTH MAIN STREET
Affiliation City: MANTECA
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 95337
Affiliation Phone: (925) 785-2000

HWTS:
Name: MANTECA INVESTMENTS LLC
Address: 1490 S. MAIN ST.
Address 2: Not reported
City,State,Zip: MANTECA, CA 95337
EPA ID: CAC002827979
Inactive Date: 11/28/2015
Create Date: 08/28/2015
Last Act Date: 11/28/2015
Mailing Name: Not reported
Mailing Address: 2823 E SUGAR HILL TER
Mailing Address 2: Not reported
Mailing City,State,Zip: DUBLIN, CA 945684623

AGS FUEL INC DBA CIRCLE-K CHEVRON (Continued) **S118927655**

Owner Name:	MANTECA INVESTMENTS LLC
Owner Address:	2823 E SUGAR HILL TER
Owner Address 2:	Not reported
Owner City,State,Zip:	DUBLIN, CA 945684623
Contact Name:	AMNIT SADHU
Contact Address:	2823 E SUGAR HILL TER
Contact Address 2:	Not reported
City,State,Zip:	DUBLIN, CA 945684623

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4 **NORMAN AMAN** **HIST UST** **U001606270**
SSE **7385 E WOODWARD** **N/A**
< 1/8 **MANTECA, CA 95336**
0.120 mi.
632 ft.

Relative: **Higher**
Actual: **37 ft.**

HIST UST:

Name:	NORMAN AMAN
Address:	7385 E WOODWARD
City,State,Zip:	MANTECA, CA 95336
File Number:	0002FF86
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0002FF86.pdf
Region:	STATE
Facility ID:	00000047670
Facility Type:	Other
Other Type:	FARM
Contact Name:	Not reported
Telephone:	2092392907
Owner Name:	NORMAN AMAN
Owner Address:	7385 E. WOODWARD
Owner City,St,Zip:	MANTECA, CA 95336
Total Tanks:	0001
Tank Num:	001
Container Num:	1
Year Installed:	1980
Tank Capacity:	00001000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor

Click here for Geo Tracker PDF:

B5 **HAHN'S CONSTRUCTION** **HIST UST** **U001606208**
SSW **7114 E WOODWARD RD** **N/A**
1/8-1/4 **MANTECA, CA 95336**
0.134 mi.
710 ft. **Site 1 of 3 in cluster B**

Relative: **Higher**
Actual: **37 ft.**

HIST UST:

Name:	HAHN'S CONSTRUCTION
Address:	7114 E WOODWARD RD
City,State,Zip:	MANTECA, CA 95336
File Number:	Not reported
URL:	Not reported
Region:	STATE

HAHN'S CONSTRUCTION (Continued) **U001606208**

Facility ID:	00000044296
Facility Type:	Other
Other Type:	CONSTRUCTION
Contact Name:	HILARY HAHN-OWNER
Telephone:	2092399428
Owner Name:	HILARY HAROLD HAHN
Owner Address:	7114 E. WOODWARD AVE.
Owner City,St,Zip:	MANTECA, CA 95336
Total Tanks:	0001
Tank Num:	001
Container Num:	1
Year Installed:	1980
Tank Capacity:	00000550
Tank Used for:	PRODUCT
Type of Fuel:	REGULAR
Container Construction Thickness:	10
Leak Detection:	Stock Inventor

B6 **HAHNS CONSTRUCTION** **UST** **U004260546**
SSW **7114 E WOODWARD AVE** **N/A**
1/8-1/4 **MANTECA, CA 95336**
0.141 mi.
744 ft. **Site 2 of 3 in cluster B**

Relative: **Higher**

Actual: **37 ft.**

UST SAN JOAQUIN:

Name:	HAHNS CONSTRUCTION
Address:	7114 E WOODWARD AVE
City,State,Zip:	MANTECA, CA 95336
Region:	SJ
Facility Id:	FA0005263
Mail Address:	7114 E WOODWARD AVE
Mail Address 2:	Not reported
Mail Care of:	HAHN'S CONSTRUCTION
Mail City,St,Zip:	MANTECA, CA 95336
Tank Rec ID:	Not reported
Tank Number:	1
Tank Status:	02 - Inactive, non-billable
Tank Capacity:	550
Product Type Desc:	09 - OTHER PETROLEUM
Program Element:	2380
Decode for Program Element:	2380 - ADDITIONAL EXISTING UST - obsolete
Chemical Form:	(none)
CAS#:	Not reported
CERS ID:	Not reported
Cross Ref Tank ID:	Not reported
LEA ID:	9
Common Name:	Not reported
Date Installed:	Not reported
Date of Closure:	Not reported
Latitude:	Not reported
Longitude:	Not reported

B7
SSW
1/8-1/4
0.141 mi.
744 ft.

HAHN'S CONSTRUCTION
7114 E WOODWARD AVE
MANTECA, CA 95336

Site 3 of 3 in cluster B

SWEEPS UST
HIST UST
CA FID UST

S101625875
N/A

Relative:
Higher

Actual:
37 ft.

SWEEPS UST:

Name:	HAHN'S CONSTRUCTION
Address:	7114 E WOODWARD AVE
City:	MANTECA
Status:	Not reported
Comp Number:	1451
Number:	Not reported
Board Of Equalization:	Not reported
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	39-000-001451-000001
Tank Status:	Not reported
Capacity:	550
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	LEADED
Number Of Tanks:	1

HIST UST:

Name:	HAHNS CONSTRUCTION
Address:	7114 E WOODWARD AVE
City,State,Zip:	MANTECA, CA 95336
File Number:	0002FD25
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0002FD25.pdf
Region:	Not reported
Facility ID:	Not reported
Facility Type:	Not reported
Other Type:	Not reported
Contact Name:	Not reported
Telephone:	Not reported
Owner Name:	Not reported
Owner Address:	Not reported
Owner City,St,Zip:	Not reported
Total Tanks:	Not reported
Tank Num:	Not reported
Container Num:	Not reported
Year Installed:	Not reported
Tank Capacity:	Not reported
Tank Used for:	Not reported
Type of Fuel:	Not reported
Container Construction Thickness:	Not reported
Leak Detection:	Not reported

Click here for Geo Tracker PDF:

CA FID UST:

Facility ID:	39003486
Regulated By:	UTNKI

HAHN'S CONSTRUCTION (Continued) **S101625875**

Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	Not reported
Mail To:	Not reported
Mailing Address:	7114 E WOODWARD AVE
Mailing Address 2:	Not reported
Mailing City,St,Zip:	MANTECA 95336
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Inactive

---

8 **SAND LANE ELEMENTARY** **ENVIROSTOR** **S107737266**
WSW **6647 EAST WOODWARD AVENUE** **SCH** **N/A**
1/4-1/2 **MANTECA, CA 95336** **CERS**
0.294 mi.
1554 ft.

Relative:
Lower

Actual:
32 ft.

ENVIROSTOR:

Name:	SAND LANE ELEMENTARY
Address:	6647 EAST WOODWARD AVENUE
City,State,Zip:	MANTECA, CA 95336
Facility ID:	39020001
Status:	No Further Action
Status Date:	07/24/2002
Site Code:	104187
Site Type:	School Investigation
Site Type Detailed:	School
Acres:	18
NPL:	NO
Regulatory Agencies:	DTSC
Lead Agency:	DTSC
Program Manager:	Not reported
Supervisor:	Mark Malinowski
Division Branch:	Northern California Schools & Santa Susana
Assembly:	12
Senate:	05
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	School District
Latitude:	37.77583
Longitude:	-121.2260
APN:	NONE SPECIFIED
Past Use:	AGRICULTURAL - LIVESTOCK
Potential COC:	Arsenic DDD DDE DDT Lead Toxaphene
Confirmed COC:	30023-NO 30001-NO 30006-NO 30007-NO 30008-NO 30013-NO No Contaminants found
Potential Description:	SOIL
Alias Name:	MANTECA UNIFIED SCHOOL DISTRICT
Alias Type:	Alternate Name
Alias Name:	MANTECA USD-SAND LANE ELEM
Alias Type:	Alternate Name
Alias Name:	SAND LANE ELEMENTARY SCHOOL

SAND LANE ELEMENTARY (Continued) **S107737266**

Alias Type: Alternate Name
Alias Name: 104187
Alias Type: Project Code (Site Code)
Alias Name: 39020001
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 01/02/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 07/24/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Workplan
Completed Date: 08/24/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 11/09/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 10/29/2002
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

SCH:

Name: SAND LANE ELEMENTARY
Address: 6647 EAST WOODWARD AVENUE
City,State,Zip: MANTECA, CA 95336
Facility ID: 39020001
Site Type: School Investigation
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: 18

SAND LANE ELEMENTARY (Continued) **S107737266**

National Priorities List:	NO
Cleanup Oversight Agencies:	DTSC
Lead Agency:	DTSC
Lead Agency Description:	* DTSC
Project Manager:	Not reported
Supervisor:	Mark Malinowski
Division Branch:	Northern California Schools & Santa Susana
Site Code:	104187
Assembly:	12
Senate:	05
Special Program Status:	Not reported
Status:	No Further Action
Status Date:	07/24/2002
Restricted Use:	NO
Funding:	School District
Latitude:	37.77583
Longitude:	-121.2260
APN:	NONE SPECIFIED
Past Use:	AGRICULTURAL - LIVESTOCK
Potential COC:	Arsenic, Arsenic, DDD, DDE, DDT, Lead, Toxaphene
Confirmed COC:	30023-NO, 30001-NO, 30006-NO, 30007-NO, 30008-NO, 30013-NO, No Contaminants found
Potential Description:	SOIL
Alias Name:	MANTECA UNIFIED SCHOOL DISTRICT
Alias Type:	Alternate Name
Alias Name:	MANTECA USD-SAND LANE ELEM
Alias Type:	Alternate Name
Alias Name:	SAND LANE ELEMENTARY SCHOOL
Alias Type:	Alternate Name
Alias Name:	104187
Alias Type:	Project Code (Site Code)
Alias Name:	39020001
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	01/02/2001
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	07/24/2002
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	* Workplan
Completed Date:	08/24/2001
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Inspections/Visit (Non LUR)
Completed Date:	11/09/2001
Comments:	Not reported

SAND LANE ELEMENTARY (Continued) **S107737266**

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	10/29/2002
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

CERS:

Name:	SAND LANE ELEMENTARY
Address:	6647 EAST WOODWARD AVENUE
City,State,Zip:	MANTECA, CA 95336
Site ID:	342636
CERS ID:	39020001
CERS Description:	School Investigation

Affiliation:

Affiliation Type Desc:	Supervisor
Entity Name:	MARK MALINOWSKI
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

---

9 **KIM MARTIN** **CPS-SLIC** **S112971515**
SSE **2112 S MAIN ST** **HAZNET** **N/A**
1/4-1/2 **MANTECA, CA 95337** **Notify 65**
0.430 mi. **CERS**
2270 ft. **HWTS**

Relative:
Higher

Actual:
41 ft.

CPS-SLIC:

Name:	TRI-AG SERVICE, INC.
Address:	2112 SOUTH MAIN STREET
City,State,Zip:	MANTECA, CA 95337
Region:	STATE
Facility Status:	**Open - Site Assessment**
Status Date:	04/25/2017
Global Id:	SLT5S4823431
Lead Agency:	CENTRAL VALLEY RWQCB (REGION 5S)
Lead Agency Case Number:	Not reported
Latitude:	37.7717653324183
Longitude:	-121.215458221069
Case Type:	Cleanup Program Site
Case Worker:	JTM
Local Agency:	SAN JOAQUIN COUNTY
RB Case Number:	SLT5S482

KIM MARTIN (Continued) **S112971515**

File Location: All Files are on GeoTracker or in the Local Agency Database
Potential Media Affected: Other Groundwater (uses other than drinking water), Soil, Well used for drinking water supply
Potential Contaminants of Concern: Nitrate, Other Insecticides / Pesticide / Fumigants / Herbicides
Site History: Fertilizer/Pesticide File Summary 1986 - Washpad, sump, large evaporation tank; drains to field. Site also referred to as 20696 South Main Street, Manteca. Schmiedt Soil Service operated a soil fumigant agricultural service at the 5-acre property from 1946 to 1982. The primary products used were DBCP, EDB, and Telone II. Other pesticides and fertilizers were also handled. In 1982, the business was sold to Tri-Ag Service, who operated on 1.5 acres until 2001. Tri-Ag predominately provided fertilizer services, and some pesticide and fumigant services. This ag chem property is within a larger block of ag land being converted to residential housing in 2002.

Click here to access the California GeoTracker records for this facility:

HAZNET:

Name:	KIM MARTIN
Address:	2112 S MAIN ST
Address 2:	Not reported
City,State,Zip:	MANTECA, CA 953379500
Contact:	RAY RICKETT
Telephone:	2094702936
Mailing Name:	Not reported
Mailing Address:	2112 S MAIN ST
Year:	2008
Gepaid:	CAC002632337
TSD EPA ID:	CAD982446874
CA Waste Code:	223 - Unspecified oil-containing waste
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	11.7177

Additional Info:

Year:	2008
Gen EPA ID:	CAC002632337
Shipment Date:	20080709
Creation Date:	8/20/2008 18:30:46
Receipt Date:	20080709
Manifest ID:	004533464JJK
Trans EPA ID:	CAR000171017
Trans Name:	FREMOUW ENVIRONMENTAL SERVICES INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD982446874
Trans Name:	EVERGREEN ENVIRONMENTAL SERVICES DAVIS
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	223 - Unspecified oil-containing waste
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)

KIM MARTIN (Continued) **S112971515**

Quantity Tons:	11.7177
Waste Quantity:	2810
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

NOTIFY 65:

Name:	TRI-AG SERVICE, INC.
Address:	2112 SOUTH MAIN STREET
City,State,Zip:	MANTECA, CA 95337
Date Reported:	Not reported
Staff Initials:	Not reported
Board File Number:	Not reported
Facility Type:	Not reported
Discharge Date:	Not reported
Issue Date:	10/13/2017
Incident Description:	Not reported
Global ID:	Not reported
Status:	Not reported

CERS:

Name:	TRI-AG SERVICE, INC.
Address:	2112 SOUTH MAIN STREET
City,State,Zip:	MANTECA, CA 95337
Site ID:	218111
CERS ID:	SLT5S4823431
CERS Description:	Cleanup Program Site

Affiliation:

Affiliation Type Desc:	Regional Board Caseworker
Entity Name:	MARK PAUL BARE - CENTRAL VALLEY RWQCB (REGION 5S)
Entity Title:	Not reported
Affiliation Address:	11020 SUN CENTER DRIVE #200
Affiliation City:	RANCHO CORDOVA
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

HWTS:

Name:	KIM MARTIN
Address:	2112 S MAIN ST
Address 2:	Not reported
City,State,Zip:	MANTECA, CA 953379500
EPA ID:	CAC002632337
Inactive Date:	01/05/2009
Create Date:	07/08/2008
Last Act Date:	02/04/2009
Mailing Name:	Not reported
Mailing Address:	2112 S MAIN ST
Mailing Address 2:	Not reported
Mailing City,State,Zip:	MANTECA, CA 953379500

KIM MARTIN (Continued) **S112971515**

Owner Name:	KIM MARTIN
Owner Address:	2112 S MAIN ST
Owner Address 2:	Not reported
Owner City,State,Zip:	MANTECA, CA 953379500
Contact Name:	RAY RICKETT
Contact Address:	2112 S MAIN ST
Contact Address 2:	Not reported
City,State,Zip:	MANTECA, CA 953379500

10
NNE
1/4-1/2
0.430 mi.
2272 ft.

CAL-WEST CONCRETE CUTTING
1153 VANDERBILT
MANTECA, CA 95336

LUST **S100272415**
Cortese **N/A**
HIST CORTESE
CERS

Relative:
Higher

Actual:
40 ft.

LUST:

Name:	CAL-WEST CONCRETE CUTTING INC
Address:	1153 VANDERBILT CIR
City,State,Zip:	MANTECA, CA 95336
Lead Agency:	SAN JOAQUIN COUNTY
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0607700516
Global Id:	T0607700516
Latitude:	37.785058
Longitude:	-121.213328
Status:	Completed - Case Closed
Status Date:	07/08/1997
Case Worker:	Not reported
RB Case Number:	390665
Local Agency:	Not reported
File Location:	Not reported
Local Case Number:	1745
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

LUST:

Global Id:	T0607700516
Contact Type:	Regional Board Caseworker
Contact Name:	Alan Buehler
Organization Name:	CENTRAL VALLEY RWQCB (REGION 5S)
Address:	11020 SUN CENTER DRIVE #200
City:	RANCHO CORDOVA
Email:	alan.buehler@waterboards.ca.gov
Phone Number:	Not reported

LUST:

Global Id:	T0607700516
Action Type:	Other
Date:	03/25/1991
Action:	Leak Discovery

Global Id:	T0607700516
Action Type:	Other
Date:	09/30/1991
Action:	Leak Reported

CAL-WEST CONCRETE CUTTING (Continued) **S100272415**

LUST:

Global Id:	T0607700516
Status:	Open - Case Begin Date
Status Date:	03/25/1991
Global Id:	T0607700516
Status:	Open - Site Assessment
Status Date:	03/25/1991
Global Id:	T0607700516
Status:	Open - Site Assessment
Status Date:	09/06/1996
Global Id:	T0607700516
Status:	Completed - Case Closed
Status Date:	07/08/1997

LUST REG 5:

Name:	CAL-WEST CONCRETE CUTTING INC
Address:	1153 VANDERBILT CIR
City:	MANTECA
Region:	5
Status:	Case Closed
Case Number:	390665
Case Type:	Drinking Water Aquifer affected
Substance:	GASOLINE
Staff Initials:	JLB
Lead Agency:	Local
Program:	LUST
MTBE Code:	0

CORTESE:

Name:	CAL-WEST CONCRETE CUTTING INC
Address:	1153 VANDERBILT CIR
City,State,Zip:	MANTECA, CA 95336
Region:	CORTESE
Envirostor Id:	Not reported
Global ID:	T0607700516
Site/Facility Type:	LUST CLEANUP SITE
Cleanup Status:	COMPLETED - CASE CLOSED
Status Date:	Not reported
Site Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Owner:	Not reported
Enf Type:	Not reported
Swat R:	Not reported
Flag:	active
Order No:	Not reported
Waste Discharge System No:	Not reported
Effective Date:	Not reported
Region 2:	Not reported
WID Id:	Not reported
Solid Waste Id No:	Not reported
Waste Management Uit Name:	Not reported

CAL-WEST CONCRETE CUTTING (Continued) **S100272415**

File Name: Active Open

HIST CORTESE:
edr_fname: CAL-WEST CONCRETE CUTTING
edr_fadd1: 1153 VANDERBILT
City,State,Zip: MANTECA, CA 95336
Region: CORTESE
Facility County Code: 39
Reg By: LTNKA
Reg Id: 390665

CERS:
Name: CAL-WEST CONCRETE CUTTING INC
Address: 1153 VANDERBILT CIR
City,State,Zip: MANTECA, CA 95336
Site ID: 223274
CERS ID: T0607700516
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
Affiliation Type Desc: Regional Board Caseworker
Entity Name: Alan Buehler - CENTRAL VALLEY RWQCB (REGION 5S)
Entity Title: Not reported
Affiliation Address: 11020 SUN CENTER DRIVE #200
Affiliation City: RANCHO CORDOVA
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

---

11 **HOUSE OF REDWOOD** **LUST** **S101302556**
NE **1199 VANDERBILT CIR** **SWEEPS UST** **N/A**
1/4-1/2 **MANTECA, CA 95336** **Cortese**
0.448 mi. **HIST CORTESE**
2364 ft. **CERS**

Relative: Higher
Actual: 39 ft.

LUST:
Name: HOUSE OF REDWOOD
Address: 1199 VANDERBILT CIR
City,State,Zip: MANTECA, CA 95336
Lead Agency: SAN JOAQUIN COUNTY
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0607700090
Global Id: T0607700090
Latitude: 37.7848481
Longitude: -121.2118634
Status: Completed - Case Closed
Status Date: 02/10/1994
Case Worker: Not reported
RB Case Number: 390126
Local Agency: Not reported
File Location: Not reported
Local Case Number: 0001376
Potential Media Affect: Soil
Potential Contaminants of Concern: Gasoline
Site History: Not reported

HOUSE OF REDWOOD (Continued) **S101302556**

LUST:
Global Id: T0607700090
Contact Type: Regional Board Caseworker
Contact Name: Alan Buehler
Organization Name: CENTRAL VALLEY RWQCB (REGION 5S)
Address: 11020 SUN CENTER DRIVE #200
City: RANCHO CORDOVA
Email: alan.buehler@waterboards.ca.gov
Phone Number: Not reported

LUST:
Global Id: T0607700090
Action Type: Other
Date: 12/11/1987
Action: Leak Reported

LUST:
Global Id: T0607700090
Status: Open - Case Begin Date
Status Date: 12/11/1987

Global Id: T0607700090
Status: Completed - Case Closed
Status Date: 02/10/1994

LUST REG 5:
Name: HOUSE OF REDWOOD
Address: 1199 VANDERBILT CIR
City: MANTECA
Region: 5
Status: Case Closed
Case Number: 390126
Case Type: Soil only
Substance: UNLEAD GASOLINE
Staff Initials: JLB
Lead Agency: Local
Program: LUST
MTBE Code: N/A

SWEEPS UST:
Name: HOUSE OF REDWOOD
Address: 1199 VANDERBILT CIR
City: MANTECA
Status: Not reported
Comp Number: 2102
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 39-000-002102-000001
Tank Status: Not reported
Capacity: 5000

HOUSE OF REDWOOD (Continued) **S101302556**

Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: REG UNLEADED
Number Of Tanks: 2

Name: HOUSE OF REDWOOD
Address: 1199 VANDERBILT CIR
City: MANTECA
Status: Not reported
Comp Number: 2102
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 39-000-002102-000002
Tank Status: Not reported
Capacity: 10000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: DIESEL
Number Of Tanks: Not reported

CORTESE:
Name: HOUSE OF REDWOOD
Address: 1199 VANDERBILT CIR
City,State,Zip: MANTECA, CA 95336
Region: CORTESE
Envirostor Id: Not reported
Global ID: T0607700090
Site/Facility Type: LUST CLEANUP SITE
Cleanup Status: COMPLETED - CASE CLOSED
Status Date: Not reported
Site Code: Not reported
Latitude: Not reported
Longitude: Not reported
Owner: Not reported
Enf Type: Not reported
Swat R: Not reported
Flag: active
Order No: Not reported
Waste Discharge System No: Not reported
Effective Date: Not reported
Region 2: Not reported
WID Id: Not reported
Solid Waste Id No: Not reported
Waste Management Uit Name: Not reported
File Name: Active Open

HIST CORTESE:
edr_fname: HOUSE OF REDWOOD
edr_fadd1: 1199 VANDERBILT
City,State,Zip: MANTECA, CA 95336

HOUSE OF REDWOOD (Continued) **S101302556**

Region: CORTESE
Facility County Code: 39
Reg By: LTNKA
Reg Id: 390126

CERS:
Name: HOUSE OF REDWOOD
Address: 1199 VANDERBILT CIR
City,State,Zip: MANTECA, CA 95336
Site ID: 220482
CERS ID: T0607700090
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
Affiliation Type Desc: Regional Board Caseworker
Entity Name: Alan Buehler - CENTRAL VALLEY RWQCB (REGION 5S)
Entity Title: Not reported
Affiliation Address: 11020 SUN CENTER DRIVE #200
Affiliation City: RANCHO CORDOVA
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

12
NE
1/4-1/2
0.467 mi.
2467 ft.

Relative:
Higher

Actual:
39 ft.

MOUNTAIN VALLEY EXPRESS
1299 VANDERVILT CR
MANTECA, CA 95336

LUST **1000322014**
SWEEPS UST **CAD982476814**
HIST UST
CA FID UST
RCRA NonGen / NLR
FINDS
ECHO
Cortese
HAZNET
HIST CORTESE
CERS
HWTS

LUST:
Name: MOUNTAIN VALLEY EXPRESS
Address: 1299 VANDERBILT CIR
City,State,Zip: MANTECA, CA 95336
Lead Agency: SAN JOAQUIN COUNTY
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0607700280
Global Id: T0607700280
Latitude: 37.784159
Longitude: -121.210765
Status: Completed - Case Closed
Status Date: 02/28/1996
Case Worker: Not reported
RB Case Number: 390370
Local Agency: Not reported
File Location: Not reported
Local Case Number: 0001377
Potential Media Affect: Soil
Potential Contaminants of Concern: Waste Oil / Motor / Hydraulic / Lubricating
Site History: Not reported

MOUNTAIN VALLEY EXPRESS (Continued) **1000322014**

LUST:
Global Id: T0607700280
Contact Type: Regional Board Caseworker
Contact Name: Alan Buehler
Organization Name: CENTRAL VALLEY RWQCB (REGION 5S)
Address: 11020 SUN CENTER DRIVE #200
City: RANCHO CORDOVA
Email: alan.buehler@waterboards.ca.gov
Phone Number: Not reported

LUST:
Global Id: T0607700280
Action Type: Other
Date: 05/09/1988
Action: Leak Discovery

Global Id: T0607700280
Action Type: Other
Date: 02/03/1989
Action: Leak Reported

LUST:
Global Id: T0607700280
Status: Open - Case Begin Date
Status Date: 05/09/1988

Global Id: T0607700280
Status: Open - Remediation
Status Date: 02/03/1989

Global Id: T0607700280
Status: Completed - Case Closed
Status Date: 02/28/1996

LUST REG 5:
Name: MOUNTAIN VALLEY EXPRESS
Address: 1299 VANDERBILT CIR
City: MANTECA
Region: 5
Status: Case Closed
Case Number: 390370
Case Type: Soil only
Substance: WASTE OIL
Staff Initials: JLB
Lead Agency: Local
Program: LUST
MTBE Code: N/A

SWEEPS UST:
Name: MOUNTAIN VALLEY EXPRESS
Address: 1299 VANDERBILT CIR
City: MANTECA
Status: Not reported
Comp Number: 1448

MOUNTAIN VALLEY EXPRESS (Continued) **1000322014**

Number: Not reported
Board Of Equalization: 44-024698
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 39-000-001448-000001
Tank Status: Not reported
Capacity: 150
Active Date: Not reported
Tank Use: OIL
STG: WASTE
Content: WASTE OIL
Number Of Tanks: 1

Name: MOUNTAIN VALLEY EXPRESS
Address: 1299 VANDERBILT CIR
City: MANTECA
Status: Active
Comp Number: 1448
Number: 1
Board Of Equalization: 44-024698
Referral Date: 04-13-92
Action Date: 04-13-92
Created Date: 07-12-88
Owner Tank Id: 002
SWRCB Tank Id: 39-000-001448-000002
Tank Status: A
Capacity: 1000
Active Date: 04-13-92
Tank Use: OIL
STG: P
Content: TRUCK MOTOR
Number Of Tanks: 3

Name: MOUNTAIN VALLEY EXPRESS
Address: 1299 VANDERBILT CIR
City: MANTECA
Status: Active
Comp Number: 1448
Number: 1
Board Of Equalization: 44-024698
Referral Date: 04-13-92
Action Date: 04-13-92
Created Date: 07-12-88
Owner Tank Id: 003
SWRCB Tank Id: 39-000-001448-000003
Tank Status: A
Capacity: 5000
Active Date: 04-13-92
Tank Use: M.V. FUEL
STG: P
Content: LEADED
Number Of Tanks: Not reported

Name: MOUNTAIN VALLEY EXPRESS
Address: 1299 VANDERBILT CIR

MOUNTAIN VALLEY EXPRESS (Continued) **1000322014**

City: MANTECA
Status: Active
Comp Number: 1448
Number: 1
Board Of Equalization: 44-024698
Referral Date: 04-13-92
Action Date: 04-13-92
Created Date: 07-12-88
Owner Tank Id: 004
SWRCB Tank Id: 39-000-001448-000004
Tank Status: A
Capacity: 10000
Active Date: 04-13-92
Tank Use: M.V. FUEL
STG: P
Content: DIESEL
Number Of Tanks: Not reported

HIST UST:
Name: MOUNTAIN VALLEY EXPRESS CO INC
Address: 1299 VANDERBILT CIRCLE
City,State,Zip: MANTECA, CA 95336
File Number: 0002FF56
URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0002FF56.pdf
Region: STATE
Facility ID: 00000013101
Facility Type: Other
Other Type: TRUCKING
Contact Name: CHARLES GILES
Telephone: 2098232168
Owner Name: MOUNTAIN VALLEY EXPRESS CO INC
Owner Address: 1299 VANDERBILT CIRCLE
Owner City,St,Zip: MANTECA, CA 95336
Total Tanks: 0004

Tank Num: 001
Container Num: 4
Year Installed: 1980
Tank Capacity: 00000150
Tank Used for: WASTE
Type of Fuel: WASTE OIL
Container Construction Thickness: 1/4
Leak Detection: Stock Inventor, Pressure Test

Tank Num: 002
Container Num: 3
Year Installed: 1980
Tank Capacity: 00001000
Tank Used for: PRODUCT
Type of Fuel: Not reported
Container Construction Thickness: 1/4
Leak Detection: Stock Inventor, Pressure Test

Tank Num: 003
Container Num: 2
Year Installed: 1980
Tank Capacity: 00005000

MOUNTAIN VALLEY EXPRESS (Continued) **1000322014**

Tank Used for: PRODUCT
Type of Fuel: REGULAR
Container Construction Thickness: 1/4
Leak Detection: Pressure Test

Tank Num: 004
Container Num: 1
Year Installed: 1980
Tank Capacity: 00001000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: 1/4
Leak Detection: Stock Inventor, Pressure Test

Click here for Geo Tracker PDF:

CA FID UST:
Facility ID: 39000254
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2098232168
Mail To: Not reported
Mailing Address: 1299 VANDERBILT CIR
Mailing Address 2: Not reported
Mailing City,St,Zip: MANTECA 95336
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

RCRA NonGen / NLR:
Date Form Received by Agency: 1996-10-10 00:00:00.0
Handler Name: MOUNTAIN VALLEY EXPRESS
Handler Address: 1299 VANDERVILT CR
Handler City,State,Zip: MANTECA, CA 95336
EPA ID: CAD982476814
Contact Name: JENNIFER ALTES
Contact Address: PO BOX 152
Contact City,State,Zip: MANTECA, CA 95336
Contact Telephone: 209-823-2168
Contact Fax: Not reported
Contact Email: Not reported
Contact Title: Not reported
EPA Region: 09
Land Type: Private
Federal Waste Generator Description: Not a generator, verified
Non-Notifier: Not reported
Biennial Report Cycle: Not reported
Accessibility: Not reported
Active Site Indicator: Not reported
State District Owner: CA

MOUNTAIN VALLEY EXPRESS (Continued) **1000322014**

State District:	1
Mailing Address:	1299 VANDERBILT CR
Mailing City,State,Zip:	MANTECA, CA 95336
Owner Name:	MOUNTAIN VALLEY EXPRESS
Owner Type:	Private
Operator Name:	NOT REQUIRED
Operator Type:	Private
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	No
Universal Waste Destination Facility:	No
Federal Universal Waste:	No
Active Site Fed-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site Converter Treatment storage and Disposal Facility:	Not reported
Active Site State-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	NN
Sub-Part K Indicator:	Not reported
Commercial TSD Indicator:	No
Treatment Storage and Disposal Type:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
Permit Renewals Workload Universe:	Not reported
Permit Workload Universe:	Not reported
Permit Progress Universe:	Not reported
Post-Closure Workload Universe:	Not reported
Closure Workload Universe:	Not reported
202 GPRA Corrective Action Baseline:	No
Corrective Action Workload Universe:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe:	No
TSDFs Only Subject to CA under Discretionary Auth Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Operating TSDF Universe:	Not reported
Full Enforcement Universe:	Not reported
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	2002-06-27 03:34:12.0
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No

MOUNTAIN VALLEY EXPRESS (Continued) **1000322014**

Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	Not reported
Manifest Broker:	Not reported
Sub-Part P Indicator:	No

Handler - Owner Operator:

Owner/Operator Indicator:	Owner
Owner/Operator Name:	MOUNTAIN VALLEY EXPRESS
Legal Status:	Private
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	NOT REQUIRED
Owner/Operator City,State,Zip:	NOT REQUIRED, ME 99999
Owner/Operator Telephone:	415-555-1212
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Operator
Owner/Operator Name:	NOT REQUIRED
Legal Status:	Private
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	NOT REQUIRED
Owner/Operator City,State,Zip:	NOT REQUIRED, ME 99999
Owner/Operator Telephone:	415-555-1212
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Historic Generators:

Receive Date:	1996-10-10 00:00:00.0
Handler Name:	MOUNTAIN VALLEY EXPRESS
Federal Waste Generator Description:	Not a generator, verified
State District Owner:	CA
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	Yes
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

List of NAICS Codes and Descriptions:

NAICS Code:	4841
NAICS Description:	GENERAL FREIGHT TRUCKING

Facility Has Received Notices of Violations:

Violations:	No Violations Found

Evaluation Action Summary:

Evaluations:	No Evaluations Found

MOUNTAIN VALLEY EXPRESS (Continued) **1000322014**

FINDS:
Registry ID: 110002823277

Click Here:

Environmental Interest/Information System:
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.
STATE MASTER

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1000322014
Registry ID:	110002823277
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110002823277
Name:	MOUNTAIN VALLEY EXPRESS
Address:	1299 VANDERVILT CR
City,State,Zip:	MANTECA, CA 95336

CORTESE:

Name:	MOUNTAIN VALLEY EXPRESS
Address:	1299 VANDERBILT CIR
City,State,Zip:	MANTECA, CA 95336
Region:	CORTESE
Envirostor Id:	Not reported
Global ID:	T0607700280
Site/Facility Type:	LUST CLEANUP SITE
Cleanup Status:	COMPLETED - CASE CLOSED
Status Date:	Not reported
Site Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Owner:	Not reported
Enf Type:	Not reported
Swat R:	Not reported
Flag:	active
Order No:	Not reported
Waste Discharge System No:	Not reported
Effective Date:	Not reported
Region 2:	Not reported
WID Id:	Not reported
Solid Waste Id No:	Not reported
Waste Management Uit Name:	Not reported
File Name:	Active Open

HAZNET:

Name:	MOUNTAIN VALLEY EXPRESS
Address:	1299 VANDERVILT CR
Address 2:	Not reported
City,State,Zip:	MANTECA, CA 953360000
Contact:	INACTIVE MOVED OUT

MOUNTAIN VALLEY EXPRESS (Continued) **1000322014**

Telephone: 2098232168
Mailing Name: Not reported
Mailing Address: PO BOX 2569

Year: 2002
Gepaid: CAD982476814
TSD EPA ID: CAD059494310
CA Waste Code: 331 - Off-specification, aged or surplus organics
Disposal Method: H01 - Transfer Station
Tons: 0.25

Year: 2002
Gepaid: CAD982476814
TSD EPA ID: CAD059494310
CA Waste Code: 331 - Off-specification, aged or surplus organics
Disposal Method: -
Tons: 0.05

Year: 2002
Gepaid: CAD982476814
TSD EPA ID: CAD059494310
CA Waste Code: -
Disposal Method: H01 - Transfer Station
Tons: Not reported

Year: 2001
Gepaid: CAD982476814
TSD EPA ID: CAD059494310
CA Waste Code: 223 - Unspecified oil-containing waste
Disposal Method: H01 - Transfer Station
Tons: 0.75

Year: 2001
Gepaid: CAD982476814
TSD EPA ID: CAD059494310
CA Waste Code: 331 - Off-specification, aged or surplus organics
Disposal Method: H01 - Transfer Station
Tons: 0.6

Year: 2000
Gepaid: CAD982476814
TSD EPA ID: CAD059494310
CA Waste Code: 222 - Oil/water separation sludge
Disposal Method: H01 - Transfer Station
Tons: 8.2274

Year: 1998
Gepaid: CAD982476814
TSD EPA ID: CAD980887418
CA Waste Code: 221 - Waste oil and mixed oil
Disposal Method: R01 - Recycler
Tons: 5.491

Year: 1997
Gepaid: CAD982476814
TSD EPA ID: CAD980887418
CA Waste Code: 221 - Waste oil and mixed oil

MOUNTAIN VALLEY EXPRESS (Continued) **1000322014**

Disposal Method:	R01 - Recycler
Tons:	5.624
Year:	1995
Gepaid:	CAD982476814
TSD EPA ID:	CAD980887418
CA Waste Code:	221 - Waste oil and mixed oil
Disposal Method:	R01 - Recycler
Tons:	6.27
Year:	1992
Gepaid:	CAD982476814
TSD EPA ID:	CAD083166728
CA Waste Code:	223 - Unspecified oil-containing waste
Disposal Method:	R01 - Recycler
Tons:	11.676

Click this hyperlink while viewing on your computer to access
1 additional CA HAZNET: record(s) in the EDR Site Report.

Additional Info:

Year:	1998
Gen EPA ID:	CAD982476814
Shipment Date:	19980828
Creation Date:	11/2/1998 0:00:00
Receipt Date:	19980828
Manifest ID:	98265492
Trans EPA ID:	CAD982413262
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980887418
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	221 - Waste oil and mixed oil
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	5.491
Waste Quantity:	1445
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2002
Gen EPA ID:	CAD982476814
Shipment Date:	20020722
Creation Date:	3/14/2003 18:31:30
Receipt Date:	20020805

MOUNTAIN VALLEY EXPRESS (Continued) **1000322014**

Manifest ID:	20843109
Trans EPA ID:	CAD982413262
Trans Name:	Not reported
Trans 2 EPA ID:	SCR000074591
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD059494310
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.25
Waste Quantity:	500
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20020328
Creation Date:	1/8/2003 18:31:12
Receipt Date:	20020405
Manifest ID:	21698546
Trans EPA ID:	CAD982413262
Trans Name:	Not reported
Trans 2 EPA ID:	SCR000074591
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD059494310
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Meth Code:	- Not reported
Quantity Tons:	0.05
Waste Quantity:	100
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20020328
Creation Date:	1/8/2003 18:31:12
Receipt Date:	20020405
Manifest ID:	21698546
Trans EPA ID:	CAD982413262
Trans Name:	Not reported
Trans 2 EPA ID:	SCR000074591
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD059494310
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported

MOUNTAIN VALLEY EXPRESS (Continued) **1000322014**

Waste Code Description:	- Not reported
RCRA Code:	Not reported
Meth Code:	H01 - Transfer Station
Quantity Tons:	Not reported
Waste Quantity:	Not reported
Quantity Unit:	Not reported
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2001
Gen EPA ID:	CAD982476814
Shipment Date:	20010802
Creation Date:	11/1/2001 0:00:00
Receipt Date:	20010810
Manifest ID:	20118398
Trans EPA ID:	CAD982413262
Trans Name:	Not reported
Trans 2 EPA ID:	SCR000074591
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD059494310
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD059494310
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.25
Waste Quantity:	500
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20010517
Creation Date:	8/14/2001 0:00:00
Receipt Date:	20010525
Manifest ID:	20118330
Trans EPA ID:	CAD982413262
Trans Name:	Not reported
Trans 2 EPA ID:	SCR000074591
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD059494310
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD059494310
TSDF Alt Name:	Not reported
Waste Code Description:	223 - Unspecified oil-containing waste
RCRA Code:	Not reported
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.25
Waste Quantity:	500

MOUNTAIN VALLEY EXPRESS (Continued) **1000322014**

Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20010329
Creation Date:	7/10/2001 0:00:00
Receipt Date:	20010420
Manifest ID:	20115966
Trans EPA ID:	CAD982413262
Trans Name:	Not reported
Trans 2 EPA ID:	SCR000074591
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD059494310
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD059494310
TSDF Alt Name:	Not reported
Waste Code Description:	223 - Unspecified oil-containing waste
RCRA Code:	Not reported
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.25
Waste Quantity:	500
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20010316
Creation Date:	6/12/2001 0:00:00
Receipt Date:	20010330
Manifest ID:	20118298
Trans EPA ID:	CAD982413262
Trans Name:	Not reported
Trans 2 EPA ID:	SCR000074591
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD059494310
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD059494310
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.25
Waste Quantity:	500
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20010316
Creation Date:	6/12/2001 0:00:00

MOUNTAIN VALLEY EXPRESS (Continued) **1000322014**

Receipt Date:	20010330
Manifest ID:	20118298
Trans EPA ID:	CAD982413262
Trans Name:	Not reported
Trans 2 EPA ID:	SCR000074591
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD059494310
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD059494310
TSDF Alt Name:	Not reported
Waste Code Description:	223 - Unspecified oil-containing waste
RCRA Code:	Not reported
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.25
Waste Quantity:	500
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20010220
Creation Date:	5/16/2001 0:00:00
Receipt Date:	20010302
Manifest ID:	20113129
Trans EPA ID:	CAD982413262
Trans Name:	Not reported
Trans 2 EPA ID:	SCR000074591
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD059494310
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD059494310
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.1
Waste Quantity:	200
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	1995
Gen EPA ID:	CAD982476814

Shipment Date:	19950728
Creation Date:	11/13/1995 0:00:00
Receipt Date:	19950728
Manifest ID:	95336378
Trans EPA ID:	CAD980695761
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported

MOUNTAIN VALLEY EXPRESS (Continued) **1000322014**

Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980887418
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	221 - Waste oil and mixed oil
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	6.27
Waste Quantity:	1650
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	1997
Gen EPA ID:	CAD982476814
Shipment Date:	19970912
Creation Date:	7/23/1998 0:00:00
Receipt Date:	19970912
Manifest ID:	96720257
Trans EPA ID:	CAD982413262
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD980887418
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD980887418
TSDF Alt Name:	Not reported
Waste Code Description:	221 - Waste oil and mixed oil
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	5.624
Waste Quantity:	1480
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2000
Gen EPA ID:	CAD982476814
Shipment Date:	20000912
Creation Date:	12/8/2000 0:00:00
Receipt Date:	20000914
Manifest ID:	99797232
Trans EPA ID:	SCR000075150
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported

MOUNTAIN VALLEY EXPRESS (Continued) **1000322014**

Trans 2 Name:	Not reported
TSDF EPA ID:	CAD059494310
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD059494310
TSDF Alt Name:	Not reported
Waste Code Description:	222 - Oil/water separation sludge
RCRA Code:	Not reported
Meth Code:	H01 - Transfer Station
Quantity Tons:	5.5169
Waste Quantity:	1323
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20000907
Creation Date:	12/8/2000 0:00:00
Receipt Date:	20000912
Manifest ID:	99797231
Trans EPA ID:	SCR000075150
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD059494310
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD059494310
TSDF Alt Name:	Not reported
Waste Code Description:	222 - Oil/water separation sludge
RCRA Code:	Not reported
Meth Code:	H01 - Transfer Station
Quantity Tons:	2.7105
Waste Quantity:	650
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

HIST CORTESE:

edr_fname:	MOUNTAIN VALLEY EXPRESS
edr_fadd1:	1299 VANDERBILT
City,State,Zip:	MANTECA, CA 95336
Region:	CORTESE
Facility County Code:	39
Reg By:	LTNKA
Reg Id:	390370

CERS:

Name:	MOUNTAIN VALLEY EXPRESS
Address:	1299 VANDERBILT CIR
City,State,Zip:	MANTECA, CA 95336
Site ID:	244307
CERS ID:	T0607700280

MOUNTAIN VALLEY EXPRESS (Continued) **1000322014**

CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
Affiliation Type Desc: Regional Board Caseworker
Entity Name: Alan Buehler - CENTRAL VALLEY RWQCB (REGION 5S)
Entity Title: Not reported
Affiliation Address: 11020 SUN CENTER DRIVE #200
Affiliation City: RANCHO CORDOVA
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

HWTS:
Name: MOUNTAIN VALLEY EXPRESS
Address: 1299 VANDERVILT CR
Address 2: Not reported
City,State,Zip: MANTECA, CA 953360000
EPA ID: CAD982476814
Inactive Date: 06/30/2002
Create Date: 06/15/1989
Last Act Date: 08/10/2004
Mailing Name: Not reported
Mailing Address: PO BOX 2569
Mailing Address 2: Not reported
Mailing City,State,Zip: MANTECA, CA 953360000
Owner Name: CHARLES L. GILES
Owner Address: 1019 BESSEMER DR
Owner Address 2: Not reported
Owner City,State,Zip: MANTECA, CA 953370000
Contact Name: INACTIVE MOVED OUT
Contact Address: 1019 BESSEMER DR
Contact Address 2: Not reported
City,State,Zip: MANTECA, CA 953370000

---

13 **OLIN INTERCONNECT TECHNOLOGIES** **ENVIROSTOR** **S100869438**
NE **544 INDUSTRIAL PARK DRIVE** **N/A**
1/2-1 **MANTECA, CA 95336**
0.562 mi.
2966 ft.

Relative:
Higher

Actual:
39 ft.

ENVIROSTOR:
Name: OLIN INTERCONNECT TECHNOLOGIES
Address: 544 INDUSTRIAL PARK DRIVE
City,State,Zip: MANTECA, CA 95336
Facility ID: 71003418
Status: No Further Action
Status Date: 12/31/1995
Site Code: Not reported
Site Type: Tiered Permit
Site Type Detailed: Tiered Permit
Acres: 1
NPL: NO
Regulatory Agencies: HWMP
Lead Agency: HWMP
Program Manager: Not reported
Supervisor: Steven Becker

OLIN INTERCONNECT TECHNOLOGIES (Continued) **S100869438**

Division Branch: Cleanup Sacramento
Assembly: 12
Senate: 05
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported
Latitude: 37.78583
Longitude: -121.2107
APN: NONE SPECIFIED
Past Use: MANUFACTURING - ELECTRONIC
Potential COC: Lead Aluminum
Confirmed COC: 30013-NO 31000-NO 30047-NO
Potential Description: NMA
Alias Name: CAL930603608
Alias Type: EPA Identification Number
Alias Name: 71003418
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 03/28/2012
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

14
NNE
1/2-1
0.563 mi.
2971 ft.

Relative:
Higher

Actual:
38 ft.

SILICON TURNKEY SOLUTIONS INC
400 INDUSTRIAL PARK DRIVE
MANTECA, CA 95337

RCRA-SQG **1000439971**
ENVIROSTOR **CAT000646182**
SWEEPS UST
HIST UST
CA FID UST
CHMIRS
FINDS
ECHO
WDS

RCRA-SQG:
Date Form Received by Agency: 2001-02-15 00:00:00.0
Handler Name: SILICON TURNKEY SOLUTIONS INC
Handler Address: 400 INDUSTRIAL PARK DRIVE
Handler City,State,Zip: MANTECA, CA 95337
EPA ID: CAT000646182
Contact Name: WILLIAM PRICE
Contact Address: 400 INDUSTRIAL PARK DRIVE
Contact City,State,Zip: MANTECA, CA 95337
Contact Telephone: 209-825-8239
Contact Fax: Not reported
Contact Email: Not reported

SILICON TURNKEY SOLUTIONS INC (Continued) **1000439971**

Contact Title:	Not reported
EPA Region:	09
Land Type:	Municipal
Federal Waste Generator Description:	Small Quantity Generator
Non-Notifier:	Not reported
Biennial Report Cycle:	Not reported
Accessibility:	Not reported
Active Site Indicator:	Handler Activities
State District Owner:	Not reported
State District:	Not reported
Mailing Address:	400 INDUSTRIAL PARK DRIVE
Mailing City,State,Zip:	MANTECA, CA 95337
Owner Name:	INDY ACQUISITION CORP
Owner Type:	Private
Operator Name:	NOT REQUIRED
Operator Type:	Private
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	No
Universal Waste Destination Facility:	No
Federal Universal Waste:	No
Active Site Fed-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site Converter Treatment storage and Disposal Facility:	Not reported
Active Site State-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	NN
Sub-Part K Indicator:	Not reported
Commercial TSD Indicator:	No
Treatment Storage and Disposal Type:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
Permit Renewals Workload Universe:	Not reported
Permit Workload Universe:	Not reported
Permit Progress Universe:	Not reported
Post-Closure Workload Universe:	Not reported
Closure Workload Universe:	Not reported
202 GPRA Corrective Action Baseline:	No
Corrective Action Workload Universe:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe:	No
TSDFs Only Subject to CA under Discretionary Auth Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Operating TSDF Universe:	Not reported

SILICON TURNKEY SOLUTIONS INC (Continued) **1000439971**

Full Enforcement Universe:	Not reported
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	2002-10-29 16:01:51.0
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	Not reported
Manifest Broker:	Not reported
Sub-Part P Indicator:	No

Hazardous Waste Summary:

Waste Code:	D001
Waste Description:	IGNITABLE WASTE
Waste Code:	D002
Waste Description:	CORROSIVE WASTE
Waste Code:	F006
Waste Description:	WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS, EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC, AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF ALUMINUM.

Handler - Owner Operator:

Owner/Operator Indicator:	Operator
Owner/Operator Name:	NOT REQUIRED
Legal Status:	Private
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	NOT REQUIRED
Owner/Operator City,State,Zip:	NOT REQUIRED, ME 99999
Owner/Operator Telephone:	415-555-1212
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Owner
Owner/Operator Name:	INDY ACQUISITION CORP
Legal Status:	Private
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	P O BOX 2301
Owner/Operator City,State,Zip:	MANTECA, CA 95336
Owner/Operator Telephone:	209-825-8201
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

SILICON TURNKEY SOLUTIONS INC (Continued) **1000439971**

Owner/Operator Indicator:	Owner
Owner/Operator Name:	SILICON TURNKEY SOLUTIONS INC
Legal Status:	Private
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	400 INDUSTRIAL PARK DRIVE
Owner/Operator City,State,Zip:	MANTECA, CA 95337
Owner/Operator Telephone:	209-239-4444
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Historic Generators:

Receive Date:	1993-04-21 00:00:00.0
Handler Name:	SILICON TURNKEY SOLUTIONS INC
Federal Waste Generator Description:	Small Quantity Generator
State District Owner:	Not reported
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	No
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

Receive Date:	2001-02-15 00:00:00.0
Handler Name:	SILICON TURNKEY SOLUTIONS INC
Federal Waste Generator Description:	Small Quantity Generator
State District Owner:	Not reported
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	Yes
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

Receive Date:	1992-02-28 00:00:00.0
Handler Name:	INDY ELECTRONICS, INC.
Federal Waste Generator Description:	Large Quantity Generator
State District Owner:	Not reported
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	No
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

Receive Date:	1994-03-18 00:00:00.0
Handler Name:	INDY ELECTRONICS
Federal Waste Generator Description:	Large Quantity Generator
State District Owner:	Not reported
Large Quantity Handler of Universal Waste:	No

SILICON TURNKEY SOLUTIONS INC (Continued) **1000439971**

Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 1996-02-29 00:00:00.0
Handler Name: INDY ELECTRONICS DBA ALPHATEC
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 1999-03-04 00:00:00.0
Handler Name: ISE LABS INC., ASSEMBLY OPERATIONS
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:
NAICS Code: 334419
NAICS Description: OTHER ELECTRONIC COMPONENT MANUFACTURING

Facility Has Received Notices of Violation:
Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: Generators - Pre-transport
Date Violation was Determined: 2000-12-15 00:00:00.0
Actual Return to Compliance Date: 2001-02-28 00:00:00.0
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 200
Date of Enforcement Action: 2000-12-15 00:00:00.0
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported

SILICON TURNKEY SOLUTIONS INC (Continued) **1000439971**

Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: TSD - Container Use and Management
Date Violation was Determined: 2000-12-15 00:00:00.0
Actual Return to Compliance Date: 2001-02-28 00:00:00.0
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 500
Date of Enforcement Action: 2001-03-16 00:00:00.0
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported

SILICON TURNKEY SOLUTIONS INC (Continued) **1000439971**

Final Amount:	Not reported
Found Violation:	Yes
Agency Which Determined Violation:	EPA
Violation Short Description:	Generators - General
Date Violation was Determined:	1987-03-11 00:00:00.0
Actual Return to Compliance Date:	2000-12-15 00:00:00.0
Return to Compliance Qualifier:	Unverifiable
Violation Responsible Agency:	EPA
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported
Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	TSD - Financial Requirements
Date Violation was Determined:	2000-12-15 00:00:00.0
Actual Return to Compliance Date:	2001-02-28 00:00:00.0
Return to Compliance Qualifier:	Documented
Violation Responsible Agency:	State
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	500
Date of Enforcement Action:	2001-03-16 00:00:00.0
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported

SILICON TURNKEY SOLUTIONS INC (Continued) **1000439971**

Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported

Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	TSD - Contingency Plan and Emergency Procedures
Date Violation was Determined:	2000-12-15 00:00:00.0
Actual Return to Compliance Date:	2001-02-28 00:00:00.0
Return to Compliance Qualifier:	Documented
Violation Responsible Agency:	State
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	500
Date of Enforcement Action:	2001-03-16 00:00:00.0
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported

SILICON TURNKEY SOLUTIONS INC (Continued) **1000439971**

Final Amount:	Not reported
Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	TSD - Contingency Plan and Emergency Procedures
Date Violation was Determined:	2000-12-15 00:00:00.0
Actual Return to Compliance Date:	2001-02-28 00:00:00.0
Return to Compliance Qualifier:	Documented
Violation Responsible Agency:	State
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	200
Date of Enforcement Action:	2000-12-15 00:00:00.0
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	WRITTEN INFORMAL
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported
Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	TSD - Container Use and Management
Date Violation was Determined:	2000-12-15 00:00:00.0
Actual Return to Compliance Date:	2001-02-28 00:00:00.0
Return to Compliance Qualifier:	Documented
Violation Responsible Agency:	State
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	200
Date of Enforcement Action:	2000-12-15 00:00:00.0
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported

SILICON TURNKEY SOLUTIONS INC (Continued) **1000439971**

Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: Generators - Pre-transport
Date Violation was Determined: 2000-12-15 00:00:00.0
Actual Return to Compliance Date: 2001-02-28 00:00:00.0
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 500
Date of Enforcement Action: 2001-03-16 00:00:00.0
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported

SILICON TURNKEY SOLUTIONS INC (Continued) **1000439971**

Final Amount:	Not reported
Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	TSD - Financial Requirements
Date Violation was Determined:	2000-12-15 00:00:00.0
Actual Return to Compliance Date:	2001-02-28 00:00:00.0
Return to Compliance Qualifier:	Documented
Violation Responsible Agency:	State
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	200
Date of Enforcement Action:	2000-12-15 00:00:00.0
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	WRITTEN INFORMAL
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported

Evaluation Action Summary:

Evaluation Date:	2000-12-15 00:00:00.0
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	2001-02-28 00:00:00.0
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	2000-12-15 00:00:00.0
Evaluation Responsible Agency:	State
Found Violation:	Yes

SILICON TURNKEY SOLUTIONS INC (Continued) **1000439971**

Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	2001-02-28 00:00:00.0
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	1987-03-11 00:00:00.0
Evaluation Responsible Agency:	EPA
Found Violation:	Yes
Evaluation Type Description:	NON-FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier:	R9EPA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	2000-12-15 00:00:00.0
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	2000-12-15 00:00:00.0
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	2001-02-28 00:00:00.0
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	2000-12-15 00:00:00.0
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	2001-02-28 00:00:00.0
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	2000-12-15 00:00:00.0
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	2001-02-28 00:00:00.0
Scheduled Compliance Date:	Not reported

SILICON TURNKEY SOLUTIONS INC (Continued) **1000439971**

Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	2000-12-15 00:00:00.0
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	2001-02-28 00:00:00.0
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	2000-12-15 00:00:00.0
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	2001-02-28 00:00:00.0
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	2000-12-15 00:00:00.0
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	2001-02-28 00:00:00.0
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

ENVIROSTOR:

Name:	ISE LABS, INC., ASSEMBLY OPERATIONS
Address:	400 INDUSTRIAL PARK DRIVE
City,State,Zip:	MANTECA, CA 95337
Facility ID:	71003510
Status:	Inactive - Needs Evaluation
Status Date:	Not reported
Site Code:	Not reported
Site Type:	Tiered Permit
Site Type Detailed:	Tiered Permit
Acres:	Not reported
NPL:	NO

SILICON TURNKEY SOLUTIONS INC (Continued) **1000439971**

Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: Not reported
Division Branch: Cleanup Sacramento
Assembly: 12
Senate: 05
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported
Latitude: 37.78644
Longitude: -121.2122
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CAT000646182
Alias Type: EPA Identification Number
Alias Name: 110000844953
Alias Type: EPA (FRS #)
Alias Name: 71003510
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

SWEEPS UST:
Name: INDY ELECTRONICS
Address: 400 INDUSTRIAL PARK DR
City: MANTECA
Status: Not reported
Comp Number: 1795
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 39-000-001795-000001
Tank Status: Not reported
Capacity: 14960

SILICON TURNKEY SOLUTIONS INC (Continued) **1000439971**

Active Date: Not reported
Tank Use: EMPTY
STG: PRODUCT
Content: Not reported
Number Of Tanks: 2

Name: INDY ELECTRONICS
Address: 400 INDUSTRIAL PARK DR
City: MANTECA
Status: Not reported
Comp Number: 1795
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 39-000-001795-000002
Tank Status: Not reported
Capacity: 3600
Active Date: Not reported
Tank Use: CHEMICAL
STG: WASTE
Content: NITRIC ACID
Number Of Tanks: Not reported

HIST UST:
Name: INDY ELECTRONICS
Address: 400 INDUSTRIAL PARK DRIVE
City,State,Zip: MANTECA, CA 95336
File Number: 0002FD46
URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0002FD46.pdf
Region: STATE
Facility ID: 00000008466
Facility Type: Other
Other Type: ELECTRONICS
Contact Name: Not reported
Telephone: 2092394444
Owner Name: INDY ELECTRONICS
Owner Address: 400 INDUSTRIAL PARK DRIVE
Owner City,St,Zip: MANTECA, CA 95336
Total Tanks: 0006

Tank Num: 001
Container Num: 3
Year Installed: 1984
Tank Capacity: 00000100
Tank Used for: WASTE
Type of Fuel: Not reported
Container Construction Thickness: 4
Leak Detection: None

Tank Num: 002
Container Num: 2
Year Installed: 1980
Tank Capacity: 00014960
Tank Used for: PRODUCT

SILICON TURNKEY SOLUTIONS INC (Continued) **1000439971**

Type of Fuel: DIESEL
Container Construction Thickness: 5/16
Leak Detection: Visual

Tank Num: 003
Container Num: 1
Year Installed: 1980
Tank Capacity: 00003600
Tank Used for: WASTE
Type of Fuel: Not reported
Container Construction Thickness: 4"
Leak Detection: Visual

Tank Num: 004
Container Num: 6
Year Installed: 1980
Tank Capacity: 00000220
Tank Used for: Not reported
Type of Fuel: Not reported
Container Construction Thickness: 4
Leak Detection: Visual

Tank Num: 005
Container Num: 5
Year Installed: 1980
Tank Capacity: 00000300
Tank Used for: Not reported
Type of Fuel: Not reported
Container Construction Thickness: 4
Leak Detection: Visual

Tank Num: 006
Container Num: 4
Year Installed: 1984
Tank Capacity: 00000100
Tank Used for: WASTE
Type of Fuel: Not reported
Container Construction Thickness: 4
Leak Detection: None

Click here for Geo Tracker PDF:

CA FID UST:
Facility ID: 39000010
Regulated By: UTNKI
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2092394444
Mail To: Not reported
Mailing Address: 400 INDUSTRIAL PARK DR
Mailing Address 2: Not reported
Mailing City,St,Zip: MANTECA 95336
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported

SILICON TURNKEY SOLUTIONS INC (Continued) **1000439971**

EPA ID: Not reported
Comments: Not reported
Status: Inactive

CHMIRS:

Name:	Not reported
Address:	400 INDUSTRIAL PARK DRIVE
City,State,Zip:	MANTECA, CA 95336
OES Incident Number:	909038
OES notification:	Not reported
OES Date:	Not reported
OES Time:	Not reported
Date Completed:	**27-NOV-89**
Property Use:	600
Agency Id Number:	39807
Agency Incident Number:	UNK
Time Notified:	610
Time Completed:	1900
Surrounding Area:	600
Estimated Temperature:	54
Property Management:	P
More Than Two Substances Involved?:	N
Resp Agncy Personel # Of Decontaminated:	0
Responding Agency Personel # Of Injuries:	0
Responding Agency Personel # Of Fatalities:	0
Others Number Of Decontaminated:	0
Others Number Of Injuries:	0
Others Number Of Fatalities:	0
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	DAVID CARAVEO
Report Date:	27-NOV-89
Facility Telephone:	209 944-2116
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Not reported
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	88-92
Agency:	Not reported
Incident Date:	27-NOV-89
Admin Agency:	Not reported
Amount:	Not reported
Contained:	Not reported
Site Type:	Not reported
E Date:	06-JUL-90
Substance:	Not reported
Unknown:	Not reported

SILICON TURNKEY SOLUTIONS INC (Continued) **1000439971**

Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	Not reported
Number of Injuries:	Not reported
Number of Fatalities:	Not reported
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	Not reported
Name:	Not reported
Address:	400 INDUSTRIAL PARK DRIVE
City,State,Zip:	MANTECA, CA 95336
OES Incident Number:	012784
OES notification:	Not reported
OES Date:	Not reported
OES Time:	Not reported
Date Completed:	**05-SEP-90**
Property Use:	700
Agency Id Number:	39050
Agency Incident Number:	33-1708
Time Notified:	946
Time Completed:	1008
Surrounding Area:	700
Estimated Temperature:	78
Property Management:	P
More Than Two Substances Involved?:	N
Resp Agncy Personel # Of Decontaminated:	0
Responding Agency Personel # Of Injuries:	0
Responding Agency Personel # Of Fatalities:	0
Others Number Of Decontaminated:	0
Others Number Of Injuries:	0
Others Number Of Fatalities:	0
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	CHARLES R. MAY
Report Date:	05-SEP-90
Facility Telephone:	209 239-8435
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Not reported
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported

SILICON TURNKEY SOLUTIONS INC (Continued) **1000439971**

Other:	Not reported
Date/Time:	Not reported
Year:	88-92
Agency:	Not reported
Incident Date:	05-SEP-90
Admin Agency:	Not reported
Amount:	Not reported
Contained:	Not reported
Site Type:	Not reported
E Date:	05-SEP-91
Substance:	Not reported
Unknown:	Not reported
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	Not reported
Number of Injuries:	Not reported
Number of Fatalities:	Not reported
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Y
Description:	Not reported

FINDS:
Registry ID: 110000844953

Click Here:

Environmental Interest/Information System:
California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.
US EPA TRIS (Toxics Release Inventory System) contains information from facilities on the amounts of over 300 listed toxic chemicals that these facilities release directly to air, water, land, or that are transported off-site.
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1000439971
Registry ID:	110000844953
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110000844953
Name:	INDY ELECTRONICS

SILICON TURNKEY SOLUTIONS INC (Continued) **1000439971**

Address: 400 INDUSTRIAL PARK DRIVE
City,State,Zip: MANTECA, CA 95337

WDS:

Name:	SILICON TURNKEY SOLUTIONS
Address:	400 Industrial Park Dr
City:	MANTECA
Facility ID:	5S 39I016461
Facility Type:	Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number:	CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion:	0
Facility Telephone:	2092394444
Facility Contact:	LYNETTE STEWART
Agency Name:	SILICON TURNKEY SOLUTIONS
Agency Address:	400 Industrial Park Dr
Agency City,St,Zip:	Manteca 953376110
Agency Contact:	LYNETTE STEWART
Agency Telephone:	2092394444
Agency Type:	Private
SIC Code:	0
SIC Code 2:	Not reported
Primary Waste Type:	Not reported
Primary Waste:	Not reported
Waste Type2:	Not reported
Waste2:	Not reported
Primary Waste Type:	Not reported
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Design Flow:	0
Baseline Flow:	0
Reclamation:	Not reported
POTW:	Not reported
Treat To Water:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity:	Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

15
NE
1/2-1
0.595 mi.
3140 ft.

Relative:
Higher

Actual:
38 ft.

QUALEX INC
555 INDUSTRIAL PARK DR
MANTECA, CA 95336

Database(s): RCRA-SQG, ENVIROSTOR, FINDS, ECHO, HAZNET, HWTS

EDR ID Number: 1000686264
EPA ID Number: CAD983635038

RCRA-SQG:

Date Form Received by Agency:		1992-04-27 00:00:00.0
Handler Name:	QUALEX INC	
Handler Address:		555 INDUSTRIAL PARK DR
Handler City,State,Zip:		MANTECA, CA 95336
EPA ID:		CAD983635038
Contact Name:		ERIC HENDRICKS
Contact Address:		555 INDUSTRIAL PARK DR
Contact City,State,Zip:		MANTECA, CA 95336
Contact Telephone:		209-239-8631
Contact Fax:		Not reported
Contact Email:		Not reported
Contact Title:		Not reported
EPA Region:		09
Land Type:		Private
Federal Waste Generator Description:		Small Quantity Generator
Non-Notifier:		Not reported
Biennial Report Cycle:		Not reported
Accessibility:		Not reported
Active Site Indicator:		Handler Activities
State District Owner:		Not reported
State District:		Not reported
Mailing Address:		555 INDUSTRIAL PARK DR
Mailing City,State,Zip:		MANTECA, CA 95336
Owner Name:		QUALEX INC
Owner Type:		Private
Operator Name:		Not reported
Operator Type:		Not reported
Short-Term Generator Activity:		No
Importer Activity:		No
Mixed Waste Generator:		No
Transporter Activity:		No
Transfer Facility Activity:		No
Recycler Activity with Storage:		No
Small Quantity On-Site Burner Exemption:		No
Smelting Melting and Refining Furnace Exemption:		No
Underground Injection Control:		No
Off-Site Waste Receipt:		No
Universal Waste Indicator:		No
Universal Waste Destination Facility:		No
Federal Universal Waste:		No
Active Site Fed-Reg Treatment Storage and Disposal Facility:		Not reported
Active Site Converter Treatment storage and Disposal Facility:		Not reported
Active Site State-Reg Treatment Storage and Disposal Facility:		Not reported
Active Site State-Reg Handler:		---
Federal Facility Indicator:		Not reported
Hazardous Secondary Material Indicator:		NN
Sub-Part K Indicator:		Not reported
Commercial TSD Indicator:		No
Treatment Storage and Disposal Type:		Not reported
2018 GPRA Permit Baseline:		Not on the Baseline
2018 GPRA Renewals Baseline:		Not on the Baseline

QUALEX INC (Continued) **1000686264**

Permit Renewals Workload Universe:	Not reported
Permit Workload Universe:	Not reported
Permit Progress Universe:	Not reported
Post-Closure Workload Universe:	Not reported
Closure Workload Universe:	Not reported
202 GPRA Corrective Action Baseline:	No
Corrective Action Workload Universe:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe:	No
TSDFs Only Subject to CA under Discretionary Auth Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Operating TSDF Universe:	Not reported
Full Enforcement Universe:	Not reported
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	2002-06-27 03:36:01.0
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	Not reported
Manifest Broker:	Not reported
Sub-Part P Indicator:	No

Handler - Owner Operator:

Owner/Operator Indicator:	Owner
Owner/Operator Name:	QUALEX INC
Legal Status:	Private
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	3000 CROASDALE RD
Owner/Operator City,State,Zip:	DURHAM, NC 27705
Owner/Operator Telephone:	919-383-8535
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Historic Generators:

Receive Date:	1992-04-27 00:00:00.0
Handler Name: QUALEX INC	
Federal Waste Generator Description:	Small Quantity Generator
State District Owner:	Not reported
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No

QUALEX INC (Continued) **1000686264**

Current Record: Yes
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:
NAICS Code: 81292
NAICS Description: PHOTOFINISHING

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

ENVIROSTOR:
Name: QUALEX, INC. - MANTECA
Address: 555 INDUSTRIAL PARK DRIVE
City,State,Zip: MANTECA, CA 95337
Facility ID: 71003156
Status: Inactive - Needs Evaluation
Status Date: Not reported
Site Code: Not reported
Site Type: Tiered Permit
Site Type Detailed: Tiered Permit
Acres: Not reported
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: Not reported
Division Branch: Cleanup Sacramento
Assembly: 12
Senate: 05
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported
Latitude: 37.78720
Longitude: -121.2110
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CAD983635038
Alias Type: EPA Identification Number
Alias Name: 110002875513
Alias Type: EPA (FRS #)
Alias Name: 71003156
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported

QUALEX INC (Continued) **1000686264**

Completed Date: Not reported
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

FINDS:
Registry ID: 110002875513

Click Here:

Environmental Interest/Information System:
California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1000686264
Registry ID: 110002875513
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110002875513
Name: QUALEX INC
Address: 555 INDUSTRIAL PARK DR
City,State,Zip: MANTECA, CA 95337

HAZNET:
Name: QUALEX INC
Address: 555 INDUSTRIAL PARK DR
Address 2: Not reported
City,State,Zip: MANTECA, CA 953370000
Contact: MICHAEL STARK
Telephone: 5308860664
Mailing Name: Not reported
Mailing Address: 120 COLONIAL DR

Year: 2004
Gepaid: CAD983635038
TSD EPA ID: NVD980895338
CA Waste Code: 551 - Laboratory waste chemicals
Disposal Method: D80 - Disposal, Land Fill
Tons: 0.03

QUALEX INC (Continued) **1000686264**

Year:	2004
Gepaid:	CAD983635038
TSD EPA ID:	WAD991281767
CA Waste Code:	261 - Polychlorinated biphenyls and material containing PCBs
Disposal Method:	T03 - Treatment, Incineration
Tons:	0.01

Year:	2004
Gepaid:	CAD983635038
TSD EPA ID:	NVD980895338
CA Waste Code:	551 - Laboratory waste chemicals
Disposal Method:	R01 - Recycler
Tons:	0.5168

Year:	1998
Gepaid:	CAD983635038
TSD EPA ID:	WAD980976906
CA Waste Code:	171 - Metal sludge (Alkaline solution (pH >= 12.5) with metals)
Disposal Method:	R01 - Recycler
Tons:	9.8645

Year:	1998
Gepaid:	CAD983635038
TSD EPA ID:	WAD980976905
CA Waste Code:	171 - Metal sludge (Alkaline solution (pH >= 12.5) with metals)
Disposal Method:	-
Tons:	0.41

Year:	1997
Gepaid:	CAD983635038
TSD EPA ID:	WAD980976906
CA Waste Code:	171 - Metal sludge (Alkaline solution (pH >= 12.5) with metals)
Disposal Method:	-
Tons:	0.5655

Year:	1997
Gepaid:	CAD983635038
TSD EPA ID:	WAD980976906
CA Waste Code:	171 - Metal sludge (Alkaline solution (pH >= 12.5) with metals)
Disposal Method:	R01 - Recycler
Tons:	5.2494

Year:	1997
Gepaid:	CAD983635038
TSD EPA ID:	CAD003963592
CA Waste Code:	171 - Metal sludge (Alkaline solution (pH >= 12.5) with metals)
Disposal Method:	-
Tons:	0.521

Year:	1996
Gepaid:	CAD983635038
TSD EPA ID:	WAD980976906
CA Waste Code:	171 - Metal sludge (Alkaline solution (pH >= 12.5) with metals)
Disposal Method:	R01 - Recycler
Tons:	6.8555

QUALEX INC (Continued) **1000686264**

Additional Info:

Year:	1996
Gen EPA ID:	CAD983635038
Shipment Date:	19961227
Creation Date:	5/20/1997 0:00:00
Receipt Date:	19971013
Manifest ID:	96308163
Trans EPA ID:	CAD003963592
Trans Name:	Not reported
Trans 2 EPA ID:	MOD095038998
Trans 2 Name:	Not reported
TSDF EPA ID:	WAD980976906
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	171 - Metal sludge (see 121
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	0.504
Waste Quantity:	1008
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19961227
Creation Date:	5/20/1997 0:00:00
Receipt Date:	19971013
Manifest ID:	96308163
Trans EPA ID:	CAD003963592
Trans Name:	Not reported
Trans 2 EPA ID:	MOD095038998
Trans 2 Name:	Not reported
TSDF EPA ID:	WAD980976906
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	171 - Metal sludge (see 121
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	0.1135
Waste Quantity:	227
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19961121
Creation Date:	5/20/1997 0:00:00
Receipt Date:	19961209
Manifest ID:	96282373
Trans EPA ID:	CAD003963592

QUALEX INC (Continued) **1000686264**

Trans Name:	Not reported
Trans 2 EPA ID:	MOD095038990
Trans 2 Name:	Not reported
TSDF EPA ID:	WAD980976906
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	171 - Metal sludge (see 121
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	0.061
Waste Quantity:	122
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	19961121
Creation Date:	5/20/1997 0:00:00
Receipt Date:	19961209
Manifest ID:	96282373
Trans EPA ID:	CAD003963592
Trans Name:	Not reported
Trans 2 EPA ID:	MOD095038990
Trans 2 Name:	Not reported
TSDF EPA ID:	WAD980976906
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	171 - Metal sludge (see 121
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	0.4435
Waste Quantity:	887
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	19961024
Creation Date:	5/20/1997 0:00:00
Receipt Date:	19961108
Manifest ID:	96282374
Trans EPA ID:	CAD003963592
Trans Name:	Not reported
Trans 2 EPA ID:	MOD095038998
Trans 2 Name:	Not reported
TSDF EPA ID:	WAD980976906
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	171 - Metal sludge (see 121
RCRA Code:	Not reported

QUALEX INC (Continued) **1000686264**

Meth Code:	R01 - Recycler
Quantity Tons:	0.1805
Waste Quantity:	361
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19961024
Creation Date:	5/20/1997 0:00:00
Receipt Date:	19961108
Manifest ID:	96282374
Trans EPA ID:	CAD003963592
Trans Name:	Not reported
Trans 2 EPA ID:	MOD095038998
Trans 2 Name:	Not reported
TSDF EPA ID:	WAD980976906
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	171 - Metal sludge (see 121
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	0.448
Waste Quantity:	896
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19960926
Creation Date:	6/26/1997 0:00:00
Receipt Date:	19961017
Manifest ID:	96282375
Trans EPA ID:	CAD003963592
Trans Name:	Not reported
Trans 2 EPA ID:	MOD095038998
Trans 2 Name:	Not reported
TSDF EPA ID:	WAD980976906
Trans Name:	Not reported
TSDF Alt EPA ID:	WAD980976906
TSDF Alt Name:	Not reported
Waste Code Description:	171 - Metal sludge (see 121
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	0.65
Waste Quantity:	1300
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

QUALEX INC (Continued) **1000686264**

Shipment Date:	19960926
Creation Date:	6/26/1997 0:00:00
Receipt Date:	19961017
Manifest ID:	96282375
Trans EPA ID:	CAD003963592
Trans Name:	Not reported
Trans 2 EPA ID:	MOD095038998
Trans 2 Name:	Not reported
TSDF EPA ID:	WAD980976906
Trans Name:	Not reported
TSDF Alt EPA ID:	WAD980976906
TSDF Alt Name:	Not reported
Waste Code Description:	171 - Metal sludge (see 121
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	0.3
Waste Quantity:	600
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	19960822
Creation Date:	5/30/1997 0:00:00
Receipt Date:	19960828
Manifest ID:	96282376
Trans EPA ID:	CAD003963592
Trans Name:	Not reported
Trans 2 EPA ID:	MOD095038998
Trans 2 Name:	Not reported
TSDF EPA ID:	WAD980976906
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	171 - Metal sludge (see 121
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	0.35
Waste Quantity:	700
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	19960822
Creation Date:	5/30/1997 0:00:00
Receipt Date:	19960828
Manifest ID:	96282376
Trans EPA ID:	CAD003963592
Trans Name:	Not reported
Trans 2 EPA ID:	MOD095038998
Trans 2 Name:	Not reported
TSDF EPA ID:	WAD980976906

QUALEX INC (Continued) **1000686264**

Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	171 - Metal sludge (see 121
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	0.56
Waste Quantity:	1120
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	1997
Gen EPA ID:	CAD983635038
Shipment Date:	19971201
Creation Date:	3/18/1998 0:00:00
Receipt Date:	19971210
Manifest ID:	96285605
Trans EPA ID:	CAD003963592
Trans Name:	Not reported
Trans 2 EPA ID:	MOD095038998
Trans 2 Name:	Not reported
TSDF EPA ID:	WAD980976906
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	171 - Metal sludge (see 121
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	0.414
Waste Quantity:	828
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19971201
Creation Date:	3/18/1998 0:00:00
Receipt Date:	19971210
Manifest ID:	96285605
Trans EPA ID:	CAD003963592
Trans Name:	Not reported
Trans 2 EPA ID:	MOD095038998
Trans 2 Name:	Not reported
TSDF EPA ID:	WAD980976906
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	171 - Metal sludge (see 121
RCRA Code:	Not reported

QUALEX INC (Continued) **1000686264**

Meth Code:	R01 - Recycler
Quantity Tons:	0.0725
Waste Quantity:	145
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19971031
Creation Date:	3/18/1998 0:00:00
Receipt Date:	19971118
Manifest ID:	96285604
Trans EPA ID:	CAD003963592
Trans Name:	Not reported
Trans 2 EPA ID:	MOD095038998
Trans 2 Name:	Not reported
TSDF EPA ID:	WAD980976906
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	171 - Metal sludge (see 121
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	0.48
Waste Quantity:	960
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19971031
Creation Date:	3/18/1998 0:00:00
Receipt Date:	19971118
Manifest ID:	96285604
Trans EPA ID:	CAD003963592
Trans Name:	Not reported
Trans 2 EPA ID:	MOD095038998
Trans 2 Name:	Not reported
TSDF EPA ID:	WAD980976906
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	171 - Metal sludge (see 121
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	0.1925
Waste Quantity:	385
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

QUALEX INC (Continued) **1000686264**

Shipment Date:	19971003
Creation Date:	3/18/1998 0:00:00
Receipt Date:	19971020
Manifest ID:	96285603
Trans EPA ID:	CAD003963592
Trans Name:	Not reported
Trans 2 EPA ID:	MOD095038998
Trans 2 Name:	Not reported
TSDF EPA ID:	WAD980976906
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	171 - Metal sludge (see 121
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	0.135
Waste Quantity:	270
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	19971003
Creation Date:	3/18/1998 0:00:00
Receipt Date:	19971020
Manifest ID:	96285603
Trans EPA ID:	CAD003963592
Trans Name:	Not reported
Trans 2 EPA ID:	MOD095038998
Trans 2 Name:	Not reported
TSDF EPA ID:	WAD980976906
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	171 - Metal sludge (see 121
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	0.6615
Waste Quantity:	1323
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	19970829
Creation Date:	3/18/1998 0:00:00
Receipt Date:	19970904
Manifest ID:	96285607
Trans EPA ID:	CAD003963592
Trans Name:	Not reported
Trans 2 EPA ID:	MOD095038998
Trans 2 Name:	Not reported
TSDF EPA ID:	WAD980976906

QUALEX INC (Continued) **1000686264**

Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	171 - Metal sludge (see 121
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	0.143
Waste Quantity:	286
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	19970829
Creation Date:	3/18/1998 0:00:00
Receipt Date:	19970904
Manifest ID:	96285607
Trans EPA ID:	CAD003963592
Trans Name:	Not reported
Trans 2 EPA ID:	MOD095038998
Trans 2 Name:	Not reported
TSDF EPA ID:	WAD980976906
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	171 - Metal sludge (see 121
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	0.6055
Waste Quantity:	1211
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	19970801
Creation Date:	12/4/1997 0:00:00
Receipt Date:	19970814
Manifest ID:	96285608
Trans EPA ID:	CAD003963592
Trans Name:	Not reported
Trans 2 EPA ID:	MOD095038998
Trans 2 Name:	Not reported
TSDF EPA ID:	WAD980976906
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	171 - Metal sludge (see 121
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	0.613
Waste Quantity:	1226
Quantity Unit:	P

QUALEX INC (Continued) **1000686264**

Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19970801
Creation Date:	12/4/1997 0:00:00
Receipt Date:	19970814
Manifest ID:	96285608
Trans EPA ID:	CAD003963592
Trans Name:	Not reported
Trans 2 EPA ID:	MOD095038998
Trans 2 Name:	Not reported
TSDF EPA ID:	WAD980976906
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	171 - Metal sludge (see 121
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	0.25
Waste Quantity:	500
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2004
Gen EPA ID:	CAD983635038
Shipment Date:	Not reported
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	23415616
Trans EPA ID:	CAR000052803
Trans Name:	PHILIP TRANSPORTATION & REMEDIATION
Trans 2 EPA ID:	UTR000007708
Trans 2 Name:	SLT EXPRESS
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMI
TSDF Alt EPA ID:	NVD980895338
TSDF Alt Name:	Not reported
Waste Code Description:	551 - Laboratory waste chemicals 561 Detergent and soap
RCRA Code:	Not reported
Meth Code:	D80 - Disposal, Land Fill
Quantity Tons:	0.125
Waste Quantity:	250
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

QUALEX INC (Continued) **1000686264**

Shipment Date:	20040614
Creation Date:	1/11/2005 18:31:27
Receipt Date:	20040702
Manifest ID:	23415616
Trans EPA ID:	CAR000052803
Trans Name:	PHILIP TRANSPORTATION & REMEDIATION
Trans 2 EPA ID:	UTR000007708
Trans 2 Name:	SLT EXPRESS
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMI
TSDF Alt EPA ID:	NVD980895338
TSDF Alt Name:	Not reported
Waste Code Description:	551 - Laboratory waste chemicals 561 Detergent and soap
RCRA Code:	D001
Meth Code:	R01 - Recycler
Quantity Tons:	0.12
Waste Quantity:	240
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20040614
Creation Date:	1/11/2005 18:31:27
Receipt Date:	20040702
Manifest ID:	23415616
Trans EPA ID:	CAR000052803
Trans Name:	PHILIP TRANSPORTATION & REMEDIATION
Trans 2 EPA ID:	UTR000007708
Trans 2 Name:	SLT EXPRESS
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMI
TSDF Alt EPA ID:	NVD980895338
TSDF Alt Name:	Not reported
Waste Code Description:	551 - Laboratory waste chemicals 561 Detergent and soap
RCRA Code:	Not reported
Meth Code:	D80 - Disposal, Land Fill
Quantity Tons:	0.03
Waste Quantity:	60
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20040614
Creation Date:	11/1/2004 9:00:46
Receipt Date:	20040621
Manifest ID:	23415617
Trans EPA ID:	CAR000052803
Trans Name:	PHILIPS TRANSPORTATION & REMEDIATION
Trans 2 EPA ID:	UTD981552425
Trans 2 Name:	SLT EXPRESSWAY
TSDF EPA ID:	WAD991281767

QUALEX INC (Continued) **1000686264**

Trans Name:	BURLINGTON ENVIRONMENTAL INC KENT
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	261 - Not reported
RCRA Code:	Not reported
Meth Code:	T03 - Treatment, Incineration
Quantity Tons:	0.01
Waste Quantity:	20
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20040614
Creation Date:	1/11/2005 18:31:27
Receipt Date:	20040702
Manifest ID:	23415616
Trans EPA ID:	CAR000052803
Trans Name:	PHILIP TRANSPORTATION & REMEDIATION
Trans 2 EPA ID:	UTR000007708
Trans 2 Name:	SLT EXPRESS
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMI
TSDF Alt EPA ID:	NVD980895338
TSDF Alt Name:	Not reported
Waste Code Description:	551 - Laboratory waste chemicals 561 Detergent and soap
RCRA Code:	D001
Meth Code:	R01 - Recycler
Quantity Tons:	0.23
Waste Quantity:	460
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20040614
Creation Date:	1/11/2005 18:31:27
Receipt Date:	20040702
Manifest ID:	23415616
Trans EPA ID:	CAR000052803
Trans Name:	PHILIP TRANSPORTATION & REMEDIATION
Trans 2 EPA ID:	UTR000007708
Trans 2 Name:	SLT EXPRESS
TSDF EPA ID:	NVD980895338
Trans Name:	21ST CENTURY EMI
TSDF Alt EPA ID:	NVD980895338
TSDF Alt Name:	Not reported
Waste Code Description:	551 - Laboratory waste chemicals 561 Detergent and soap
RCRA Code:	D001
Meth Code:	R01 - Recycler
Quantity Tons:	0.1668
Waste Quantity:	40
Quantity Unit:	G

QUALEX INC (Continued) **1000686264**

Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	1998
Gen EPA ID:	CAD983635038
Shipment Date:	19981230
Creation Date:	2/8/1999 0:00:00
Receipt Date:	19990106
Manifest ID:	98157008
Trans EPA ID:	CAD003963592
Trans Name:	Not reported
Trans 2 EPA ID:	MOD095038998
Trans 2 Name:	Not reported
TSDF EPA ID:	WAD980976906
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	171 - Metal sludge (see 121
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	0.5415
Waste Quantity:	1083
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19981230
Creation Date:	2/8/1999 0:00:00
Receipt Date:	19990106
Manifest ID:	98157008
Trans EPA ID:	CAD003963592
Trans Name:	Not reported
Trans 2 EPA ID:	MOD095038998
Trans 2 Name:	Not reported
TSDF EPA ID:	WAD980976906
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	171 - Metal sludge (see 121
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	0.276
Waste Quantity:	552
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

QUALEX INC (Continued) **1000686264**

Shipment Date:	19981204
Creation Date:	1/28/1999 0:00:00
Receipt Date:	19981216
Manifest ID:	98157007
Trans EPA ID:	CAD003963592
Trans Name:	Not reported
Trans 2 EPA ID:	MOD095038998
Trans 2 Name:	Not reported
TSDF EPA ID:	WAD980976906
Trans Name:	Not reported
TSDF Alt EPA ID:	WAD980976906
TSDF Alt Name:	Not reported
Waste Code Description:	171 - Metal sludge (see 121
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	0
Waste Quantity:	439
Quantity Unit:	*
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	19981204
Creation Date:	1/28/1999 0:00:00
Receipt Date:	19981216
Manifest ID:	98157007
Trans EPA ID:	CAD003963592
Trans Name:	Not reported
Trans 2 EPA ID:	MOD095038998
Trans 2 Name:	Not reported
TSDF EPA ID:	WAD980976906
Trans Name:	Not reported
TSDF Alt EPA ID:	WAD980976906
TSDF Alt Name:	Not reported
Waste Code Description:	171 - Metal sludge (see 121
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	0.4485
Waste Quantity:	897
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	19981030
Creation Date:	1/5/1999 0:00:00
Receipt Date:	19981112
Manifest ID:	98157006
Trans EPA ID:	CAD003963592
Trans Name:	Not reported
Trans 2 EPA ID:	MOD095038998
Trans 2 Name:	Not reported
TSDF EPA ID:	WAD980976906

QUALEX INC (Continued) **1000686264**

Trans Name:	Not reported
TSDF Alt EPA ID:	WAD980976906
TSDF Alt Name:	Not reported
Waste Code Description:	171 - Metal sludge (see 121
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	0.2
Waste Quantity:	400
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19981030
Creation Date:	1/5/1999 0:00:00
Receipt Date:	19981112
Manifest ID:	98157006
Trans EPA ID:	CAD003963592
Trans Name:	Not reported
Trans 2 EPA ID:	MOD095038998
Trans 2 Name:	Not reported
TSDF EPA ID:	WAD980976906
Trans Name:	Not reported
TSDF Alt EPA ID:	WAD980976906
TSDF Alt Name:	Not reported
Waste Code Description:	171 - Metal sludge (see 121
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	0.4485
Waste Quantity:	897
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19981002
Creation Date:	11/23/1998 0:00:00
Receipt Date:	19981014
Manifest ID:	98291686
Trans EPA ID:	CAD003963592
Trans Name:	Not reported
Trans 2 EPA ID:	MOD095038998
Trans 2 Name:	Not reported
TSDF EPA ID:	WAD980976906
Trans Name:	Not reported
TSDF Alt EPA ID:	WAD980976906
TSDF Alt Name:	Not reported
Waste Code Description:	171 - Metal sludge (see 121
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	0.507
Waste Quantity:	1014
Quantity Unit:	P

QUALEX INC (Continued) **1000686264**

Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19981002
Creation Date:	11/23/1998 0:00:00
Receipt Date:	19981014
Manifest ID:	98291686
Trans EPA ID:	CAD003963592
Trans Name:	Not reported
Trans 2 EPA ID:	MOD095038998
Trans 2 Name:	Not reported
TSDF EPA ID:	WAD980976906
Trans Name:	Not reported
TSDF Alt EPA ID:	WAD980976906
TSDF Alt Name:	Not reported
Waste Code Description:	171 - Metal sludge (see 121
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	0.7045
Waste Quantity:	1409
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19980828
Creation Date:	11/2/1998 0:00:00
Receipt Date:	19980904
Manifest ID:	98291682
Trans EPA ID:	CAD003963592
Trans Name:	Not reported
Trans 2 EPA ID:	MOD095038998
Trans 2 Name:	Not reported
TSDF EPA ID:	WAD980976906
Trans Name:	Not reported
TSDF Alt EPA ID:	WAD980976906
TSDF Alt Name:	Not reported
Waste Code Description:	171 - Metal sludge (see 121
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	0.462
Waste Quantity:	924
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19980828
Creation Date:	11/2/1998 0:00:00
Receipt Date:	19980904

QUALEX INC (Continued) **1000686264**

Manifest ID:	98291682
Trans EPA ID:	CAD003963592
Trans Name:	Not reported
Trans 2 EPA ID:	MOD095038998
Trans 2 Name:	Not reported
TSDF EPA ID:	WAD980976906
Trans Name:	Not reported
TSDF Alt EPA ID:	WAD980976906
TSDF Alt Name:	Not reported
Waste Code Description:	171 - Metal sludge (see 121
RCRA Code:	Not reported
Meth Code:	R01 - Recycler
Quantity Tons:	0.5995
Waste Quantity:	1199
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

HWTS:

Name:	QUALEX INC
Address:	555 INDUSTRIAL PARK DR
Address 2:	Not reported
City,State,Zip:	MANTECA, CA 953370000
EPA ID:	CAD983635038
Inactive Date:	06/30/2005
Create Date:	04/27/1992
Last Act Date:	09/27/2005
Mailing Name:	MICHAEL STARK
Mailing Address:	120 COLONIAL DR
Mailing Address 2:	Not reported
Mailing City,State,Zip:	AUBURN, CA 95603
Owner Name:	QUALEX INC
Owner Address:	3404 N DUKE ST
Owner Address 2:	Not reported
Owner City,State,Zip:	DURHAM, NC 277050000
Contact Name:	MICHAEL STARK
Contact Address:	120 COLONIAL DR
Contact Address 2:	Not reported
City,State,Zip:	AUBURN, CA 95603

NAICS:

EPA ID:	CAD983635038
Create Date:	2002-03-14 16:36:27.000
NAICS Code:	81292
NAICS Description:	Photofinishing
Issued EPA ID Date:	1992-04-27 00:00:00
Inactive Date:	2005-06-30 15:01:00
Facility Name:	QUALEX INC
Facility Address:	555 INDUSTRIAL PARK DR
Facility Address 2:	Not reported
Facility City:	MANTECA
Facility County:	Not reported
Facility State:	CA
Facility Zip:	953370000

C16 **SCHMIEDT SOIL SERVICE, INC** **ENVIROSTOR** **S101482049**
SSE **20696 SOUTH MANTECA ROAD** **N/A**
1/2-1 **MANTECA, CA 95336**
0.628 mi.
3317 ft. **Site 1 of 2 in cluster C**

Relative:
Higher

Actual:
41 ft.

ENVIROSTOR:

Name:	SCHMIEDT SOIL SERVICE, INC
Address:	20696 SOUTH MANTECA ROAD
City,State,Zip:	MANTECA, CA 95336
Facility ID:	39070036
Status:	Refer: Other Agency
Status Date:	03/07/1996
Site Code:	Not reported
Site Type:	Evaluation
Site Type Detailed:	Evaluation
Acres:	1
NPL:	NO
Regulatory Agencies:	NONE SPECIFIED
Lead Agency:	NONE SPECIFIED
Program Manager:	Not reported
Supervisor:	Referred - Not Assigned
Division Branch:	Cleanup Sacramento
Assembly:	12
Senate:	05
Special Program:	* CERC2
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Not reported
Latitude:	37.77277
Longitude:	-121.2155
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	* HALOGENATED SOLVENTS * Pesticides - Rinse Waters * AQUEOUS SOLUTION WITH METALS * CONTAMINATED SOIL * EMPTY PESTICIDE CONTAINERS, 30 GALLONS OR MORE * UNSPECIFIED AQUEOUS SOLUTION * EMPTY CONTAINERS, LESS THAN 30 GALLONS * UNSPECIFIED ORGANIC LIQUID MIXTURE
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	TRI-AG SERVICE
Alias Type:	Alternate Name
Alias Name:	CAD982358947
Alias Type:	CERCLIS ID
Alias Name:	110000509156
Alias Type:	EPA (FRS #)
Alias Name:	SLT5S4823431
Alias Type:	GeoTracker Global ID
Alias Name:	CAD981968902
Alias Type:	HWTS Identification Code
Alias Name:	39070036
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Assessment Report
Completed Date:	03/24/1988
Comments:	PRELIMINARY ASSESSMENT DONE. SITE INSPECTION (SI) MEDIUM PRIORITY RECOMMENDED.

SCHMIEDT SOIL SERVICE, INC (Continued) **S101482049**

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Screening
Completed Date:	02/09/1987
Comments:	SITE SCREENING DONE. NO CLEANUP DOCUMENTED, HEAVY METAL CONTAMINATION DOCUMENTED.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	* Discovery
Completed Date:	06/18/1982
Comments:	FACILITY IDENTIFIED DMI LIST.
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

C17 **LESTER SCHMIEDT** **HIST UST** **U001606241**
SSE **20696 S MANTECA RD** **Notify 65** **N/A**
1/2-1 **MANTECA, CA 95336**
0.628 mi.
3317 ft. **Site 2 of 2 in cluster C**

Relative: **Higher**
Actual: **41 ft.**

HIST UST:

Name:	LESTER SCHMIEDT
Address:	20696 S MANTECA RD
City,State,Zip:	MANTECA, CA 95336
File Number:	0002FE95
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0002FE95.pdf
Region:	STATE
Facility ID:	00000041019
Facility Type:	Other
Other Type:	FARM
Contact Name:	Not reported
Telephone:	2098235315
Owner Name:	LESTER SCHMIEDT
Owner Address:	20696 S MANTECA RD
Owner City,St,Zip:	MANTECA, CA 95336
Total Tanks:	0003
Tank Num:	001
Container Num:	1
Year Installed:	Not reported
Tank Capacity:	00000500
Tank Used for:	PRODUCT
Type of Fuel:	REGULAR
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor
Tank Num:	002
Container Num:	2
Year Installed:	Not reported

LESTER SCHMIEDT (Continued) **U001606241**

Tank Capacity:	00000500
Tank Used for:	PRODUCT
Type of Fuel:	REGULAR
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor, None

Tank Num:	003
Container Num:	1
Year Installed:	Not reported
Tank Capacity:	00000500
Tank Used for:	PRODUCT
Type of Fuel:	REGULAR
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor, None

Click here for Geo Tracker PDF:

NOTIFY 65:

Name:	TRI-AG SERVICE, INC.
Address:	20696 S. MANTECA ROAD
City,State,Zip:	MANTECA, CA 95337
Date Reported:	Not reported
Staff Initials:	Not reported
Board File Number:	Not reported
Facility Type:	Not reported
Discharge Date:	Not reported
Issue Date:	Not reported
Incident Description:	Not reported
Global ID:	Not reported
Status:	Not reported

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18 **ADVANCED TECHNOLOGY INTERCONNECT INC** **RCRA-SQG** **1000985116**
NNE **555 CARNEGIE ST** **ENVIROSTOR** **CAR000002279**
1/2-1 **MANTECA, CA 95336** **FINDS**
0.725 mi. **ECHO**
3828 ft. **HAZNET**
WDS
Relative: **CIWQS**
Higher **HWTS**

Actual:
37 ft.

RCRA-SQG:

Date Form Received by Agency:	1998-11-24 00:00:00.0
Handler Name:	ADVANCED TECHNOLOGY INTERCONNECT INC
Handler Address:	555 CARNEGIE ST
Handler City,State,Zip:	MANTECA, CA 95336
EPA ID:	CAR000002279
Contact Name:	JAMES COOK
Contact Address:	P O BOX 952
Contact City,State,Zip:	MANTECA, CA 95337-0952
Contact Telephone:	209-824-6523
Contact Fax:	Not reported
Contact Email:	Not reported
Contact Title:	Not reported
EPA Region:	09
Land Type:	Private
Federal Waste Generator Description:	Small Quantity Generator
Non-Notifier:	Not reported

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

Biennial Report Cycle:	Not reported
Accessibility:	Not reported
Active Site Indicator:	Handler Activities
State District Owner:	Not reported
State District:	Not reported
Mailing Address:	P O BOX 952
Mailing City,State,Zip:	MANTECA, CA 95337-0952
Owner Name:	ADVANCED TECH INTERCON
Owner Type:	Private
Operator Name:	Not reported
Operator Type:	Not reported
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	No
Universal Waste Destination Facility:	No
Federal Universal Waste:	No
Active Site Fed-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site Converter Treatment storage and Disposal Facility:	Not reported
Active Site State-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	NN
Sub-Part K Indicator:	Not reported
Commercial TSD Indicator:	No
Treatment Storage and Disposal Type:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
Permit Renewals Workload Universe:	Not reported
Permit Workload Universe:	Not reported
Permit Progress Universe:	Not reported
Post-Closure Workload Universe:	Not reported
Closure Workload Universe:	Not reported
202 GPRA Corrective Action Baseline:	No
Corrective Action Workload Universe:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe:	No
TSDFs Only Subject to CA under Discretionary Auth Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Operating TSDF Universe:	Not reported
Full Enforcement Universe:	Not reported
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

Financial Assurance Required:	Not reported
Handler Date of Last Change:	2002-10-07 16:38:35.0
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	Not reported
Manifest Broker:	Not reported
Sub-Part P Indicator:	No

Hazardous Waste Summary:

Waste Code:	D000
Waste Description:	Not Defined
Waste Code:	D001
Waste Description:	IGNITABLE WASTE
Waste Code:	D002
Waste Description:	CORROSIVE WASTE
Waste Code:	D008
Waste Description:	LEAD
Waste Code:	F001
Waste Description:	THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLORETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
Waste Code:	F003
Waste Description:	THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Handler - Owner Operator:

Owner/Operator Indicator:	Owner
Owner/Operator Name:	ADVANCED TECH INTERCON
Legal Status:	Private
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	P O BOX 952
Owner/Operator City,State,Zip:	MANTECA, CA 95337-0952
Owner/Operator Telephone:	209-824-1166
Owner/Operator Telephone Ext:	Not reported

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Historic Generators:
Receive Date: 1998-11-24 00:00:00.0
Handler Name: ADVANCED TECHNOLOGY INTERCONNECT INC
Federal Waste Generator Description: Small Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: Yes
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:
NAICS Codes: No NAICS Codes Found

Facility Has Received Notices of Violation:
Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: TSD - Contingency Plan and Emergency Procedures
Date Violation was Determined: 2000-11-28 00:00:00.0
Actual Return to Compliance Date: 2000-12-22 00:00:00.0
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 202
Date of Enforcement Action: 2000-11-28 00:00:00.0
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: TSD - Contingency Plan and Emergency Procedures
Date Violation was Determined: 2000-11-28 00:00:00.0
Actual Return to Compliance Date: 2000-12-22 00:00:00.0
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 500
Date of Enforcement Action: 2001-02-05 00:00:00.0
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: TSD - Tank System Standards
Date Violation was Determined: 2000-11-28 00:00:00.0
Actual Return to Compliance Date: 2000-12-22 00:00:00.0
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 500
Date of Enforcement Action: 2001-02-05 00:00:00.0
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported

Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	TSD - General Facility Standards
Date Violation was Determined:	2000-11-28 00:00:00.0
Actual Return to Compliance Date:	2000-12-22 00:00:00.0
Return to Compliance Qualifier:	Documented
Violation Responsible Agency:	State
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	500
Date of Enforcement Action:	2001-02-05 00:00:00.0
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: TSD - Manifest/Records/Reporting
Date Violation was Determined: 2000-11-28 00:00:00.0
Actual Return to Compliance Date: 2000-12-22 00:00:00.0
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 500
Date of Enforcement Action: 2001-02-05 00:00:00.0
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: TSD - General Facility Standards
Date Violation was Determined: 2000-11-28 00:00:00.0
Actual Return to Compliance Date: 2000-12-22 00:00:00.0
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 202
Date of Enforcement Action: 2000-11-28 00:00:00.0
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: TSD - Container Use and Management
Date Violation was Determined: 2000-11-28 00:00:00.0
Actual Return to Compliance Date: 2000-12-22 00:00:00.0
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 202
Date of Enforcement Action: 2000-11-28 00:00:00.0
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: TSD - Container Use and Management
Date Violation was Determined: 2000-11-28 00:00:00.0
Actual Return to Compliance Date: 2000-12-22 00:00:00.0
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 500
Date of Enforcement Action: 2001-02-05 00:00:00.0
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: TSD - Tank System Standards
Date Violation was Determined: 2000-11-28 00:00:00.0
Actual Return to Compliance Date: 2000-12-22 00:00:00.0
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 202
Date of Enforcement Action: 2000-11-28 00:00:00.0
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: TSD - Manifest/Records/Reporting
Date Violation was Determined: 2000-11-28 00:00:00.0
Actual Return to Compliance Date: 2000-12-22 00:00:00.0
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 202
Date of Enforcement Action: 2000-11-28 00:00:00.0
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

Final Count:	Not reported
Final Amount:	Not reported

Evaluation Action Summary:

Evaluation Date:	2000-11-28 00:00:00.0
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	2000-12-22 00:00:00.0
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	2000-11-28 00:00:00.0
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	2000-12-22 00:00:00.0
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	2000-11-28 00:00:00.0
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	2000-12-22 00:00:00.0
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	2000-11-28 00:00:00.0
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	2000-12-22 00:00:00.0
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	2000-11-28 00:00:00.0

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	2000-12-22 00:00:00.0
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	2000-11-28 00:00:00.0
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	2000-12-22 00:00:00.0
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	2000-11-28 00:00:00.0
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	2000-12-22 00:00:00.0
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	2000-11-28 00:00:00.0
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	2000-12-22 00:00:00.0
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	2000-11-28 00:00:00.0
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

Actual Return to Compliance Date:	2000-12-22 00:00:00.0
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	2000-11-28 00:00:00.0
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	2000-12-22 00:00:00.0
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

ENVIROSTOR:

Name:	ADVANCED TECH INTERCONNECT, INC.
Address:	555 CARNEGIE STREET
City,State,Zip:	MANTECA, CA 95336
Facility ID:	71003427
Status:	No Further Action
Status Date:	04/16/2013
Site Code:	101364
Site Type:	Tiered Permit
Site Type Detailed:	Tiered Permit
Acres:	7.16
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Jose Luevano
Supervisor:	Mark Malinowski
Division Branch:	Northern California Schools & Santa Susana
Assembly:	12
Senate:	05
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Not reported
Latitude:	37.78848
Longitude:	-121.2103
APN:	211-190-064
Past Use:	ABOVE GROUND STORAGE TANKS, MANUFACTURING - ELECTRONIC, METAL PLATING - OTHER
Potential COC:	Lead Silver Chromium III Chromium VI Copper and compounds Cyanide (free Nickel Zinc
Confirmed COC:	30013-NO No Contaminants found 30152-NO 30153-NO 30156-NO 30160-NO 30594-NO 30407-NO 30021-NO
Potential Description:	NMA, OTH, SOIL, SV
Alias Name:	Advanced Interconnect Technologies, Inc
Alias Type:	Alternate Name
Alias Name:	Advanced Technology Interconnect, Inc.

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

Alias Type:	Alternate Name
Alias Name:	Concord General Corporation
Alias Type:	Alternate Name
Alias Name:	Elegant Surfaces and Stone Center of California
Alias Type:	Alternate Name
Alias Name:	Moduline
Alias Type:	Alternate Name
Alias Name:	Moduline Industries, Inc.
Alias Type:	Alternate Name
Alias Name:	Olin Corporation
Alias Type:	Alternate Name
Alias Name:	Olin Interconnect Technologies, Inc.
Alias Type:	Alternate Name
Alias Name:	Olin Microelectronics Materials
Alias Type:	Alternate Name
Alias Name:	Shinko Electric America, Inc.
Alias Type:	Alternate Name
Alias Name:	211-190-064
Alias Type:	APN
Alias Name:	CAR000002279
Alias Type:	EPA Identification Number
Alias Name:	110002905679
Alias Type:	EPA (FRS #)
Alias Name:	HAHQ36046279
Alias Type:	Site Code - Historical
Alias Name:	101364
Alias Type:	Project Code (Site Code)
Alias Name:	71003427
Alias Type:	Envirostor ID Number
Alias Name:	http://www.elegantsurfaces.com/
Alias Type:	External Website Link / URL

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Phase I Verification
Completed Date:	07/01/2004
Comments:	Inspection report sent on 7/1/2004
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	04/15/2013
Comments:	CRU Memo approved by Acting UC. Approved CRU sent to accounting office for processing.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Remedy Selection and Statement of Basis
Completed Date:	03/25/2013
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Consent Agreement
Completed Date:	10/12/2012
Comments:	PM completed Consent Agreement and sent copies to all parties.

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Notice of Exemption
Completed Date: 03/29/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 07/01/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 03/28/2013
Comments: DTSC received final document.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 02/05/2013
Comments: Fact Sheet finalized.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 02/05/2013
Comments: Final Public Notice sent to AEG for publication. Publication to be on Feb 7, 2013.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

FINDS:
Registry ID: 110002905679

Click Here:

Environmental Interest/Information System:
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

ECHO:

Envid:	1000985116
Registry ID:	110002905679
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110002905679
Name:	ADVANCED TECHNOLOGY INTERCONNECT INC
Address:	555 CARNEGIE ST
City,State,Zip:	MANTECA, CA 95337

HAZNET:

Name:	ADVANCED TECHNOLOGY INTERCONNECT INC
Address:	555 CARNEGIE ST
Address 2:	Not reported
City,State,Zip:	MANTECA, CA 953360000
Contact:	M HUSKINS/VP FINANCE AND LEGAL
Telephone:	4083317303
Mailing Name:	Not reported
Mailing Address:	1284 FORJEWOOD AVENUE
Year:	2005
Gepaid:	CAR000002279
TSD EPA ID:	CAD980884183
CA Waste Code:	352 - Other organic solids
Disposal Method:	H01 - Transfer Station
Tons:	0.5
Year:	2004
Gepaid:	CAR000002279
TSD EPA ID:	CAD028409019
CA Waste Code:	141 - Off-specification, aged or surplus inorganics
Disposal Method:	H01 - Transfer Station
Tons:	0.2085
Year:	2003
Gepaid:	CAR000002279
TSD EPA ID:	CAT000613968
CA Waste Code:	134 - Aqueous solution with total organic residues less than 10 percent
Disposal Method:	H01 - Transfer Station
Tons:	0.4746
Year:	2003
Gepaid:	CAR000002279
TSD EPA ID:	CAD059494310
CA Waste Code:	352 - Other organic solids
Disposal Method:	D99 - Disposal, Other
Tons:	0.45
Year:	2003
Gepaid:	CAR000002279
TSD EPA ID:	CAD059494310
CA Waste Code:	512 - Other empty containers 30 gallons or more
Disposal Method:	H01 - Transfer Station
Tons:	0.35
Year:	2003
Gepaid:	CAR000002279

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

TSD EPA ID: CAD059494310
CA Waste Code: 512 - Other empty containers 30 gallons or more
Disposal Method: D99 - Disposal, Other
Tons: 4.214

Year: 2003
Gepaid: CAR000002279
TSD EPA ID: CAD982411993
CA Waste Code: 181 - Other inorganic solid waste
Disposal Method: H01 - Transfer Station
Tons: 0.02

Year: 2003
Gepaid: CAR000002279
TSD EPA ID: UTD981552177
CA Waste Code: 551 - Laboratory waste chemicals
Disposal Method: T03 - Treatment, Incineration
Tons: 0.34

Year: 2003
Gepaid: CAR000002279
TSD EPA ID: CAD059494310
CA Waste Code: 122 - Alkaline solution without metals pH >= 12.5
Disposal Method: T01 - Treatment, Tank
Tons: 0.22935

Year: 2002
Gepaid: CAR000002279
TSD EPA ID: CA0000084517
CA Waste Code: 134 - Aqueous solution with total organic residues less than 10 percent
Disposal Method: H01 - Transfer Station
Tons: 0.3528

Click this hyperlink while viewing on your computer to access
44 additional CA HAZNET: record(s) in the EDR Site Report.

Additional Info:
Year: 2005
Gen EPA ID: CAR000002279

Shipment Date: 20050117
Creation Date: 4/2/2005 18:31:07
Receipt Date: 20050124
Manifest ID: 24275921
Trans EPA ID: CAD983649880
Trans Name: GENERAL ENVIRONMENTAL MGMT INC
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDF EPA ID: CAD980884183
Trans Name: GEM RANCHO CORDOVA LLC
TSDF Alt EPA ID: Not reported
TSDF Alt Name: Not reported
Waste Code Description: 352 - Other organic solids
RCRA Code: NONE
Meth Code: H01 - Transfer Station

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

Quantity Tons:	0.5
Waste Quantity:	1000
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2003
Gen EPA ID:	CAR000002279
Shipment Date:	20031118
Creation Date:	7/30/2004 18:31:14
Receipt Date:	20031121
Manifest ID:	22315514
Trans EPA ID:	MAD039322250
Trans Name:	CLEAN HARBORS ENV SERVICES
Trans 2 EPA ID:	CAT000624247
Trans 2 Name:	MP ENVIRONMENTAL
TSDF EPA ID:	CAD059494310
Trans Name:	CLEAN HARBORS SAN JOSE LLC
TSDF Alt EPA ID:	CAD059494310
TSDF Alt Name:	Not reported
Waste Code Description:	512 - Other empty containers 30 gallons or more
RCRA Code:	Not reported
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.35
Waste Quantity:	700
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20031118
Creation Date:	7/30/2004 18:31:14
Receipt Date:	20031121
Manifest ID:	22315514
Trans EPA ID:	MAD039322250
Trans Name:	CLEAN HARBORS ENV SERVICES
Trans 2 EPA ID:	CAT000624247
Trans 2 Name:	MP ENVIRONMENTAL
TSDF EPA ID:	CAD059494310
Trans Name:	CLEAN HARBORS SAN JOSE LLC
TSDF Alt EPA ID:	CAD059494310
TSDF Alt Name:	Not reported
Waste Code Description:	122 - Alkaline solution without metals (pH > 12.5
RCRA Code:	D002
Meth Code:	T01 - Treatment, Tank
Quantity Tons:	0.22935
Waste Quantity:	55
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20031118
Creation Date:	7/30/2004 18:31:14
Receipt Date:	20031121
Manifest ID:	22315514
Trans EPA ID:	MAD039322250
Trans Name:	CLEAN HARBORS ENV SERVICES
Trans 2 EPA ID:	CAT000624247
Trans 2 Name:	MP ENVIRONMENTAL
TSDF EPA ID:	CAD059494310
Trans Name:	CLEAN HARBORS SAN JOSE LLC
TSDF Alt EPA ID:	CAD059494310
TSDF Alt Name:	Not reported
Waste Code Description:	512 - Other empty containers 30 gallons or more
RCRA Code:	Not reported
Meth Code:	D99 - Disposal, Other
Quantity Tons:	2.5284
Waste Quantity:	3
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20031117
Creation Date:	7/30/2004 18:31:14
Receipt Date:	20031121
Manifest ID:	22745449
Trans EPA ID:	MAD039322250
Trans Name:	CLEAN HARBORS ENV SERVICES INC
Trans 2 EPA ID:	CAT000624247
Trans 2 Name:	MP ENVIRONMENTAL
TSDF EPA ID:	CAD059494310
Trans Name:	CLEAN HARBORS SAN JOSE LLC
TSDF Alt EPA ID:	CAD059494310
TSDF Alt Name:	Not reported
Waste Code Description:	512 - Other empty containers 30 gallons or more
RCRA Code:	Not reported
Meth Code:	D99 - Disposal, Other
Quantity Tons:	1.6856
Waste Quantity:	2
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20031113
Creation Date:	8/5/2004 10:14:17
Receipt Date:	20031125
Manifest ID:	22745368
Trans EPA ID:	MAD039322250

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

Trans Name:	CLEAN HARBORS ENV SERVICES INC
Trans 2 EPA ID:	CAT000624247
Trans 2 Name:	MP ENVIRONMENTAL
TSDF EPA ID:	UTD981552177
Trans Name:	CLEAN HARBORS ARAGONITE LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	551 - Laboratory waste chemicals 561 Detergent and soap
RCRA Code:	D001
Meth Code:	T03 - Treatment, Incineration
Quantity Tons:	0.0325
Waste Quantity:	65
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20031113
Creation Date:	8/5/2004 10:14:17
Receipt Date:	20031125
Manifest ID:	22745368
Trans EPA ID:	MAD039322250
Trans Name:	CLEAN HARBORS ENV SERVICES INC
Trans 2 EPA ID:	CAT000624247
Trans 2 Name:	MP ENVIRONMENTAL
TSDF EPA ID:	UTD981552177
Trans Name:	CLEAN HARBORS ARAGONITE LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	551 - Laboratory waste chemicals 561 Detergent and soap
RCRA Code:	D002
Meth Code:	T03 - Treatment, Incineration
Quantity Tons:	0.1025
Waste Quantity:	205
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20031113
Creation Date:	8/5/2004 10:14:17
Receipt Date:	20031125
Manifest ID:	22745368
Trans EPA ID:	MAD039322250
Trans Name:	CLEAN HARBORS ENV SERVICES INC
Trans 2 EPA ID:	CAT000624247
Trans 2 Name:	MP ENVIRONMENTAL
TSDF EPA ID:	UTD981552177
Trans Name:	CLEAN HARBORS ARAGONITE LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	551 - Laboratory waste chemicals 561 Detergent and soap
RCRA Code:	D002

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

Meth Code:	T03 - Treatment, Incineration
Quantity Tons:	0.1225
Waste Quantity:	245
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20031113
Creation Date:	8/5/2004 10:14:17
Receipt Date:	20031125
Manifest ID:	22745368
Trans EPA ID:	MAD039322250
Trans Name:	CLEAN HARBORS ENV SERVICES INC
Trans 2 EPA ID:	CAT000624247
Trans 2 Name:	MP ENVIRONMENTAL
TSDF EPA ID:	UTD981552177
Trans Name:	CLEAN HARBORS ARAGONITE LLC
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	551 - Laboratory waste chemicals 561 Detergent and soap
RCRA Code:	D001
Meth Code:	T03 - Treatment, Incineration
Quantity Tons:	0.0825
Waste Quantity:	165
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20031107
Creation Date:	7/30/2004 18:31:14
Receipt Date:	20031126
Manifest ID:	22246016
Trans EPA ID:	TXR000050930
Trans Name:	SAFETY-KLEEN SYSTEMS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD059494310
Trans Name:	CLEAN HARBORS SAN JOSE LL
TSDF Alt EPA ID:	CAD059494310
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	Not reported
Meth Code:	D99 - Disposal, Other
Quantity Tons:	0.45
Waste Quantity:	900
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

Shipment Date:	20031107
Creation Date:	8/5/2004 10:14:17
Receipt Date:	20031124
Manifest ID:	22949207
Trans EPA ID:	TXR000050930
Trans Name:	SAFETY-KLEEN SYSTEMS INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD982411993
Trans Name:	A E R C COM INC
TSDF Alt EPA ID:	CAD982411993
TSDF Alt Name:	Not reported
Waste Code Description:	181 - Other inorganic solid waste Organics
RCRA Code:	D002
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.02
Waste Quantity:	40
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2004
Gen EPA ID:	CAR000002279

Shipment Date:	20040308
Creation Date:	8/23/2004 8:16:48
Receipt Date:	20040312
Manifest ID:	22699642
Trans EPA ID:	CAD983652272
Trans Name:	UNIVERSAL ENVIRONMENTAL
Trans 2 EPA ID:	CAD983668583
Trans 2 Name:	CONSOLIDATED WASTE INDUSTRIES
TSDF EPA ID:	CAD028090019
Trans Name:	CROSBY & OVERTON INC
TSDF Alt EPA ID:	CAD028409019
TSDF Alt Name:	Not reported
Waste Code Description:	141 - Off-specification, aged, or surplus inorganics
RCRA Code:	D002
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.10425
Waste Quantity:	25
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20040308
Creation Date:	8/23/2004 8:16:48
Receipt Date:	20040312
Manifest ID:	22699642
Trans EPA ID:	CAD983652272

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

Trans Name:	UNIVERSAL ENVIRONMENTAL
Trans 2 EPA ID:	CAD983668583
Trans 2 Name:	CONSOLIDATED WASTE INDUSTRIES
TSDF EPA ID:	CAD028090019
Trans Name:	CROSBY & OVERTON INC
TSDF Alt EPA ID:	CAD028409019
TSDF Alt Name:	Not reported
Waste Code Description:	141 - Off-specification, aged, or surplus inorganics
RCRA Code:	D002
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.10425
Waste Quantity:	25
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	1999
Gen EPA ID:	CAR000002279
Shipment Date:	19990810
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	99180778
Trans EPA ID:	NJD080631369
Trans Name:	Not reported
Trans 2 EPA ID:	CAD004778742
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080014079
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	343 - Unspecified organic liquid mixture
RCRA Code:	Not reported
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.2455
Waste Quantity:	491
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19990810
Creation Date:	10/26/1999 0:00:00
Receipt Date:	19990812
Manifest ID:	99180778
Trans EPA ID:	NJD080631369
Trans Name:	Not reported
Trans 2 EPA ID:	CAD004778742
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080014079
Trans Name:	Not reported

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	491 - Unspecified sludge waste
RCRA Code:	Not reported
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.2495
Waste Quantity:	499
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19990810
Creation Date:	10/26/1999 0:00:00
Receipt Date:	19990812
Manifest ID:	99180778
Trans EPA ID:	NJD080631369
Trans Name:	Not reported
Trans 2 EPA ID:	CAD004778742
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080014079
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	Not reported
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.4235
Waste Quantity:	847
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19990810
Creation Date:	10/26/1999 0:00:00
Receipt Date:	19990812
Manifest ID:	99180778
Trans EPA ID:	NJD080631369
Trans Name:	Not reported
Trans 2 EPA ID:	CAD004778742
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080014079
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D002
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.0005
Waste Quantity:	1
Quantity Unit:	P
Additional Code 1:	Not reported

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19990810
Creation Date:	10/26/1999 0:00:00
Receipt Date:	19990812
Manifest ID:	99180778
Trans EPA ID:	NJD080631369
Trans Name:	Not reported
Trans 2 EPA ID:	CAD004778742
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080014079
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	551 - Laboratory waste chemicals 561 Detergent and soap
RCRA Code:	D003
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.0005
Waste Quantity:	1
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19990330
Creation Date:	7/13/1999 0:00:00
Receipt Date:	19990406
Manifest ID:	96639118
Trans EPA ID:	NJD080631369
Trans Name:	Not reported
Trans 2 EPA ID:	CAD004778742
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080014079
Trans Name:	Not reported
TSDF Alt EPA ID:	CAT080014079
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	D008
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.525
Waste Quantity:	1050
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19990330
Creation Date:	7/13/1999 0:00:00
Receipt Date:	19990406
Manifest ID:	96639118

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

Trans EPA ID:	NJD080631369
Trans Name:	Not reported
Trans 2 EPA ID:	CAD004778742
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080014079
Trans Name:	Not reported
TSDF Alt EPA ID:	CAT080014079
TSDF Alt Name:	Not reported
Waste Code Description:	491 - Unspecified sludge waste
RCRA Code:	D008
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.45
Waste Quantity:	900
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	19990330
Creation Date:	7/13/1999 0:00:00
Receipt Date:	19990406
Manifest ID:	96639118
Trans EPA ID:	NJD080631369
Trans Name:	Not reported
Trans 2 EPA ID:	CAD004778742
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080014079
Trans Name:	Not reported
TSDF Alt EPA ID:	CAT080014079
TSDF Alt Name:	Not reported
Waste Code Description:	171 - Metal sludge (see 121
RCRA Code:	D008
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.45
Waste Quantity:	900
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	19990330
Creation Date:	7/13/1999 0:00:00
Receipt Date:	19990406
Manifest ID:	96639118
Trans EPA ID:	NJD080631369
Trans Name:	Not reported
Trans 2 EPA ID:	CAD004778742
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080014079
Trans Name:	Not reported
TSDF Alt EPA ID:	CAT080014079
TSDF Alt Name:	Not reported
Waste Code Description:	214 - Unspecified solvent mixture

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

RCRA Code:	F003
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.2
Waste Quantity:	400
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19990330
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	96639118
Trans EPA ID:	NJD080631369
Trans Name:	Not reported
Trans 2 EPA ID:	CAD004778742
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080014079
Trans Name:	Not reported
TSDF Alt EPA ID:	CAT080014079
TSDF Alt Name:	Not reported
Waste Code Description:	343 - Unspecified organic liquid mixture
RCRA Code:	Not reported
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.2
Waste Quantity:	400
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2002
Gen EPA ID:	CAR000002279
Shipment Date:	20021016
Creation Date:	3/16/2007 18:30:20
Receipt Date:	20021121
Manifest ID:	21466446
Trans EPA ID:	SCR000075150
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD059494310
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD059494310
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	Not reported
Meth Code:	D99 - Disposal, Other
Quantity Tons:	0.315
Waste Quantity:	630
Quantity Unit:	P

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20020916
Creation Date:	1/27/2003 18:33:26
Receipt Date:	20020923
Manifest ID:	22195509
Trans EPA ID:	SCR000075150
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CA0000084517
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	Not reported
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.1722
Waste Quantity:	41
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20020627
Creation Date:	3/17/2003 18:31:23
Receipt Date:	20020701
Manifest ID:	21731150
Trans EPA ID:	SCR000075150
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CA0000084517
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	134 - Aqueous solution with <10% total organic residues
RCRA Code:	Not reported
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.1806
Waste Quantity:	43
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20020502
Creation Date:	7/29/2002 18:40:54
Receipt Date:	20020502

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

Manifest ID:	21591399
Trans EPA ID:	SCR000075150
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT000613968
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	741 - Liquids with halogenated organic compounds > 1000 mg/l
RCRA Code:	D001
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.11676
Waste Quantity:	28
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20020208
Creation Date:	7/2/2002 18:31:06
Receipt Date:	20020208
Manifest ID:	21492046
Trans EPA ID:	SCR000075150
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT000613968
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	741 - Liquids with halogenated organic compounds > 1000 mg/l
RCRA Code:	D001
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.07089
Waste Quantity:	17
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20020107
Creation Date:	6/28/2002 18:31:15
Receipt Date:	20020117
Manifest ID:	21002107
Trans EPA ID:	SCR000075150
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD059494310
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

Waste Code Description:	- Not reported
RCRA Code:	Not reported
Meth Code:	H01 - Transfer Station
Quantity Tons:	Not reported
Waste Quantity:	Not reported
Quantity Unit:	Not reported
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20020107
Creation Date:	6/28/2002 18:31:15
Receipt Date:	20020117
Manifest ID:	21002107
Trans EPA ID:	SCR000075150
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD059494310
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	Not reported
Meth Code:	- Not reported
Quantity Tons:	0.105
Waste Quantity:	210
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	1997
Gen EPA ID:	CAR000002279

Shipment Date:	19971216
Creation Date:	7/23/1998 0:00:00
Receipt Date:	19971216
Manifest ID:	96545089
Trans EPA ID:	CAD004778742
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT000646117
Trans Name:	Not reported
TSDF Alt EPA ID:	CAT000646117
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	Not reported
Meth Code:	D80 - Disposal, Land Fill
Quantity Tons:	1.5
Waste Quantity:	3000

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19971007
Creation Date:	4/23/1998 0:00:00
Receipt Date:	19971015
Manifest ID:	96636923
Trans EPA ID:	NJD080631369
Trans Name:	Not reported
Trans 2 EPA ID:	CAD004778742
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080014079
Trans Name:	Not reported
TSDF Alt EPA ID:	CAT080014079
TSDF Alt Name:	Not reported
Waste Code Description:	551 - Laboratory waste chemicals 561 Detergent and soap
RCRA Code:	D001
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.006
Waste Quantity:	12
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19971007
Creation Date:	4/23/1998 0:00:00
Receipt Date:	19971015
Manifest ID:	96636923
Trans EPA ID:	NJD080631369
Trans Name:	Not reported
Trans 2 EPA ID:	CAD004778742
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080014079
Trans Name:	Not reported
TSDF Alt EPA ID:	CAT080014079
TSDF Alt Name:	Not reported
Waste Code Description:	171 - Metal sludge (see 121
RCRA Code:	D008
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.225
Waste Quantity:	450
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19971007
Creation Date:	4/23/1998 0:00:00

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

Receipt Date:	19971015
Manifest ID:	96636923
Trans EPA ID:	NJD080631369
Trans Name:	Not reported
Trans 2 EPA ID:	CAD004778742
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080014079
Trans Name:	Not reported
TSDF Alt EPA ID:	CAT080014079
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	D008
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.175
Waste Quantity:	350
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	19971007
Creation Date:	4/23/1998 0:00:00
Receipt Date:	19971015
Manifest ID:	96636923
Trans EPA ID:	NJD080631369
Trans Name:	Not reported
Trans 2 EPA ID:	CAD004778742
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080014079
Trans Name:	Not reported
TSDF Alt EPA ID:	CAT080014079
TSDF Alt Name:	Not reported
Waste Code Description:	491 - Unspecified sludge waste
RCRA Code:	D008
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.1125
Waste Quantity:	225
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	19971007
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	96636923
Trans EPA ID:	NJD080631369
Trans Name:	Not reported
Trans 2 EPA ID:	CAD004778742
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080014079
Trans Name:	Not reported
TSDF Alt EPA ID:	CAT080014079

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

TSDF Alt Name:	Not reported
Waste Code Description:	343 - Unspecified organic liquid mixture
RCRA Code:	Not reported
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.1875
Waste Quantity:	375
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19970813
Creation Date:	7/23/1998 0:00:00
Receipt Date:	19970820
Manifest ID:	96637651
Trans EPA ID:	NJD080631369
Trans Name:	Not reported
Trans 2 EPA ID:	CAD004778742
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080014079
Trans Name:	Not reported
TSDF Alt EPA ID:	CAT080014079
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Meth Code:	H01 - Transfer Station
Quantity Tons:	8
Waste Quantity:	16000
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19970708
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	96544882
Trans EPA ID:	NJD080631369
Trans Name:	Not reported
Trans 2 EPA ID:	CAD004778742
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080014079
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	343 - Unspecified organic liquid mixture
RCRA Code:	Not reported
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.1875
Waste Quantity:	375
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19970708
Creation Date:	4/23/1998 0:00:00
Receipt Date:	19970715
Manifest ID:	96544882
Trans EPA ID:	NJD080631369
Trans Name:	Not reported
Trans 2 EPA ID:	CAD004778742
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080014079
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	491 - Unspecified sludge waste
RCRA Code:	D008
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.1125
Waste Quantity:	225
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19970708
Creation Date:	4/23/1998 0:00:00
Receipt Date:	19970715
Manifest ID:	96544882
Trans EPA ID:	NJD080631369
Trans Name:	Not reported
Trans 2 EPA ID:	CAD004778742
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080014079
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	D008
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.35
Waste Quantity:	700
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	1998
Gen EPA ID:	CAR000002279
Shipment Date:	19981123

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	96873744
Trans EPA ID:	NJD080631369
Trans Name:	Not reported
Trans 2 EPA ID:	CAD004778742
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080014079
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	Not reported
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.0125
Waste Quantity:	25
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	19981123
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	96873744
Trans EPA ID:	NJD080631369
Trans Name:	Not reported
Trans 2 EPA ID:	CAD004778742
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080014079
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	343 - Unspecified organic liquid mixture
RCRA Code:	Not reported
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.675
Waste Quantity:	1350
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	19981123
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	96873744
Trans EPA ID:	NJD080631369
Trans Name:	Not reported
Trans 2 EPA ID:	CAD004778742
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080014079
Trans Name:	Not reported

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	512 - Other empty containers 30 gallons or more
RCRA Code:	Not reported
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.375
Waste Quantity:	750
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19981123
Creation Date:	Not reported
Receipt Date:	Not reported
Manifest ID:	96873744
Trans EPA ID:	NJD080631369
Trans Name:	Not reported
Trans 2 EPA ID:	CAD004778742
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080014079
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	512 - Other empty containers 30 gallons or more
RCRA Code:	Not reported
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.3375
Waste Quantity:	675
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19981123
Creation Date:	5/17/1999 0:00:00
Receipt Date:	19981130
Manifest ID:	96873744
Trans EPA ID:	NJD080631369
Trans Name:	Not reported
Trans 2 EPA ID:	CAD004778742
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080014079
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	491 - Unspecified sludge waste
RCRA Code:	D008
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.4
Waste Quantity:	800
Quantity Unit:	P
Additional Code 1:	Not reported

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19981123
Creation Date:	2/2/1999 0:00:00
Receipt Date:	19981203
Manifest ID:	96873743
Trans EPA ID:	NJD080631369
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080014079
Trans Name:	Not reported
TSDF Alt EPA ID:	CAT080014079
TSDF Alt Name:	Not reported
Waste Code Description:	141 - Off-specification, aged, or surplus inorganics
RCRA Code:	D003
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.005
Waste Quantity:	10
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19981123
Creation Date:	5/17/1999 0:00:00
Receipt Date:	19981130
Manifest ID:	96873744
Trans EPA ID:	NJD080631369
Trans Name:	Not reported
Trans 2 EPA ID:	CAD004778742
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080014079
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	181 - Other inorganic solid waste Organics
RCRA Code:	D008
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.8
Waste Quantity:	1600
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19981123
Creation Date:	5/17/1999 0:00:00
Receipt Date:	19981130
Manifest ID:	96873744

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

Trans EPA ID:	NJD080631369
Trans Name:	Not reported
Trans 2 EPA ID:	CAD004778742
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080014079
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	D008
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.6
Waste Quantity:	1200
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	19981123
Creation Date:	5/17/1999 0:00:00
Receipt Date:	19981130
Manifest ID:	96873744
Trans EPA ID:	NJD080631369
Trans Name:	Not reported
Trans 2 EPA ID:	CAD004778742
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080014079
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	343 - Unspecified organic liquid mixture
RCRA Code:	D001
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.005
Waste Quantity:	10
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	19981123
Creation Date:	3/17/1999 0:00:00
Receipt Date:	19981130
Manifest ID:	96873742
Trans EPA ID:	NJD080631369
Trans Name:	Not reported
Trans 2 EPA ID:	CAD004778742
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080014079
Trans Name:	Not reported
TSDF Alt EPA ID:	CAT080014079
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

RCRA Code: F003
Meth Code: H01 - Transfer Station
Quantity Tons: 0.03
Waste Quantity: 60
Quantity Unit: P
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Additional Info:
Year: 2001
Gen EPA ID: CAR000002279

Shipment Date: 20011116
Creation Date: 1/16/2002 0:00:00
Receipt Date: 20011116
Manifest ID: 21313268
Trans EPA ID: SCR000075150
Trans Name: Not reported
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDF EPA ID: CAT000613968
Trans Name: Not reported
TSDF Alt EPA ID: Not reported
TSDF Alt Name: Not reported
Waste Code Description: 741 - Liquids with halogenated organic compounds > 1000 mg/l
RCRA Code: D001
Meth Code: H01 - Transfer Station
Quantity Tons: 0.0917
Waste Quantity: 22
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20010830
Creation Date: 11/1/2001 0:00:00
Receipt Date: 20010830
Manifest ID: 21111120
Trans EPA ID: SCR000075150
Trans Name: Not reported
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDF EPA ID: CAT000613968
Trans Name: Not reported
TSDF Alt EPA ID: CAT000613968
TSDF Alt Name: Not reported
Waste Code Description: 741 - Liquids with halogenated organic compounds > 1000 mg/l
RCRA Code: D001
Meth Code: H01 - Transfer Station
Quantity Tons: 0.0625
Waste Quantity: 15
Quantity Unit: G

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20010719
Creation Date:	10/3/2001 0:00:00
Receipt Date:	20010730
Manifest ID:	21002274
Trans EPA ID:	SCR000075150
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD059494310
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD059494310
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	Not reported
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.105
Waste Quantity:	210
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20010607
Creation Date:	8/29/2001 0:00:00
Receipt Date:	20010608
Manifest ID:	20648338
Trans EPA ID:	SCR000075150
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT000613968
Trans Name:	Not reported
TSDF Alt EPA ID:	CAT000613968
TSDF Alt Name:	Not reported
Waste Code Description:	741 - Liquids with halogenated organic compounds > 1000 mg/l
RCRA Code:	D001
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.0917
Waste Quantity:	22
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20010308
Creation Date:	5/16/2001 0:00:00
Receipt Date:	20010308

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

Manifest ID:	20372175
Trans EPA ID:	SCR000075150
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT000613968
Trans Name:	Not reported
TSDF Alt EPA ID:	CAT000613968
TSDF Alt Name:	Not reported
Waste Code Description:	741 - Liquids with halogenated organic compounds > 1000 mg/l
RCRA Code:	D001
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.1
Waste Quantity:	24
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20010213
Creation Date:	4/30/2001 0:00:00
Receipt Date:	20010223
Manifest ID:	20522369
Trans EPA ID:	SCR000075150
Trans Name:	Not reported
Trans 2 EPA ID:	SCR000074591
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD050806850
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD050806850
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	Not reported
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.84
Waste Quantity:	1680
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	1996
Gen EPA ID:	CAR000002279

Shipment Date:	19961112
Creation Date:	5/21/1997 0:00:00
Receipt Date:	19961118
Manifest ID:	96586175
Trans EPA ID:	NJD080631369
Trans Name:	Not reported
Trans 2 EPA ID:	CAD004778742
Trans 2 Name:	Not reported

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

TSDF EPA ID:	CAT080014079
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	214 - Unspecified solvent mixture
RCRA Code:	F003
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.2
Waste Quantity:	400
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	19961112
Creation Date:	5/21/1997 0:00:00
Receipt Date:	19961118
Manifest ID:	96586175
Trans EPA ID:	NJD080631369
Trans Name:	Not reported
Trans 2 EPA ID:	CAD004778742
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080014079
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	741 - Liquids with halogenated organic compounds > 1000 mg/l
RCRA Code:	F003
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.4
Waste Quantity:	800
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	19961112
Creation Date:	5/21/1997 0:00:00
Receipt Date:	19961118
Manifest ID:	96586175
Trans EPA ID:	NJD080631369
Trans Name:	Not reported
Trans 2 EPA ID:	CAD004778742
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080014079
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	491 - Unspecified sludge waste
RCRA Code:	D008
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.225
Waste Quantity:	450

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19961112
Creation Date:	5/21/1997 0:00:00
Receipt Date:	19961118
Manifest ID:	96586175
Trans EPA ID:	NJD080631369
Trans Name:	Not reported
Trans 2 EPA ID:	CAD004778742
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080014079
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	551 - Laboratory waste chemicals 561 Detergent and soap
RCRA Code:	D008
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.15
Waste Quantity:	300
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19960808
Creation Date:	5/30/1997 0:00:00
Receipt Date:	19960815
Manifest ID:	95846418
Trans EPA ID:	NJD080631369
Trans Name:	Not reported
Trans 2 EPA ID:	CAD004778742
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080014079
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	D008
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.6
Waste Quantity:	1200
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19960808
Creation Date:	5/30/1997 0:00:00

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

Receipt Date:	19960815
Manifest ID:	95846418
Trans EPA ID:	NJD080631369
Trans Name:	Not reported
Trans 2 EPA ID:	CAD004778742
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080014079
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	491 - Unspecified sludge waste
RCRA Code:	D008
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.2
Waste Quantity:	400
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	19960808
Creation Date:	5/30/1997 0:00:00
Receipt Date:	19960815
Manifest ID:	95846418
Trans EPA ID:	NJD080631369
Trans Name:	Not reported
Trans 2 EPA ID:	CAD004778742
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080014079
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	181 - Other inorganic solid waste Organics
RCRA Code:	Not reported
Meth Code:	H01 - Transfer Station
Quantity Tons:	1
Waste Quantity:	2000
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	19960514
Creation Date:	5/30/1997 0:00:00
Receipt Date:	19960520
Manifest ID:	95848849
Trans EPA ID:	NJD080631369
Trans Name:	Not reported
Trans 2 EPA ID:	CAD004778742
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080014079
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

TSDF Alt Name:	Not reported
Waste Code Description:	491 - Unspecified sludge waste
RCRA Code:	D008
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.4
Waste Quantity:	800
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19960514
Creation Date:	5/30/1997 0:00:00
Receipt Date:	19960520
Manifest ID:	95848849
Trans EPA ID:	NJD080631369
Trans Name:	Not reported
Trans 2 EPA ID:	CAD004778742
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080014079
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	D008
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.76
Waste Quantity:	1520
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	19960514
Creation Date:	5/30/1997 0:00:00
Receipt Date:	19960520
Manifest ID:	95848849
Trans EPA ID:	NJD080631369
Trans Name:	Not reported
Trans 2 EPA ID:	CAD004778742
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT080014079
Trans Name:	Not reported
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	741 - Liquids with halogenated organic compounds > 1000 mg/l
RCRA Code:	F001
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.05
Waste Quantity:	100
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Additional Info:
Year: 2000
Gen EPA ID: CAR000002279

Shipment Date: 20001214
Creation Date: 3/6/2001 0:00:00
Receipt Date: 20001214
Manifest ID: 20541405
Trans EPA ID: SCR000075150
Trans Name: Not reported
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDF EPA ID: CAT000613968
Trans Name: Not reported
TSDF Alt EPA ID: CAT000613968
TSDF Alt Name: Not reported
Waste Code Description: 741 - Liquids with halogenated organic compounds > 1000 mg/l
RCRA Code: D001
Meth Code: H01 - Transfer Station
Quantity Tons: 0.0959
Waste Quantity: 23
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20001109
Creation Date: 2/1/2001 0:00:00
Receipt Date: 20001116
Manifest ID: 20522056
Trans EPA ID: SCR000075150
Trans Name: Not reported
Trans 2 EPA ID: SCR000074591
Trans 2 Name: Not reported
TSDF EPA ID: CAD059494310
Trans Name: Not reported
TSDF Alt EPA ID: CAD059494310
TSDF Alt Name: Not reported
Waste Code Description: 352 - Other organic solids
RCRA Code: Not reported
Meth Code: H01 - Transfer Station
Quantity Tons: 0.21
Waste Quantity: 420
Quantity Unit: P
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20000920

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

Creation Date:	12/8/2000 0:00:00
Receipt Date:	20000920
Manifest ID:	20532578
Trans EPA ID:	SCR000075150
Trans Name:	Not reported
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT000613968
Trans Name:	Not reported
TSDF Alt EPA ID:	CAT000613968
TSDF Alt Name:	Not reported
Waste Code Description:	741 - Liquids with halogenated organic compounds > 1000 mg/l
RCRA Code:	D001
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.1084
Waste Quantity:	26
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20000721
Creation Date:	10/23/2000 0:00:00
Receipt Date:	20000731
Manifest ID:	97489468
Trans EPA ID:	ILD984908202
Trans Name:	Not reported
Trans 2 EPA ID:	SCR000074591
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD059494310
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD059494310
TSDF Alt Name:	Not reported
Waste Code Description:	214 - Unspecified solvent mixture
RCRA Code:	D007
Meth Code:	D99 - Disposal, Other
Quantity Tons:	0.27
Waste Quantity:	540
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Shipment Date:	20000721
Creation Date:	10/23/2000 0:00:00
Receipt Date:	20000731
Manifest ID:	97489468
Trans EPA ID:	ILD984908202
Trans Name:	Not reported
Trans 2 EPA ID:	SCR000074591
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD059494310
Trans Name:	Not reported

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

TSDF Alt EPA ID:	CAD059494310
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	Not reported
Meth Code:	D99 - Disposal, Other
Quantity Tons:	0.315
Waste Quantity:	630
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20000209
Creation Date:	5/1/2000 0:00:00
Receipt Date:	20000215
Manifest ID:	99013993
Trans EPA ID:	ILD984908202
Trans Name:	Not reported
Trans 2 EPA ID:	SCR000074591
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD059494310
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD059494310
TSDF Alt Name:	Not reported
Waste Code Description:	491 - Unspecified sludge waste
RCRA Code:	D008
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.181
Waste Quantity:	362
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20000209
Creation Date:	5/1/2000 0:00:00
Receipt Date:	20000215
Manifest ID:	99013993
Trans EPA ID:	ILD984908202
Trans Name:	Not reported
Trans 2 EPA ID:	SCR000074591
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD059494310
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD059494310
TSDF Alt Name:	Not reported
Waste Code Description:	214 - Unspecified solvent mixture
RCRA Code:	D007
Meth Code:	D99 - Disposal, Other
Quantity Tons:	0.54
Waste Quantity:	1080
Quantity Unit:	P
Additional Code 1:	Not reported

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20000209
Creation Date:	5/1/2000 0:00:00
Receipt Date:	20000215
Manifest ID:	99013993
Trans EPA ID:	ILD984908202
Trans Name:	Not reported
Trans 2 EPA ID:	SCR000074591
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD059494310
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD059494310
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	Not reported
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.21
Waste Quantity:	420
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20000201
Creation Date:	4/28/2000 0:00:00
Receipt Date:	20000207
Manifest ID:	99468777
Trans EPA ID:	SCR000074591
Trans Name:	Not reported
Trans 2 EPA ID:	CAT000624247
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD059494310
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD059494310
TSDF Alt Name:	Not reported
Waste Code Description:	331 - Off-specification, aged, or surplus organics
RCRA Code:	D001
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.0065
Waste Quantity:	13
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20000201
Creation Date:	4/28/2000 0:00:00
Receipt Date:	20000207
Manifest ID:	99468777

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

Trans EPA ID:	SCR000074591
Trans Name:	Not reported
Trans 2 EPA ID:	CAT000624247
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD059494310
Trans Name:	Not reported
TSDF Alt EPA ID:	CAD059494310
TSDF Alt Name:	Not reported
Waste Code Description:	214 - Unspecified solvent mixture
RCRA Code:	D001
Meth Code:	H01 - Transfer Station
Quantity Tons:	0.0235
Waste Quantity:	47
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

WDS:

Name:	ADVANCED INTERCONNECT TECH INC
Address:	555 Carnegie St
City:	MANTECA
Facility ID:	5S 39I014785
Facility Type:	Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number:	CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion:	0
Facility Telephone:	2098246523
Facility Contact:	JAMES COOK
Agency Name:	ADVANCED TECH INC
Agency Address:	PO Box 952
Agency City,St,Zip:	Manteca 953361138
Agency Contact:	JAMES COOK
Agency Telephone:	2098246523
Agency Type:	Private
SIC Code:	0
SIC Code 2:	Not reported
Primary Waste Type:	Not reported
Primary Waste:	Not reported
Waste Type2:	Not reported
Waste2:	Not reported
Primary Waste Type:	Not reported
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Design Flow:	0
Baseline Flow:	0
Reclamation:	Not reported
POTW:	Not reported

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

Treat To Water: Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.

Complexity: Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

CIWQS:

Name:	ADVANCED INTERCONNECT TECH INC
Address:	555 CARNEGIE ST
City,State,Zip:	MANTECA, CA 95337
Agency:	Advanced Tech Inc
Agency Address:	555 Carnegie St, Manteca, CA 95337
Place/Project Type:	Industrial - Electronic Components, NEC
SIC/NAICS:	3679
Region:	5S
Program:	INDSTW
Regulatory Measure Status:	Terminated
Regulatory Measure Type:	Storm water industrial
Order Number:	2014-0057-DWQ
WDID:	5S39I014785
NPDES Number:	CAS000001
Adoption Date:	01/01/1900
Effective Date:	11/24/1998
Termination Date:	11/01/2004
Expiration/Review Date:	01/01/1900
Design Flow:	Not reported
Major/Minor:	Not reported
Complexity:	Not reported
TTWQ:	Not reported
Enforcement Actions within 5 years:	0
Violations within 5 years:	0
Latitude:	37.78767
Longitude:	-121.20894

HWTS:

Name:	ADVANCED TECHNOLOGY INTERCONNECT INC
Address:	555 CARNEGIE ST
Address 2:	Not reported
City,State,Zip:	MANTECA, CA 953360000
EPA ID:	CAR000002279
Inactive Date:	06/30/2003
Create Date:	12/08/1995
Last Act Date:	07/06/2010
Mailing Name:	Not reported
Mailing Address:	1284 FORJEWOOD AVENUE
Mailing Address 2:	Not reported
Mailing City,State,Zip:	SUNNYVALE, CA 940890000
Owner Name:	ADVANCED TECH INTERCONNECT INC
Owner Address:	PO BOX 952

ADVANCED TECHNOLOGY INTERCONNECT INC (Continued) **1000985116**

Owner Address 2:	Not reported
Owner City,State,Zip:	MANTECA, CA 953370952
Contact Name:	M HUSKINS/VP FINANCE AND LEGAL
Contact Address:	1284 FORGEWOOD AVENUE
Contact Address 2:	Not reported
City,State,Zip:	SUNNYVALE, CA 940890000

NAICS:

EPA ID:	CAR000002279
Create Date:	2004-10-20 10:23:57.043
NAICS Code:	332813
NAICS Description:	Electroplating, Plating, Polishing, Anodizing, and Coloring
Issued EPA ID Date:	1995-12-08 00:00:00
Inactive Date:	2003-06-30 00:00:00
Facility Name:	ADVANCED TECHNOLOGY INTERCONNECT INC
Facility Address:	555 CARNEGIE ST
Facility Address 2:	Not reported
Facility City:	MANTECA
Facility County:	Not reported
Facility State:	CA
Facility Zip:	953360000

EPA ID:	CAR000002279
Create Date:	2004-10-20 10:23:57.043
NAICS Code:	332813
NAICS Description:	Electroplating, Plating, Polishing, Anodizing, and Coloring
Issued EPA ID Date:	1995-12-08 00:00:00
Inactive Date:	2003-06-30 00:00:00
Facility Name:	ADVANCED TECHNOLOGY INTERCONNECT INC
Facility Address:	555 CARNEGIE ST
Facility Address 2:	Not reported
Facility City:	MANTECA
Facility County:	Not reported
Facility State:	CA
Facility Zip:	953360000

19
SSW
1/2-1
0.754 mi.
3981 ft.

PROPOSED SOUTH MANTECA HIGH SCHOOL
21143 S. TINNIN ROAD
MANTECA, CA 95337

ENVIROSTOR **S108195937**
SCH **N/A**

Relative:
Lower

Actual:
34 ft.

ENVIROSTOR:

Name:	PROPOSED SOUTH MANTECA HIGH SCHOOL
Address:	21143 S. TINNIN ROAD
City,State,Zip:	MANTECA, CA 95337
Facility ID:	60000456
Status:	No Further Action
Status Date:	05/31/2007
Site Code:	104569
Site Type:	School Investigation
Site Type Detailed:	School
Acres:	52.17
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Not reported

PROPOSED SOUTH MANTECA HIGH SCHOOL (Continued) **S108195937**

Supervisor: Shahir Haddad
Division Branch: Northern California Schools & Santa Susana
Assembly: 12
Senate: 05
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: School District
Latitude: 37.76658
Longitude: -121.2270
APN: NONE SPECIFIED
Past Use: AGRICULTURAL - ORCHARD, AGRICULTURAL - ROW CROPS
Potential COC: Under Investigation Arsenic Chlordane DDD DDE DDT Lead Silver Toxaphene Antimony and compounds Barium and compounds Beryllium and compounds Cadmium and compounds Cobalt Copper and compounds Endosulfan Heptachlor Heptachlor epoxide Methoxychlor Molybdenum Nickel Selenium Thallium and compounds Vanadium and compounds Zinc
Confirmed COC: 31001-NO 30515-NO 30542-NO 30021-NO 30023-NO 30058-NO 30067-NO 30080-NO 30108-NO 30154-NO 30156-NO 30261-NO 30308-NO 30309-NO 30367-NO 30402-NO 30407-NO 30001-NO 30004-NO 30006-NO 30007-NO 30008-NO 30013-NO No Contaminants found 30587-NO 30594-NO
Potential Description: SOIL
Alias Name: 104569
Alias Type: Project Code (Site Code)
Alias Name: 60000456
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 11/03/2006
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 06/01/2007
Comments: CRU prepared and submitted on 05/31/2007.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 11/02/2006
Comments: Phase I report submitted by Condor Earth Technologies as background information for the upcoming PEA.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 02/05/2007
Comments: Revised PEA Workplan approved. Approval letter submitted to District 02/05/07.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 05/31/2007

PROPOSED SOUTH MANTECA HIGH SCHOOL (Continued) **S108195937**

Comments:	Completion of public review letter received 05/29/2007. PEA approved for NFA on 05/30/2007.
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

SCH:

Name:	PROPOSED SOUTH MANTECA HIGH SCHOOL
Address:	21143 S. TINNIN ROAD
City,State,Zip:	MANTECA, CA 95337
Facility ID:	60000456
Site Type:	School Investigation
Site Type Detail:	School
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	52.17
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Not reported
Supervisor:	Shahir Haddad
Division Branch:	Northern California Schools & Santa Susana
Site Code:	104569
Assembly:	12
Senate:	05
Special Program Status:	Not reported
Status:	No Further Action
Status Date:	05/31/2007
Restricted Use:	NO
Funding:	School District
Latitude:	37.76658
Longitude:	-121.2270
APN:	NONE SPECIFIED
Past Use:	AGRICULTURAL - ORCHARD, AGRICULTURAL - ROW CROPS
Potential COC:	Under Investigation, Under Investigation, Arsenic, Chlordane, DDD, DDE, DDT, Lead, Silver, Toxaphene, Antimony and compounds, Barium and compounds, Beryllium and compounds, Cadmium and compounds, Cobalt, Copper and compounds, Endosulfan, Heptachlor, Heptachlor epoxide, Methoxychlor, Molybdenum, Nickel, Selenium, Thallium and compounds, Vanadium and compounds, Zinc
Confirmed COC:	31001-NO, 30515-NO, 30542-NO, 30021-NO, 30023-NO, 30058-NO, 30067-NO, 30080-NO, 30108-NO, 30154-NO, 30156-NO, 30261-NO, 30308-NO, 30309-NO, 30367-NO, 30402-NO, 30407-NO, 30001-NO, 30004-NO, 30006-NO, 30007-NO, 30008-NO, 30013-NO, No Contaminants found, 30587-NO, 30594-NO
Potential Description:	SOIL
Alias Name:	104569
Alias Type:	Project Code (Site Code)
Alias Name:	60000456

PROPOSED SOUTH MANTECA HIGH SCHOOL (Continued) **S108195937**

Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	11/03/2006
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	06/01/2007
Comments:	CRU prepared and submitted on 05/31/2007.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Other Report
Completed Date:	11/02/2006
Comments:	Phase I report submitted by Condor Earth Technologies as background information for the upcoming PEA.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Workplan
Completed Date:	02/05/2007
Comments:	Revised PEA Workplan approved. Approval letter submitted to District 02/05/07.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	05/31/2007
Comments:	Completion of public review letter received 05/29/2007. PEA approved for NFA on 05/30/2007.
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

20
East
1/2-1
0.855 mi.
4514 ft.

WOODWARD ANNEX SITE
WOODWARD AVENUE/SPRECKELS ROAD
MANTECA, CA 95337

ENVIROSTOR
SCH
CERS

S107737646
N/A

Relative:
Higher

Actual:
44 ft.

ENVIROSTOR:

Name:	WOODWARD ANNEX SITE
Address:	WOODWARD AVENUE/SPRECKELS ROAD
City,State,Zip:	MANTECA, CA 95337
Facility ID:	39010046
Status:	No Further Action

WOODWARD ANNEX SITE (Continued) **S107737646**

Status Date: 10/15/2004
Site Code: 104440
Site Type: School Investigation
Site Type Detailed: School
Acres: 8
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Kamili Siglowide
Supervisor: Mark Malinowski
Division Branch: Northern California Schools & Santa Susana
Assembly: 12
Senate: 05
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: School District
Latitude: 37.7841
Longitude: -121.2
APN: NONE SPECIFIED
Past Use: AGRICULTURAL - ROW CROPS
Potential COC: NONE SPECIFIED No Contaminants found
Confirmed COC: No Contaminants found
Potential Description: SOIL
Alias Name: MANTECA USD-PROPOSED WOODWARD ANNEX
Alias Type: Alternate Name
Alias Name: 104440
Alias Type: Project Code (Site Code)
Alias Name: 39010046
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 06/14/2005
Comments: DTSC approved the PEA report with a no further action required determination.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 02/18/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 07/06/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 03/07/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE

WOODWARD ANNEX SITE (Continued) **S107737646**

Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 10/15/2004
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

SCH:

Name: WOODWARD ANNEX SITE
Address: WOODWARD AVENUE/SPRECKELS ROAD
City,State,Zip: MANTECA, CA 95337
Facility ID: 39010046
Site Type: School Investigation
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: 8
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Kamili Siglowide
Supervisor: Mark Malinowski
Division Branch: Northern California Schools & Santa Susana
Site Code: 104440
Assembly: 12
Senate: 05
Special Program Status: Not reported
Status: No Further Action
Status Date: 10/15/2004
Restricted Use: NO
Funding: School District
Latitude: 37.7841
Longitude: -121.2
APN: NONE SPECIFIED
Past Use: AGRICULTURAL - ROW CROPS
Potential COC: NONE SPECIFIED, No Contaminants found
Confirmed COC: No Contaminants found
Potential Description: SOIL
Alias Name: MANTECA USD-PROPOSED WOODWARD ANNEX
Alias Type: Alternate Name
Alias Name: 104440
Alias Type: Project Code (Site Code)
Alias Name: 39010046
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported

WOODWARD ANNEX SITE (Continued) **S107737646**

Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 06/14/2005
Comments: DTSC approved the PEA report with a no further action required determination.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 02/18/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 07/06/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 03/07/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 10/15/2004
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

CERS:
Name: WOODWARD ANNEX SITE
Address: WOODWARD AVENUE/SPRECKELS ROAD
City,State,Zip: MANTECA, CA 95337
Site ID: 344968
CERS ID: 39010046
CERS Description: School Investigation

Affiliation:
Affiliation Type Desc: Lead Project Manager
Entity Name: KAMILI SIGLOWIDE
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: SACRAMENTO
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

WOODWARD ANNEX SITE (Continued) **S107737646**

Affiliation Type Desc:	Supervisor
Entity Name:	MARK MALINOWSKI
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

21
NNE
1/2-1
0.931 mi.
4915 ft.

UNITED AGRI PRODUCTS **ENVIROSTOR** **S102860950**
301 WETMORE **CERS** **N/A**
MANTECA, CA 95336 **NON-CASE INFO**
HWTS

Relative:
Higher

Actual:
37 ft.

ENVIROSTOR:

Name:	UNITED AGRI PRODUCTS
Address:	301 WETMORE
City,State,Zip:	MANTECA, CA 95336
Facility ID:	39510023
Status:	Refer: Other Agency
Status Date:	11/16/1994
Site Code:	Not reported
Site Type:	Evaluation
Site Type Detailed:	Evaluation
Acres:	1
NPL:	NO
Regulatory Agencies:	NONE SPECIFIED
Lead Agency:	NONE SPECIFIED
Program Manager:	Not reported
Supervisor:	Referred - Not Assigned
Division Branch:	Cleanup Sacramento
Assembly:	Not reported
Senate:	Not reported
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Not reported
Latitude:	37.79240
Longitude:	-121.2125
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	SLT5S4883436
Alias Type:	GeoTracker Global ID
Alias Name:	39510023
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	* Discovery
Completed Date:	07/13/1982
Comments:	FACILITY IDENTIFIED FROM FOOD & AGRICULTURE LIST FOR PEST CONTROL

UNITED AGRI PRODUCTS (Continued) **S102860950**

OPERATORS (PCO). QUESTIONNAIRE SENT.

Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

CERS:

Name:	UNITED AGRI PRODUCTS
Address:	301 WETMORE ST
City,State,Zip:	MANTECA, CA
Site ID:	192468
CERS ID:	SLT5S4883436
CERS Description:	Cleanup Program Site

Affiliation:

Affiliation Type Desc:	Regional Board Caseworker
Entity Name:	zzz - CENTRAL VALLEY RWQCB (REGION 5S)
Entity Title:	Not reported
Affiliation Address:	11020 SUN CENTER DRIVE #200
Affiliation City:	RANCHO CORDOVA
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

NON-CASE INFO:

Name:	UNITED AGRI PRODUCTS
Address:	301 WETMORE ST
City,State,Zip:	MANTECA, CA
Global ID:	SLT5S4883436
Case Type:	Non-Case Information
Status:	Informational Item
Status Date:	10/28/2019
Lead Agency:	CENTRAL VALLEY RWQCB (REGION 5S)
Case Worker:	ZZZ
Local Agency:	Not reported
RB Case Number:	SLT5S488
Loc Case Number:	Not reported
File Location:	All Files are on GeoTracker or in the Local Agency Database
Potential Contaminants of Concern:	Not reported
Potential Media Affected:	Sediments, Soil
Site History:	The GeoTracker Site Type was changed to Non-Case Information following a 28 October 2019 inactive case review. See the Documents/Data tab for the inactive case review file.
Begin Date:	2009-05-20 00:00:00
How Discovered:	Not reported
How Discovered Description:	Not reported
Stop Method:	Not reported
Stop Description:	Not reported
Latitude:	37.7924656142382

UNITED AGRI PRODUCTS (Continued) **S102860950**

Longitude: -121.212638249985
Geotracker: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=SLT5S4883436

HWTS:
Name: UNITED AGRI PRODUCTS
Address: 301 WETMORE ST
Address 2: Not reported
City,State,Zip: MANTECA, CA 953360000
EPA ID: CAD982033458
Inactive Date: 10/16/1992
Create Date: 06/17/1988
Last Act Date: 08/24/2010
Mailing Name: Not reported
Mailing Address: 541 CROWSLANDING RD
Mailing Address 2: Not reported
Mailing City,State,Zip: MODESTO, CA 953510000
Owner Name: --
Owner Address: --
Owner Address 2: Not reported
Owner City,State,Zip: --, 99 --
Contact Name: INACTIVE EFFECTIVE 10-16-92
Contact Address: LTR IN FILE.
Contact Address 2: Not reported
City,State,Zip: --, 99 --

22
NW
1/2-1
0.940 mi.
4964 ft.

GORDON RESEARCH COMPANY
1085 SOUTH UNION ROAD
MANTECA, CA 95336

RESPONSE **S108936081**
ENVIROSTOR **N/A**
LIENS
CERS

Relative:
Higher

Actual:
42 ft.

RESPONSE:
Name: GORDON RESEARCH COMPANY
Address: 1085 SOUTH UNION ROAD
City,State,Zip: MANTECA, CA 95336
Facility ID: 60000746
Site Type: State Response
Site Type Detail: State Response or NPL
Acres: 3.67
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP, SAN JOAQUIN COUNTY
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Mckinley Lewis Jr.
Supervisor: William Beckman
Division Branch: Cleanup Sacramento
Site Code: 101924
Site Mgmt. Req.: NONE SPECIFIED
Assembly: 12
Senate: 05
Special Program Status: Not reported
Status: Certified
Status Date: 02/22/2019
Restricted Use: NO
Funding: Not reported
Latitude: 37.78831
Longitude: -121.2355
APN: 222-240-12, 22224012

GORDON RESEARCH COMPANY (Continued) **S108936081**

Past Use:	BATTERY RECLAMATION, BATTERY STORAGE, DEGREASING FACILITY, DISTRIBUTOR - CHEMICAL, EQUIPMENT/INSTRUMENT REPAIR, INCINERATOR - OTHER, MANUFACTURING - CHEMICALS, RESEARCH - CHEMICAL
Potential COC :	Under Investigation
Confirmed COC:	31001-NO
Potential Description:	CSS, SOIL
Alias Name:	222-240-12
Alias Type:	APN
Alias Name:	22224012
Alias Type:	APN
Alias Name:	110033620641
Alias Type:	EPA (FRS #)
Alias Name:	101924
Alias Type:	Project Code (Site Code)
Alias Name:	60000746
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Imminent and/or Substantial Endangerment Order
Completed Date:	11/28/2007
Comments:	On this date DTSC mailed the I&SE Order which requires fencing and posting of the site, development of a chemical identification and disposal plan, and a post removal characterization. The effe ctive date of the order is (50 Days after todays date as it is on this date that DTSC mailed out the Order. n The first requirement to be met will be that ten day from today the respondent will have to submit a letter of intent.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Access Agreement
Completed Date:	05/07/2009
Comments:	Access signed by Mr. Jim Gordon and received.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	State/Federal Funded Site Contract Fiscal Approval (CFA)
Completed Date:	03/16/2009
Comments:	PARC Specialties (PARC), under Emergency Response Expenditure Report # 2009-03-06, was authorized to proceed with the transportation and disposal of the compressed gas cylinders, located at the Site.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	*Correspondence - Received
Completed Date:	02/22/2008
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Technical Workplan
Completed Date:	05/21/2008
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported

GORDON RESEARCH COMPANY (Continued) **S108936081**

Completed Document Type: Community Profile
Completed Date: 09/02/2008
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment Work Plan
Completed Date: 07/13/2010
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: *Correspondence - Received
Completed Date: 03/10/2010
Comments: Response letter to Mr.. Gordon's original letter to DTSC and Governor. The response letter came from Stew Black.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Health & Safety Plan
Completed Date: 06/21/2010
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 06/21/2010
Comments: Work Notice has been completed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 10/05/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 06/23/2011
Comments: Fence repair completed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 04/21/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Community Profile
Completed Date: 08/15/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 08/09/2013

GORDON RESEARCH COMPANY (Continued) **S108936081**

Comments:	Reference documents
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	State/Federal Funded Site Work Order
Completed Date:	04/01/2011
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Final Determination of Non-Compliance
Completed Date:	07/06/2009
Comments:	Completed and mailed on 7/6/2009 by certified mail.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	State/Federal Funded Site Contract Fiscal Approval (CFA)
Completed Date:	02/11/2011
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	State/Federal Funded Site Contract Fiscal Approval (CFA)
Completed Date:	11/09/2011
Comments:	Task complete.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Letter - Notice
Completed Date:	02/18/2013
Comments:	Notice of Intent to Place Lien was sent out 2/15/2013 via certified mail.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Letter - Notice
Completed Date:	09/13/2013
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Correspondence
Completed Date:	05/28/2013
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Correspondence
Completed Date:	02/03/2012
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Letter - Demand
Completed Date:	02/27/2013
Comments:	Not reported

GORDON RESEARCH COMPANY (Continued) **S108936081**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 09/30/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 01/07/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Notice
Completed Date: 05/28/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Final Determination of Non-Compliance
Completed Date: 07/31/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Lien
Completed Date: 08/14/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 06/03/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 03/11/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Notice
Completed Date: 07/10/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Notice
Completed Date: 05/28/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Final Determination of Non-Compliance

GORDON RESEARCH COMPANY (Continued) **S108936081**

Completed Date: 06/03/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/11/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 08/06/2015
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Form 1479 - Site and Collections Summary
Completed Date: 03/12/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Litigation Support
Completed Date: 03/04/2015
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/21/2015
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 01/20/2017
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Triage Meeting
Completed Date: 05/04/2016
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 05/16/2016
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Consent Settlement - Administrative
Completed Date: 05/11/2017
Comments: Not reported

GORDON RESEARCH COMPANY (Continued) **S108936081**

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Certification
Completed Date:	02/21/2019
Comments:	Site has been certified.
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported
Name:	NUR-AL-HUDA ACADEMY
Address:	1085 SOUTH UNION ROAD
City,State,Zip:	MANTECA, CA 95337
Facility ID:	60002130
Site Type:	State Response
Site Type Detail:	State Response or NPL
Acres:	3.67
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Mckinley Lewis Jr.
Supervisor:	William Beckman
Division Branch:	Cleanup Sacramento
Site Code:	102257
Site Mgmt. Req.:	NONE SPECIFIED
Assembly:	12
Senate:	05
Special Program Status:	Prospective Purchaser Program
Status:	Certified
Status Date:	02/22/2019
Restricted Use:	NO
Funding:	Responsible Party
Latitude:	37.78843
Longitude:	-121.2360
APN:	222-240-120-000
Past Use:	ABOVE GROUND STORAGE TANKS, AGRICULTURAL - ORCHARD, DISTRIBUTOR - CHEMICAL, EQUIPMENT/INSTRUMENT REPAIR, FUEL - VEHICLE STORAGE/ REFUELING, HAZARDOUS WASTE STORAGE - TANKS/CONTAINERS, RESEARCH - CHEMICAL
Potential COC :	Arsenic Dioxin (as 2,3,7,8-TCDD TEQ Lead Polychlorinated biphenyls (PCBs TPH-diesel TPH-MOTOR OIL Cadmium and compounds Benzo[a]pyrene
Confirmed COC:	Arsenic Dioxin (as 2,3,7,8-TCDD TEQ Lead TPH-diesel Cadmium and compounds TPH-MOTOR OIL Benzo[a]pyrene Polychlorinated biphenyls (PCBs Not reported
Potential Description:	SOIL
Alias Name:	Gordon Research
Alias Type:	Alternate Name
Alias Name:	Nur Al Huda
Alias Type:	Alternate Name
Alias Name:	Nur Al-Huda
Alias Type:	Alternate Name

GORDON RESEARCH COMPANY (Continued) **S108936081**

Alias Name: Nur-Al Huda
Alias Type: Alternate Name
Alias Name: 222-240-120-000
Alias Type: APN
Alias Name: 102257
Alias Type: Project Code (Site Code)
Alias Name: 60000746
Alias Type: Envirostor ID Number
Alias Name: 60002130
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 06/25/2015
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 04/19/2018
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Community Profile
Completed Date: 09/15/2017
Comments: Verbal approval given. There will not be a written letter given.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 12/13/2018
Comments: Final fieldwork activities were completed on December 13, 2018.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 02/15/2019
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Financial Assurance Documentation
Completed Date: 04/11/2017
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 10/05/2017
Comments: Notice was approved for released. No approval letter from DTSC issued. Approval was done so verbally.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Work Notice

GORDON RESEARCH COMPANY (Continued) **S108936081**

Completed Date: 04/18/2018
Comments: No9tice has been approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Plan Amendment
Completed Date: 09/24/2018
Comments: Addendum for additional soil removal was approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 10/19/2018
Comments: 2nd Public Notice completed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 07/29/2015
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 11/07/2016
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Consent Agreement
Completed Date: 05/11/2017
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Notice of Exemption
Completed Date: 04/26/2018
Comments: This is the signed and registered NOE.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 10/18/2018
Comments: 2018-2019 Annual Cost Estimate

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Pre-HARP Form
Completed Date: 10/17/2018
Comments: FY18-19 Cost Estimate.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Request for Tribal Outreach
Completed Date: 01/02/2018
Comments: Letter/memo was submitted to Tribes January 2, 2018.

GORDON RESEARCH COMPANY (Continued) **S108936081**

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Request for Tribal Outreach
Completed Date:	11/12/2018
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Certification
Completed Date:	02/12/2019
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	02/21/2019
Comments:	Letters to Bank of Stockton releasing funds to RP.

Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

ENVIROSTOR:

Name:	GORDON RESEARCH COMPANY
Address:	1085 SOUTH UNION ROAD
City,State,Zip:	MANTECA, CA 95336
Facility ID:	60000746
Status:	Certified
Status Date:	02/22/2019
Site Code:	101924
Site Type:	State Response
Site Type Detailed:	State Response or NPL
Acres:	3.67
NPL:	NO
Regulatory Agencies:	SMBRP, SAN JOAQUIN COUNTY
Lead Agency:	SMBRP
Program Manager:	Mckinley Lewis Jr.
Supervisor:	William Beckman
Division Branch:	Cleanup Sacramento
Assembly:	12
Senate:	05
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Not reported
Latitude:	37.78831
Longitude:	-121.2355
APN:	222-240-12, 22224012
Past Use:	BATTERY RECLAMATION, BATTERY STORAGE, DEGREASING FACILITY, DISTRIBUTOR - CHEMICAL, EQUIPMENT/INSTRUMENT REPAIR, INCINERATOR - OTHER, MANUFACTURING - CHEMICALS, RESEARCH - CHEMICAL

GORDON RESEARCH COMPANY (Continued) **S108936081**

Potential COC: Under Investigation
Confirmed COC: 31001-NO
Potential Description: CSS, SOIL
Alias Name: 222-240-12
Alias Type: APN
Alias Name: 22224012
Alias Type: APN
Alias Name: 110033620641
Alias Type: EPA (FRS #)
Alias Name: 101924
Alias Type: Project Code (Site Code)
Alias Name: 60000746
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Imminent and/or Substantial Endangerment Order
Completed Date: 11/28/2007
Comments: On this date DTSC mailed the I&SE Order which requires fencing and posting of the site, development of a chemical identification and disposal plan, and a post removal characterization. The effe ctive date of the order is (50 Days after todays date as it is on this date that DTSC mailed out the Order. n The first requirement to be met will be that ten day from today the respondent will have to submit a letter of intent.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Access Agreement
Completed Date: 05/07/2009
Comments: Access signed by Mr. Jim Gordon and received.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: State/Federal Funded Site Contract Fiscal Approval (CFA)
Completed Date: 03/16/2009
Comments: PARC Specialties (PARC), under Emergency Response Expenditure Report # 2009-03-06, was authorized to proceed with the transportation and disposal of the compressed gas cylinders, located at the Site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: *Correspondence - Received
Completed Date: 02/22/2008
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 05/21/2008
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Community Profile
Completed Date: 09/02/2008
Comments: Not reported

GORDON RESEARCH COMPANY (Continued) **S108936081**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment Work Plan
Completed Date: 07/13/2010
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: *Correspondence - Received
Completed Date: 03/10/2010
Comments: Response letter to Mr.. Gordon's original letter to DTSC and Governor. The response letter came from Stew Black.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Health & Safety Plan
Completed Date: 06/21/2010
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 06/21/2010
Comments: Work Notice has been completed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 10/05/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 06/23/2011
Comments: Fence repair completed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 04/21/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Community Profile
Completed Date: 08/15/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 08/09/2013
Comments: Reference documents

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported

GORDON RESEARCH COMPANY (Continued) **S108936081**

Completed Document Type: State/Federal Funded Site Work Order
Completed Date: 04/01/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Final Determination of Non-Compliance
Completed Date: 07/06/2009
Comments: Completed and mailed on 7/6/2009 by certified mail.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: State/Federal Funded Site Contract Fiscal Approval (CFA)
Completed Date: 02/11/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: State/Federal Funded Site Contract Fiscal Approval (CFA)
Completed Date: 11/09/2011
Comments: Task complete.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Notice
Completed Date: 02/18/2013
Comments: Notice of Intent to Place Lien was sent out 2/15/2013 via certified mail.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Notice
Completed Date: 09/13/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 05/28/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 02/03/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 02/27/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 09/30/2013

GORDON RESEARCH COMPANY (Continued) **S108936081**

Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 01/07/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Notice
Completed Date: 05/28/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Final Determination of Non-Compliance
Completed Date: 07/31/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Lien
Completed Date: 08/14/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 06/03/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 03/11/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Notice
Completed Date: 07/10/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Notice
Completed Date: 05/28/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Final Determination of Non-Compliance
Completed Date: 06/03/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE

GORDON RESEARCH COMPANY (Continued) **S108936081**

Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/11/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 08/06/2015
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Form 1479 - Site and Collections Summary
Completed Date: 03/12/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Litigation Support
Completed Date: 03/04/2015
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/21/2015
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 01/20/2017
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Triage Meeting
Completed Date: 05/04/2016
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 05/16/2016
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Consent Settlement - Administrative
Completed Date: 05/11/2017
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 02/21/2019

GORDON RESEARCH COMPANY (Continued) **S108936081**

Comments:	Site has been certified.
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported
Name:	NUR-AL-HUDA ACADEMY
Address:	1085 SOUTH UNION ROAD
City,State,Zip:	MANTECA, CA 95337
Facility ID:	60002130
Status:	Certified
Status Date:	02/22/2019
Site Code:	102257
Site Type:	State Response
Site Type Detailed:	State Response or NPL
Acres:	3.67
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Mckinley Lewis Jr.
Supervisor:	William Beckman
Division Branch:	Cleanup Sacramento
Assembly:	12
Senate:	05
Special Program:	Prospective Purchaser Program
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Responsible Party
Latitude:	37.78843
Longitude:	-121.2360
APN:	222-240-120-000
Past Use:	ABOVE GROUND STORAGE TANKS, AGRICULTURAL - ORCHARD, DISTRIBUTOR - CHEMICAL, EQUIPMENT/INSTRUMENT REPAIR, FUEL - VEHICLE STORAGE/ REFUELING, HAZARDOUS WASTE STORAGE - TANKS/CONTAINERS, RESEARCH - CHEMICAL
Potential COC:	Arsenic Dioxin (as 2,3,7,8-TCDD TEQ Lead Polychlorinated biphenyls (PCBs TPH-diesel TPH-MOTOR OIL Cadmium and compounds Benzo[a]pyrene
Confirmed COC:	Arsenic Dioxin (as 2,3,7,8-TCDD TEQ Lead TPH-diesel Cadmium and compounds TPH-MOTOR OIL Benzo[a]pyrene Polychlorinated biphenyls (PCBs Not reported
Potential Description:	SOIL
Alias Name:	Gordon Research
Alias Type:	Alternate Name
Alias Name:	Nur Al Huda
Alias Type:	Alternate Name
Alias Name:	Nur Al-Huda
Alias Type:	Alternate Name
Alias Name:	Nur-Al Huda
Alias Type:	Alternate Name
Alias Name:	222-240-120-000
Alias Type:	APN

GORDON RESEARCH COMPANY (Continued) **S108936081**

Alias Name: 102257
Alias Type: Project Code (Site Code)
Alias Name: 60000746
Alias Type: Envirostor ID Number
Alias Name: 60002130
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 06/25/2015
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 04/19/2018
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Community Profile
Completed Date: 09/15/2017
Comments: Verbal approval given. There will not be a written letter given.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 12/13/2018
Comments: Final fieldwork activities were completed on December 13, 2018.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 02/15/2019
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Financial Assurance Documentation
Completed Date: 04/11/2017
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 10/05/2017
Comments: Notice was approved for released. No approval letter from DTSC issued. Approval was done so verbally.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Work Notice
Completed Date: 04/18/2018
Comments: No9tice has been approved.

Completed Area Name: PROJECT WIDE

GORDON RESEARCH COMPANY (Continued) **S108936081**

Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Plan Amendment
Completed Date: 09/24/2018
Comments: Addendum for additional soil removal was approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 10/19/2018
Comments: 2nd Public Notice completed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 07/29/2015
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 11/07/2016
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Consent Agreement
Completed Date: 05/11/2017
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Notice of Exemption
Completed Date: 04/26/2018
Comments: This is the signed and registered NOE.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 10/18/2018
Comments: 2018-2019 Annual Cost Estimate

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Pre-HARP Form
Completed Date: 10/17/2018
Comments: FY18-19 Cost Estimate.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Request for Tribal Outreach
Completed Date: 01/02/2018
Comments: Letter/memo was submitted to Tribes January 2, 2018.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Request for Tribal Outreach
Completed Date: 11/12/2018

GORDON RESEARCH COMPANY (Continued) **S108936081**

Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 02/12/2019
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 02/21/2019
Comments: Letters to Bank of Stockton releasing funds to RP.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

LIENS:
Name: GORDON RESEARCH COMPANY
City,State,Zip: MANTECA, CA 95336
Envirostor Id: 60000746
Latitude: 37.788310
Longitude: -121.23550
Project Mgr: MCKINLEY LEWIS JR.
Project Code: 101924
If Satisfied: NO
Date Satisfied: Not reported
Site Status: CERTIFIED
Site Type: STATE RESPONSE OR NPL
Completed: 08/14/2013
Lien Amount: $367,920.96
Amount Remaining: Not reported
APNS: 222-240-12, 22224012
Description: This Site is located within a residential district of Manteca. The southwestern corner of the property abuts the northwestern corner of the Brock Elliot Elementary School. In October of 2007, San Joaquin County Environmental Health Department conducted an inspection which revealed wastes accumulated and potentially being deposited into the soil at the Site. Reportedly, trespassers are scavenging for recyclable or salable materials, or squatting on the Site. A deceased owner of the property operated numerous commercial ventures at the Site and maintained a residence at the property. The county requested DTSC oversight of the removal and disposal of the improperly stored chemicals at the site. A review of the available DTSC file revealed that prior to 1988, a chemical formulation, repackaging and resale businesses operated at the Site. The businesses were known as Gordon Research Company and U.S. Gordon Subproperty. These businesses purchased bulk chemicals and stored them at the site. In 1984, in response to a complaint received by the State of California Department of Health Services (DHS), a predecessor to DTSC, conducted

GORDON RESEARCH COMPANY (Continued) **S108936081**

an inspection at the site. The inspection revealed activities for which the operator did not hold the required permits. By December 1985, DHS inspections found that most of the chemicals were removed from the Site. From 1984 through 1986 the San Joaquin District Attorney's Office in conjunction with DHS conducted enforcement actions which resulted in chemicals being removed from the property. In 1986; the San Joaquin County Superior Court issued a permanent injunction which prohibited Larry Gordon, dba Gordon Research Company, dba U.S. Gordon Subproperty from handling treating, storing, or disposing of hazardous substances/wastes. In 1988, the site was inspected by DHS staff, the Manteca Fire Department, and the county District Attorney's office. At the time of the inspection, a portion of the property was surrounded by a fence. Within the fenced area 10-20 drums were noted. These drums contained products used by the property owner in maintaining equipment used in the commercial/agricultural operations. The October 2007 inspection revealed, among other things, unlabeled containers and high-pressure cylinders. Open containers with handwritten notations were observed. All of the containers have been exposed to the elements some of them have deteriorated and are leaking. Containers are stored in the open and accessible to trespassers. There are between ten (10) and twenty (20) compressed gas cylinders which are not labeled nor stored in a manner consistent with proper industrial standards. There is at least one large battery at the site. On November 28, 2007 DTSC issued an Imminent & Substantial Determination and Order which specifies the assessment and remedies necessary to address the conditions at the site. In response to the determination and order, representatives of the property owner has installed and regularly maintains the fence that surrounds the site, submitted a draft public participation plan, and a draft chemical identification and disposal plan. Between 2008 and 2011, DTSC completed the removal of contamination from the site began by the responsible party and conducted a Preliminary Endangerment Assessment (PEA) where two rounds of soil and groundwater sampling was done. From the sampling results, it was found that several hotspots exist on the site that will require remediation. The type of remediation recommended in the PEA report is soil removal. In addition, DTSC has initiated cost recovery actions by placing a lien against the property. In May 2017, DTSC settled with a prospective purchaser, the Nur-Al Huda Academy, for past costs and cleanup of the property for redevelopment. See the Nur-Al Huda project for recent information.

CERS:

Name:	NUR-AL-HUDA ACADEMY
Address:	1085 SOUTH UNION ROAD
City,State,Zip:	MANTECA, CA 95337
Site ID:	340790
CERS ID:	60002130
CERS Description:	State Response

Affiliation:

Affiliation Type Desc:	Lead Project Manager
Entity Name:	MCKINLEY LEWIS JR.
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	SACRAMENTO
Affiliation State:	CA

GORDON RESEARCH COMPANY (Continued) **S108936081**

Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Supervisor
Entity Name:	WILLIAM BECKMAN
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

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23 **CITY OF MANTECA** **LUST** **S104163065**
NNE **210 WETMORE ST E** **Cortese** **N/A**
1/2-1 **MANTECA, CA 95336** **HIST CORTESE**
0.964 mi. **Notify 65**
5092 ft. **CERS**

Relative:
Higher

Actual:
37 ft.

LUST:

Name:	CITY OF MANTECA
Address:	210 WETMORE ST E
City,State,Zip:	MANTECA, CA 95336
Lead Agency:	SAN JOAQUIN COUNTY
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0607700341
Global Id:	T0607700341
Latitude:	37.7930544
Longitude:	-121.2146894
Status:	Completed - Case Closed
Status Date:	02/10/2009
Case Worker:	Not reported
RB Case Number:	390436
Local Agency:	Not reported
File Location:	Local Agency
Local Case Number:	000690
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	MTBE / TBA / Other Fuel Oxygenates, Gasoline
Site History:	City of Mantica Corporation Yard; city vehicles and trash collection trucks are parked here, they also fuel and wash vehicles at the site. Site underwent a subsurface soil and groundwater investigation, followed by remediation of the groundwater by ozone infusion, and received regulatory closure in February 2009.

LUST:

Global Id:	T0607700341
Contact Type:	Regional Board Caseworker
Contact Name:	Alan Buehler
Organization Name:	CENTRAL VALLEY RWQCB (REGION 5S)
Address:	11020 SUN CENTER DRIVE #200
City:	RANCHO CORDOVA
Email:	alan.buehler@waterboards.ca.gov
Phone Number:	Not reported

LUST:

Global Id:	T0607700341

CITY OF MANTECA (Continued) **S104163065**

Action Type: ENFORCEMENT
Date: 08/01/2008
Action: LOP Case Closure Summary to RB - #08/01/2008

Global Id: T0607700341
Action Type: ENFORCEMENT
Date: 08/09/1999
Action: Unauthorized Release Form - #99-U62

Global Id: T0607700341
Action Type: ENFORCEMENT
Date: 08/09/1999
Action: Notification - Proposition 65

Global Id: T0607700341
Action Type: ENFORCEMENT
Date: 09/23/2005
Action: Technical Correspondence / Assistance / Other

Global Id: T0607700341
Action Type: ENFORCEMENT
Date: 03/18/2008
Action: Technical Correspondence / Assistance / Other

Global Id: T0607700341
Action Type: Other
Date: 08/05/1999
Action: Leak Discovery

Global Id: T0607700341
Action Type: Other
Date: 08/05/1999
Action: Leak Stopped

Global Id: T0607700341
Action Type: Other
Date: 08/09/1999
Action: Leak Reported

Global Id: T0607700341
Action Type: REMEDIATION
Date: 08/31/2004
Action: Other (Use Description Field)

Global Id: T0607700341
Action Type: ENFORCEMENT
Date: 12/12/2008
Action: Staff Letter - #12/12/2008

Global Id: T0607700341
Action Type: ENFORCEMENT
Date: 09/02/2008
Action: Staff Letter - #09/02/08

Global Id: T0607700341
Action Type: ENFORCEMENT
Date: 01/08/2009

CITY OF MANTECA (Continued) **S104163065**

Action: Site Visit / Inspection / Sampling

Global Id: T0607700341
Action Type: ENFORCEMENT
Date: 02/05/2009
Action: Closure/No Further Action Letter - #02/05/2009

Global Id: T0607700341
Action Type: ENFORCEMENT
Date: 01/05/2009
Action: Site Visit / Inspection / Sampling

Global Id: T0607700341
Action Type: ENFORCEMENT
Date: 10/22/1999
Action: Notice of Responsibility - #99-126

LUST:
Global Id: T0607700341
Status: Open - Case Begin Date
Status Date: 08/05/1999

Global Id: T0607700341
Status: Open - Site Assessment
Status Date: 03/02/2000

Global Id: T0607700341
Status: Open - Site Assessment
Status Date: 04/05/2001

Global Id: T0607700341
Status: Open - Remediation
Status Date: 08/31/2004

Global Id: T0607700341
Status: Open - Inactive
Status Date: 09/02/2008

Global Id: T0607700341
Status: Open - Inactive
Status Date: 12/12/2008

Global Id: T0607700341
Status: Open - Verification Monitoring
Status Date: 01/22/2009

Global Id: T0607700341
Status: Completed - Case Closed
Status Date: 02/10/2009

LUST REG 5:
Name: CITY OF MANTECA
Address: 210 WETMORE ST E
City: MANTECA
Region: 5

CITY OF MANTECA (Continued) **S104163065**

Status: Remedial action (cleanup) Underway
Case Number: 390436
Case Type: Drinking Water Aquifer affected
Substance: Not reported
Staff Initials: JLB
Lead Agency: Local
Program: LUST
MTBE Code: 6

CORTESE:

Name:	CITY OF MANTECA
Address:	210 WETMORE ST E
City,State,Zip:	MANTECA, CA 95336
Region:	CORTESE
Envirostor Id:	Not reported
Global ID:	T0607700341
Site/Facility Type:	LUST CLEANUP SITE
Cleanup Status:	COMPLETED - CASE CLOSED
Status Date:	Not reported
Site Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Owner:	Not reported
Enf Type:	Not reported
Swat R:	Not reported
Flag:	active
Order No:	Not reported
Waste Discharge System No:	Not reported
Effective Date:	Not reported
Region 2:	Not reported
WID Id:	Not reported
Solid Waste Id No:	Not reported
Waste Management Uit Name:	Not reported
File Name:	Active Open

HIST CORTESE:

edr_fname:	CITY OF MANTECA
edr_fadd1:	210 WETMORE
City,State,Zip:	MANTECA, CA 95336
Region:	CORTESE
Facility County Code:	39
Reg By:	LTNKA
Reg Id:	390436

NOTIFY 65:

Name:	CITY OF MANTECA
Address:	210 WETMORE ST E
City,State,Zip:	MANTECA, CA 95336
Date Reported:	Not reported
Staff Initials:	Not reported
Board File Number:	Not reported
Facility Type:	Not reported
Discharge Date:	Not reported
Issue Date:	08/09/1999
Incident Description:	Not reported
Global ID:	Not reported

CITY OF MANTECA (Continued) **S104163065**

Status: Not reported

Name: CITY OF MANTECA
Address: 210 WETMORE ST E
City,State,Zip: MANTECA, CA 95336
Date Reported: Not reported
Staff Initials: Not reported
Board File Number: Not reported
Facility Type: Not reported
Discharge Date: Not reported
Issue Date: Not reported
Incident Description: Not reported
Global ID: Not reported
Status: Not reported

CERS:
Name: CITY OF MANTECA
Address: 210 WETMORE ST E
City,State,Zip: MANTECA, CA 95336
Site ID: 232888
CERS ID: T0607700341
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
Affiliation Type Desc: Regional Board Caseworker
Entity Name: Alan Buehler - CENTRAL VALLEY RWQCB (REGION 5S)
Entity Title: Not reported
Affiliation Address: 11020 SUN CENTER DRIVE #200
Affiliation City: RANCHO CORDOVA
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

24
NNE
1/2-1
0.977 mi.
5156 ft.

BOB'S MUFFLER AND RADIATOR
466 MOFFAT BLVD
MANTECA, CA 95336

Cortese **S123765661**
HAZNET **N/A**
Notify 65
HWTS

Relative:
Higher

Actual:
38 ft.

CORTESE:
Name: BOB'S MUFFLER
Address: 466 MOFFAT BLVD
City,State,Zip: MANTECA, CA 95336
Region: CORTESE
Envirostor Id: Not reported
Global ID: T0607700089
Site/Facility Type: LUST CLEANUP SITE
Cleanup Status: COMPLETED - CASE CLOSED
Status Date: Not reported
Site Code: Not reported
Latitude: Not reported
Longitude: Not reported
Owner: Not reported
Enf Type: Not reported
Swat R: Not reported
Flag: active

BOB'S MUFFLER AND RADIATOR (Continued) **S123765661**

Order No: Not reported
Waste Discharge System No: Not reported
Effective Date: Not reported
Region 2: Not reported
WID Id: Not reported
Solid Waste Id No: Not reported
Waste Management Uit Name: Not reported
File Name: Active Open

HAZNET:
Name: BOB'S MUFFLER AND RADIATOR
Address: 466 MOFFAT BLVD
Address 2: Not reported
City,State,Zip: MANTECA, CA 953360000
Contact: UNDELIVERABLE 1996 FEES FORM
Telephone: --
Mailing Name: Not reported
Mailing Address: 466 MOFFAT

Year: 1992
Gepaid: CAL000031914
TSD EPA ID: CAD009452657
CA Waste Code: 343 - Unspecified organic liquid mixture
Disposal Method: R01 - Recycler
Tons: 0.2418

NOTIFY 65:
Name: BOB'S MUFFLER
Address: 466 MOFFAT BLVD
City,State,Zip: MANTECA, CA 95336
Date Reported: Not reported
Staff Initials: Not reported
Board File Number: Not reported
Facility Type: Not reported
Discharge Date: Not reported
Issue Date: 12/16/1988
Incident Description: Not reported
Global ID: Not reported
Status: Not reported

HWTS:
Name: BOB'S MUFFLER AND RADIATOR
Address: 466 MOFFAT BLVD
Address 2: Not reported
City,State,Zip: MANTECA, CA 953360000
EPA ID: CAL000031914
Inactive Date: 06/30/1996
Create Date: 05/10/1990
Last Act Date: 07/10/2001
Mailing Name: Not reported
Mailing Address: 466 MOFFAT
Mailing Address 2: Not reported
Mailing City,State,Zip: MANTECA, CA 953360000
Owner Name: BOB'S MUFFLER AND RAD
Owner Address: --

BOB'S MUFFLER AND RADIATOR (Continued) **S123765661**

Owner Address 2:	Not reported
Owner City,State,Zip:	--, 99 --
Contact Name:	UNDELIVERABLE 1996 FEES FORM
Contact Address:	--
Contact Address 2:	Not reported
City,State,Zip:	--, 99 --

Count: 3 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
MANTECA	S107539502		NEAR 7474 E DIVISION ROAD, 10	95337	CDL
MANTECA	S106230469	BALMAT & CO.**	SEDAN AVE NEAR MANTECA		CPS-SLIC
SAN JOAQUIN COUNTY	S107531141		22220 S BOSTON RD, 5 MI S OF M	95336	CDL

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/27/2021
Date Data Arrived at EDR: 05/03/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 16

Source: EPA
Telephone: N/A
Last EDR Contact: 06/29/2021
Next Scheduled EDR Contact: 10/11/2021
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 04/27/2021
Date Data Arrived at EDR: 05/03/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 16

Source: EPA
Telephone: N/A
Last EDR Contact: 06/29/2021
Next Scheduled EDR Contact: 10/11/2021
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/27/2021
Date Data Arrived at EDR: 05/03/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 16

Source: EPA
Telephone: N/A
Last EDR Contact: 06/29/2021
Next Scheduled EDR Contact: 10/11/2021
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 02/22/2021
Date Data Arrived at EDR: 03/30/2021
Date Made Active in Reports: 06/17/2021
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 06/23/2021
Next Scheduled EDR Contact: 10/11/2021
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 04/27/2021
Date Data Arrived at EDR: 05/03/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 16

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 06/29/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 04/27/2021
Date Data Arrived at EDR: 05/03/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 16

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 06/29/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/22/2021
Date Data Arrived at EDR: 03/23/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 57

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 06/21/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/22/2021
Date Data Arrived at EDR: 03/23/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/21/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/22/2021
Date Data Arrived at EDR: 03/23/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/21/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 03/22/2021
Date Data Arrived at EDR: 03/23/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/21/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: Quarterly

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/22/2021
Date Data Arrived at EDR: 03/23/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/21/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 02/09/2021
Date Data Arrived at EDR: 02/11/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 39

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 05/05/2021
Next Scheduled EDR Contact: 08/23/2021
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 02/22/2021
Date Data Arrived at EDR: 02/23/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 85

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 05/21/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Varies

US INST CONTROLS: Institutional Controls Sites List

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 02/22/2021
Date Data Arrived at EDR: 02/23/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 85

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 05/21/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 03/22/2021
Date Data Arrived at EDR: 03/24/2021
Date Made Active in Reports: 06/17/2021
Number of Days to Update: 85

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 06/17/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: Quarterly

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 04/23/2021
Date Data Arrived at EDR: 04/23/2021
Date Made Active in Reports: 07/12/2021
Number of Days to Update: 80

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 04/23/2021
Date Data Arrived at EDR: 04/23/2021
Date Made Active in Reports: 07/12/2021
Number of Days to Update: 80

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 02/08/2021
Date Data Arrived at EDR: 02/09/2021
Date Made Active in Reports: 05/03/2021
Number of Days to Update: 83

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 05/11/2021
Next Scheduled EDR Contact: 08/23/2021
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 9: Leaking Underground Storage Tank Report
Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List
Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

LUST REG 1: Active Toxic Site Investigation
Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST: Leaking Underground Fuel Tank Report (GEOTRACKER)
Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Quarterly

LUST REG 3: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land

Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 10/07/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 06/11/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 10/01/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 06/11/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/01/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 06/11/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/09/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 06/11/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 04/08/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 06/11/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 11/12/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 06/11/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 10/02/2020
Date Data Arrived at EDR: 12/18/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 84

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 06/17/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 09/30/2020
Date Data Arrived at EDR: 12/22/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 80

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 06/11/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

CPS-SLIC: Statewide SLIC Cases (GEOTRACKER)
Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: No Update Planned

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/29/2021
Date Data Arrived at EDR: 02/17/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 33

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 06/29/2021
Next Scheduled EDR Contact: 10/18/2021
Data Release Frequency: Varies

UST CLOSURE: Proposed Closure of Underground Storage Tank (UST) Cases
UST cases that are being considered for closure by either the State Water Resources Control Board or the Executive Director have been posted for a 60-day public comment period. UST Case Closures being proposed for consideration by the State Water Resources Control Board. These are primarily UST cases that meet closure criteria under the decisional framework in State Water Board Resolution No. 92-49 and other Board orders. UST Case Closures proposed for consideration by the Executive Director pursuant to State Water Board Resolution No. 2012-0061. These are cases that meet the criteria of the Low-Threat UST Case Closure Policy. UST Case Closure Review Denials and Approved Orders.

Date of Government Version: 03/05/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 04/01/2021
Number of Days to Update: 23

Source: State Water Resources Control Board
Telephone: 916-327-7844
Last EDR Contact: 06/04/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

UST: Active UST Facilities

Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22

Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Semi-Annually

MILITARY UST SITES: Military UST Sites (GEOTRACKER)

Military ust sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

AST: Aboveground Petroleum Storage Tank Facilities

A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 09/19/2016
Number of Days to Update: 69

Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 06/08/2021
Next Scheduled EDR Contact: 09/27/2021
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 09/30/2020
Date Data Arrived at EDR: 12/22/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 80

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 06/11/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 10/01/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 06/11/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/01/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 06/11/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 11/12/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 06/11/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 04/08/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 06/11/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 10/07/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 06/11/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 10/02/2020
Date Data Arrived at EDR: 12/18/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 84

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 06/17/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 10/09/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 06/11/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 07/08/2021
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: No Update Planned

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 04/23/2021
Date Data Arrived at EDR: 04/23/2021
Date Made Active in Reports: 07/12/2021
Number of Days to Update: 80

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Quarterly

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 06/15/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: No Update Planned

State and tribal Brownfields sites

BROWNFIELDS: Considered Brownfieds Sites Listing

A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 03/22/2021
Date Data Arrived at EDR: 03/23/2021
Date Made Active in Reports: 06/10/2021
Number of Days to Update: 79

Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 06/17/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 03/15/2021
Date Data Arrived at EDR: 03/16/2021
Date Made Active in Reports: 06/10/2021
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 06/10/2021
Next Scheduled EDR Contact: 09/27/2021
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 04/21/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: No Update Planned

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 03/09/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 06/04/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 11/23/2020
Date Data Arrived at EDR: 11/23/2020
Date Made Active in Reports: 02/08/2021
Number of Days to Update: 77

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 06/15/2021
Next Scheduled EDR Contact: 08/23/2021
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 04/22/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 07/13/2021
Next Scheduled EDR Contact: 11/01/2021
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land
A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 04/29/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 12/07/2020
Date Data Arrived at EDR: 12/09/2020
Date Made Active in Reports: 03/02/2021
Number of Days to Update: 83

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/22/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 04/23/2021
Date Data Arrived at EDR: 04/23/2021
Date Made Active in Reports: 07/12/2021
Number of Days to Update: 80

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 01/20/2021
Date Made Active in Reports: 04/08/2021
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 07/13/2021
Next Scheduled EDR Contact: 10/18/2021
Data Release Frequency: Varies

CERS HAZ WASTE: CERS HAZ WASTE

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

Date of Government Version: 04/19/2021
Date Data Arrived at EDR: 04/20/2021
Date Made Active in Reports: 07/07/2021
Number of Days to Update: 78

Source: CalEPA
Telephone: 916-323-2514
Last EDR Contact: 04/20/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 12/07/2020
Date Data Arrived at EDR: 12/09/2020
Date Made Active in Reports: 03/02/2021
Number of Days to Update: 83

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Quarterly

PFAS: PFAS Contamination Site Location Listing

A listing of PFAS contaminated sites included in the GeoTracker database.

Date of Government Version: 02/24/2021
Date Data Arrived at EDR: 02/24/2021
Date Made Active in Reports: 05/14/2021
Number of Days to Update: 79

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/04/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SAN FRANCISCO AST: Aboveground Storage Tank Site Listing

Aboveground storage tank sites

Date of Government Version: 02/11/2021
Date Data Arrived at EDR: 02/11/2021
Date Made Active in Reports: 05/05/2021
Number of Days to Update: 83

Source: San Francisco County Department of Public Health
Telephone: 415-252-3896
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Varies

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CERS TANKS: California Environmental Reporting System (CERS) Tanks

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs.

Date of Government Version: 04/19/2021
Date Data Arrived at EDR: 04/20/2021
Date Made Active in Reports: 07/07/2021
Number of Days to Update: 78

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 04/20/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Quarterly

Local Land Records

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 03/01/2021
Date Data Arrived at EDR: 03/03/2021
Date Made Active in Reports: 05/20/2021
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 04/27/2021
Date Data Arrived at EDR: 05/03/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 16

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 06/29/2021
Next Scheduled EDR Contact: 10/11/2021
Data Release Frequency: Semi-Annually

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 03/02/2021
Date Data Arrived at EDR: 03/03/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 77

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 05/28/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System
Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 03/22/2021
Date Data Arrived at EDR: 03/24/2021
Date Made Active in Reports: 06/17/2021
Number of Days to Update: 85

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 06/17/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: Quarterly

CHMIRS: California Hazardous Material Incident Report System
California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 04/04/2021
Date Data Arrived at EDR: 04/20/2021
Date Made Active in Reports: 07/07/2021
Number of Days to Update: 78

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 04/20/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Semi-Annually

LDS: Land Disposal Sites Listing (GEOTRACKER)
Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing (GEOTRACKER)
Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch
Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated
RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 03/22/2021
Date Data Arrived at EDR: 03/23/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/21/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 02/11/2021
Date Data Arrived at EDR: 02/17/2021
Date Made Active in Reports: 04/05/2021
Number of Days to Update: 47

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 07/13/2021
Next Scheduled EDR Contact: 10/25/2021
Data Release Frequency: Varies

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/11/2018
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 574

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 07/09/2021
Next Scheduled EDR Contact: 10/18/2021
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 08/23/2021
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 03/22/2021
Date Data Arrived at EDR: 03/23/2021
Date Made Active in Reports: 06/17/2021
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 06/21/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 04/30/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: No Update Planned

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 05/07/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 06/17/2020
Date Made Active in Reports: 09/10/2020
Number of Days to Update: 85

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 06/17/2021
Next Scheduled EDR Contact: 09/27/2021
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 08/14/2020
Date Made Active in Reports: 11/04/2020
Number of Days to Update: 82

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 05/17/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 01/20/2021
Date Data Arrived at EDR: 01/21/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 60

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 04/20/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 04/27/2021
Date Data Arrived at EDR: 05/03/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 16

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 06/29/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 01/22/2021
Date Data Arrived at EDR: 02/18/2021
Date Made Active in Reports: 05/11/2021
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 07/14/2021
Next Scheduled EDR Contact: 11/01/2021
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 12/30/2020
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 03/05/2021
Number of Days to Update: 50

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 06/29/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 11/19/2020
Date Data Arrived at EDR: 01/08/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 73

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 07/09/2021
Next Scheduled EDR Contact: 10/18/2021
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 06/29/2021
Next Scheduled EDR Contact: 10/18/2021
Data Release Frequency: No Update Planned

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/11/2021
Date Made Active in Reports: 05/11/2021
Number of Days to Update: 61

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 07/14/2021
Next Scheduled EDR Contact: 11/01/2021
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 12/01/2020
Date Made Active in Reports: 02/09/2021
Number of Days to Update: 70

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 05/27/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 11/11/2019
Number of Days to Update: 251

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 05/27/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 09/13/2019
Date Data Arrived at EDR: 11/06/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 96
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 05/07/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/01/2019
Date Data Arrived at EDR: 07/01/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 84
Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 06/22/2021
Next Scheduled EDR Contact: 10/11/2021
Data Release Frequency: No Update Planned

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data
Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 01/02/2020
Date Data Arrived at EDR: 01/28/2020
Date Made Active in Reports: 04/17/2020
Number of Days to Update: 80
Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees
Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 01/13/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 68

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 07/02/2021
Next Scheduled EDR Contact: 10/18/2021
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 06/22/2020
Date Made Active in Reports: 11/20/2020
Number of Days to Update: 151

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 06/21/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 07/02/2021
Next Scheduled EDR Contact: 10/18/2021
Data Release Frequency: Varies

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 08/08/2017
Date Data Arrived at EDR: 09/11/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 3

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 04/28/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 08/30/2019
Date Data Arrived at EDR: 11/15/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 74

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 05/21/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 04/27/2021
Date Data Arrived at EDR: 05/03/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 16

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 06/29/2021
Next Scheduled EDR Contact: 10/11/2021
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: No Update Planned

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: No Update Planned

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 02/01/2021
Date Data Arrived at EDR: 02/24/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 84

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Semi-Annually

MINES VIOLATIONS: MSHA Violation Assessment Data

Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 05/27/2021
Date Data Arrived at EDR: 05/27/2021
Date Made Active in Reports: 06/10/2021
Number of Days to Update: 14

Source: DOL, Mine Safety & Health Admi
Telephone: 202-693-9424
Last EDR Contact: 07/01/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Quarterly

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 05/06/2020
Date Data Arrived at EDR: 05/27/2020
Date Made Active in Reports: 08/13/2020
Number of Days to Update: 78

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 05/27/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 05/27/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 03/23/2021
Date Data Arrived at EDR: 03/25/2021
Date Made Active in Reports: 06/17/2021
Number of Days to Update: 84

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 06/14/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 02/03/2021
Date Data Arrived at EDR: 03/03/2021
Date Made Active in Reports: 04/05/2021
Number of Days to Update: 33

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 07/02/2020
Date Made Active in Reports: 09/17/2020
Number of Days to Update: 77

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 07/07/2021
Next Scheduled EDR Contact: 10/25/2021
Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 04/04/2021
Date Data Arrived at EDR: 04/06/2021
Date Made Active in Reports: 06/25/2021
Number of Days to Update: 80

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 07/01/2021
Next Scheduled EDR Contact: 10/18/2021
Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 11/03/2020
Date Data Arrived at EDR: 11/17/2020
Date Made Active in Reports: 02/09/2021
Number of Days to Update: 84

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 05/21/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 02/17/2021
Date Data Arrived at EDR: 02/17/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 33

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 05/14/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Quarterly

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 03/22/2021
Date Data Arrived at EDR: 03/23/2021
Date Made Active in Reports: 06/10/2021
Number of Days to Update: 79

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 06/17/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: Quarterly

CUPA LIVERMORE-PLEASANTON: CUPA Facility Listing

list of facilities associated with the various CUPA programs in Livermore-Pleasanton

Date of Government Version: 05/01/2019
Date Data Arrived at EDR: 05/14/2019
Date Made Active in Reports: 07/17/2019
Number of Days to Update: 64

Source: Livermore-Pleasanton Fire Department
Telephone: 925-454-2361
Last EDR Contact: 05/14/2021
Next Scheduled EDR Contact: 08/23/2021
Data Release Frequency: Varies

DRYCLEAN AVAQMD: Antelope Valley Air Quality Management District Drycleaner Listing

A listing of dry cleaners in the Antelope Valley Air Quality Management District.

Date of Government Version: 02/26/2021
Date Data Arrived at EDR: 03/02/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 78

Source: Antelope Valley Air Quality Management District
Telephone: 661-723-8070
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Varies

DRYCLEAN SOUTH COAST: South Coast Air Quality Management District Drycleaner Listing

A listing of dry cleaners in the South Coast Air Quality Management District

Date of Government Version: 02/23/2021
Date Data Arrived at EDR: 02/25/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 83

Source: South Coast Air Quality Management District
Telephone: 909-396-3211
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Varies

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 03/01/2021
Date Data Arrived at EDR: 03/04/2021
Date Made Active in Reports: 05/20/2021
Number of Days to Update: 77

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Annually

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 06/16/2020
Date Made Active in Reports: 08/28/2020
Number of Days to Update: 73

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 06/10/2021
Next Scheduled EDR Contact: 09/27/2021
Data Release Frequency: Varies

ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 04/16/2021
Date Data Arrived at EDR: 04/20/2021
Date Made Active in Reports: 07/07/2021
Number of Days to Update: 78

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 04/20/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

Financial Assurance information

Date of Government Version: 04/14/2021
Date Data Arrived at EDR: 04/15/2021
Date Made Active in Reports: 07/06/2021
Number of Days to Update: 82

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 07/13/2021
Next Scheduled EDR Contact: 11/01/2021
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 02/08/2021
Date Data Arrived at EDR: 02/12/2021
Date Made Active in Reports: 05/05/2021
Number of Days to Update: 82

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 05/05/2021
Next Scheduled EDR Contact: 08/23/2021
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 04/15/2020
Date Made Active in Reports: 07/02/2020
Number of Days to Update: 78

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 07/09/2021
Next Scheduled EDR Contact: 10/18/2021
Data Release Frequency: Annually

ICE: ICE
Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 02/16/2021
Date Data Arrived at EDR: 02/17/2021
Date Made Active in Reports: 05/07/2021
Number of Days to Update: 79

Source: Department of Toxic Subsances Control
Telephone: 877-786-9427
Last EDR Contact: 05/14/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List
The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing
Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 02/16/2021
Date Data Arrived at EDR: 02/17/2021
Date Made Active in Reports: 05/10/2021
Number of Days to Update: 82

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/14/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database
A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 04/05/2021
Date Data Arrived at EDR: 04/06/2021
Date Made Active in Reports: 06/23/2021
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 07/01/2021
Next Scheduled EDR Contact: 10/18/2021
Data Release Frequency: Quarterly

MINES: Mines Site Location Listing
A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing
The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 01/29/2021
Date Data Arrived at EDR: 03/03/2021
Date Made Active in Reports: 05/20/2021
Number of Days to Update: 78

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 05/28/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Varies

NPDES: NPDES Permits Listing
A listing of NPDES permits, including stormwater.

Date of Government Version: 02/08/2021
Date Data Arrived at EDR: 02/09/2021
Date Made Active in Reports: 05/04/2021
Number of Days to Update: 84
Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 05/11/2021
Next Scheduled EDR Contact: 08/23/2021
Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing
A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 03/02/2021
Date Data Arrived at EDR: 03/03/2021
Date Made Active in Reports: 05/20/2021
Number of Days to Update: 78
Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 05/28/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Quarterly

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 03/09/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22
Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 06/04/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records
Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 03/12/2021
Date Data Arrived at EDR: 03/16/2021
Date Made Active in Reports: 06/01/2021
Number of Days to Update: 77
Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 06/08/2021
Next Scheduled EDR Contact: 09/27/2021
Data Release Frequency: No Update Planned

UIC: UIC Listing
A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22
Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

UIC GEO: Underground Injection Control Sites (GEOTRACKER)
Underground control injection sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21
Source: State Water Resource Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing
Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water boards review found that more than one-third of the region's active disposal pits are operating without permission.

Date of Government Version: 11/19/2019
Date Data Arrived at EDR: 01/07/2020
Date Made Active in Reports: 03/09/2020
Number of Days to Update: 62

Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 07/01/2021
Next Scheduled EDR Contact: 10/18/2021
Data Release Frequency: Varies

WDS: Waste Discharge System
Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 05/14/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: No Update Planned

WIP: Well Investigation Program Case List
Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 06/15/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: No Update Planned

MILITARY PRIV SITES: Military Privatized Sites (GEOTRACKER)
Military privatized sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

PROJECT: Project Sites (GEOTRACKER)
Projects sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

WDR: Waste Discharge Requirements Listing
In general, the Waste Discharge Requirements (WDRs) Program (sometimes also referred to as the "Non Chapter 15 (Non 15) Program") regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. Exemptions from Title 27 may be granted for nine categories of discharges (e.g., sewage, wastewater, etc.) that meet, and continue to meet, the preconditions listed for each specific exemption. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to section 20230 of Title 27.

Date of Government Version: 03/09/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22

Source: State Water Resources Control Board
Telephone: 916-341-5810
Last EDR Contact: 06/07/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Quarterly

CIWQS: California Integrated Water Quality System
The California Integrated Water Quality System (CIWQS) is a computer system used by the State and Regional Water Quality Control Boards to track information about places of environmental interest, manage permits and other orders, track inspections, and manage violations and enforcement activities.

Date of Government Version: 11/30/2020
Date Data Arrived at EDR: 12/01/2020
Date Made Active in Reports: 02/12/2021
Number of Days to Update: 73
Source: State Water Resources Control Board
Telephone: 866-794-4977
Last EDR Contact: 05/19/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Varies

CERS: CalEPA Regulated Site Portal Data

The CalEPA Regulated Site Portal database combines data about environmentally regulated sites and facilities in California into a single database. It combines data from a variety of state and federal databases, and provides an overview of regulated activities across the spectrum of environmental programs for any given location in California. These activities include hazardous materials and waste, state and federal cleanups, impacted ground and surface waters, and toxic materials

Date of Government Version: 04/19/2021
Date Data Arrived at EDR: 04/20/2021
Date Made Active in Reports: 07/07/2021
Number of Days to Update: 78
Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 04/20/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

NON-CASE INFO: Non-Case Information Sites (GEOTRACKER)

Non-Case Information sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

OTHER OIL GAS: Other Oil & Gas Projects Sites (GEOTRACKER)

Other Oil & Gas Projects sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

PROD WATER PONDS: Produced Water Ponds Sites (GEOTRACKER)

Produced water ponds sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

SAMPLING POINT: Sampling Point ? Public Sites (GEOTRACKER)

Sampling point - public sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

WELL STIM PROJ: Well Stimulation Project (GEOTRACKER)

Includes areas of groundwater monitoring plans, a depiction of the monitoring network, and the facilities, boundaries, and subsurface characteristics of the oilfield and the features (oil and gas wells, produced water ponds, UIC wells, water supply wells, etc?) being monitored

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

MINES MRDS: Mineral Resources Data System
Mineral Resources Data System

Date of Government Version: 04/06/2018
Date Data Arrived at EDR: 10/21/2019
Date Made Active in Reports: 10/24/2019
Number of Days to Update: 3

Source: USGS
Telephone: 703-648-6533
Last EDR Contact: 05/27/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Varies

HWTS: Hazardous Waste Tracking System
DTSC maintains the Hazardous Waste Tracking System that stores ID number information since the early 1980s and manifest data since 1993. The system collects both manifest copies from the generator and destination facility.

Date of Government Version: 04/08/2021
Date Data Arrived at EDR: 04/09/2021
Date Made Active in Reports: 04/20/2021
Number of Days to Update: 11

Source: Department of Toxic Substances Control
Telephone: 916-324-2444
Last EDR Contact: 06/29/2021
Next Scheduled EDR Contact: 10/18/2021
Data Release Frequency: Varies

PCS: Permit Compliance System
PCS is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

Date of Government Version: 07/14/2011
Date Data Arrived at EDR: 08/05/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 55

Source: EPA, Office of Water
Telephone: 202-564-2496
Last EDR Contact: 06/30/2021
Next Scheduled EDR Contact: 10/18/2021
Data Release Frequency: No Update Planned

PCS INACTIVE: Listing of Inactive PCS Permits
An inactive permit is a facility that has shut down or is no longer discharging.

Date of Government Version: 11/05/2014
Date Data Arrived at EDR: 01/06/2015
Date Made Active in Reports: 05/06/2015
Number of Days to Update: 120

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 06/30/2021
Next Scheduled EDR Contact: 10/18/2021
Data Release Frequency: No Update Planned

PCS ENF: Enforcement data
No description is available for this data

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 02/05/2015
Date Made Active in Reports: 03/06/2015
Number of Days to Update: 29

Source: EPA
Telephone: 202-564-2497
Last EDR Contact: 06/30/2021
Next Scheduled EDR Contact: 10/18/2021
Data Release Frequency: No Update Planned

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants
The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

COUNTY RECORDS

ALAMEDA COUNTY:

CS ALAMEDA: Contaminated Sites
A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/09/2019
Date Data Arrived at EDR: 01/11/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 53

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 06/29/2021
Next Scheduled EDR Contact: 10/18/2021
Data Release Frequency: Semi-Annually

UST ALAMEDA: Underground Tanks
Underground storage tank sites located in Alameda county.

Date of Government Version: 03/17/2021
Date Data Arrived at EDR: 03/18/2021
Date Made Active in Reports: 03/25/2021
Number of Days to Update: 7

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 06/29/2021
Next Scheduled EDR Contact: 10/18/2021
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA AMADOR: CUPA Facility List
Cupa Facility List

Date of Government Version: 02/02/2021
Date Data Arrived at EDR: 02/04/2021
Date Made Active in Reports: 04/23/2021
Number of Days to Update: 78

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA BUTTE: CUPA Facility Listing
Cupa facility list.

Date of Government Version: 04/21/2017
Date Data Arrived at EDR: 04/25/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 106

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 06/29/2021
Next Scheduled EDR Contact: 10/18/2021
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA CALVERAS: CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 06/15/2021
Date Data Arrived at EDR: 06/16/2021
Date Made Active in Reports: 07/02/2021
Number of Days to Update: 16

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 06/15/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA COLUSA: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/06/2020
Date Data Arrived at EDR: 04/23/2020
Date Made Active in Reports: 07/10/2020
Number of Days to Update: 78

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

SL CONTRA COSTA: Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 04/21/2021
Date Data Arrived at EDR: 04/22/2021
Date Made Active in Reports: 07/12/2021
Number of Days to Update: 81

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 04/20/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA DEL NORTE: CUPA Facility List
Cupa Facility list

Date of Government Version: 12/17/2020
Date Data Arrived at EDR: 01/28/2021
Date Made Active in Reports: 04/16/2021
Number of Days to Update: 78

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 04/21/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA EL DORADO: CUPA Facility List
CUPA facility list.

Date of Government Version: 02/09/2021
Date Data Arrived at EDR: 02/11/2021
Date Made Active in Reports: 05/05/2021
Number of Days to Update: 83

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 05/05/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA FRESNO: CUPA Resources List
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 01/14/2021
Date Data Arrived at EDR: 01/15/2021
Date Made Active in Reports: 04/05/2021
Number of Days to Update: 80

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 06/23/2021
Next Scheduled EDR Contact: 10/11/2021
Data Release Frequency: Semi-Annually

GLENN COUNTY:

CUPA GLENN: CUPA Facility List
Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 49

Source: Glenn County Air Pollution Control District
Telephone: 830-934-6500
Last EDR Contact: 07/13/2021
Next Scheduled EDR Contact: 11/01/2021
Data Release Frequency: No Update Planned

HUMBOLDT COUNTY:

CUPA HUMBOLDT: CUPA Facility List
CUPA facility list.

Date of Government Version: 05/17/2021
Date Data Arrived at EDR: 05/18/2021
Date Made Active in Reports: 05/20/2021
Number of Days to Update: 2

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 05/10/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

CUPA IMPERIAL: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/14/2021
Date Data Arrived at EDR: 04/15/2021
Date Made Active in Reports: 07/06/2021
Number of Days to Update: 82

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 07/13/2021
Next Scheduled EDR Contact: 11/01/2021
Data Release Frequency: Varies

INYO COUNTY:

CUPA INYO: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/03/2018
Date Made Active in Reports: 06/14/2018
Number of Days to Update: 72

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 05/11/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

KERN COUNTY:

CUPA KERN: CUPA Facility List
A listing of sites included in the Kern County Hazardous Material Business Plan.

Date of Government Version: 10/29/2020
Date Data Arrived at EDR: 10/30/2020
Date Made Active in Reports: 01/15/2021
Number of Days to Update: 77

Source: Kern County Public Health
Telephone: 661-321-3000
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Varies

UST KERN: Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 01/19/2021
Date Data Arrived at EDR: 01/21/2021
Date Made Active in Reports: 01/28/2021
Number of Days to Update: 7

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA KINGS: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 12/03/2020
Date Data Arrived at EDR: 01/26/2021
Date Made Active in Reports: 04/14/2021
Number of Days to Update: 78

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

LAKE COUNTY:

CUPA LAKE: CUPA Facility List
Cupa facility list

Date of Government Version: 02/10/2021
Date Data Arrived at EDR: 02/12/2021
Date Made Active in Reports: 03/11/2021
Number of Days to Update: 27

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 07/06/2021
Next Scheduled EDR Contact: 10/25/2021
Data Release Frequency: Varies

LASSEN COUNTY:

CUPA LASSEN: CUPA Facility List
Cupa facility list

Date of Government Version: 07/31/2020
Date Data Arrived at EDR: 08/21/2020
Date Made Active in Reports: 11/09/2020
Number of Days to Update: 80

Source: Lassen County Environmental Health
Telephone: 530-251-8528
Last EDR Contact: 07/13/2021
Next Scheduled EDR Contact: 11/01/2021
Data Release Frequency: Varies

LOS ANGELES COUNTY:

AOCONCERN: Key Areas of Concerns in Los Angeles County
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office. Date of Government Version: 3/30/2009 Exide Site area is a cleanup plan of lead-impacted soil surrounding the former Exide Facility as designated by the DTSC. Date of Government Version: 7/17/2017

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: N/A
Telephone: N/A
Last EDR Contact: 06/08/2021
Next Scheduled EDR Contact: 09/27/2021
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

HMS LOS ANGELES: HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 04/08/2021
Date Data Arrived at EDR: 04/13/2021
Date Made Active in Reports: 06/28/2021
Number of Days to Update: 76

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 06/29/2021
Next Scheduled EDR Contact: 10/18/2021
Data Release Frequency: Semi-Annually

LF LOS ANGELES: List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 04/12/2021
Date Data Arrived at EDR: 04/13/2021
Date Made Active in Reports: 06/28/2021
Number of Days to Update: 76

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 07/09/2021
Next Scheduled EDR Contact: 10/25/2021
Data Release Frequency: Varies

LF LOS ANGELES CITY: City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2021
Date Data Arrived at EDR: 02/18/2021
Date Made Active in Reports: 05/10/2021
Number of Days to Update: 81

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 07/06/2021
Next Scheduled EDR Contact: 10/25/2021
Data Release Frequency: Varies

LOS ANGELES AST: Active & Inactive AST Inventory
A listing of active & inactive above ground petroleum storage tank site locations, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 06/17/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: Varies

LOS ANGELES CO LF METHANE: Methane Producing Landfills
This data was created on April 30, 2012 to represent known disposal sites in Los Angeles County that may produce and emanate methane gas. The shapefile contains disposal sites within Los Angeles County that once accepted degradable refuse material. Information used to create this data was extracted from a landfill survey performed by County Engineers (Major Waste System Map, 1973) as well as historical records from CalRecycle, Regional Water Quality Control Board, and Los Angeles County Department of Public Health

Date of Government Version: 02/04/2021
Date Data Arrived at EDR: 04/16/2021
Date Made Active in Reports: 04/21/2021
Number of Days to Update: 5

Source: Los Angeles County Department of Public Works
Telephone: 626-458-6973
Last EDR Contact: 07/12/2021
Next Scheduled EDR Contact: 10/25/2021
Data Release Frequency: No Update Planned

LOS ANGELES HM: Active & Inactive Hazardous Materials Inventory
A listing of active & inactive hazardous materials facility locations, located in the City of Los Angeles.

Date of Government Version: 04/19/2021
Date Data Arrived at EDR: 06/17/2021
Date Made Active in Reports: 06/28/2021
Number of Days to Update: 11

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 06/17/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: Varies

LOS ANGELES UST: Active & Inactive UST Inventory
A listing of active & inactive underground storage tank site locations and underground storage tank historical sites, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58
Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 06/17/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: Varies

SITE MIT LOS ANGELES: Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 03/02/2021
Date Data Arrived at EDR: 04/16/2021
Date Made Active in Reports: 07/06/2021
Number of Days to Update: 81
Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 07/09/2021
Next Scheduled EDR Contact: 10/25/2021
Data Release Frequency: Annually

UST EL SEGUNDO: City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 04/19/2017
Date Made Active in Reports: 05/10/2017
Number of Days to Update: 21
Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 07/06/2021
Next Scheduled EDR Contact: 10/25/2021
Data Release Frequency: No Update Planned

UST LONG BEACH: City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 04/22/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/27/2019
Number of Days to Update: 65
Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 07/13/2021
Next Scheduled EDR Contact: 11/01/2021
Data Release Frequency: Varies

UST TORRANCE: City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 02/02/2021
Date Data Arrived at EDR: 04/28/2021
Date Made Active in Reports: 07/13/2021
Number of Days to Update: 76
Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 07/13/2021
Next Scheduled EDR Contact: 11/01/2021
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA MADERA: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 08/10/2020
Date Data Arrived at EDR: 08/12/2020
Date Made Active in Reports: 10/23/2020
Number of Days to Update: 72
Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 05/12/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

MARIN COUNTY:

UST MARIN: Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 09/26/2018
Date Data Arrived at EDR: 10/04/2018
Date Made Active in Reports: 11/02/2018
Number of Days to Update: 29

Source: Public Works Department Waste Management
Telephone: 415-473-6647
Last EDR Contact: 06/22/2021
Next Scheduled EDR Contact: 10/11/2021
Data Release Frequency: No Update Planned

MENDOCINO COUNTY:

UST MENDOCINO: Mendocino County UST Database
A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 03/24/2021
Date Data Arrived at EDR: 04/07/2021
Date Made Active in Reports: 06/24/2021
Number of Days to Update: 78

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Annually

MERCED COUNTY:

CUPA MERCED: CUPA Facility List
CUPA facility list.

Date of Government Version: 02/04/2021
Date Data Arrived at EDR: 02/09/2021
Date Made Active in Reports: 02/18/2021
Number of Days to Update: 9

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 05/12/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

MONO COUNTY:

CUPA MONO: CUPA Facility List
CUPA Facility List

Date of Government Version: 02/22/2021
Date Data Arrived at EDR: 03/02/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 78

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 06/02/2021
Next Scheduled EDR Contact: 09/06/3021
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA MONTEREY: CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 06/23/2021
Date Data Arrived at EDR: 06/23/2021
Date Made Active in Reports: 06/24/2021
Number of Days to Update: 1

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 06/22/2021
Next Scheduled EDR Contact: 10/11/2021
Data Release Frequency: Varies

NAPA COUNTY:

LUST NAPA: Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: No Update Planned

UST NAPA: Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 09/05/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 52

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA NEVADA: CUPA Facility List
CUPA facility list.

Date of Government Version: 02/03/2021
Date Data Arrived at EDR: 02/04/2021
Date Made Active in Reports: 04/23/2021
Number of Days to Update: 78

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 04/21/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Varies

ORANGE COUNTY:

IND_SITE ORANGE: List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 02/01/2021
Date Data Arrived at EDR: 02/04/2021
Date Made Active in Reports: 04/23/2021
Number of Days to Update: 78

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 04/29/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Annually

LUST ORANGE: List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 03/01/2021
Date Data Arrived at EDR: 05/03/2021
Date Made Active in Reports: 05/12/2021
Number of Days to Update: 9

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 04/29/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Quarterly

UST ORANGE: List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 02/01/2021
Date Data Arrived at EDR: 02/02/2021
Date Made Active in Reports: 04/20/2021
Number of Days to Update: 77

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 04/30/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Quarterly

PLACER COUNTY:

MS PLACER: Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 05/25/2021
Date Data Arrived at EDR: 05/26/2021
Date Made Active in Reports: 06/01/2021
Number of Days to Update: 6

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Semi-Annually

PLUMAS COUNTY:

CUPA PLUMAS: CUPA Facility List
Plumas County CUPA Program facilities.

Date of Government Version: 03/31/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/26/2019
Number of Days to Update: 64

Source: Plumas County Environmental Health
Telephone: 530-283-6355
Last EDR Contact: 07/13/2021
Next Scheduled EDR Contact: 11/01/2021
Data Release Frequency: Varies

RIVERSIDE COUNTY:

LUST RIVERSIDE: Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 06/29/2021
Date Data Arrived at EDR: 06/30/2021
Date Made Active in Reports: 07/14/2021
Number of Days to Update: 14

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 06/08/2021
Next Scheduled EDR Contact: 09/27/2021
Data Release Frequency: Quarterly

UST RIVERSIDE: Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 06/29/2021
Date Data Arrived at EDR: 06/30/2021
Date Made Active in Reports: 07/14/2021
Number of Days to Update: 14

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 06/07/2021
Next Scheduled EDR Contact: 09/27/2021
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

CS SACRAMENTO: Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 03/30/2021
Date Data Arrived at EDR: 04/01/2021
Date Made Active in Reports: 06/23/2021
Number of Days to Update: 83

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 07/01/2021
Next Scheduled EDR Contact: 10/11/2021
Data Release Frequency: Quarterly

ML SACRAMENTO: Master Hazardous Materials Facility List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 03/30/2021
Date Data Arrived at EDR: 04/01/2021
Date Made Active in Reports: 06/25/2021
Number of Days to Update: 85

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 06/23/2021
Next Scheduled EDR Contact: 10/11/2021
Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA SAN BENITO: CUPA Facility List
Cupa facility list

Date of Government Version: 04/28/2021
Date Data Arrived at EDR: 04/29/2021
Date Made Active in Reports: 05/03/2021
Number of Days to Update: 4

Source: San Benito County Environmental Health
Telephone: N/A
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Varies

SAN BERNARDINO COUNTY:

PERMITS SAN BERNARDINO: Hazardous Material Permits
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 05/19/2021
Date Data Arrived at EDR: 05/19/2021
Date Made Active in Reports: 06/07/2021
Number of Days to Update: 19

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 05/03/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

HMMD SAN DIEGO: Hazardous Materials Management Division Database
The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 03/02/2021
Date Data Arrived at EDR: 03/03/2021
Date Made Active in Reports: 05/21/2021
Number of Days to Update: 79

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 05/28/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Quarterly

LF SAN DIEGO: Solid Waste Facilities
San Diego County Solid Waste Facilities.

Date of Government Version: 10/01/2020
Date Data Arrived at EDR: 11/23/2020
Date Made Active in Reports: 02/08/2021
Number of Days to Update: 77

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 07/13/2021
Next Scheduled EDR Contact: 11/01/2021
Data Release Frequency: Varies

SAN DIEGO CO LOP: Local Oversight Program Listing
A listing of all LOP release sites that are or were under the County of San Diego's jurisdiction. Included are closed or transferred cases, open cases, and cases that did not have a case type indicated. The cases without a case type are mostly complaints; however, some of them could be LOP cases.

Date of Government Version: 07/14/2020
Date Data Arrived at EDR: 07/16/2020
Date Made Active in Reports: 09/29/2020
Number of Days to Update: 75

Source: Department of Environmental Health
Telephone: 858-505-6874
Last EDR Contact: 07/13/2021
Next Scheduled EDR Contact: 11/01/2021
Data Release Frequency: Varies

SAN DIEGO CO SAM: Environmental Case Listing
The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

CUPA SAN FRANCISCO CO: CUPA Facility Listing
Cupa facilities

Date of Government Version: 02/11/2021
Date Data Arrived at EDR: 02/11/2021
Date Made Active in Reports: 05/05/2021
Number of Days to Update: 83

Source: San Francisco County Department of Environmental Health
Telephone: 415-252-3896
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Varies

LUST SAN FRANCISCO: Local Oversite Facilities
A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: No Update Planned

UST SAN FRANCISCO: Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 02/11/2021
Date Data Arrived at EDR: 02/11/2021
Date Made Active in Reports: 05/05/2021
Number of Days to Update: 83

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

UST SAN JOAQUIN: San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 06/22/2018
Date Data Arrived at EDR: 06/26/2018
Date Made Active in Reports: 07/11/2018
Number of Days to Update: 15

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 06/08/2021
Next Scheduled EDR Contact: 09/27/2021
Data Release Frequency: No Update Planned

SAN LUIS OBISPO COUNTY:

CUPA SAN LUIS OBISPO: CUPA Facility List
Cupa Facility List.

Date of Government Version: 05/07/2021
Date Data Arrived at EDR: 05/11/2021
Date Made Active in Reports: 05/14/2021
Number of Days to Update: 3

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 05/06/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

SAN MATEO COUNTY:

BI SAN MATEO: Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 02/20/2020
Date Data Arrived at EDR: 02/20/2020
Date Made Active in Reports: 04/24/2020
Number of Days to Update: 64
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 06/10/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Annually

LUST SAN MATEO: Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 03/29/2019
Date Data Arrived at EDR: 03/29/2019
Date Made Active in Reports: 05/29/2019
Number of Days to Update: 61
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 06/02/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: No Update Planned

SANTA BARBARA COUNTY:

CUPA SANTA BARBARA: CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28
Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 05/12/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: No Update Planned

SANTA CLARA COUNTY:

CUPA SANTA CLARA: Cupa Facility List
Cupa facility list

Date of Government Version: 02/24/2021
Date Data Arrived at EDR: 02/26/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 82
Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 05/12/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

HIST LUST SANTA CLARA: HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22
Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LUST SANTA CLARA: LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13
Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: No Update Planned

SAN JOSE HAZMAT: Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 11/03/2020
Date Data Arrived at EDR: 11/05/2020
Date Made Active in Reports: 01/26/2021
Number of Days to Update: 82

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 05/21/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA SANTA CRUZ: CUPA Facility List
CUPA facility listing.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 90

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 05/12/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA SHASTA: CUPA Facility List
Cupa Facility List.

Date of Government Version: 06/15/2017
Date Data Arrived at EDR: 06/19/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 51

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 05/12/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

SOLANO COUNTY:

LUST SOLANO: Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 06/04/2019
Date Data Arrived at EDR: 06/06/2019
Date Made Active in Reports: 08/13/2019
Number of Days to Update: 68

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: No Update Planned

UST SOLANO: Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 03/23/2021
Date Data Arrived at EDR: 03/25/2021
Date Made Active in Reports: 06/10/2021
Number of Days to Update: 77

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 06/22/2021
Next Scheduled EDR Contact: 09/12/2021
Data Release Frequency: Quarterly

SONOMA COUNTY:

CUPA SONOMA: Cupa Facility List
Cupa Facility list

Date of Government Version: 07/02/2021
Date Data Arrived at EDR: 07/06/2021
Date Made Active in Reports: 07/14/2021
Number of Days to Update: 8

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 06/28/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: Varies

LUST SONOMA: Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 04/01/2021
Date Data Arrived at EDR: 04/01/2021
Date Made Active in Reports: 06/23/2021
Number of Days to Update: 83

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 06/15/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA STANISLAUS: CUPA Facility List
Cupa facility list

Date of Government Version: 02/09/2021
Date Data Arrived at EDR: 02/11/2021
Date Made Active in Reports: 05/05/2021
Number of Days to Update: 83

Source: Stanislaus County Department of Ennvironmental Protection
Telephone: 209-525-6751
Last EDR Contact: 07/06/2021
Next Scheduled EDR Contact: 10/25/2021
Data Release Frequency: Varies

SUTTER COUNTY:

UST SUTTER: Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 03/01/2021
Date Data Arrived at EDR: 03/02/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 78

Source: Sutter County Environmental Health Services
Telephone: 530-822-7500
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

CUPA TEHAMA: CUPA Facility List
Cupa facilities

Date of Government Version: 01/13/2021
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 04/06/2021
Number of Days to Update: 82

Source: Tehama County Department of Environmental Health
Telephone: 530-527-8020
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Varies

TRINITY COUNTY:

CUPA TRINITY: CUPA Facility List
Cupa facility list

Date of Government Version: 04/14/2021
Date Data Arrived at EDR: 04/15/2021
Date Made Active in Reports: 07/06/2021
Number of Days to Update: 82

Source: Department of Toxic Substances Control
Telephone: 760-352-0381
Last EDR Contact: 07/13/2021
Next Scheduled EDR Contact: 11/01/2021
Data Release Frequency: Varies

TULARE COUNTY:

CUPA TULARE: CUPA Facility List
Cupa program facilities

Date of Government Version: 04/26/2021
Date Data Arrived at EDR: 04/28/2021
Date Made Active in Reports: 07/13/2021
Number of Days to Update: 76

Source: Tulare County Environmental Health Services Division
Telephone: 559-624-7400
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Varies

TUOLUMNE COUNTY:

CUPA TUOLUMNE: CUPA Facility List
Cupa facility list

Date of Government Version: 04/23/2018
Date Data Arrived at EDR: 04/25/2018
Date Made Active in Reports: 06/25/2018
Number of Days to Update: 61

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 07/13/2021
Next Scheduled EDR Contact: 11/01/2021
Data Release Frequency: Varies

VENTURA COUNTY:

BWT VENTURA: Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 03/29/2021
Date Data Arrived at EDR: 04/22/2021
Date Made Active in Reports: 07/12/2021
Number of Days to Update: 81

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 04/19/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Quarterly

LF VENTURA: Inventory of Illegal Abandoned and Inactive Sites
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 06/22/2021
Next Scheduled EDR Contact: 10/11/2021
Data Release Frequency: No Update Planned

LUST VENTURA: Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 05/05/2021
Next Scheduled EDR Contact: 08/23/2021
Data Release Frequency: No Update Planned

MED WASTE VENTURA: Medical Waste Program List
To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 03/29/2021
Date Data Arrived at EDR: 04/21/2021
Date Made Active in Reports: 04/23/2021
Number of Days to Update: 2

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 04/19/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Quarterly

UST VENTURA: Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 03/01/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 06/04/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Quarterly

YOLO COUNTY:

UST YOLO: Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 03/26/2021
Date Data Arrived at EDR: 04/01/2021
Date Made Active in Reports: 06/23/2021
Number of Days to Update: 83

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 06/22/2021
Next Scheduled EDR Contact: 10/11/2021
Data Release Frequency: Annually

YUBA COUNTY:

CUPA YUBA: CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 04/21/2021
Date Data Arrived at EDR: 04/22/2021
Date Made Active in Reports: 05/12/2021
Number of Days to Update: 20

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 04/24/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 10/05/2020
Date Data Arrived at EDR: 02/17/2021
Date Made Active in Reports: 05/10/2021
Number of Days to Update: 82

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 05/11/2021
Next Scheduled EDR Contact: 08/23/2021
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 04/10/2019
Date Made Active in Reports: 05/16/2019
Number of Days to Update: 36

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 07/09/2021
Next Scheduled EDR Contact: 10/18/2021
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 04/29/2020
Date Made Active in Reports: 07/10/2020
Number of Days to Update: 72

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 04/30/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 07/19/2019
Date Made Active in Reports: 09/10/2019
Number of Days to Update: 53

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 07/07/2021
Next Scheduled EDR Contact: 10/25/2021
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 02/11/2021
Date Made Active in Reports: 02/24/2021
Number of Days to Update: 13

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 05/13/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 06/19/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 76

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Annually

Oil/Gas Pipelines

Source: Endeavor Business Media

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data

Source: Endeavor Business Media

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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.
Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.
Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.
Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.
Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

PROPOSED RETAIL SHOPPING CENTER
1601 & 1669 SOUTH MAIN STREET
MANTECA, CA 95337

TARGET PROPERTY COORDINATES

Latitude (North):	37.778503 - 37˚ 46' 42.61''
Longitude (West):	121.218363 - 121˚ 13' 6.11''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	656902.6
UTM Y (Meters):	4182529.5
Elevation:	37 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5640398 MANTECA, CA
Version Date:	2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

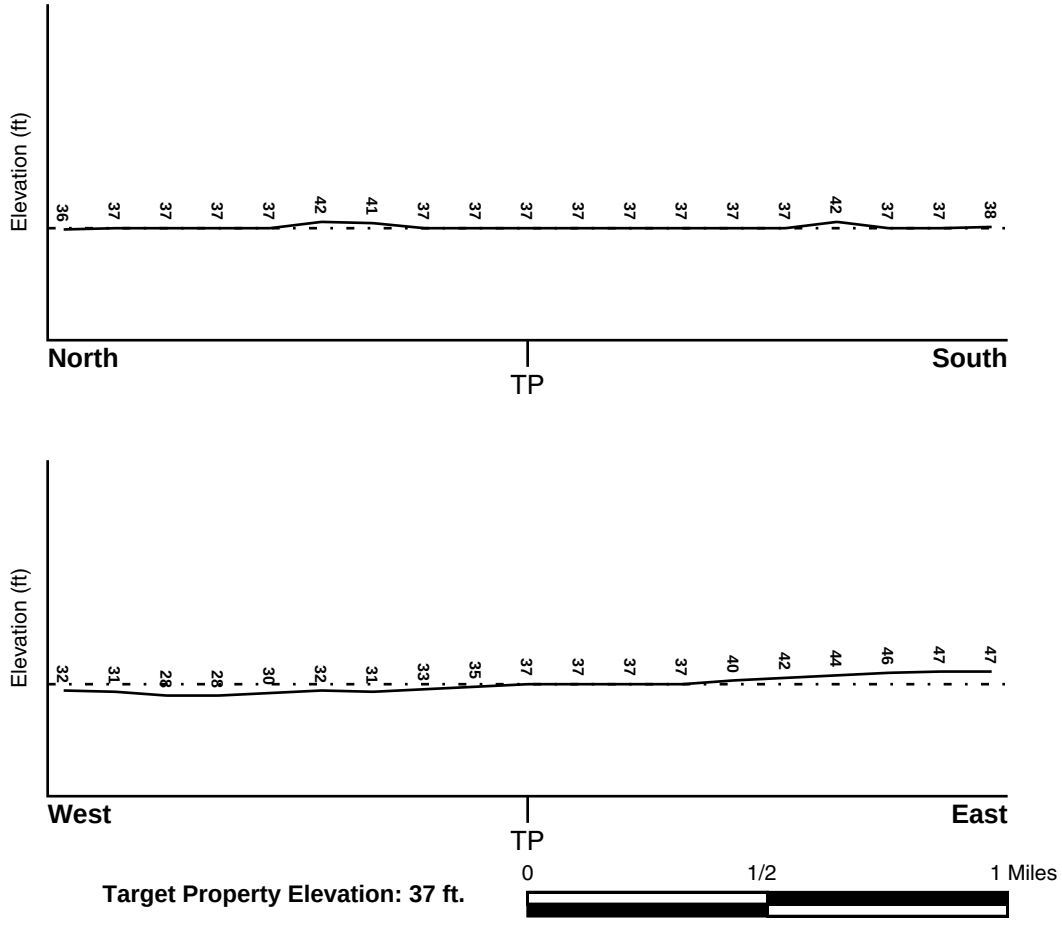
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General West

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
06077C0640F	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
Not Reported	

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
MANTECA	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site--specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

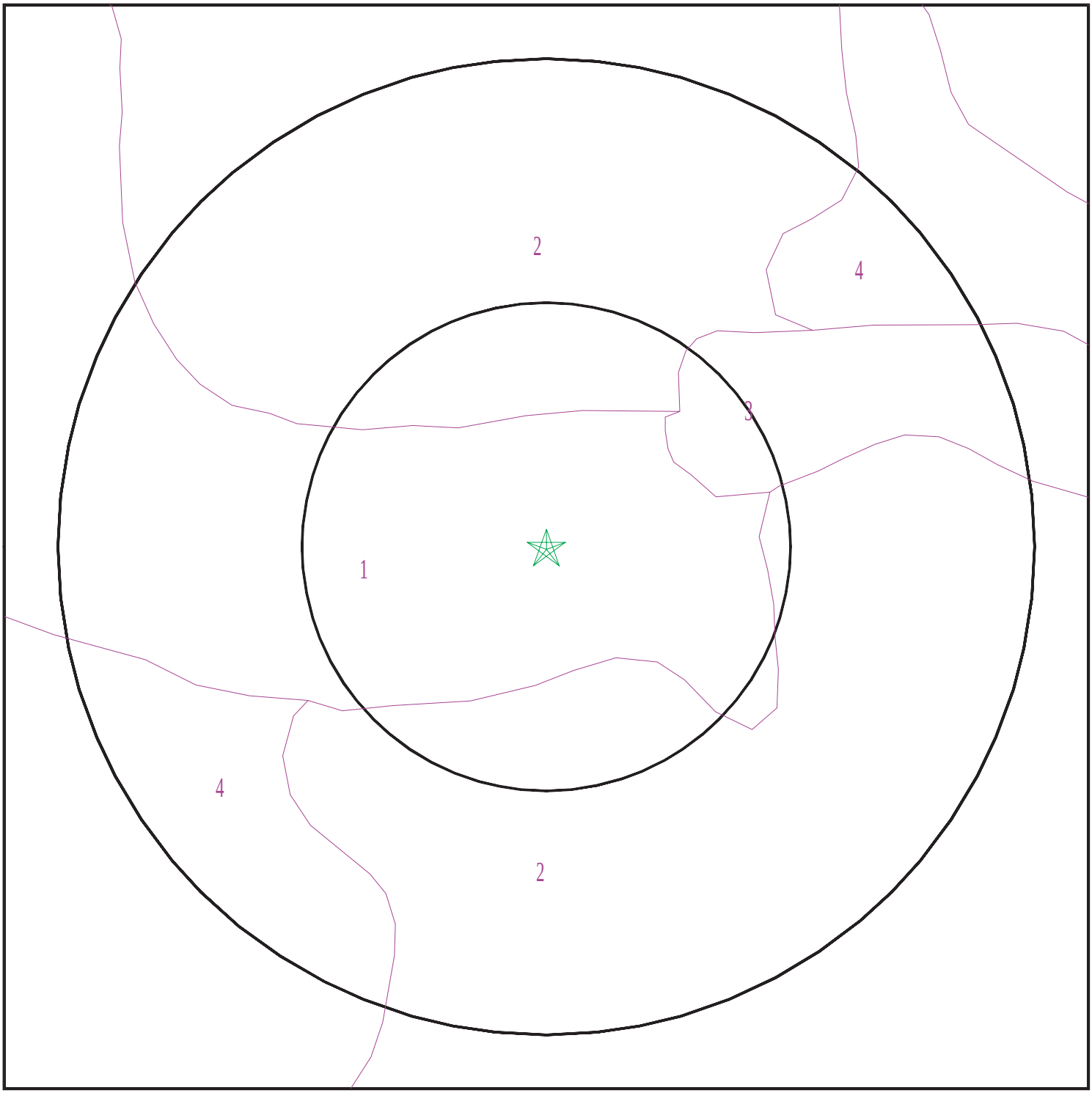
Era:	Cenozoic
System:	Quaternary
Series:	Quaternary
Code:	Q *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 6578793.2s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	Proposed Retail Shopping Center	CLIENT:	Partner Engineering and Science, Inc.
ADDRESS:	1601 & 1669 South Main Street Manteca CA 95337	CONTACT:	Evelyn Perez
LAT/LONG:	37.778503 / 121.218363	INQUIRY #:	6578793.2s
		DATE:	July 15, 2021 1:23 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: TIMOR

Soil Surface Texture: loamy sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Moderately well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	14 inches	loamy sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	Not reported	Max: 0 Min: 0	Max: Min:
2	14 inches	55 inches	loamy sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	Not reported	Max: 0 Min: 0	Max: Min:
3	55 inches	59 inches	cemented	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	Not reported	Max: 0 Min: 0	Max: Min:

Soil Map ID: 2

Soil Component Name: DELHI

Soil Surface Texture: loamy sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	16 inches	loamy sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.8 Min: 6.1
2	16 inches	25 inches	loamy sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.8 Min: 6.1
3	25 inches	59 inches	sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.8 Min: 6.1

Soil Map ID: 3

Soil Component Name: DELHI

Soil Surface Texture: fine sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	fine sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.8 Min: 6.1
2	9 inches	59 inches	fine sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.8 Min: 6.1

Soil Map ID: 4

Soil Component Name: TINNIN

Soil Surface Texture: loamy coarse sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	27 inches	loamy coarse sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 8.4 Min: 6.6
2	27 inches	53 inches	loamy coarse sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 8.4 Min: 6.6
3	53 inches	74 inches	loamy coarse sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 8.4 Min: 6.6

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	USGS40000185530	1/8 - 1/4 Mile South
4	USGS40000185585	1/4 - 1/2 Mile NNW
A5	USGS40000185511	1/2 - 1 Mile SSE
C10	USGS40000185503	1/2 - 1 Mile SSE
E15	USGS40000185490	1/2 - 1 Mile South
16	USGS40000185598	1/2 - 1 Mile NNW
F19	USGS40000185614	1/2 - 1 Mile North
27	USGS40000185549	1/2 - 1 Mile West

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

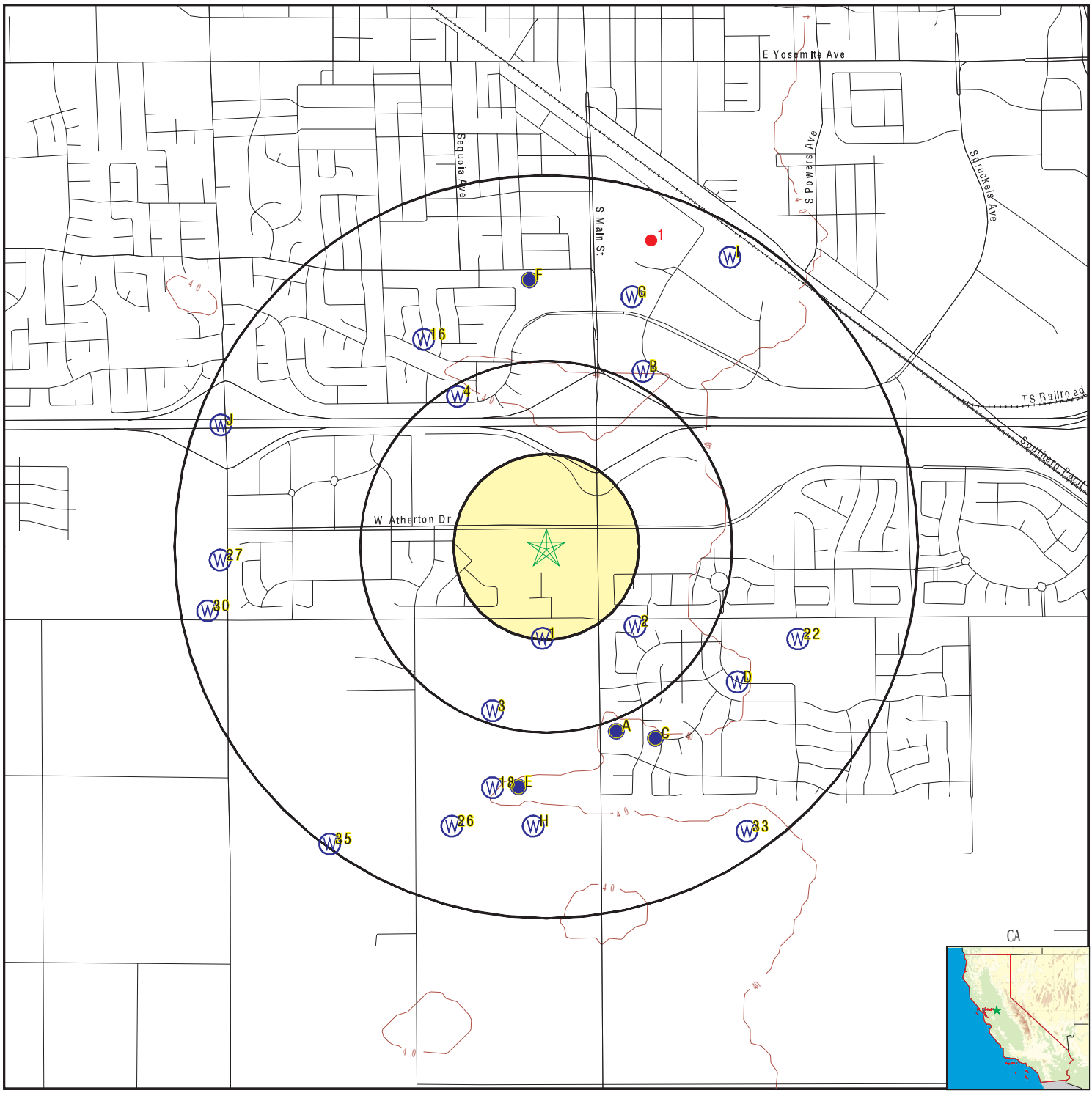
MAP ID	WELL ID	LOCATION FROM TP
2	CADWR9000037536	1/4 - 1/2 Mile SE
3	CADWR9000037522	1/4 - 1/2 Mile SSW
A6	CAUSGSN00012470	1/2 - 1 Mile SSE
B7	CADDW0000022003	1/2 - 1 Mile NNE
B8	CALLNL000000657	1/2 - 1 Mile NNE
C9	CADWR9000037520	1/2 - 1 Mile SSE
D11	CAEDF0000026993	1/2 - 1 Mile SE
D12	CAUSGSN00002369	1/2 - 1 Mile SE
D13	CAUSGS000001130	1/2 - 1 Mile SE
D14	CADDW0000005290	1/2 - 1 Mile SE
E17	CADWR9000037510	1/2 - 1 Mile South
18	CADWR0000023664	1/2 - 1 Mile SSW
G20	2597	1/2 - 1 Mile NNE
G21	23158	1/2 - 1 Mile NNE
22	CADPR0000003751	1/2 - 1 Mile ESE
F23	CADWR0000023868	1/2 - 1 Mile North
H24	CADWR0000011877	1/2 - 1 Mile South
H25	CADWR0000036691	1/2 - 1 Mile South
26	CADWR0000018690	1/2 - 1 Mile SSW
I28	CADWR0000017916	1/2 - 1 Mile NE
I29	CADDW0000011388	1/2 - 1 Mile NNE
30	CADWR9000037539	1/2 - 1 Mile West
J31	23155	1/2 - 1 Mile WNW
J32	2601	1/2 - 1 Mile WNW
33	CADPR0000000568	1/2 - 1 Mile SE
I34	CALLNL000000713	1/2 - 1 Mile NNE
35	CADPR0000000987	1/2 - 1 Mile SW

OTHER STATE DATABASE INFORMATION

STATE OIL/GAS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	CAOG14000008277	1/2 - 1 Mile NNE

PHYSICAL SETTING SOURCE MAP - 6578793.2s



County Boundary
Major Roads
Contour Lines
Earthquake Fault Lines
Earthquake epicenter, Richter 5 or greater
Water Wells
Public Water Supply Wells
Cluster of Multiple Icons

Groundwater Flow Direction
Indeterminate Groundwater Flow at Location
Groundwater Flow Varies at Location
Closest Hydrogeological Data
Oil, gas or related wells

SITE NAME:	Proposed Retail Shopping Center	CLIENT:	Partner Engineering and Science, Inc.
ADDRESS:	1601 & 1669 South Main Street Manteca CA 95337	CONTACT:	Evelyn Perez
LAT/LONG:	37.778503 / 121.218363	INQUIRY #:	6578793.2s
		DATE:	July 15, 2021 1:23 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

1
South **FED USGS** **USGS40000185530**
1/8 - 1/4 Mile
Higher

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	002S007E08J001M	Type:	Well
Description:	Not Reported	HUC:	18040005
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19770122	Well Depth:	120
Well Depth Units:	ft	Well Hole Depth:	135
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	1977-01-22
Feet below surface:	22.00	Feet to sea level:	Not Reported
Note:	Not Reported		

2
SE **CA WELLS** **CADWR9000037536**
1/4 - 1/2 Mile
Higher

State Well #:	02S07E09M001M	Station ID:	6905
Well Name:	Not Reported	Basin Name:	Eastern San Joaquin
Well Use:	Irrigation	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

3
SSW **CA WELLS** **CADWR9000037522**
1/4 - 1/2 Mile
Higher

State Well #:	02S07E08K001M	Station ID:	6904
Well Name:	Not Reported	Basin Name:	Eastern San Joaquin
Well Use:	Unknown	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

4
NNW **FED USGS** **USGS40000185585**
1/4 - 1/2 Mile
Higher

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	002S007E05Q001M	Type:	Well
Description:	Not Reported	HUC:	18040005
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported

Construction Date:	19740130	Well Depth:	348
Well Depth Units:	ft	Well Hole Depth:	355
Well Hole Depth Units:	ft		

A5
SSE **FED USGS** **USGS40000185511**
1/2 - 1 Mile
Higher

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	002S007E09N004M	Type:	Well
Description:	Not Reported	HUC:	18040005
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Alluvial Fan Deposits	Aquifer Type:	Not Reported
Construction Date:	19721016	Well Depth:	120
Well Depth Units:	ft	Well Hole Depth:	125
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	1972-10-16
Feet below surface:	14.00	Feet to sea level:	Not Reported
Note:	Not Reported		

A6
SSE **CA WELLS** **CAUSGSN00012470**
1/2 - 1 Mile
Higher

Well ID:	USGS-374617121125001	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-374617121125001	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-374617121125001&store_num=		
GeoTracker Data:	Not Reported		

B7
NNE **CA WELLS** **CADDW0000022003**
1/2 - 1 Mile
Higher

Well ID:	3910005-013	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL NO. 13 - RAW TO CATF	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=3910005-013&store_num=		
GeoTracker Data:	Not Reported		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

B8
NNE
1/2 - 1 Mile
Higher

CA WELLS **CALLNL000000657**

Well ID:	101316	Well Type:	MUNICIPAL
Source:	Lawrence Livermore National Laboratory		
Other Name:	02S/07E-04N01 M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	Not Reported		
GeoTracker Data:	Not Reported		

Chemical:	Argon	Results:	.000347618
Units:	cm3STP/g	Date:	04/07/2003
Chemical:	Neon	Results:	.00000022609
Units:	cm3STP/g	Date:	04/07/2003
Chemical:	Helium-4	Results:	.000000322217
Units:	cm3STP/g	Date:	04/07/2003
Chemical:	Xenon	Results:	.0000000100461
Units:	cm3STP/g	Date:	04/07/2003
Chemical:	Tritium (Hydrogen 3)	Results:	26.99
Units:	pCi/L	Date:	02/26/2003
Chemical:	Helium-3/Helium-4	Results:	.00000150064
Units:	atom ratio	Date:	04/07/2003
Chemical:	Krypton	Results:	.0000000734898
Units:	cm3STP/g	Date:	04/07/2003

C9
SSE
1/2 - 1 Mile
Higher

CA WELLS **CADWR9000037520**

State Well #:	02S07E09N001M	Station ID:	6906
Well Name:	Not Reported	Basin Name:	Eastern San Joaquin
Well Use:	Unknown	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

C10
SSE
1/2 - 1 Mile
Higher

FED USGS **USGS40000185503**

Organization ID:	USGS-CA
Organization Name:	USGS California Water Science Center

Monitor Location:	002S007E09N005M	Type:	Well
Description:	Not Reported	HUC:	18040005
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19740209	Well Depth:	175
Well Depth Units:	ft	Well Hole Depth:	215
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	1974-02-09
Feet below surface:	15.00	Feet to sea level:	Not Reported
Note:	Not Reported		

D11
SE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000026993**

Well ID:	AGC100012333-SJCDW00024	Well Type:	MONITORING
Source:	Agricultural Lands	Other Name:	SJCDW00024
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=AGLAND&samp_date=&global_id=AGC100012333&assigned_name=SJCDW00024&store_num=		
GeoTracker Data:	Not Reported		

D12
SE
1/2 - 1 Mile
Higher

CA WELLS **CAUSGSN00002369**

Well ID:	USGS-374600121120001	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-374600121120001	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-374600121120001&store_num=		
GeoTracker Data:	Not Reported		

D13
SE
1/2 - 1 Mile
Higher

CA WELLS **CAUSGS000001130**

Well ID:	ESJ-02	Well Type:	MUNICIPAL
Source:	United States Geological Survey		
Other Name:	ESJ-02	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGS&samp_date=&global_id=&assigned_name=ESJ-02&store_num=		
GeoTracker Data:	Not Reported		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

D14
SE
1/2 - 1 Mile
Higher

CA WELLS **CADDW0000005290**

Well ID:	3910005-034	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL NO. 20 - RAW STANDBY	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=3910005-034&store_num=		
GeoTracker Data:	Not Reported		

E15
South
1/2 - 1 Mile
Higher

FED USGS **USGS40000185490**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	002S007E08R001M	Type:	Well
Description:	COMPUTER GENERATED LAT/LONG		
HUC:	Not Reported	Drainage Area:	Not Reported
Drainage Area Units:	Not Reported	Contrib Drainage Area:	Not Reported
Contrib Drainage Area Unts:	Not Reported	Aquifer:	Central Valley aquifer system
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19600130	Well Depth:	128
Well Depth Units:	ft	Well Hole Depth:	203
Well Hole Depth Units:	ft		

16
NNW
1/2 - 1 Mile
Higher

FED USGS **USGS40000185598**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	002S007E05K001M	Type:	Well
Description:	Not Reported	HUC:	18040005
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19740214	Well Depth:	253
Well Depth Units:	ft	Well Hole Depth:	256
Well Hole Depth Units:	ft		

E17
South
1/2 - 1 Mile
Higher

CA WELLS **CADWR9000037510**

State Well #:	02S07E08R001M	Station ID:	27634
Well Name:	02S07E08R001M	Basin Name:	Eastern San Joaquin
Well Use:	Unknown	Well Type:	Single Well

Well Depth:	203	Well Completion Rpt #:	66240

18
SSW **CA WELLS** **CADWR0000023664**
1/2 - 1 Mile
Higher

Well ID:	02S07E08R001M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	02S07E08R001M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=02S07E08R001M&store_num=		
GeoTracker Data:	Not Reported		

F19
North **FED USGS** **USGS40000185614**
1/2 - 1 Mile
Higher

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	002S007E05J001M	Type:	Well
Description:	Not Reported	HUC:	18040005
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19740112	Well Depth:	250
Well Depth Units:	ft	Well Hole Depth:	260
Well Hole Depth Units:	ft		

G20
NNE **CA WELLS** **2597**
1/2 - 1 Mile
Higher

Seq:	2597	Prim sta c:	02S/07E-04N01 M
Frds no:	3910005013	County:	39
District:	10	User id:	PTA
System no:	3910005	Water type:	G
Source nam:	WELL 13	Station ty:	WELL/AMBNT/MUN/INTAKE
Latitude:	374718.0	Longitude:	1211247.0
Precision:	3	Status:	AR
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		
System no:	3910005	System nam:	Manteca, City Of
Hqname:	Not Reported	Address:	1001 W. CENTER STREET
City:	MANTECA	State:	CA
Zip:	95337	Zip ext:	Not Reported
Pop serv:	44500	Connection:	11417
Area serve:	MANTECA		
Sample date:	13-MAR-18	Finding:	3.6e-002

Chemical:	ETHYLENE DIBROMIDE (EDB)	Report units:	UG/L
Dlr:	2.e-002		
Sample date:	12-FEB-18	Finding:	3.1e-002
Chemical:	ETHYLENE DIBROMIDE (EDB)	Report units:	UG/L
Dlr:	2.e-002		
Sample date:	16-JAN-18	Finding:	8.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	08-JAN-18	Finding:	3.1e-002
Chemical:	ETHYLENE DIBROMIDE (EDB)	Report units:	UG/L
Dlr:	2.e-002		
Sample date:	08-JAN-18	Finding:	9.4e-002
Chemical:	DIBROMOCHLOROPROPANE (DBCP)	Report units:	UG/L
Dlr:	1.e-002		
Sample date:	03-OCT-17	Finding:	6.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	12-SEP-17	Finding:	8.8e-002
Chemical:	DIBROMOCHLOROPROPANE (DBCP)	Report units:	UG/L
Dlr:	1.e-002		
Sample date:	08-AUG-17	Finding:	7.9e-002
Chemical:	DIBROMOCHLOROPROPANE (DBCP)	Report units:	UG/L
Dlr:	1.e-002		
Sample date:	10-JUL-17	Finding:	9.7e-002
Chemical:	DIBROMOCHLOROPROPANE (DBCP)	Report units:	UG/L
Dlr:	1.e-002		
Sample date:	03-JUL-17	Finding:	6.6
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	13-JUN-17	Finding:	9.6e-002
Chemical:	DIBROMOCHLOROPROPANE (DBCP)	Report units:	UG/L
Dlr:	1.e-002		
Sample date:	09-MAY-17	Finding:	9.1e-002
Chemical:	DIBROMOCHLOROPROPANE (DBCP)	Report units:	UG/L
Dlr:	1.e-002		
Sample date:	04-APR-17	Finding:	8.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	04-APR-17	Finding:	5.6e-002
Chemical:	ETHYLENE DIBROMIDE (EDB)	Report units:	UG/L
Dlr:	2.e-002		
Sample date:	14-MAR-17	Finding:	3.9e-002
Chemical:	ETHYLENE DIBROMIDE (EDB)	Report units:	UG/L
Dlr:	2.e-002		
Sample date:	14-FEB-17	Finding:	3.5e-002
Chemical:	ETHYLENE DIBROMIDE (EDB)	Report units:	UG/L
Dlr:	2.e-002		

Sample date:	09-JAN-17	Finding:	3.9e-002
Chemical:	ETHYLENE DIBROMIDE (EDB)	Report units:	UG/L
Dlr:	2.e-002		
Sample date:	03-JAN-17	Finding:	8.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	13-DEC-16	Finding:	4.3e-002
Chemical:	ETHYLENE DIBROMIDE (EDB)	Report units:	UG/L
Dlr:	2.e-002		
Sample date:	08-NOV-16	Finding:	9.6e-002
Chemical:	DIBROMOCHLOROPROPANE (DBCP)	Report units:	UG/L
Dlr:	1.e-002		
Sample date:	04-OCT-16	Finding:	6.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	04-OCT-16	Finding:	9.9e-002
Chemical:	DIBROMOCHLOROPROPANE (DBCP)	Report units:	UG/L
Dlr:	1.e-002		
Sample date:	01-AUG-16	Finding:	9.2e-002
Chemical:	DIBROMOCHLOROPROPANE (DBCP)	Report units:	UG/L
Dlr:	1.e-002		
Sample date:	01-AUG-16	Finding:	3.e-002
Chemical:	ETHYLENE DIBROMIDE (EDB)	Report units:	UG/L
Dlr:	2.e-002		
Sample date:	05-JUL-16	Finding:	6.2
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	14-JUN-16	Finding:	3.1e-002
Chemical:	ETHYLENE DIBROMIDE (EDB)	Report units:	UG/L
Dlr:	2.e-002		
Sample date:	14-JUN-16	Finding:	9.7e-002
Chemical:	DIBROMOCHLOROPROPANE (DBCP)	Report units:	UG/L
Dlr:	1.e-002		
Sample date:	17-MAY-16	Finding:	8.4e-002
Chemical:	DIBROMOCHLOROPROPANE (DBCP)	Report units:	UG/L
Dlr:	1.e-002		
Sample date:	03-MAY-16	Finding:	6.3
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	03-MAY-16	Finding:	6.3
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	19-APR-16	Finding:	3.e-002
Chemical:	ETHYLENE DIBROMIDE (EDB)	Report units:	UG/L
Dlr:	2.e-002		
Sample date:	05-APR-16	Finding:	6.5
Chemical:	NITRATE (AS N)	Report units:	MG/L

Dlr:	0.4		
Sample date:	08-MAR-16	Finding:	3.5e-002
Chemical:	ETHYLENE DIBROMIDE (EDB)	Report units:	UG/L
Dlr:	2.e-002		
Sample date:	02-FEB-16	Finding:	3.3e-002
Chemical:	ETHYLENE DIBROMIDE (EDB)	Report units:	UG/L
Dlr:	2.e-002		
Sample date:	13-JAN-16	Finding:	2.9
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dlr:	1.		
Sample date:	13-JAN-16	Finding:	0.291
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	13-JAN-16	Finding:	4.3e-002
Chemical:	ETHYLENE DIBROMIDE (EDB)	Report units:	UG/L
Dlr:	2.e-002		
Sample date:	13-JAN-16	Finding:	0.885
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	06-JAN-16	Finding:	8.3
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	01-DEC-15	Finding:	3.2e-002
Chemical:	ETHYLENE DIBROMIDE (EDB)	Report units:	UG/L
Dlr:	2.e-002		
Sample date:	07-OCT-15	Finding:	3.3e-002
Chemical:	ETHYLENE DIBROMIDE (EDB)	Report units:	UG/L
Dlr:	2.e-002		
Sample date:	06-OCT-15	Finding:	28.1
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	08-SEP-15	Finding:	3.1e-002
Chemical:	ETHYLENE DIBROMIDE (EDB)	Report units:	UG/L
Dlr:	2.e-002		
Sample date:	11-AUG-15	Finding:	3.8e-002
Chemical:	ETHYLENE DIBROMIDE (EDB)	Report units:	UG/L
Dlr:	2.e-002		
Sample date:	04-AUG-15	Finding:	29.5
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	07-JUL-15	Finding:	30.2
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	07-JUL-15	Finding:	3.1e-002
Chemical:	ETHYLENE DIBROMIDE (EDB)	Report units:	UG/L
Dlr:	2.e-002		

Sample date:	09-JUN-15	Finding:	3.1e-002
Chemical:	ETHYLENE DIBROMIDE (EDB)	Report units:	UG/L
Dlr:	2.e-002		
Sample date:	12-MAY-15	Finding:	3.5e-002
Chemical:	ETHYLENE DIBROMIDE (EDB)	Report units:	UG/L
Dlr:	2.e-002		
Sample date:	12-MAY-15	Finding:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	12-MAY-15	Finding:	0.17
Chemical:	LANGELIER INDEX @ 60 C	Report units:	Not Reported
Dlr:	0.		
Sample date:	12-MAY-15	Finding:	280.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	12-MAY-15	Finding:	140.
Chemical:	BARIUM	Report units:	UG/L
Dlr:	100.		
Sample date:	12-MAY-15	Finding:	0.12
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	12-MAY-15	Finding:	22.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	12-MAY-15	Finding:	9.4
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	12-MAY-15	Finding:	3.7
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	12-MAY-15	Finding:	31.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	12-MAY-15	Finding:	9.5
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	12-MAY-15	Finding:	36.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	12-MAY-15	Finding:	130.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	12-MAY-15	Finding:	170.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	12-MAY-15	Finding:	140.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L

Dlr:	0.		
Sample date:	12-MAY-15	Finding:	8.
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	12-MAY-15	Finding:	380.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	12-MAY-15	Finding:	28.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	05-MAY-15	Finding:	28.4
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	21-APR-15	Finding:	3.9e-002
Chemical:	ETHYLENE DIBROMIDE (EDB)	Report units:	UG/L
Dlr:	2.e-002		
Sample date:	07-APR-15	Finding:	28.5
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	07-APR-15	Finding:	3.3e-002
Chemical:	ETHYLENE DIBROMIDE (EDB)	Report units:	UG/L
Dlr:	2.e-002		
Sample date:	02-MAR-15	Finding:	28.2
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	03-FEB-15	Finding:	32.7
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	13-JAN-15	Finding:	5.e-002
Chemical:	ETHYLENE DIBROMIDE (EDB)	Report units:	UG/L
Dlr:	2.e-002		
Sample date:	06-JAN-15	Finding:	35.7
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	09-DEC-14	Finding:	3.e-002
Chemical:	ETHYLENE DIBROMIDE (EDB)	Report units:	UG/L
Dlr:	2.e-002		
Sample date:	09-DEC-14	Finding:	2.3
Chemical:	CHROMIUM, HEXAVALENT	Report units:	UG/L
Dlr:	1.		
Sample date:	07-OCT-14	Finding:	28.6
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	12-AUG-14	Finding:	3.4e-002
Chemical:	ETHYLENE DIBROMIDE (EDB)	Report units:	UG/L
Dlr:	2.e-002		

Sample date:	22-JUL-14	Finding:	27.6
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	10-JUN-14	Finding:	4.6e-002
Chemical:	ETHYLENE DIBROMIDE (EDB)	Report units:	UG/L
Dlr:	2.e-002		
Sample date:	13-MAY-14	Finding:	3.7e-002
Chemical:	ETHYLENE DIBROMIDE (EDB)	Report units:	UG/L
Dlr:	2.e-002		
Sample date:	13-MAY-14	Finding:	37.6
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	08-APR-14	Finding:	28.8
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	04-MAR-14	Finding:	51.1
Chemical:	MANGANESE	Report units:	UG/L
Dlr:	20.		
Sample date:	14-JAN-14	Finding:	5.e-002
Chemical:	ETHYLENE DIBROMIDE (EDB)	Report units:	UG/L
Dlr:	2.e-002		
Sample date:	07-JAN-14	Finding:	27.7
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	10-DEC-13	Finding:	3.9e-002
Chemical:	ETHYLENE DIBROMIDE (EDB)	Report units:	UG/L
Dlr:	2.e-002		
Sample date:	22-OCT-13	Finding:	2.5
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dlr:	1.		
Sample date:	22-OCT-13	Finding:	28.1
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	14-AUG-13	Finding:	3.2e-002
Chemical:	ETHYLENE DIBROMIDE (EDB)	Report units:	UG/L
Dlr:	2.e-002		
Sample date:	17-JUL-13	Finding:	9.8e-002
Chemical:	DIBROMOCHLOROPROPANE (DBCP)	Report units:	UG/L
Dlr:	1.e-002		
Sample date:	02-JUL-13	Finding:	27.1
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	10-APR-13	Finding:	3.3e-002
Chemical:	ETHYLENE DIBROMIDE (EDB)	Report units:	UG/L
Dlr:	2.e-002		
Sample date:	02-APR-13	Finding:	30.7
Chemical:	NITRATE (AS NO3)	Report units:	MG/L

Dlr:	2.		
Sample date:	12-FEB-13	Finding:	3.3e-002
Chemical:	ETHYLENE DIBROMIDE (EDB)	Report units:	UG/L
Dlr:	2.e-002		
Sample date:	15-JAN-13	Finding:	4.e-002
Chemical:	ETHYLENE DIBROMIDE (EDB)	Report units:	UG/L
Dlr:	2.e-002		
Sample date:	02-JAN-13	Finding:	36.9
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	11-DEC-12	Finding:	4.1e-002
Chemical:	ETHYLENE DIBROMIDE (EDB)	Report units:	UG/L
Dlr:	2.e-002		
Sample date:	04-OCT-12	Finding:	3.1e-002
Chemical:	ETHYLENE DIBROMIDE (EDB)	Report units:	UG/L
Dlr:	2.e-002		
Sample date:	02-OCT-12	Finding:	27.9
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	11-SEP-12	Finding:	3.2e-002
Chemical:	ETHYLENE DIBROMIDE (EDB)	Report units:	UG/L
Dlr:	2.e-002		
Sample date:	03-JUL-12	Finding:	25.8
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	02-JUL-12	Finding:	50.9
Chemical:	MANGANESE	Report units:	UG/L
Dlr:	20.		
Sample date:	08-MAY-12	Finding:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	08-MAY-12	Finding:	25.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	08-MAY-12	Finding:	0.35
Chemical:	LANGELIER INDEX @ 60 C	Report units:	Not Reported
Dlr:	0.		
Sample date:	08-MAY-12	Finding:	280.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	08-MAY-12	Finding:	0.15
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	08-MAY-12	Finding:	21.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		

Sample date:	08-MAY-12	Finding:	8.8
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	08-MAY-12	Finding:	30.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	08-MAY-12	Finding:	9.6
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	08-MAY-12	Finding:	35.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	08-MAY-12	Finding:	130.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	08-MAY-12	Finding:	180.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	08-MAY-12	Finding:	140.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	08-MAY-12	Finding:	8.2
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	08-MAY-12	Finding:	390.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	08-MAY-12	Finding:	150.
Chemical:	BARIUM	Report units:	UG/L
Dlr:	100.		
Sample date:	02-APR-12	Finding:	34.8
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	13-MAR-12	Finding:	3.1e-002
Chemical:	ETHYLENE DIBROMIDE (EDB)	Report units:	UG/L
Dlr:	2.e-002		
Sample date:	18-JAN-12	Finding:	3.2e-002
Chemical:	ETHYLENE DIBROMIDE (EDB)	Report units:	UG/L
Dlr:	2.e-002		
Sample date:	10-JAN-12	Finding:	35.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

G21
NNE
1/2 - 1 Mile
Higher

CA WELLS **23158**

Seq:	23158	Prim sta c:	J39/005-13TRT
Frds no:	3910005025	County:	39
District:	10	User id:	PTA
System no:	3910005	Water type:	G
Source nam:	WELL 13 - TREATED	Station ty:	WELL/AMBNT/MUN
Latitude:	374718.0	Longitude:	1211247.0
Precision:	4	Status:	AT
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		
System no:	3910005	System nam:	Manteca, City Of
Hqname:	Not Reported	Address:	1001 W. CENTER STREET
City:	MANTECA	State:	CA
Zip:	95337	Zip ext:	Not Reported
Pop serv:	44500	Connection:	11417
Area serve:	MANTECA		

22
ESE
1/2 - 1 Mile
Higher

CA WELLS **CADPR0000003751**

Well ID:	81608	Well Type:	UNK
Source:	Department of Pesticide Regulation		
Other Name:	81608	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DPR&samp_date=&global_id=&assigned_name=81608&store_num=		
GeoTracker Data:	Not Reported		

F23
North
1/2 - 1 Mile
Higher

CA WELLS **CADWR0000023868**

Well ID:	02S07E04E002M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	02S07E04E002M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=02S07E04E002M&store_num=		
GeoTracker Data:	Not Reported		

H24
South
1/2 - 1 Mile
Higher

CA WELLS **CADWR0000011877**

Well ID:	02S07E09N004M	Well Type:	UNK
Source:	Department of Water Resources		

Other Name:	02S07E09N004M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=02S07E09N004M&store_num=		
GeoTracker Data:	Not Reported		

H25
South
1/2 - 1 Mile
Higher

CA WELLS **CADWR0000036691**

Well ID:	02S07E09N003M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	02S07E09N003M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=02S07E09N003M&store_num=		
GeoTracker Data:	Not Reported		

26
SSW
1/2 - 1 Mile
Higher

CA WELLS **CADWR0000018690**

Well ID:	02S07E08R002M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	02S07E08R002M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=02S07E08R002M&store_num=		
GeoTracker Data:	Not Reported		

27
West
1/2 - 1 Mile
Lower

FED USGS **USGS40000185549**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	002S007E07H002M	Type:	Well
Description:	Not Reported	HUC:	18040005
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19751204	Well Depth:	115
Well Depth Units:	ft	Well Hole Depth:	125
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	1975-12-04
Feet below surface:	9.00	Feet to sea level:	Not Reported
Note:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

I28
NE
1/2 - 1 Mile
Higher

CA WELLS **CADWR0000017916**

Well ID:	02S07E04G080M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	02S07E04G080M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=02S07E04G080M&store_num=		
GeoTracker Data:	Not Reported		

I29
NNE
1/2 - 1 Mile
Higher

CA WELLS **CADDW0000011388**

Well ID:	3901161-001	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=3901161-001&store_num=		
GeoTracker Data:	Not Reported		

30
West
1/2 - 1 Mile
Lower

CA WELLS **CADWR9000037539**

State Well #:	02S07E07H001M	Station ID:	27633
Well Name:	Not Reported	Basin Name:	Eastern San Joaquin
Well Use:	Unknown	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

J31
WNW
1/2 - 1 Mile
Lower

CA WELLS **23155**

Seq:	23155	Prim sta c:	J39/005-09TRT
Frds no:	3910005022	County:	39
District:	10	User id:	PTA
System no:	3910005	Water type:	G
Source nam:	WELL 09 - TREATED	Station ty:	WELL/AMBNT/MUN
Latitude:	374700.0	Longitude:	1211400.0
Precision:	4	Status:	AT
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		

System no:	3910005	System nam:	Manteca, City Of
Hqname:	Not Reported	Address:	1001 W. CENTER STREET
City:	MANTECA	State:	CA

Zip:	95337	Zip ext:	Not Reported
Pop serv:	44500	Connection:	11417
Area serve:	MANTECA		

J32
WNW
1/2 - 1 Mile
Lower

CA WELLS **2601**

Seq:	2601	Prim sta c:	02S/07E-05E01 M
Frds no:	3910005009	County:	39
District:	10	User id:	PTA
System no:	3910005	Water type:	G
Source nam:	WELL 09	Station ty:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Latitude:	374700.0	Longitude:	1211400.0
Precision:	8	Status:	AR
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		

System no:	3910005	System nam:	Manteca, City Of
Hqname:	Not Reported	Address:	1001 W. CENTER STREET
City:	MANTECA	State:	CA
Zip:	95337	Zip ext:	Not Reported
Pop serv:	44500	Connection:	11417
Area serve:	MANTECA		

33
SE
1/2 - 1 Mile
Higher

CA WELLS **CADPR0000000568**

Well ID:	97532	Well Type:	UNK
Source:	Department of Pesticide Regulation		
Other Name:	97532	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DPR&samp_date=&global_id=&assigned_name=97532&store_num=		
GeoTracker Data:	Not Reported		

I34
NNE
1/2 - 1 Mile
Higher

CA WELLS **CALLNL000000713**

Well ID:	101315	Well Type:	MUNICIPAL
Source:	Lawrence Livermore National Laboratory		
Other Name:	3910005-020	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	Not Reported		
GeoTracker Data:	Not Reported		

Chemical:	Argon	Results:	.000394494
Units:	cm3STP/g	Date:	04/07/2003

Chemical:	Helium-4	Results:	.00000100028
Units:	cm3STP/g	Date:	04/07/2003

Chemical:	Krypton	Results:	.000000082041
Units:	cm3STP/g	Date:	04/07/2003
Chemical:	Helium-3/Helium-4	Results:	.00000107051
Units:	atom ratio	Date:	04/07/2003
Chemical:	Xenon	Results:	.0000000106574
Units:	cm3STP/g	Date:	04/07/2003
Chemical:	Tritium (Hydrogen 3)	Results:	.77
Units:	pCi/L	Date:	02/26/2003
Chemical:	Neon	Results:	.000000270019
Units:	cm3STP/g	Date:	04/07/2003

35
SW
1/2 - 1 Mile
Lower

CA WELLS **CADPR0000000987**

Well ID:	81616	Well Type:	UNK
Source:	Department of Pesticide Regulation		
Other Name:	81616	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DPR&samp_date=&global_id=&assigned_name=81616&store_num=		
GeoTracker Data:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

1
NNE **OIL_GAS** **CAOG14000008277**
1/2 - 1 Mile

API #:	0407700368	Well #:	1
Well Status:	Plugged	Well Type:	Dry Hole
Lease Name:	G.B.-Clevenger-Frazier	Field Name:	Any Field
Area Name:	Any Area	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
Spud Date:	06/08/1963		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
95337	5	1

Federal EPA Radon Zone for SAN JOAQUIN County: 3

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for SAN JOAQUIN COUNTY, CA

Number of sites tested: 20

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	2.530 pCi/L	90%	10%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	2.050 pCi/L	100%	0%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

OTHER STATE DATABASE INFORMATION

Groundwater Ambient Monitoring & Assessment Program
State Water Resources Control Board
Telephone: 916-341-5577
The GAMA Program is Californias comprehensive groundwater quality monitoring program. GAMA collects data by testing the untreated, raw water in different types of wells for naturally-occurring and man-made chemicals. The GAMA data includes Domestic, Monitoring and Municipal well types from the following sources, Department of Water Resources, Department of Heath Services, EDF, Agricultural Lands, Lawrence Livermore National Laboratory, Department of Pesticide Regulation, United States Geological Survey, Groundwater Ambient Monitoring and Assessment Program and Local Groundwater Projects.

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

California Oil and Gas Well Locations
Source: Dept of Conservation, Geologic Energy Management Division
Telephone: 916-323-1779
Oil and Gas well locations in the state.

California Earthquake Fault Lines
Source: California Division of Mines and Geology
The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

RADON

State Database: CA Radon
Source: Department of Public Health
Telephone: 916-210-8558
Radon Database for California

PHYSICAL SETTING SOURCE RECORDS SEARCHED

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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APPENDIX D: QUALIFICATIONS

PARTNER

Zachary Oretsky, M.S.
Staff Scientist

Education

M.S. Geology, University of California, Davis
B.S. Geoscience, Trinity University (TX)

Highlights

Phase I Environmental Site Assessments
Transaction Screen Assessments
Environmental Desktop Reports

Experience Summary

Mr. Oretsky currently serves as a Staff Scientist in the Environmental Due Diligence Division at Partner Engineering and Science, Inc. (Partner). Based out of the Roseville, California office, his responsibilities include performing Phase I Environmental Site Assessments (ESAs), Transaction Screen Assessments (TSAs), and Environmental Desktop Reports in compliance with the American Society of Testing and Materials (ASTM) and US Environmental Protection Agency's All Appropriate Inquiry (AAI) standards for residential, agricultural, industrial, and commercial properties.

Through coursework, scientific research, and industry experience, Mr. Oretsky has demonstrated his ability to successfully perform the practices of environmental due diligence at a high level. Mr. Oretsky is skilled in spatial data analysis, field data collection, extensive historical research, technical report writing, and interpersonal communication. He has worked with a variety of financial institutions including US Bank, Umpqua Bank, and Mechanic's Bank.

Project Experience

Commercial Warehouse, El Dorado Hills, California. Mr. Oretsky performed a Phase 1 ESA for a 2,119 square-foot warehouse within a multi-tenant commercial building.

Commercial Printing, Sacramento, California. Mr. Oretsky performed a Phase 1 ESA for a 10,000 square-foot industrial building used for commercial printing operations.

Auto Repair and Gas Station, Trumbull, Connecticut. Mr. Oretsky assisted in an Enhanced TSA for a 50+ year-old gas station and auto repair facility as part of a large multi-project portfolio spanning the states of Connecticut, Massachusetts, and Rhode Island.

Large Industrial, Reno, Nevada. Mr. Oretsky assisted in a Phase 1 ESA for a 332,000 square-foot multi-tenant industrial building used for medical manufacturing, storage, and general office use.

Flex Building, Sacramento, California. Mr. Oretsky assisted in a Phase 1 ESA for a multi-parcel vacant property that consisted of an 18,000 square-foot warehouse and retail building with dispersed parking areas.

Commercial Hotel, Calexico, California. Mr. Oretsky assisted in a Phase 1 ESA for 58-unit hotel.

Affiliations

Association of Environmental and Engineering Geologist (AEG)
Geological Society of America (GSA)

Contact

zoretsky@partneresi.com
(209) 843-3567

Joel Redding
Senior Project Manager

Education

B.A. Geography, California State University Fresno

Training

OSHA 24-Hour Health and Safety Training

Highlights

16 years of experience in environmental consulting
Phase I Environmental Site Assessments (ESAs)
Environmental Transaction Screens
Desktop Reviews

Experience Summary

Mr. Redding serves as a Senior Project Manager for Partner Engineering and Science, Inc. (Partner), overseeing and managing all aspects of multi-scope projects including Phase I ESAs in accordance with EPA's All Appropriate Inquiry (AAI), Property Condition Assessments (PCAs), Zoning Reports, and Seismic Assessments.

Mr. Redding has over sixteen years of project experience in the environmental consulting industry. Mr. Redding is familiar with all aspects of Due Diligence Property Assessments and the needs and requirements of a varied number of reporting standards, including ASTM E1527-13, EPA's All Appropriate Inquiry (AAI), The U.S. Small Business Administration (SBA), and customized client formats and scopes. Mr. Redding has performed and supervised over 1,000 ESAs and customized environmental assessments of a variety of properties including multi-family residential, hospitality, commercial office buildings, shopping centers, multi-tenant commercial complexes, industrial warehouses, manufacturing facilities, dry cleaning plants, gasoline service stations, automotive repair and body shops, medical facilities, food processing facilities, and agricultural properties.

Project Experience

Junior College Campus and Historical Military and Medical Hospital, Modesto, CA. Mr. Redding prepared a Phase I ESA on a junior college campus in Modesto, the site of a historical World War II era military hospital and subsequent State-run hospital. Multiple recognized environmental conditions (RECs) were identified related to current and historical uses including vehicle and facilities maintenance, underground and aboveground fueling facilities, domestic wastewater treatment systems and septic systems, and asbestos and lead-based paint issues.

2,500-Acre Agricultural Property, Maricopa, CA. Mr. Redding prepared a Phase I ESA on a large agricultural property within an active oil and gas production area. Multiple RECs were identified related to oil and gas well development, oil and gas production, subsurface oil and gas pipelines, aboveground fuel storage, and agricultural chemical use, storage, and application.

Printed Circuit Board Manufacturing Facility, Redwood City, CA. Mr. Redding prepared a Phase I ESA on a printed circuit board manufacturing facility. Multiple RECs were identified related to electroplating, etching, silk screening, chemical storage, and hazardous waste generation, storage, and treatment operations.

10-Site Residential Portfolio, Central CA. Managed a multi-million dollar acquisition project consisting of Phase ESAs of ten, large-acreage, rural agricultural properties throughout Central California for a residential developer. Duties included managing, performing, and reviewing Phase I ESAs.

25-Site Grocery Chain Portfolio, OR and CA. Managed a multi-million dollar rehabilitation financing project consisting of Phase I ESAs of 25 grocery store properties throughout the State of Oregon and Northern California. Duties included managing, performing, and reviewing Phase I ESAs.

50-Site Mobile Home Park Portfolio, MI, OH, IN, and AL. Managed a multi-million dollar acquisition project consisting of 50 mobile home parks in Michigan, Ohio, Indiana, and Alabama. Duties included managing and reviewing Phase I ESAs.

Contact

jredding@partneresi.com

PARTNER

Cody Taylor
National Client Manager

Education

BA, Environmental Analysis and Criminal Justice, University of California Irvine, Irvine, CA

Trainings

ASTM Technical and Professional Training
Hazardous Materials Management Certificate Courses, University of California Irvine

Highlights

25+ years of experience in Real Estate Due Diligence/Consulting and Site Development Engineering
Prepared over 10,000 Phase I Environmental Site Assessments
Managed over 30,000 Phase I Environmental Site Assessments
Managed over 1,000 Phase II Subsurface Soil/Groundwater and Soil Gas Investigations, Asbestos, Lead, and Radon Screenings
Managed Class-A Equity Property Condition Assessments with Specialized Inspections, Seismic Evaluations, ALTA Surveys, Zoning, ADA Surveys and Pest Inspections
Managed Several Civil Engineering/Geotechnical Investigations of Commercial Development Projects, Construction Doc and Cost Reviews, Construction Progress Monitoring, and Energy Benchmarking

Experience Summary

Mr. Taylor is a Principal and National Client Manager with extensive experience in commercial real estate due diligence and site development engineering throughout the United States. His responsibilities include full-phase site development and environmental consulting, national client management, multi-scope contract negotiation/execution, portfolio project management, and technical report quality control. Mr. Taylor's regional and national expertise compliments the wide variety of Partner projects and client types including national and local lending institutions, asset management/investment groups, commercial/retail developers, and commercial real estate professionals.

Mr. Taylor has 25 years of experience in national commercial real estate due diligence consulting including Phase I Environmental Site Assessments, Phase II Subsurface Soil/Soil Gas Investigations, Property Condition Assessments, Seismic Evaluations, Asbestos, Lead-Paint, and Radon Surveys, ALTA Surveys, Geotechnical Investigations, Civil Engineering, MEP Special Inspections, Energy Evaluations, and Construction Monitoring.

Mr. Taylor has assessed/managed over 30,000 commercial real estate transactions throughout his professional career including several multi-million dollar asset portfolios consisting of a 29-site commercial office property acquisition, two 1,200-site cellular tower transactions, a 215-site regional shopping center vacancy evaluation, a 25-site regional grocery-store chain environmental/survey evaluation, a 16-site multi-family apartment building acquisition, a 10-site residential development acquisition, and 5-site Class A multi-specialized-scope building acquisition inspection. These transactions have included some or all of Partner's core engineering due diligence services described above. Mr. Taylor routinely manages national asset/developer clients to evaluate the environmental and structural risks associated with commercial/industrial properties prior to acquisition. These risks may be associated with past hazardous materials use (i.e., gasoline stations, dry cleaners) which require historical research combined with subsurface evaluations to assess for contamination that could devaluate the property or create a human health concern to occupants or construction workers; evaluate for asbestos, lead-based paint, and radon to

determine the need for abatement or venting systems; evaluate the structural integrity of the building and assess for seismic retrofit; evaluate the roof, mechanical, electrical, plumbing systems (i.e., elevators, HVAC systems, sewer); evaluate for American Disabilities Act (ADA) deficiencies (i.e., ramps, railings, access); survey the property boundaries (i.e., ALTA Surveys); evaluate the subsurface conditions for construction suitability (i.e., Geotechnical Investigations); Civil Engineering/Design, and energy studies of the site building to meet with current requirements and systems efficiencies.

Project Experience

National Quick-Serve Restaurant Chains. Multiple National Quick-Serve Restaurant (QSR) Chain development projects which include Phase I Environmental Site Assessments, Asbestos Surveys, Geotechnical Investigations, ALTA Surveys, Plat Map Survey, and Special Inspections. Mr. Taylor manages the projects with attention to client needs/timelines and fieldwork/production in order to advocate the commercial development projects and maintain report efficiencies and construction budgets. These projects require multiple scope management and coordination with clients, technical staff, subcontractors, regulatory agencies, and construction design/contractor entities. Mr. Taylor's due diligence engineering experience as well as Partner's responsiveness and expertise in national commercial real estate development engineering create successful developments and client satisfaction on an ongoing basis.

National Dental Office Chain. Multiple ground-up dental office development projects which include Phase I Environmental Site Assessments, Geotechnical Investigations, and ALTA Surveys. Mr. Taylor manages the projects with attention to client needs/timelines and fieldwork/production in order to advocate the commercial development projects and maintain report efficiencies and construction budgets. These projects require multiple scope management and coordination with clients, technical staff, subcontractors, regulatory agencies, and construction design/contractor entities. Mr. Taylor's due diligence engineering experience as well as Partner's responsiveness and expertise in national commercial real estate development engineering create successful developments and client satisfaction on an ongoing basis.

Regional Gas Station/Convenience Store Chain. Multiple ground-up gas station/convenience store redevelopment projects in California which include Phase I Environmental Site Assessments, Phase II Subsurface Investigations/Characterization, Remedial Cost Estimates with Voluntary Cleanup Regulatory Programs, Asbestos Surveys, and Geotechnical Investigations. Mr. Taylor manages the projects with attention to client/agency interaction and fieldwork/production in order to advocate the commercial development projects and maintain report efficiencies and construction budgets. These projects require multiple scope management and coordination with clients, technical staff, subcontractors, regulatory agencies, and construction design/contractor entities. Mr. Taylor's due diligence engineering experience as well as Partner's responsiveness and expertise with commercial real estate development engineering create successful developments and client satisfaction on an ongoing basis.

Beverly Hills Country Club Renovation, Beverly Hills, CA. A $12 million-dollar renovation project which included a Phase I Environmental Site Assessment, Property Condition Assessment, Seismic Evaluation, ADA Survey, ALTA Survey and a comprehensive roof assessment. Multiple engineering professionals were coordinated and dispatched to the project site to complete due diligence assessments and cost studies associated with the planned renovation of the historic facility. The renovation was successful and exemplified Mr. Taylor's due diligence engineering experience as well as Partner's responsiveness and expertise in commercial real estate evaluation.

Commercial Office Portfolio, Philadelphia, PA. A $186 million dollar acquisition project consisting of 29, multi-story commercial office buildings and included Phase I Environmental Site Assessments and Property Condition Assessments with special inspections of HVAC systems, elevators, and roofing systems. Multiple inspectors were coordinated and dispatched to each site within a two-week report completion timeline. Special inspection findings and related repair costs were cross-calculated with generalist inspection reporting and incorporated into the Property Condition Assessment spreadsheets for client/lender review. The acquisition was successful and exemplified Mr. Taylor's project management and negotiation skills, coordination of several in-house engineering professionals and subcontracted elevator consultants as well as Partner's responsiveness and expertise of client/lender's expedited timeline.

National Cellular Tower Portfolios. Two multi-million dollar acquisition projects consisting of over 2,400 cellular towers located throughout the United States which included Phase I Environmental Site Assessments. Multiple national inspectors were dispatched to each mountain-top tower within each state. The inspections incorporated the use of guides and four-wheel drive vehicles (primarily Jeeps) to visually inspect each tower. The acquisition project was successful and exemplified Mr. Taylor's project management skills, coordination of dozens of national inspectors, quality control reviews, and responsiveness to client's timeline.

Grocery Chain Portfolio, various locations throughout OR. A multi-million-dollar rehabilitation financing project consisting of 25 grocery store properties included Phase I Environmental Site Assessments and ALTA Surveys. Multiple inspectors were dispatched to each site within a two-week turnaround. The financing project was successful and the project exemplified Mr. Taylor's negotiation/client management skills, coordination of inspections, quality control and completion of timely reports as well as the responsiveness and professional acumen of Partner's Engineering Team.

Affiliations

ASTM Member No. 000216930
Environmental Bankers Association
Risk Management Association, Director, Fresno, CA
Northwest Environmental Business Council

Speaking

"Commercial Due Diligence 101", Northwest Environmental Business Council, Northwest Environmental Conference and Tradeshow, Portland, OR. Commercial Real Estate Risks and Assessments

"Regulations in Lending", Risk Management Association, Fresno, CA. Risk Tolerance and Environmental Regulation for Commercial Bankers

"Water in the Central Valley", Risk Management Association, Fresno, CA. Contaminated Sites and Environmental Remediation of Commercial Properties

Contact

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Appendix J:
Noise Supporting Information

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TABLE Existing-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/04/2022
ROADWAY SEGMENT: Main Street - I-120 to Atherton Drive
NOTES: Manteca Marketplace at Main - Existing

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 15700 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.13

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	63.2	134.1	287.9

TABLE Existing-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/04/2022
ROADWAY SEGMENT: Main Street - Atherton Drive to Woodward Avenue
NOTES: Manteca Marketplace at Main - Existing

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 11100 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.62

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	0.0	106.7	228.7

TABLE Existing-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/04/2022
ROADWAY SEGMENT: Atherton Drive - west of Main Street
NOTES: Manteca Marketplace at Main - Existing

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 6900 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.30

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	59.0	118.5	251.2

TABLE Existing plus Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/04/2022
ROADWAY SEGMENT: Main Street - I-120 to Atherton Drive
NOTES: Manteca Marketplace at Main - Existing plus Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 20200 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.22

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	74.3	158.4	340.5

TABLE Existing plus Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/04/2022
ROADWAY SEGMENT: Main Street - Atherton Drive to Woodward Avenue
NOTES: Manteca Marketplace at Main - Existing plus Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 12100 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.00

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	53.5	112.9	242.1

TABLE Existing plus Project-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/04/2022
ROADWAY SEGMENT: Atherton Drive - west of Main Street
NOTES: Manteca Marketplace at Main - Existing plus Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 10400 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.08

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	74.8	154.5	329.5

TABLE Cumulative-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/04/2022
ROADWAY SEGMENT: Main Street - I-120 to Atherton Drive
NOTES: Manteca Marketplace at Main - Cumulative

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 20800 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.35

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	75.7	161.5	347.2

TABLE Cumulative-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/04/2022
ROADWAY SEGMENT: Main Street - Atherton Drive to Woodward Avenue
NOTES: Manteca Marketplace at Main - Cumulative

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 18700 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.89

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	70.7	150.5	323.5

TABLE Cumulative-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/04/2022
ROADWAY SEGMENT: Atherton Drive - west of Main Street
NOTES: Manteca Marketplace at Main - Cumulative

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 13900 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.34

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	89.2	186.7	399.5

TABLE Cumulative plus Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/04/2022
ROADWAY SEGMENT: Main Street - I-120 to Atherton Drive
NOTES: Manteca Marketplace at Main - Cumulative plus Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 25300 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.20

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	86.1	184.0	395.6

TABLE Cumulative plus Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/04/2022
ROADWAY SEGMENT: Main Street - Atherton Drive to Woodward Avenue
NOTES: Manteca Marketplace at Main - Cumulative plus Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 19700 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.11

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	73.1	155.8	334.9

TABLE Cumulative plus Project-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/04/2022
ROADWAY SEGMENT: Atherton Drive - west of Main Street
NOTES: Manteca Marketplace at Main - Cumulative plus Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 17400 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.31

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	102.7	216.4	463.8

Mobile Construction Activity

Receptor: Closest residences south of project site

		Noise Level Calculation Prior to Implementation of Noise Attenuation Requirements								
		Reference (dBA) 50 ft		Usage	Distance to	Ground	Shielding	Calculated (dBA)		
No.	Equipment Description	Lmax	Quantity	factor[1]	Receptor	Effect[2]	(dBA)[3]	Lmax	Leq	Energy
1	Backhoe	85	1	1	40	1	10	76.9	57.9	617632.3555
2	Front End Loader	85	1	1	80	1	10	70.9	48.9	77204.04444
3	Scraper	85	1	1	80	1	10	70.9	48.9	77204.04444
4	Rubber Tired Dozer	85	1	1	120	1	10	67.4	43.6	22875.27243
5	Front End Loader	85	1	1	120	1	10	67.4	43.6	22875.27243
6										
7										
8										
9										
10										
							Lmax[4]	77	Leq	59

Notes:

[1] Percentage of time activity occurs each hour

[2] Soft ground terrain between project site and receptor.

[3] Shielding due to soundwall

[4] Calculated Lmax is the Loudest value.

Parking Lot activity

Receptor: Closest Residence - south of Project

No.	Equipment Description	Reference (dBA) 25 ft Lmax	Quantity	Usage factor[1]	Distance to Receptor	Ground Effect[2]	Shielding (dBA)[3]	Calculated (dBA) Lmax	Calculated (dBA) Leq	Energy
1	parking lot activity	70	5	1	45	1	10	54.9	39.3	8573.388203
2	parking lot activity	70	5	1	65	1	10	51.7	34.5	2844.788348
3	parking lot activity	70	5	1	85	1	10	49.4	31.0	1272.135152
4	parking lot activity	70	5	1	105	1	10	47.5	28.3	674.8731239
5										
6										
7										
8										
9										
10										
							Lmax[4]	**55**	**Leq**	**41**

Notes:

[1] Percentage of time activity occurs each hour

[2] Soft ground terrain between project site and receptor.

[3] Shielding due to terrain or structures

[4] Calculated Lmax is the Loudest value.

Mechanical Equipment Noise Calculation

Receptor: Closest Residence - northwest of Project

		Noise Level Calculation Prior to Implementation of Noise Attenuation Requirements								
		Reference (dBA) 25 ft		Usage	Distance to	Ground	Shielding	Calculated (dBA)		
No.	Equipment Description	Lmax	Quantity	factor[1]	Receptor	Effect[2]	(dBA)[3]	Lmax	Leq	Energy
1	Commercial grade mechanical ventilation equipment	60	1	100	90	0.5	5	43.9	41.1	12860.0823
2	Commercial grade mechanical ventilation equipment	60	1	100	140	0.5	5	40.0	36.3	4261.180515
3	Commercial grade mechanical ventilation equipment	60	1	100	190	0.5	5	37.4	33.0	1985.939525
4										
5										
6										
7										
8										
9										
10										
							Lmax[4]	44	Leq	43

Notes:

[1] Percentage of time activity occurs each hour

[2] Soft ground terrain between project site and receptor.

[3] Shielding due to terrain or structures

[4] Calculated Lmax is the Loudest value.

Loading/Unloading

Receptor: Closest Residence - northwest of Project

No.	Equipment Description	Reference (dBA) 50 ft Lmax	Quantity	Usage factor[1]	Distance to Receptor	Ground Effect[2]	Shielding (dBA)[3]	Calculated (dBA) Lmax	Calculated (dBA) Leq	Energy
1	Loading/Unloading	80	1	1	90	1	10	64.9	42.3	17146.77641
2	Loading/Unloading	80	1	1	290	1	10	54.7	27.1	512.5261388
3										
4										
5										
6										
7										
8										
9										
10										
							Lmax[4]	**65**	**Leq**	**42**

Notes:

[1] Percentage of time activity occurs each hour

[2] Soft ground terrain between project site and receptor.

[3] Shielding due to terrain or structures

[4] Calculated Lmax is the Loudest value.

Mobile Construction Activity

Receptor: Closest residences south of project site

		Noise Level Calculation Prior to Implementation of Noise Attenuation Requirements								
		Reference (dBA) 50 ft		Usage	Distance to	Ground	Shielding	Calculated (dBA)		
No.	Equipment Description	Lmax	Quantity	factor[1]	Receptor	Effect[2]	(dBA)[3]	Lmax	Leq	Energy
1	Backhoe	85	1	1	40	1	10	76.9	57.9	617632.3555
2	Front End Loader	85	1	1	80	1	10	70.9	48.9	77204.04444
3	Scraper	85	1	1	80	1	10	70.9	48.9	77204.04444
4	Rubber Tired Dozer	85	1	1	120	1	10	67.4	43.6	22875.27243
5	Front End Loader	85	1	1	120	1	10	67.4	43.6	22875.27243
6										
7										
8										
9										
10										
							Lmax[4]	77	Leq	59

Notes:

[1] Percentage of time activity occurs each hour

[2] Soft ground terrain between project site and receptor.

[3] Shielding due to soundwall

[4] Calculated Lmax is the Loudest value.

Loading/Unloading

Receptor: Closest Residence - northwest of Project

No.	Equipment Description	Reference (dBA) 50 ft Lmax	Quantity	Usage factor[1]	Distance to Receptor	Ground Effect[2]	Shielding (dBA)[3]	Calculated (dBA) Lmax	Calculated (dBA) Leq	Energy
1	Loading/Unloading	80	1	1	90	1	10	64.9	42.3	17146.77641
2	Loading/Unloading	80	1	1	290	1	10	54.7	27.1	512.5261388
3										
4										
5										
6										
7										
8										
9										
10										
							Lmax[4]	**65**	**Leq**	**42**

Notes:

[1] Percentage of time activity occurs each hour

[2] Soft ground terrain between project site and receptor.

[3] Shielding due to terrain or structures

[4] Calculated Lmax is the Loudest value.

Mechanical Equipment Noise Calculation

Receptor: Closest Residence - northwest of Project

		Noise Level Calculation Prior to Implementation of Noise Attenuation Requirements								
		Reference (dBA) 25 ft		Usage	Distance to	Ground	Shielding	Calculated (dBA)		
No.	Equipment Description	Lmax	Quantity	factor[1]	Receptor	Effect[2]	(dBA)[3]	Lmax	Leq	Energy
1	Commercial grade mechanical ventilation equipment	60	1	100	90	0.5	5	43.9	41.1	12860.0823
2	Commercial grade mechanical ventilation equipment	60	1	100	140	0.5	5	40.0	36.3	4261.180515
3	Commercial grade mechanical ventilation equipment	60	1	100	190	0.5	5	37.4	33.0	1985.939525
4										
5										
6										
7										
8										
9										
10										
							Lmax[4]	44	Leq	43

Notes:

[1] Percentage of time activity occurs each hour

[2] Soft ground terrain between project site and receptor.

[3] Shielding due to terrain or structures

[4] Calculated Lmax is the Loudest value.

Parking Lot activity

Receptor: Closest Residence - south of Project

No.	Equipment Description	Reference (dBA) 25 ft Lmax	Quantity	Usage factor[1]	Distance to Receptor	Ground Effect[2]	Shielding (dBA)[3]	Calculated (dBA) Lmax	Calculated (dBA) Leq	Energy
1	parking lot activity	70	5	1	45	1	10	54.9	39.3	8573.388203
2	parking lot activity	70	5	1	65	1	10	51.7	34.5	2844.788348
3	parking lot activity	70	5	1	85	1	10	49.4	31.0	1272.135152
4	parking lot activity	70	5	1	105	1	10	47.5	28.3	674.8731239
5										
6										
7										
8										
9										
10										
							Lmax[4]	**55**	**Leq**	**41**

Notes:

[1] Percentage of time activity occurs each hour

[2] Soft ground terrain between project site and receptor.

[3] Shielding due to terrain or structures

[4] Calculated Lmax is the Loudest value.

TABLE Existing-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/04/2022
ROADWAY SEGMENT: Main Street - I-120 to Atherton Drive
NOTES: Manteca Marketplace at Main - Existing

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 15700 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.13

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	63.2	134.1	287.9

TABLE Existing-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/04/2022
ROADWAY SEGMENT: Main Street - Atherton Drive to Woodward Avenue
NOTES: Manteca Marketplace at Main - Existing

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 11100 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.62

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	0.0	106.7	228.7

TABLE Existing-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/04/2022
ROADWAY SEGMENT: Atherton Drive - west of Main Street
NOTES: Manteca Marketplace at Main - Existing

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 6900 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.30

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	59.0	118.5	251.2

TABLE Existing plus Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/04/2022
ROADWAY SEGMENT: Main Street - I-120 to Atherton Drive
NOTES: Manteca Marketplace at Main - Existing plus Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 20200 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.22

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	74.3	158.4	340.5

TABLE Existing plus Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/04/2022
ROADWAY SEGMENT: Main Street - Atherton Drive to Woodward Avenue
NOTES: Manteca Marketplace at Main - Existing plus Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 12100 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.00

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	53.5	112.9	242.1

TABLE Existing plus Project-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/04/2022
ROADWAY SEGMENT: Atherton Drive - west of Main Street
NOTES: Manteca Marketplace at Main - Existing plus Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 10400 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.08

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	74.8	154.5	329.5

TABLE Cumulative-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/04/2022
ROADWAY SEGMENT: Main Street - I-120 to Atherton Drive
NOTES: Manteca Marketplace at Main - Cumulative

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 20800 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.35

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	75.7	161.5	347.2

TABLE Cumulative-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/04/2022
ROADWAY SEGMENT: Main Street - Atherton Drive to Woodward Avenue
NOTES: Manteca Marketplace at Main - Cumulative

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 18700 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.89

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	70.7	150.5	323.5

TABLE Cumulative-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/04/2022
ROADWAY SEGMENT: Atherton Drive - west of Main Street
NOTES: Manteca Marketplace at Main - Cumulative

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 13900 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.34

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	89.2	186.7	399.5

TABLE Cumulative plus Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/04/2022
ROADWAY SEGMENT: Main Street - I-120 to Atherton Drive
NOTES: Manteca Marketplace at Main - Cumulative plus Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 25300 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.20

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	86.1	184.0	395.6

TABLE Cumulative plus Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/04/2022
ROADWAY SEGMENT: Main Street - Atherton Drive to Woodward Avenue
NOTES: Manteca Marketplace at Main - Cumulative plus Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 19700 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.11

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	73.1	155.8	334.9

TABLE Cumulative plus Project-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/04/2022
ROADWAY SEGMENT: Atherton Drive - west of Main Street
NOTES: Manteca Marketplace at Main - Cumulative plus Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 17400 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.31

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	102.7	216.4	463.8

Appendix K:
Transportation Supporting Information

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KITTELSON & ASSOCIATES

MARKETPLACE @ MAIN TRANSPORTATION IMPACT ANALYSIS

MANTECA, CA

April 15, 2022



Marketplace @ Main Transportation Impact Analysis

Manteca, CA

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Project Number 27012

April 15, 2022

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Section 1
Introduction and Summary

INTRODUCTION AND SUMMARY

This report presents the findings of the transportation impact analysis (TIA) conducted for the proposed Marketplace @ Main retail development located on the southwest corner of the West Atherton Drive & South Main Street intersection in Manteca, California.

INTRODUCTION

PROJECT DESCRIPTION

The Marketplace @ Main retail development (the "project") proposes to develop approximately 10.5 acres located southwest of the West Atherton Drive and South Main Street intersection as shown in **Figure 1**. The site consists of vacant land. The project proposes to develop a neighborhood retail and restaurant development on the site.

Project Land Uses

The project proposes to include a 50,071-square-foot grocery store, a 38,000-square-foot hardware store, and a 5,900-square-foot retail shop space in one building at the southern portion of the project site. The grocery store would include a covered patio and a grocery pick-up area. The proposed project would include 9,000 square feet of additional retail shop space at the northwest corner of the project site, including a 2,400 square-foot drive-thru restaurant space at the north end of the building. The project applicant proposes two additional drive-thru restaurants as well. The second drive-thru restaurant would consist of a 2,200-square-foot building located at the northwest corner of the project site, along West Atherton Drive, and the third drive-thru restaurant would consist of a 4,400-square-foot building located at the northeast corner of the project site. A drive-thru car wash, which includes a 3,596-square-foot building containing a car wash tunnel, equipment room, and office would be located at the southeast portion of the project site. The car wash would have 18 parking stalls for self-vacuuming.

Vehicle Access

Vehicular access to the site is proposed from three locations along Atherton Drive and two along South Main Street (**Figure 2**). The western Atherton Drive driveway would allow for right-in, right-out, left-in, and left-out access. Two additional right-in, right-out only driveways are proposed along Atherton Drive between the main driveway and South Main Street[1]. The northern driveway along South Main Street would be restricted to right-in, right-out access. The southern driveway, along South Main Street, would allow for full access in the near term and right-in, right-out, and left-in access in the future[2].

[1]*Further discussion regarding these two Atherton Drive right-in, right-out access points is provided in later chapters of this document.*

[2]*It is anticipated that this access point would operate at acceptably with a left-out movement in near term conditions, however, when the planned South Main Street widening is constructed, it is recommended that left-out movements be restricted. Further discussion regarding this access point is provided in later chapters of this document.*

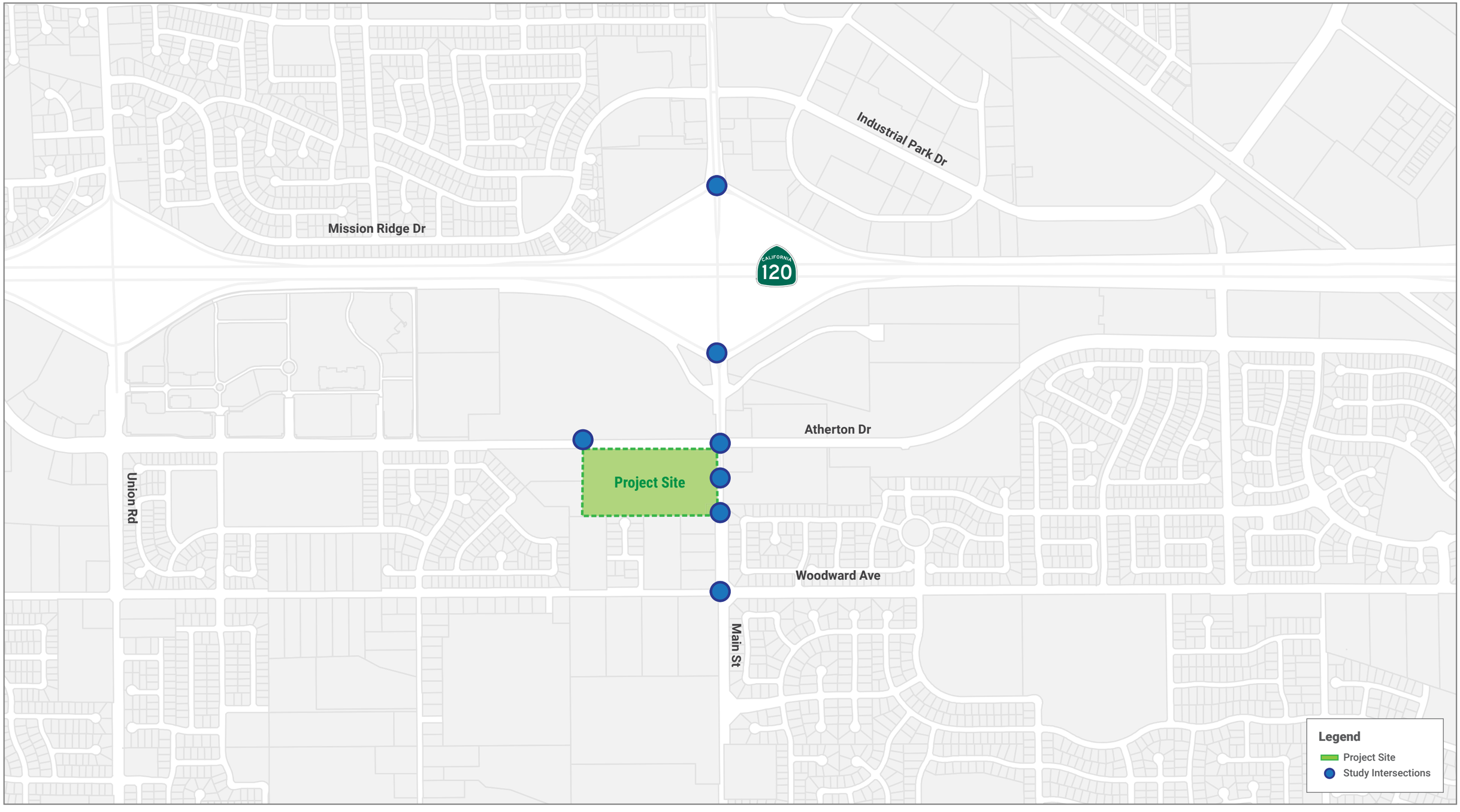
Pedestrian access would be provided at the north project site entrance, along South Main Street, and at the west entrance along West Atherton Drive. Pedestrian pathways would be 5

feet wide. Pedestrian pathways and driveway crossings would provide for circulation throughout the project site. The sidewalks along South Main Street and West Atherton Drive would be 10 feet wide.

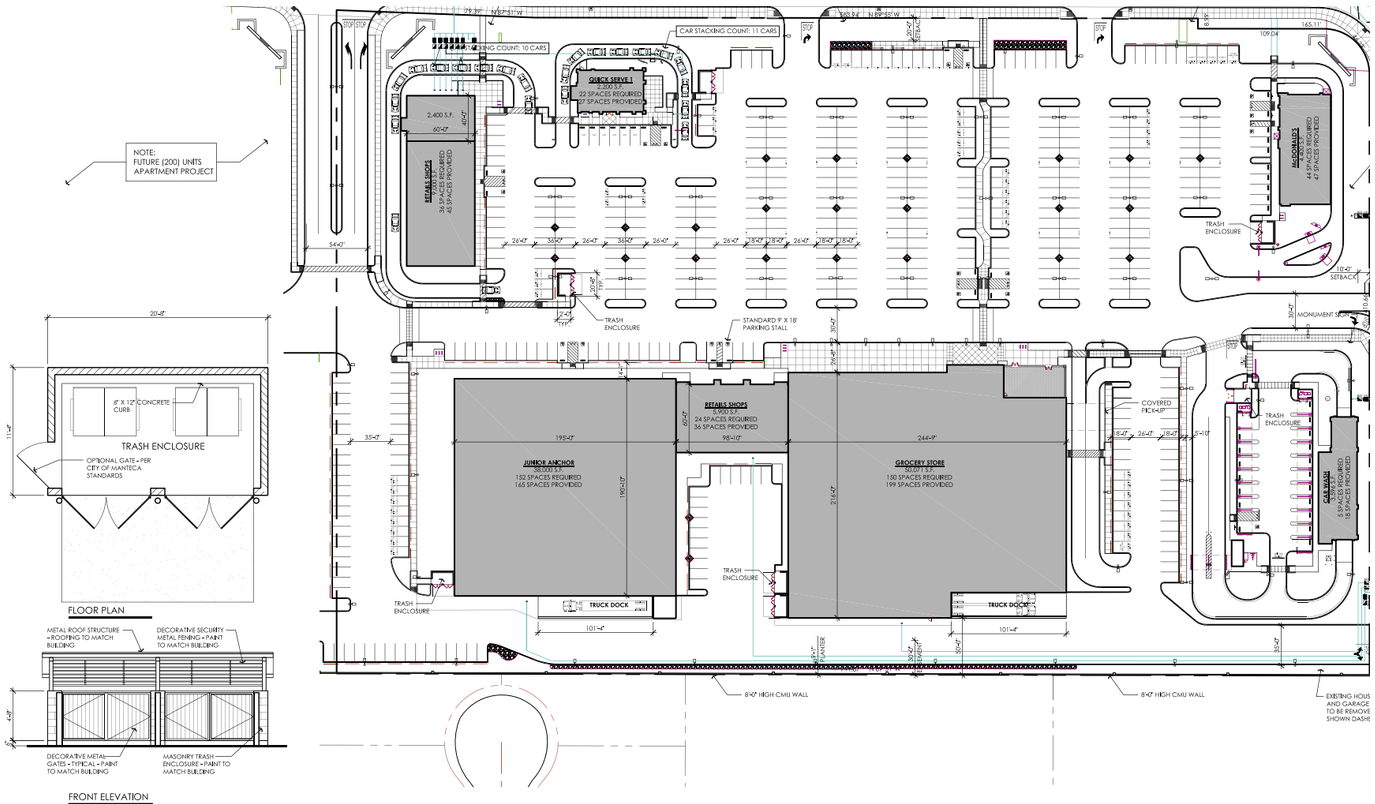
Parking

The proposed project would provide 540 off-street parking spaces, 107 more spaces than the 433 required, given the proposed land uses. 61 parking spaces would be designated Future Electric Vehicle Charging (EVC) spaces. 14 parking spaces would be American Disability Act (ADA) compliant. No on-street parking is proposed on South Main Street or West Atherton Drive.

Per §17.52.110, if a project site contains greater than 400 total vehicle parking spaces, 10 bicycle parking spaces are required. The proposed project would provide 28 bicycle parking spaces throughout the project site, as well as bike lanes along both street frontages.



Scale in Feet
0 1,000
North



TYPICAL TRASH ENCLOSURE

SCALE: 3/16" = 1'-0"

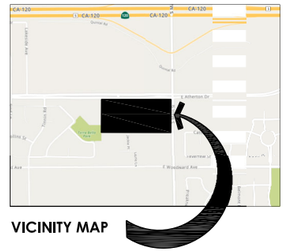
PROPOSED SITE PLAN

SCALE: 1" = 50'-0"

NORTH

0 25' 50' 100'

SCALE: 1" = 50'-0"



VICINITY MAP

PROJECT LOCATION

S. MAIN STREET & W. ATHERTON DRIVE
MANTECA, CA

SITE DATA

ASSESSORS PARCEL NUMBER:	224-02-047
PROPERTY AREA:	± 523,523 SQ. FT. / ± 12.0 AC
BUILDING COVERAGE (OF PROJECT AREA):	113,167 SQ. FT. (21.6%)
CURRENT ZONE:	GENERAL COMMERCIAL (GC)
GENERAL PLAN:	GENERAL COMMERCIAL (GC)

PARKING DATA

PARKING REQUIRED

TOTAL PARKING REQUIRED:	433 STALLS TOTAL
STANDARD	361 STALLS
ACCESSIBLE	11 STALLS (2 VAN / 9 STANDARD)
CLEAN AIR / FUTURE EVCS	61 STALLS

*SEE SITE PLAN FOR INDIVIDUAL BUILDING REQUIREMENTS

PARKING PROVIDED

TOTAL PARKING PROVIDED:	535 STALLS TOTAL
STANDARD	460 STALLS
ACCESSIBLE	14 STALLS (7 VAN / 7 STANDARD)
CLEAN AIR / FUTURE EVCS (51)	61 STALLS

PROPOSED NEW DEVELOPMENT:

MARKETPLACE @ MAIN

S. MAIN STREET & W. ATHERTON DRIVE MANTECA, CA.

PLANNING
ARCHITECTURE

api

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SHEET:

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SURROUNDING LAND USES

The City of Manteca, south of SR 120 and in the project vicinity, primarily consists of residential land uses and vacant land. The Orchard Valley retail center is located approximately one-half mile west of the project site along West Atherton Drive.

The project site is bounded by vacant land and Terra Bella Park (west), West Atherton Drive and vacant land (north), South Main Street and vacant land (east), and single-family residential and estate residential uses (south). A residential development with 200 dwelling units is planned on the vacant land immediately adjacent to the project's western boundary. This residential development is anticipated to share the project's main driveway along West Atherton Drive at the project site's northwest corner.

SCOPE OF TRANSPORTATION IMPACT ANALYSIS

The transportation impact analysis includes two levels of evaluation:

- California Environmental Quality Act (CEQA) transportation analysis
- Local transportation analysis

CEQA Transportation Analysis

The CEQA transportation analysis includes three transportation impact areas:

- Conflicts with circulation system programs
- Hazards
- Emergency access

These are the transportation impact areas that are considered in environmental documentation for the project in this study. Other transportation issues would not be part of the environmental evaluation under CEQA but may be considered as part of a local transportation analysis.

Local Transportation Analysis

The local transportation analysis evaluates the project's effects on the transportation system relative to City of Manteca policies and standards. The transportation issues considered in the local transportation analysis include:

- Traffic operations at study intersections
- Site access and circulation
- Parking

Traffic operations were evaluated at four existing study intersections and proposed project driveways for the following scenarios:

- Existing conditions without project
- Existing plus project
- Cumulative (2040) conditions without project
- Cumulative plus project

The cumulative 2040 analysis conditions are based upon future 2040 traffic volumes and the future 2040 transportation network (including committed transportation improvements), consistent with the Manteca General Plan.

SUMMARY

CEQA TRANSPORTATION ANALYSIS

- The Marketplace @ Main project would not have any signficant impacts on the transportation sytem in terms of conflicts with plans, hazards, or emergency access.
- The project's location, proposed land use, and intensity is consistent with the commercial zoning for the site in the adopted Manteca General Plan. The General Plan was evaluated per CEQA requirements in the Manteca General Plan Environmental Impact Report (EIR) and is therefore not evaluated in this Transportation Impact Analysis.

LOCAL TRANSPORTATION ANALYSIS

Intersection Operations

- All study intersections currently operate at level of service (LOS) D or better, consistent with General Plan policies except for Main Street & SR 120 Eastbound Ramps and Main Street and Woodward Avenue intersections. The Manteca Public Facilities Improvement Plan (PFIP) includes planned improvements at both of these intersections.
- With traffic added by the proposed project, all study intersections would continue to operate at LOS D or better, consistent with General Plan policies, except for Main Street & SR 120 Eastbound Ramps and Main Street and Woodward Avenue, which would experience increased delays to the project and continue to operate at deficient LOS. Signal timing improvements are recommended at Main Street and SR 120 Eastbound Ramps. Signal installation is recommended at Main Street and Woodward Avenue per the City's PFIP, which would result in acceptable LOS in Existing plus Project conditions.
- With 2040 cumulative growth (without the project) and committed street improvements, all study intersections are anticipated to operate at acceptable LOS D or better except for the Main Street & SR 120 Eastbound Ramps. The Manteca PFIP identifies the SR 120 & Main Street interchange for future improvements, however, specific improvements are not identified. Addition of project traffic would further degrade the operations at the ramp intersection. Lane geometries and signal timings are recommended in this report that would result in acceptable LOS D or better operations for Cumulative plus Project conditions.

Site Access and Circulation

- For the main western project driveway on Atherton Drive, the driveway will be a full access driveway. A traffic signal on Atherton Drive is recommended in the future when signal warrant conditions are met. A detailed traffic signal warrant study is recommended by 2026.
- If right-turn exit movements are to be permitted from the center driveway on Atherton Drive, modifications to the eastbound left-turn pocket on Atherton Drive are recommended to prevent vehicles from exiting the center project driveway and attempting to cross multiple lanes to reach the left-turn pocket.
- The easternmost driveway on Atherton Drive is recommended to be right-turn in only, with exit prohibited at this location.
- The northern project driveway along South Main Street is recommended to be right-turn in and out only.

- In the near term, before South Main Street is widened to a proposed six-lane crosss-section, the southern project driveway on South Main Street will operate acceptably allowing all access movements with the project exit controlled by a stop sign. When South Main Street is widened, it is recommended that left turns from the project driveway be prohibited. Left turns from northbound Main Street into the driveway may still be permitted.
- Based on the project site plan, the project would exceed city parking requirements.



Section 2
Existing Conditions

EXISTING CONDITIONS

This chapter provides a description of the existing roadway, traffic, transit, bicycle, and pedestrian components of the transportation system within the study area.

DATA COLLECTION

Intersection turn movement counts were collected on Wednesday, December 8, 2021, during the AM (7:00-9:00 AM) and PM (4:00-6:00PM) weekday peak periods at four of the six study intersections (excluding the project driveways which do not yet exist). Peak hour traffic count data are provided in **Figure 3**.

Information on existing traffic control, transit service, bicycle and pedestrian facilities, and planned transportation improvements was compiled as part of the data collection efforts.

ROAD NETWORK

The roadway system in the study area consists of arterial roadways and regional freeways that serve local and regional traffic demand.

FREEWAYS

State Route (SR) 120 is a freeway/highway providing a connection between Intersate 5 (I-5) and SR 99 through Manteca. SR 120 continues as a non-freeway highway east of SR 99 connecting to Escalon, Oakdale and Yosemite National Park. Between the I-5 interchange and the SR 99 interchange, SR 120 is a freeway with two 12-foot general purpose lanes in each direction. East of SR 99, SR 120 is a conventional highway with one general purpose lane in each direction, with some sections providing two general purpose lanes in each direction or a center median/turn lane. Access to and from SR 120 is provided via a diamond interchange at South Main Street. The posted speed limit on the freeway portion of SR 120 is 65 miles per hour (mph); the posted speed limit on the highway portion east of SR 99 is 45 mph.

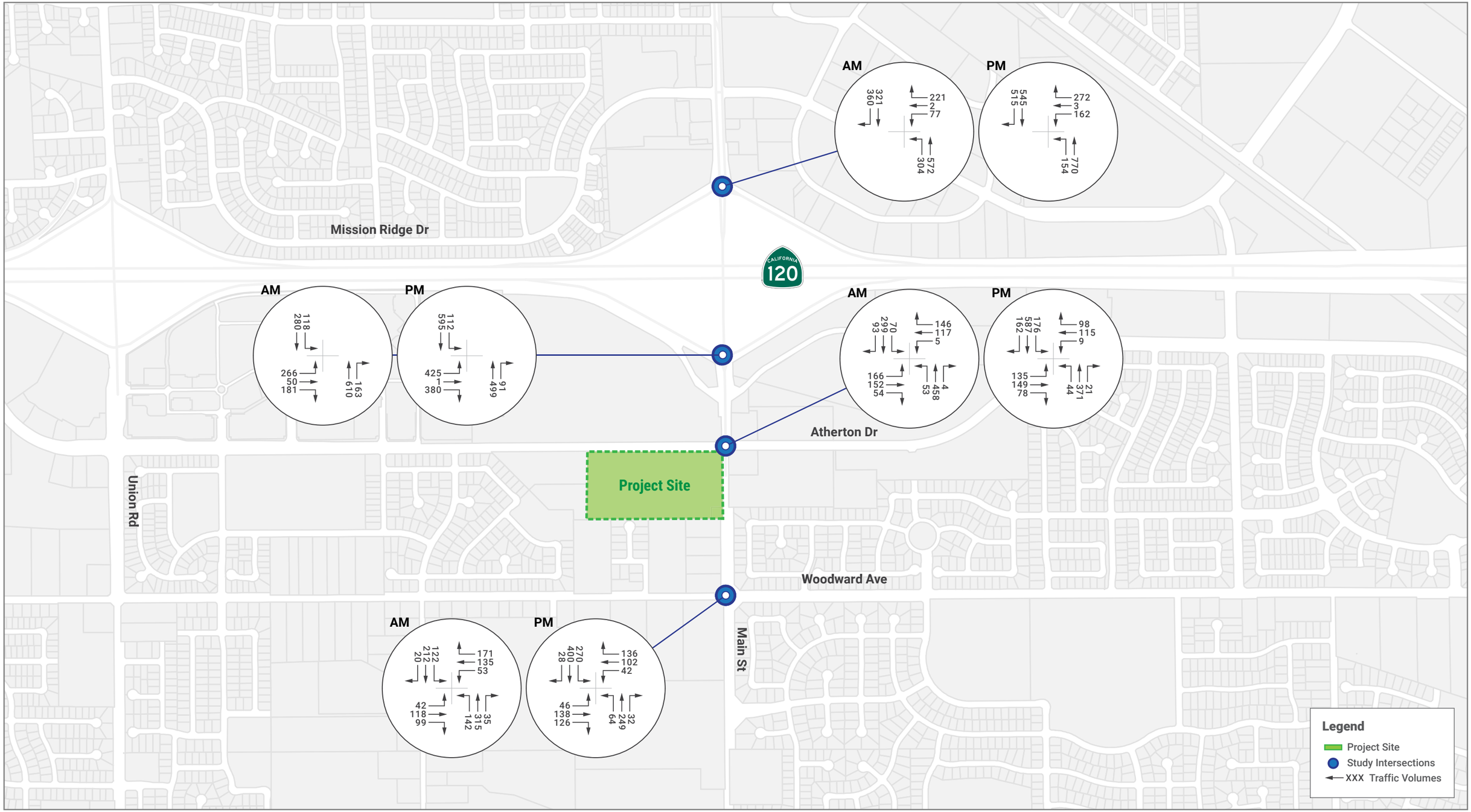
LOCAL STREETS

South Main Street is an approximately nine-mile long, north-south arterial also known as Manteca Road south of Tannehill Drive. The roadway provides local connectivity linking Manteca's residents and businesses in the north and central developed areas with rural farmland in the south. South Main Street intersects the SR 120 eastbound and westbound ramps, Atherton Drive, and Woodward Avenue. Within the project vicinity, it is a three-lane undivided roadway with one northbound, one southbound, and one two-way-left center turn lane. Adjacent to the project site, South Main Street provides an approximately 33-foot cross-section (pavement edge to edge striping) including the two 11-foot lanes and one 11-foot two-way-left center turn lane. The posted speed limit is 35 mph and no on-street parking is permitted within the project vicinity.

West Atherton Drive is an arterial roadway extending from east to west within the City of Manteca south of SR 120. The roadway provides east-west connectivity from west of Airport Way to Woodward Avenue where it connects to a two-lane north-south undivided roadway named East Atherton Drive. It is a four-lane divided arterial with a 40 mph posted speed limit within the

project vicinity. Adjacent to the project site, the curb-to-curb width is generally about 62-feet, with four 12-foot lanes and one 14-foot median. Street parking along West Atherton Drive is not permitted within the project vicinity.

Woodward Avenue is an approximately six-mile long, east-west arterial within the City of Manteca. It provides connectivity from west Manteca to Moffat Boulevard, intersecting Airport Way, Union Road, and Oleander Avenue north-south study roadways. West of Airport Way, it is a two-lane, undivided roadway with an approximately 30-foot cross-section including two 12-foot lanes and two 3-foot paved curbs. From Airport Way to east of Union Road, it is primarily a two-lane divided roadway. The curb-to-curb width is generally about 45-feet, with two 12-foot lanes, one 15-foot median, and two 3-foot paved shoulders. The posted speed limit is 35 mph west of Airport Way and 30 mph east of Airport Way in the study area. Parallel on-street parking bays exist along Woodward Avenue from west of Harvest Lane to east of Al Fonseca Lane.


AM
321
360
221
2
77
572
304
PM
545
515
272
3
162
770
154
Mission Ridge Dr
CALIFORNIA
120
AM
118
280
266
50
181
163
610
PM
112
595
425
1
380
91
499
AM
70
299
93
146
117
5
166
152
54
4
53
458
PM
176
587
162
98
115
9
135
149
78
21
371
44
Atherton Dr
Project Site
Union Rd
Woodward Ave
Main St
AM
122
212
20
171
135
53
42
118
99
35
315
142
PM
270
400
28
136
102
42
46
138
126
32
249
64
Legend
Project Site
Study Intersections
XXX Traffic Volumes
Scale in Feet
0
1,000
North

TRANSIT SERVICES

The transit system in the study area consists of local bus and regional rail service. Transit service in the area is provided by Manteca Transit, the San Joaquin Regional Transit District, and the Modesto Area Express. Regional rail service is provided by the Altamont Commuter Express. The transit facilities in the study area are discussed below

MANTECA TRANSIT

Manteca Transit provides bus service in the study area. Manteca Transit bus routes and local bus stops are shown in **Figure 4** and listed with added detail in **Table 1**.

Table 1: Existing Manteca Transit Weekday Service

Route	Loop Direction	Key Destinations	Peak/Off-Peak Frequency (minutes)
1	Counterclockwise	■ Manteca Transit Center ■ Daniels Street at Stadium Center ■ Spreckles Shopping Area	60/60
2	Clockwise	■ Manteca Transit Center ■ Mission Ridge Shopping Center ■ Promenade Shops at Orchard Valley	60/60
3	Counterclockwise	■ Manteca Transit Center ■ McParland School ■ Louise Avenue ■ Manteca Golf Course	60/60
4	Clockwise	■ Manteca Transit Center ■ McParland School ■ Woodward Avenue ■ Manteca Golf Course	60/60

Source: Manteca Transit Ride Guide / System Map

Generally, curbside transit stops in the study area are identified with posted signs and do not include passenger amenities such as a shelter, seating, landscaping, bicycle parking, or pedestrian-scale lighting.

The bus stop closest to the project site is located approximately 1,200 feet west of the site along Atherton Drive at Tinnin Road. Another stop is located approximately 1,500 feet from the project along Woodward Avenue at Laurie Avenue. The Atherton Drive stop serves Manteca Transit Route 2 and the Woodward Avenue stop serves Manteca Transit Route 4.

The project site is located within Manteca Transit's current Dial-A-Ride service area.

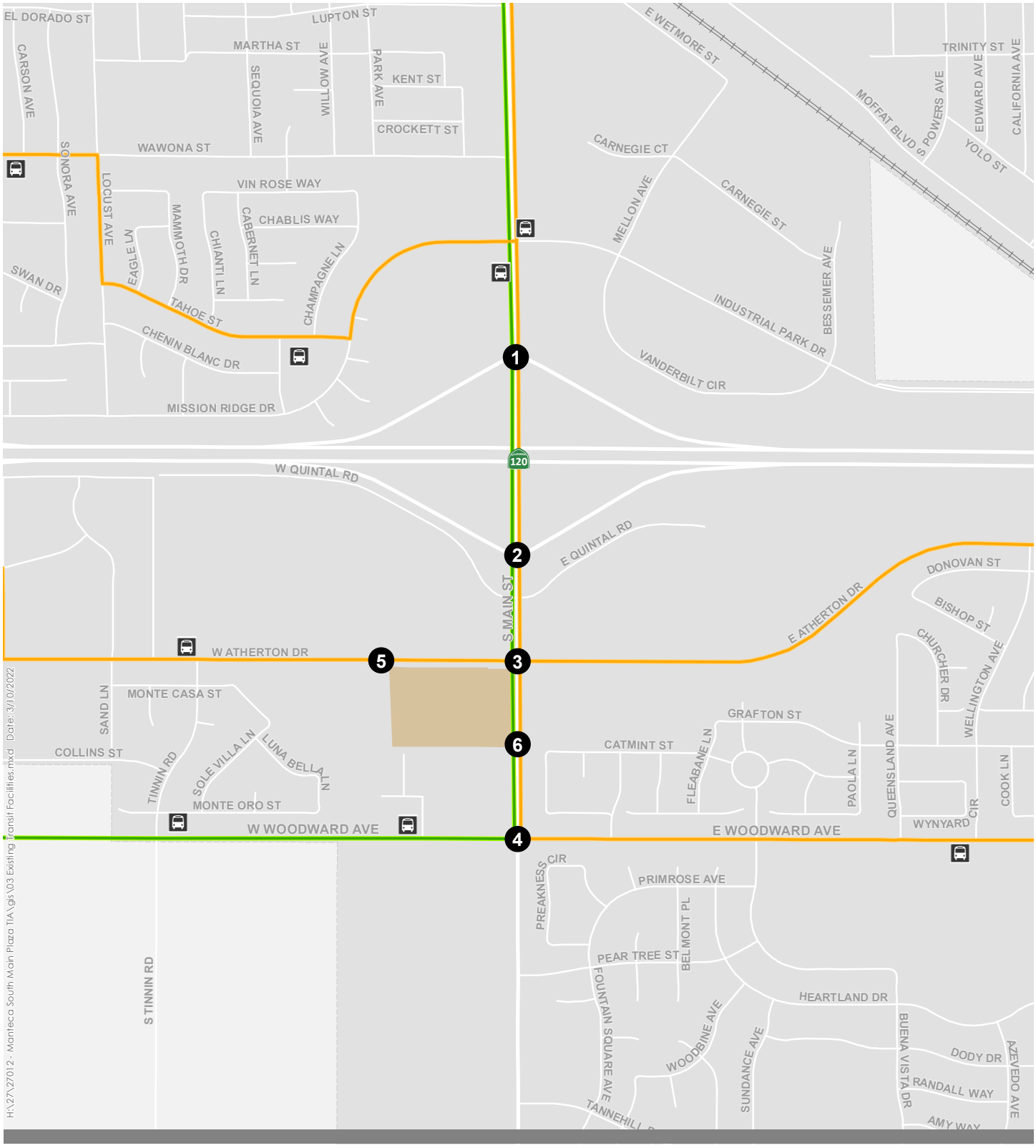


Figure 4

Existing Transit Facilities
Manteca, California

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MODESTO AREA EXPRESS (MAX)

The Modesto Area Express (MAX) offers express commuter Service to the Manteca/Lathrop ACE train station from the Modesto Transit Center.

SAN JOAQUIN REGIONAL TRANSIT DISTRICT (RTD)

The San Joaquin Regional Transit District (RTD) provides regional service between cities in San Joaquin County through Manteca via Hopper Routes 91, 95, and 97. These routes stop at the Manteca Transit Center (closest stop to the project site).

ALTAMONT CORRIDOR EXPRESS (ACE)

The Altamont Corridor Express (ACE) provides service from Stockton to San Jose (in the morning) and from San Jose to Stockton (in the afternoon). The Manteca Transit Center serves as the Lathrop/Manteca stop.

MANTECA TRANSIT CENTER

The Manteca Transit Center provides service to all four bus routes and the San Joaquin RTD Route 91. The ACE Lathrop/Manteca Station provides connection to Altamont Corridor Express (ACE), Modesto Area Express (MAX), and RTD Route 91. The Manteca Transit Shuttle runs between the Manteca Transit Center and the ACE Lathrop/Manteca station five times per day. The Park & Ride Lot provides access to RTD Route 91.

BICYCLE FACILITIES

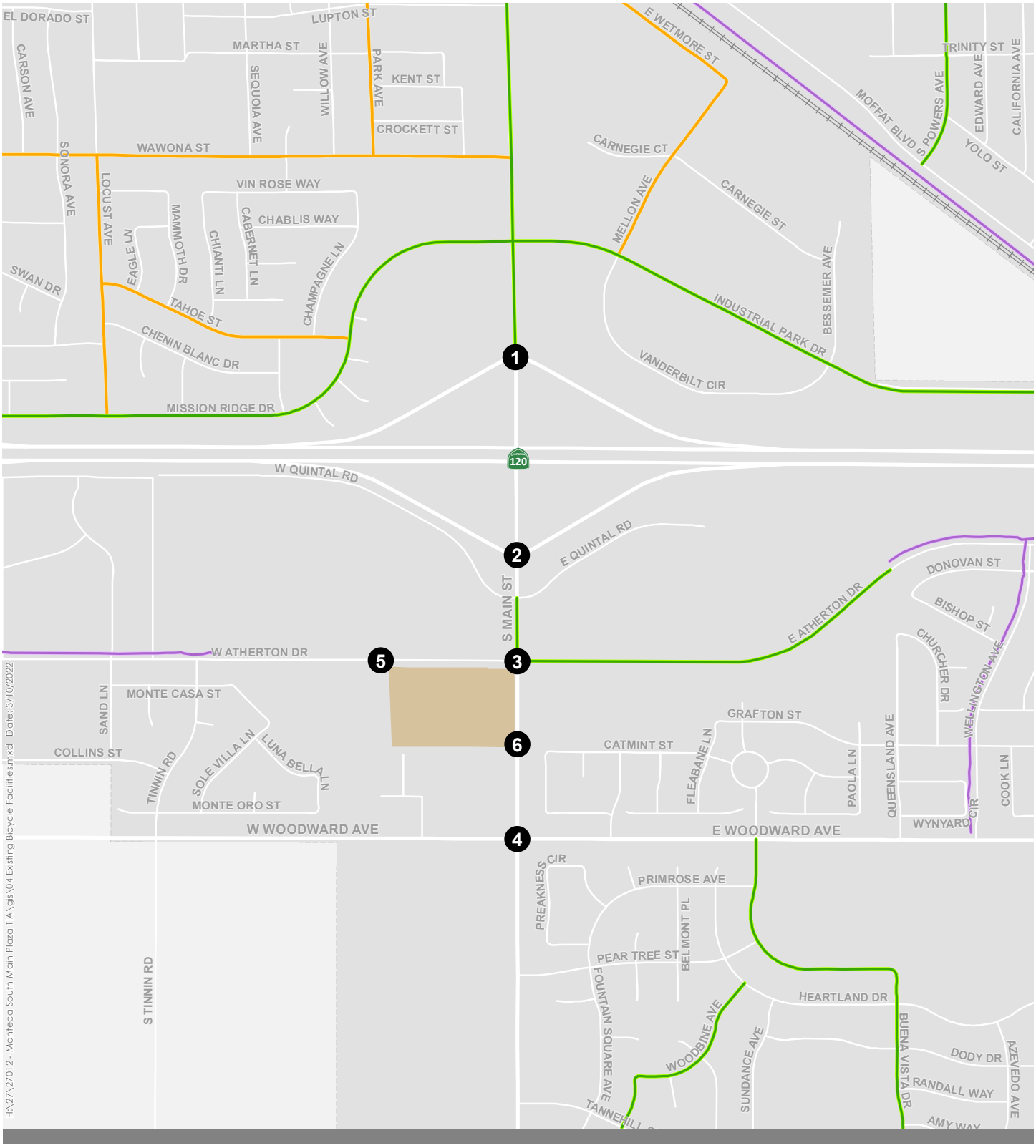
This section describes the existing bicycle facilities within the study area and **Figure 5** graphically shows the locations of the existing facilities.

Bicycle facilities are categorized into four types, as described below:

- **Class I Bikeway (Bike Path**). Also known as a shared path or multi-use path, a bike path is a paved right-of-way for bicycle travel that is completely separate from any street or highway.
- **Class II Bikeway (Bike Lane)**. A striped and stenciled lane for one-way bicycle travel on a street or highway. This facility could include a buffered space between the bike lane and vehicle lane and the bike lane could be adjacent to on-street parking.
- **Class III Bikeway (Bike Route)**. A signed route along a street where the bicyclist shares the right-of-way with motor vehicles. This facility can also be designated using a shared-lane marking (sharrow).
- **Class IV Bikeway (Separated Bike Lane)**. A bikeway for the exclusive use of bicycles including a separation required between the separated bikeway and the through vehicular traffic. The separation may include, but is not limited to, grade separation, flexible posts, inflexible physical barriers, or on-street parking.

As shown in **Figure 5**, the existing bicycle facilities near the project site include:

- Class I bike path along north side of Atherton Drive from Tinnin Road to west of Airport Way.
- Class I bike path along north side of Atherton Drive from west of Wellington Avenue to Woodward Avenue.
- Class II bicycle lanes along both sides of Industrial Park Drive / Mission Ridge Drive from east of Vanderbilt Circle / Bessemer Avenue to Union Road.
- Class II bicycle lanes along both sides of South Main Street from north of Atherton Drive to Yosemite Avenue.



Class I Bike Path
Class II Bike Lane
Class III Bike Route
Study Intersections
Railroad
Site
City Boundary

0 1,000 Feet

Figure 5

KITTELSON & ASSOCIATES

Existing Bicycle Facilities
Manteca, California

PEDESTRIAN FACILITIES

The study area offers several types of facilities and amenities that support walking (**Figure 6**). The availability and quality of pedestrian facilities can be analyzed using seven key factors as shown in **Table 2**.

Table 2: Pedestrian Facility Conditions

Factor	Description	Assessment
 Sidewalk Availability	Sidewalk availability is core to supporting walkability and safety separating pedestrians from vehicles and other modes. In addition, it is important that sidewalks are present on both sides of the roadway and are available along the entire segment rather than end midblock.	Existing sidewalk exists along the the south side of Atherton Drive in the study area, including the project site frontage. Sidewalk also exists along South Main Street on the east side of the road south of the project site, however no sidewalk exists along the project site's South Main Street frontage. A significant number of sidewalk coverage gaps exist in the study area on one or both sides of major arterial roads including, South Main Street, Atherton Drive, and Woodward Drive. Many of theses gaps are adjacent to agricultural/undeveloped land.
 Sidewalk Conditions	Cracked, broken, or otherwise damaged sidewalks can pose a safety hazard and discourage walking.	Sidewalks in the project vicinity are generally in good condition, free of cracks or uplifts.
 Crosswalk Availability	Marked crosswalks can safely accommodate pedestrians that need to cross streets. A lack of marked crosswalks could hinder walkability since pedestrians need to travel greater distances to reach a safe marked crossing point. Drivers may also be less likely to yield to intersections at unmarked crossings.	Crosswalks, including continental crosswalks, are generally provided at major intersections where sidewalk is present in the study area. At minor street intersections along arterial roadways, crosswalks across the major road are generally missing.
 Shading	Shading, whether natural or artificial, can encourage walking in areas such as California, particularly Manteca, which are relatively warm with limited rainfall, especially in the summer.	Pedestrian shading exists along the sidewalk along the east side of South Main Street south of the project site. Shading is generally not provided along other other segments of main arterial roadways. In general, residential and local streets offer more

Factor	Description	Assessment
		shading in the form of street trees and landscaping.
 Flat Grade	Steep hills and ravines can discourage walking, especially for pedestrians with limited mobility.	Major streets in the study area are relatively flat.
 Buffer	Buffers which provide separation between pedestrians and moving vehicles can help improve the walking experience, and can include landscaping, parked vehicles, and bulbouts, which serve to both reduce pedestrian crossing distances at intersections and as a traffic calming measure.	Along arterials and in general, there is a lack of buffers, with existing sidewalk extending directly to the edge of the road or bicycle lane. The existing sidewalk along the east side of South Main Street south of the project site is an exception that provides a meandering path with a buffer and street trees between pedestrians and motorists. The existing sidewalk alonth Atherton Drive west of the project site, as well as the multi-use path also provides a meandering path for pedestrians separated from vehicle traffic.
 Amenities	In addition to physical facilities that accommodate walking, useful or interesting amenities along sidewalks create a more interesting walking environment and increase pedestrian comfort. Amenities can include sidewalk-adjacent retail and restaurants, landscaping, and street furniture.	Pedestrian amenities in the study area primarily consist of street landscaping in residential neighborhoods.

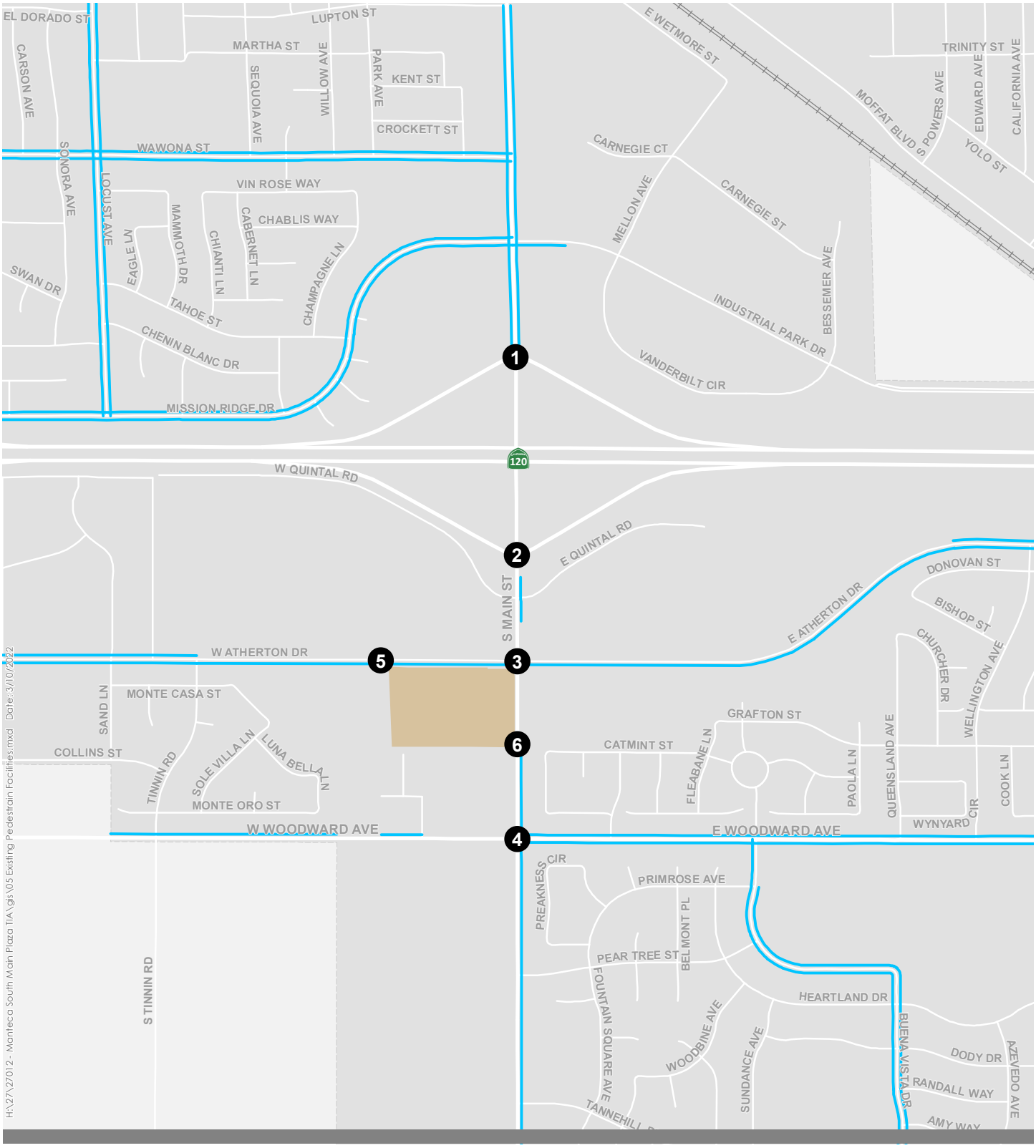


Figure 6

KITTELSON & ASSOCIATES

Existing Pedestrian Facilities
Manteca, California

EXISTING TRAFFIC OPERATIONS

This section provides information on the existing operating conditions for study intersections in the vicinity of the project site.

LEVEL OF SERVICE METHODOLOGY

Methodologies outlined in the Transportation Research Board's *Highway Capacity Manual* (HCM) are used to evaluate level of service for the study intersections and is described in this section.

Level of Service

Level of service (LOS) describes the operating conditions experienced by persons on a transportation system. For motorized vehicles, level of service is a qualitative measure of the effects of a number of factors, including speed and travel time, traffic interruptions, freedom to maneuver, driving comfort, and convenience. Levels of service are designated LOS "A" through "F," from best to worst, which cover the entire range of traffic operations that might occur. Levels of service A through E generally represent traffic volumes at less than roadway capacity, while LOS F represents conditions where traffic demands exceed capacity and the flow of traffic breaks down, resulting in stop-and-go conditions and long queues of vehicles.

The City of Manteca General Plan Policy C-1.2 states that to the extent feasible, strive for a vehicular LOS of D or better during weekday AM and PM peak hours at all streets and intersections, except in the Downtown area.

Intersection LOS was analyzed using methodologies described in the 6th Edition of the *Highway Capacity Manual* (HCM 6), as implemented in the analysis software program Synchro 11.

Signalized Intersections

At signalized intersections, the level of service is determined by the weighted average delay for all vehicles entering the intersection and the calculated average total delay per vehicle and level of service for the intersection as a whole. **Table 3** presents the average delay criteria used to determine the level of service at signalized intersections.

Table 3: Level of Service Definition for Signalized Intersections

Level of Service (LOS)	Average Delay (seconds/vehicle)	Description
A	≤ 10	**Very Low Delay:** This level of service occurs when progression is extremely favorable, and most vehicles arrive during a green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.
B	> 10 and ≤ 20	**Minimal Delays:** This level of service generally occurs with good progression, short cycle lengths, or both. More vehicles stop than at LOS A, causing higher levels of average delay.
C	> 20 and ≤ 35	**Acceptable Delay:** Delay increases due to fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level of service. The number of vehicles stopping is significant, though many still pass through the intersection without stopping.
D	> 35 and ≤ 55	**Approaching Unstable Operation/Significant Delays:** The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volume / capacity ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	> 55 and ≤ 80	**Unstable Operation/Substantial Delays:** These high delay values generally indicate poor progression, long cycle lengths, and high volume / capacity ratios. Individual cycle failures are frequent occurrences.
F	> 80	**Excessive Delays:** This level, considered unacceptable to most drivers, often occurs with oversaturation (that is, when arrival traffic volumes exceed the capacity of the intersection). It may also occur at high volume / capacity ratios below 1.0 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.

Source: *Highway Capacity Manual 6th Edition* (HCM 6)

Unsignalized Intersections

For all-way stop control intersections, the HCM procedures calculate an average control delay per vehicle for each approach and assign a LOS designation based upon the average intersection delay.

For unsignalized one or two-way stop-controlled intersections, the methodology calculates an average total delay per vehicle for each minor street movement and for the major street left-turn movements based on the availability of adequate gaps in through traffic on the main street. A level of service designation is assigned to individual movements or to combinations of movements in the case of shared lanes, based on delay. It is not unusual for some of the minor street movements to have LOS "D," "E," or "F" conditions while the major street movements have LOS "A," "B," or "C" conditions. In such a case, the minor street traffic experiences delay

that can be substantial for individual minor street vehicles, but the majority of vehicles using the intersection have very little delay.

Table 4 presents the average delay criteria used to determine the level of service at unsignalized intersections.

Table 4: Level of Service Definition for Unsignalized Intersections

Level of Service (LOS)	Average Delay (seconds/vehicle)	Description
A	≤ 10	Very Low Delay
B	> 10 and ≤ 15	Minimal Delays
C	> 15 and ≤ 25	Acceptable Delay
D	> 25 and ≤ 35	Approaching Unstable Operation and/or Significant Delays
E	> 35 and ≤ 50	Unstable Operation and/or Substantial Delays
F	> 50	Excessive Delays

Source: Highway Capacity Manual 6th Edition (HCM 6)
Notes: At two-way stop-controlled intersections, LOS is determined for each minor street movement and major street left turn. At all-way stop-controlled intersections, LOS is determined for each individual approach and for the entire intersections based on average control delay.

Signal Warrants

The potential need for traffic signals at unsignalized intersections where the minor street movements experience substantial delay is evaluated in accordance with the California Manual on Uniform Traffic Control Devices (CA MUTCD).

The analysis for the proposed project focuses on the peak hour warrant (Warrant 3). The peak hour warrant is being used as an indicator of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed the peak hour warrant are considered for the purposes of this analysis to be likely to meet one or more of the other signal warrants, such as the 4-hour or 8-hour warrants. This peak hour analysis is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction.

Signal Operations

For existing conditions, signal timing sheets for the following signalized intersections on local streets were requested and received from the city:

- Main Street & Atherton Drive

Kittelson requested and received signal timing information for the following state-controlled signalized intersections directly from Caltrans District 10.

- Main Street & SR 120 Westbound Ramps
- Main Street & SR 120 Eastbound Ramps

EXISTING INTERSECTION OPERATIONS

Intersection turning movement volumes, lane configurations, and traffic control were used to calculate the levels of service at the study intersections for the weekday AM and PM peak hour as shown in **Table 5**.

All study intersections operate at an existing LOS D or better, except for the following:

- Main Street & SR 120 Eastbound Ramps (LOS E in AM peak hours)
- Main Street & Woodward Avenue (LOS F in AM and PM peak hours)

The existing all-way stop controlled (AWSC) intersection at Main Street & Woodward Avenue meets the CAMUTCD peak hour signal warrant #3 with existing traffic. Signalization is planned at this location in the future based on the city's Public Facilities Implementation Plan (PFIP). It is anticipated that this intersection would operate at acceptable LOS with existing traffic levels once signalization is implemented. The peak hour signal warrant evaluation is presented in the **Appendix**.

Table 5: Intersection Operations, Existing Conditions

No.	Intersection	Traffic Control[2]	Peak Hour	LOS[3] (Delay)[4]
1	Main Street & SR 120 Westbound Ramps	Signal	AM	B (10.5)
			PM	B (11.0)
2	Main Street & SR 120 Eastbound Ramps	Signal	AM	**E (65.5)**
			PM	C (23.9)
3	Main Street & Atherton Drive	Signal	AM	C (25.0)
			PM	C (21.9)
4	Main Street & Woodward Avenue	AWSC	AM	**F (74.9)**
			PM	**F (52.7)**
5	Atherton Drive & Project Driveway #1[1]	None	AM	N/A
			PM	N/A
6	Main Street & Project Driveway #2[1]	None	AM	N/A
			PM	N/A
7	Main Street & Project Driveway #3[1]	None	AM	N/A
			PM	N/A

Source: Kittelson & Associates, Inc. 2022.
Notes:
[1] Intersection does not exist without the project.
[2] Signal = Signalized Intersection, TWSC = Two- or One-Way Stop Control intersection, AWSC = All-Way Stop Control Intersection.
[3] LOS = Level of Service
[4] Delay = Average vehicle delay reported in seconds per vehicle.



Section 3
Regulatory Setting

REGULATORY SETTING

This section summarizes applicable federal, state, regional, and local plans, laws, and regulations that are relevant to this analysis. This information provides a context for the discussion related to the project's consistency with applicable policies, plans, laws, and regulations.

FEDERAL REGULATIONS

This section summarizes federal agencies and laws pertinent to the proposed project.

FEDERAL HIGHWAY ADMINISTRATION

The Federal Highway Administration (FHWA) is the agency of the United States Department of Transportation (DOT) responsible for the federally funded roadway system, including the interstate highway network and portions of the primary state highway network, such as Interstate 5 (I-5).

STATE REGULATIONS

This section summarizes State of California agencies, regulations, and policies that pertain to transportation in Manteca.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

The California Environmental Quality Act (CEQA) Guidelines, Appendix G Environmental Checklist Form describes four recommended categories of impacts related to transportation and traffic. These categories are recommended for formal environmental review of projects, but are referenced as appropriate for this TIA.

A project's impact is considered to be significant if it would:

a. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.

b. Conflict or be inconsistent with CEQA Guideline section 15064.3, subdivision (b).

c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

d. Result in inadequate emergency access.

Significance criteria "b" is related to the implementation of vehicle miles traveled (VMT) is not evaluated in this study.

CALIFORNIA DEPARTMENT OF TRANSPORTATION

The California Department of Transportation (Caltrans) is the primary State agency responsible for transportation issues. As owner/operator of the State Highway System, Caltrans may review projects and plans as a commenting agency or responsible agency under the California Environmental Quality Act (CEQA).

Caltrans facilities within the Manteca study area include State Route 120 and its on- and off-ramps.

For projects that may physically affect facilities under its administration, Caltrans requires encroachment permits before any construction work may be undertaken.

REGIONAL REGULATIONS

This section summarizes regional agencies, plans, and policies that pertain to transportation in Manteca.

SAN JOAQUIN COUNCIL OF GOVERNMENTS REGIONAL CONGESTION MANAGEMENT PROGRAM

The San Joaquin Council of Governments (SJCOG) is responsible for the Regional Congestion Management Program (RCMP). The purpose of the RCM) is to monitor congestion, identify congestion problems, and establish a programming mechanism aimed at reducing congestion. Designation of a regional transportation system supports RCMP monitoring activities and focuses the implementation of the RCMP on a core network of key transportation facilities that facilitate regional travel within San Joaquin County.

The RCMP network includes the following facilities in the project study area:

- State Route 120
- Main Street
- Woodward Road

The RCMP also designates multimodal corridors where quality of transportation service is monitored for transit, bicycles and pedestrians as well as vehicles. None of the roadway segments within the study area have been classified as existing or future multimodal corridors by SJCOG at the time of this report.

Prior to 2021, the RCMP included LOS standards for the RCMP network that would affect the evaluation of local development traffic impacts. Consistent with the implementation of SB 743 CEQA streamlining legislation, the 2021 RCMP discontinues the use of LOS for the evaluation of RCMP congestion deficiencies.

The RCMP identifies deficient corridors based on combined speed-based congestion and reliability metrics. None of the deficient corridors identified in the 2021 RCMP are in the Manteca study area, however, a segment of SR 99, south of the SR 120 interchange and approximately one mile east of the SR 120 & SR 99 interchange was identified as deficient. During heavy travel demand times and/or if incidents occur in the area, SR 99 congestion could cause traffic delays along eastbound SR 120 in the study area.

LOCAL REGULATIONS

This section summarizes City policies and regulations that pertain to transportation in Manteca.

MANTECA GENERAL PLAN

The 2021 update of trhe Manteca General Plan includes the following policies relevant to the transportation evaluation of the project are summarized in **Table 6**.

Table 6: Selected Manteca General Plan Policies

No.	Policy
C-1.1	Strive to balance levels of service (LOS) for all modes (vehicle, transit, bicycle, and pedestrian) to maintain a high level of access and mobility, while developing a safe, complete, and efficient circulation system. The impact of new development and land use proposals on VMT, LOS, and accessibility for all modes should be considered in the review process.
C-1.2	To the extent feasible, strive for a vehicular LOS of D or better during weekday AM and PM peak hours at all streets and intersections, except in the Downtown area or in accordance with Policy C-1.3.
C-1.3	At the discretion of the City Council or Planning Commission, certain locations may be allowed to fall below the City's LOS standard established by C-1.2 under the following circumstances: ■ a. Where constructing facilities with enough capacity to provide LOS D is found to be unreasonably expensive. ■ b. Where conditions are worse than LOS D and caused primarily by traffic from adjacent jurisdictions. ■ c. Where maintaining LOS D will be a disincentive to use transit and active transportation modes (i.e., walking and bicycling) or to the implementation of transportation or land use improvements that would reduce vehicle travel. Examples include roadway or intersection widening in areas with substantial pedestrian activity or near major transit centers.
C-2.2	Design roadway improvements to occur in a contiguous, orderly fashion and strive to build roadway improvements in advance of new development particularly when addressing existing deficiencies. However, major circulation improvements shall be constructed no later than when abutting lands develop or redevelop, with dedication of right-of-way and construction of improvements, or participation in construction of such improvements, required as a condition of approval.
C-2.3	Require new development to pay a fair share of the costs of street and other transportation improvements based on impacts in conformance with the goals and policies established in this Circulation Element and the Public Facilities Implementation Program (PFIP).

No.	Policy
C-2.13	Require development projects to arrange streets in an interconnected block pattern, so that pedestrians, bicyclists, and drivers are not forced onto arterial streets for inter- or intra-neighborhood travel. This approach will also ensure safe and efficient movement of emergency responders and ensure that vehicle miles traveled are minimized within the community. The street pattern shall include measures to provide a high level of connectivity and decrease vehicle miles traveled.
C-2.14	Residential subdivisions with lots fronting on an existing arterial street shall provide for separate roadway access to the maximum extent feasible, with access to residential lots provided from residential or collector streets. For those properties that currently front arterial streets, consideration should be given to providing separate roadway access as a condition of approval for any redevelopment or subdivision of the property.
C-2.15	Ensure that development and infrastructure projects are designed in a way that provides pedestrian and bicycle connectivity to adjacent neighborhoods and areas (such as ensuring that sound walls, berms, and similar physical barriers are considered and gaps or other measures are provided to ensure connectivity).
C-2.19	In the development of new projects, give special attention to maintaining/ensuring adequate corner-sight distances appropriate for the speed and type of facility, including intersections of city streets and private access drives and roadways.

Source: Manteca General Plan, March 2021, pp, 4-2 to 4-11

TRANSPORTATION IMPACT ANALYSIS REQUIREMENTS

The City of Manteca does not have a document that establishes specific requirements for transportation impact analysis studies. The methodologies and standards used in this TIA are based on the General Plan, state requirements and guidance, prior studies conducted in the City of Manteca, and industry best practices.



Section 4
CEQA Transportation Analysis

CEQA TRANSPORTATION ANALYSIS

The project is evaluated for transportation impacts relative to the three impact types in the CEQA checklist:

- Conflicts with circulation system programs
- Hazards
- Emergency access

Vehicle Miles Traveled (VMT) was not evaluated as part of this study

CONFLICTS WITH PROGRAMS

The project would have an impact if it would conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.

The project is anticipated be consistent with the City of Manteca General Plan and PFIP in terms of provisions for roadways, bicycle and pedestrian facilities if the following recommendations are satisfied:

- Project frontage improvements along the west side of South Main Street are recommended to be designed to be consistent with city plans to provide three southbound through lanes, a bicycle lane, and a sidewalk. ADA compliant sidewalk is recommended along the South Main Street project frontage.
- Project frontage improvements along the south side of Atherton Drive is recommended to provide ADA compliant sidewalk.

Impact 1: Less than significant

Mitigation 1: No mitigation required

HAZARDS

The project would have an impact if it would substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

- The project access would be provided via three driveways along Atherton Drive and two along South Main Street and are not anticipated to introduce hazardous geometric design features if local design standards are followed. As discussed in the circulation section of this report, the easternmost proposed driveway along Atherton Drive is recommended to allow right-in travel only to avoid weaving issues and conflicts with traffic along Atherton Drive. At the center right-in, right-out driveway on Atherton Drive, countermeasures are recommended to restrict movements for motorists exiting the project site to limit weaving conflicts for motorists attempting to traverse three lanes of traffic to access the eastbound left turn pocket on Atherton Drive at Main Street. Potential measures should be designed consistent with local requirements and industry best practices and confirmed with city staff but could include the following along the eastbound left turn pocket at Main Street &

Atherton Drive: gore striping with raised pavement markings, delineators, or a traversable concrete separator.

- The proposed driveway along Main Street at the southeast corner of the site is recommended to restrict left-turns out of the site in the future when Main Street is widened to a six-lane arterial to avoid deficient operations as well as a potential safety concern for motorists crossing three southbound lanes of traffic .
- The project driveways should be designed consistent with accepted design guidelines for safety. Atherton Drive and South Main Street provide relatively straight alignments and therefore wouldn't result in driveway sight distance concerns due to curves. Sight triangles and corner clearance should be reviewed prior to approval of the site plan to confirm that no trees, signs, or any other design features would be introduced that would result in insufficient sight distance.
- The internal project streets should be designed to meet geometric design standards and not create hazardous driving conditions. Turning templates should be checked for trash pickups, as well as truck deliveries and pickups.
- ADA compliant sidewalk and ramps (onsite where feasible, as well as along the project frontages) should be provided so that pedestrians would be separated from vehicle traffic.

Impact 2: Less than significant

Mitigation 2: No mitigation required

EMERGENCY ACCESS

The project would have an impact if it would result in inadequate emergency access.

- The project would provide access to all parcels via three driveways along Atherton Drive, two driveways along Main Street, and an interior network. All streets should be designed to accommodate emergency vehicles.

Impact 3: Less than significant

Mitigation 3: No mitigation required



Section 5
Local Transportation Analysis

LOCAL TRANSPORTATION ANALYSIS

The local transportation impact analysis assesses how the study area's transportation system would operate with the implementation of the proposed project.

PROJECT TRIP GENERATION

Automobile trip generation by the Project was derived from rates contained in the Institute of Transportation Engineers (ITE) *Trip Generation Manual* 11th Edition.

The project proposes a mix of uses including a supermarket, a hardware store, retail shops, and three fast-food/quick-serve restaurants with drive-throughs. In addition, one single-family home currently exists on the project site, which will be demolished prior to construction of the project. An evaluation of the ITE land uses and available data indicates that the following land use codes most closely represent the proposed development (and replaced) land uses:

- **Single Family Detached Housing (ITE 210)** - Single-family detached housing includes all single-family detached homes on individual lots. A typical site surveyed is a suburban subdivision. This land use code and data was selected for existing trip credit estimates.
- **Shopping Plaza with Supermarket Anchor (ITE 821)** – A shopping plaza is an integrated group of commercial establishments that is planned, owned, and managed as a unit. This land use code was selected for project trip estimates and is based on surveyed sites with between 40,000 and 150,000 square feet of gross leasable floor area and including a major tenant.
- **Fast-Food Restaurant with Drive-Thru (ITE 934)** – This land use is representative of typical fast-food restaurants with drive-through windows and typical cliental largely consist of drive-through and carry-out food and/or beverage orders. This land use code and data was selected for project trip estimates.
- **Automated Car Wash (ITE 948)** – This land use is representative of automated car wash facilities that allow for the mechanical cleaning of vehicle exteriors and/or manual cleaning services. This land use code and data was selected for project trip estimates as the ITE land use description most closely matches the project description. Note that ITE data is limited for car wash land uses in general and for the AM in particular (for land use 948). As such, the ratio of AM peak hour rates to PM peak hour rates for Car Wash and Detail Center (ITE 949) was utilized in developing the proposed car wash's AM peak hour trip generation estimates.

This study evaluates the proposed mixed-use project that consists of complementary restaurant and retail land uses. As such, internal capture, pass-by, and diverted route trips for project trip generation is necessary to forecast net new project trips.

Internal capture trips are applicable for mixed-use projects with two or more complementary land uses and represent trips that would remain on the project site. For this proposed project, internal capture trips are assumed to travel between the proposed restaurant and retail land uses. NCHRP 684 and ITE data and methodologies were followed to estimate internal trips for this project.

Pass-by trips represent trips that already travel along the street network adjacent to the project site and that would reroute to a proposed land use as a stop on the way to or from its primary destination. For this study, pass-by restaurant and retail trips are anticipated to travel to/from Atherton Drive as well as South Main Street and the trips are accounted for at the project driveways. **Diverted route trips** are similar to pass-by trips as they are defined as trips that are, and would continue to be, traveling on the local transportation network, however, diverted route trips are trips that are anticipated to reroute from beyond the streets adjacent to the project site. Diverted route trips for this project are assumed to travel to and from SR 120. ITE definitions, data, and methodologies are used to estimate both pass-by and diverted route trips that would travel to/from the project's retail and restaurant land uses.

Table 7 summarizes the ITE trip generation estimates for the existing use and proposed project, including internal capture, pass-by, and diverted route trips.

Table 7: Proposed Project Trip Generation

Land Use	ITE Land Use Code	Number of Units	Units	Daily	Weekday AM Peak Hour			Weekday PM Peak Hour		
					Total	In	Out	Total	In	Out
Land Use Average Rates										
Single Family Detached Housing	210	-	Dwelling Unit(s)	9.43	0.70	26%	74%	0.94	63%	37%
Shopping Plaza w/ Supermarket	821	-	1,000 square Feet	94.49	3.53	62%	38%	9.03	48%	52%
Fast-Food Restaurant w/ DT	934	-	1,000 square Feet	467.48	44.61	51%	49%	33.03	52%	48%
Automated Car Wash	948 & 949	-	Car Wash Tunnel(s)	890.11	49.01	63%	37%	77.50	50%	50%
Existing Use										
Single Family Detached Housing (210)	210	1	Dwelling Unit(s)	10	1	0	1	1	1	0
Subtotal				***10***	***1***	***0***	***1***	***1***	***1***	***0***
Proposed Use										
Shopping Plaza w/ Supermarket	821	102.971	1,000 square Feet	9,730	363	225	138	930	446	484
Fast-Food Restaurant w/ DT (NE Building)	934	4.400	1,000 square Feet	2,058	196	100	96	145	75	70
Fast-Food Restaurant w/ DT (NC Building)	934	2.200	1,000 square Feet	1,028	98	50	48	73	38	35
Fast-Food Restaurant w/ DT (NW Building)	934	2.400	1,000 square Feet	1,122	107	55	52	79	41	38
Automated Car Wash[1]	948 & 949	1	Car Wash Tunnel(s)	891	50	32	18	78	39	39
Gross Project Trips				***14,829***	***814***	***462***	***352***	***1,305***	***639***	***666***
Internal Capture Trips (Restaurant)		-	-	*140*	*36*	*18*	*18*	*104*	*45*	*59*
Internal Capture Trips (Retail)		-	-	*140*	*36*	*18*	*18*	*104*	*59*	*45*
Total Internal Capture Trips (9% in AM and 16% in PM)				***280***	***72***	***36***	***36***	***208***	***104***	***104***
External Trips (Restaurant)		-	-	*4,068*	*365*	*187*	*178*	*193*	*109*	*84*
External Trips (Retail)		-	-	*9,590*	*327*	*207*	*120*	*826*	*387*	*439*
External Trips (Car Wash)		-	-	*891*	*50*	*32*	*18*	*78*	*39*	*39*
Total External Project Trips				***14,549***	***742***	***426***	***316***	***1,097***	***535***	***562***
Fast-Food Rest. Pass-by Trips (50% in AM and 55% in PM)		-	-	*290*	*184*	*92*	*92*	*106*	*53*	*53*
Shopping Plaza w/ Supermarket Pass-by Trips (40% in PM)		-	-	*332*	*-*	*-*	*-*	*332*	*166*	*166*
Total Pass-By Trips				***622***	***184***	***92***	***92***	***438***	***219***	***219***
Fast-Food Rest. Diverted Trips (28% in AM and 19% in PM)		**-**	**-**	*142*	*104*	*52*	*52*	*38*	*19*	*19*
Shopping Plaza w/ Supermarket Diverted Trips (23% in PM)		**-**	**-**	*190*	*-*	*-*	*-*	*190*	*95*	*95*
Total Diverted Route Trips				***332***	***104***	***52***	***52***	***228***	***114***	***114***
Trip Generation Estimates Summary										
Existing Trip Credits				*10*	*1*	*0*	*1*	*1*	*1*	*0*
Project Internal Capture Trips				*280*	*72*	*36*	*36*	*208*	*104*	*104*
Project Pass-By Trips				*622*	*184*	*92*	*92*	*438*	*219*	*219*
Project Diverted Route Trips				*332*	*104*	*52*	*52*	*228*	*114*	*114*
Project Primary Trips				*13,595*	*454*	*282*	*172*	*431*	*202*	*229*
Net New Project Trips				***13,585***	***453***	***282***	***171***	***430***	***201***	***229***

PROJECT TRIP DISTRIBUTION

Trip distribution refers to the percentages of trips on routes leading to and from the project site. Project trip distribution was estimated based on the Manteca/Lathrop Travel Demand Model. The project was coded into the travel demand model and a "select zone" assignment was used to track the estimated trips to and from the project site for the AM and PM peak hours.

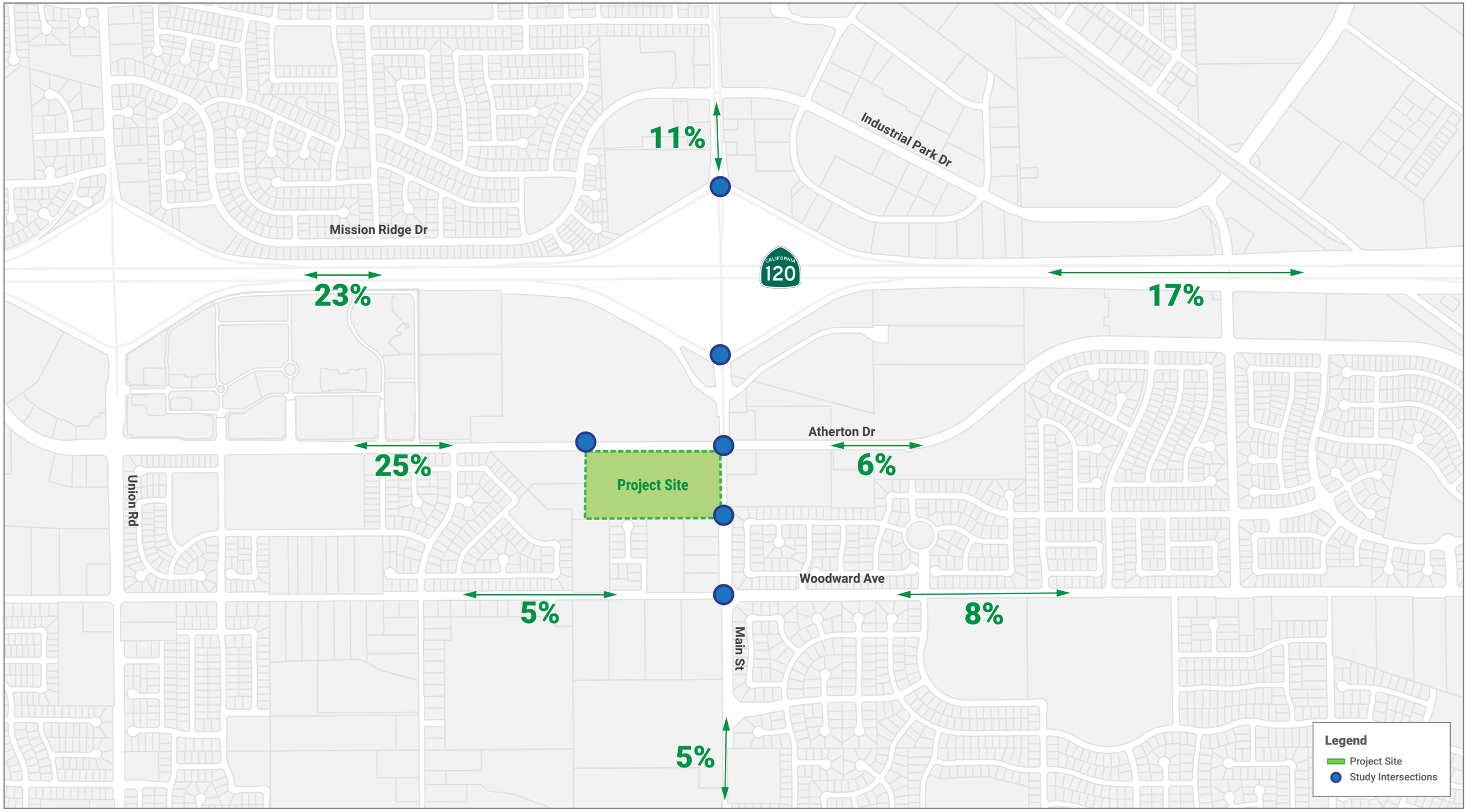
Both base year and future cumulative model scenarios were reviewed and considered in developing the trip distribution estimates for the project, as well as engineering judgment and knowledge of the area.

Trip distribution estimates for project traffic are listed below and summarized graphically in **Figure 7**.

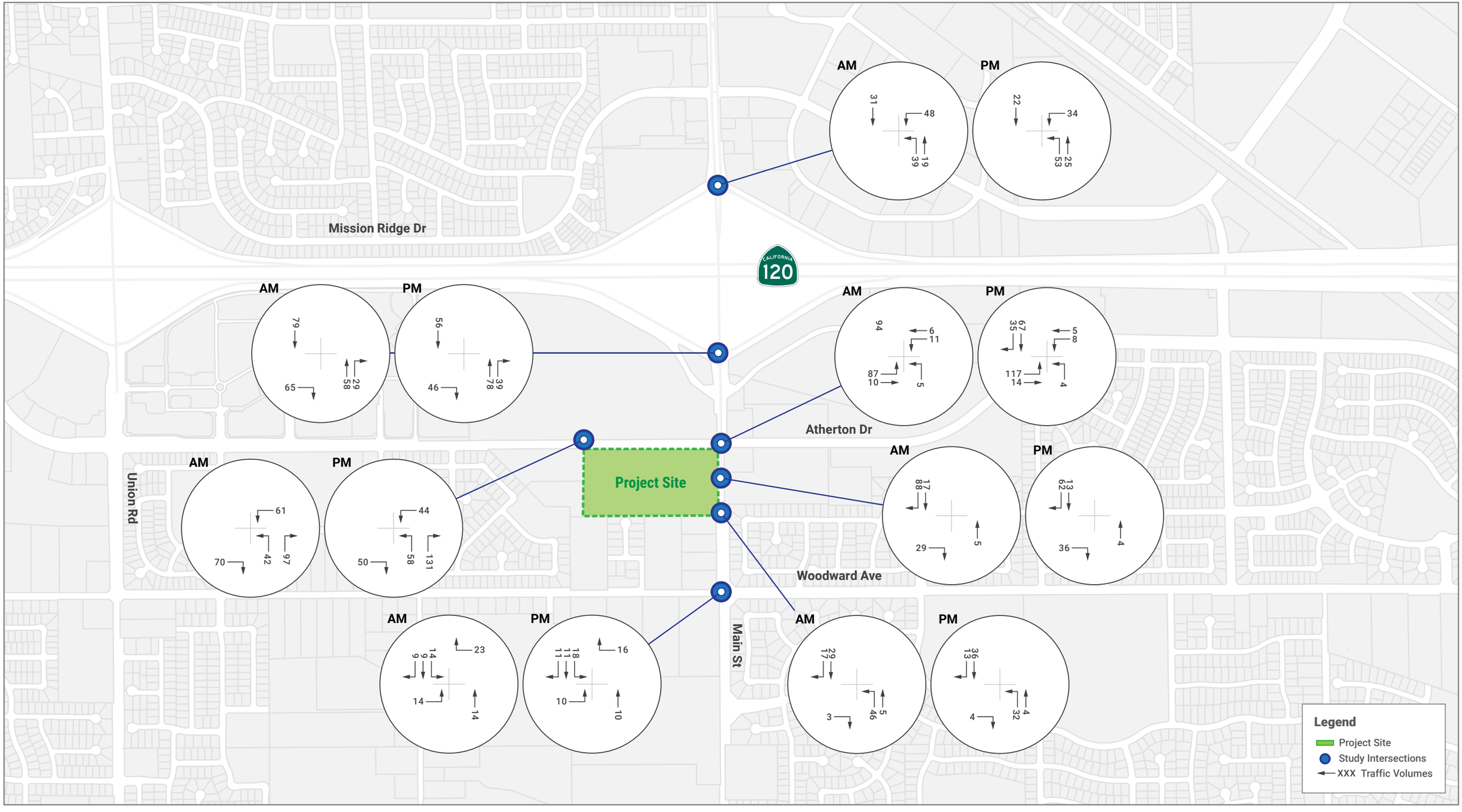
- 11% along Main Street, north of SR 120
- 23% along SR 120, west of the Main Street interchange
- 17% along SR 120, east of the Main Street interchange
- 25% along Atherton Drive, west of Main Street
- 6% along Atherton Drive, east of Main Street
- 5% Along Woodward Avenue, west of Main Street
- 8% along Woodward Avenue, east of Main Street
- 5% along Main Street, south of Woodward Avenue

The project site is located on the southwest corner of Atherton Drive and Main Street, south of SR 120 and will provide multiple access points along the adjacent streets. The preliminary site plan is shown in **Figure 2**. The project is not proposed to be constructed in phases and for the purposes of this study, it is assumed that all recommended driveways will be constructed at project buildout and are analyzed in Existing plus Project and Cumulative plus Project conditions. Project access and driveway control/restrictions are discussed in the Introduction and Site Circulation chapters of this report.

Project trip assignment to the study facilities, based on trip generation and distribution estimates, is shown in **Figure 8**.



Scale in Feet
0 1,000
North


Mission Ridge Dr
CALIFORNIA
120
Atherton Dr
Woodward Ave
Union Rd
Main St
Project Site
AM
PM
31
48
19
39
22
34
25
53
79
65
29
58
56
46
39
78
94
6
11
87
10
5
67
35
5
8
117
14
4
61
70
42
97
44
50
58
131
17
88
29
5
13
62
36
4
14
9
9
14
23
14
18
11
11
10
16
10
29
17
3
5
46
36
13
4
32
4
Legend
Project Site
Study Intersections
XXX Traffic Volumes
Scale in Feet
0
1,000
North

EXISTING PLUS PROJECT TRAFFIC OPERATIONS

Intersection operations were assessed for Existing plus Project conditions and compared to existing conditions. Existing plus Project operational analyses assume existing roadway geometries, traffic control, and traffic volumes plus project traffic. Existing plus Project peak hour volumes are shown in **Figure 9** and the operational LOS and delay results are summarized in **Table 8**. The project would cause the following changes in level of service:

- Main Street & SR 120 Eastbound Ramps: From LOS E to LOS F in the AM peak hour and from LOS C to LOS F in the PM peak hour.
- Main Street & Atherton Drive: From LOS C in the AM and PM peak hour to LOS D.

All study intersections would operate at LOS D or better with Existing plus Project Conditions, consistent with General Plan policies, except for the following locations:

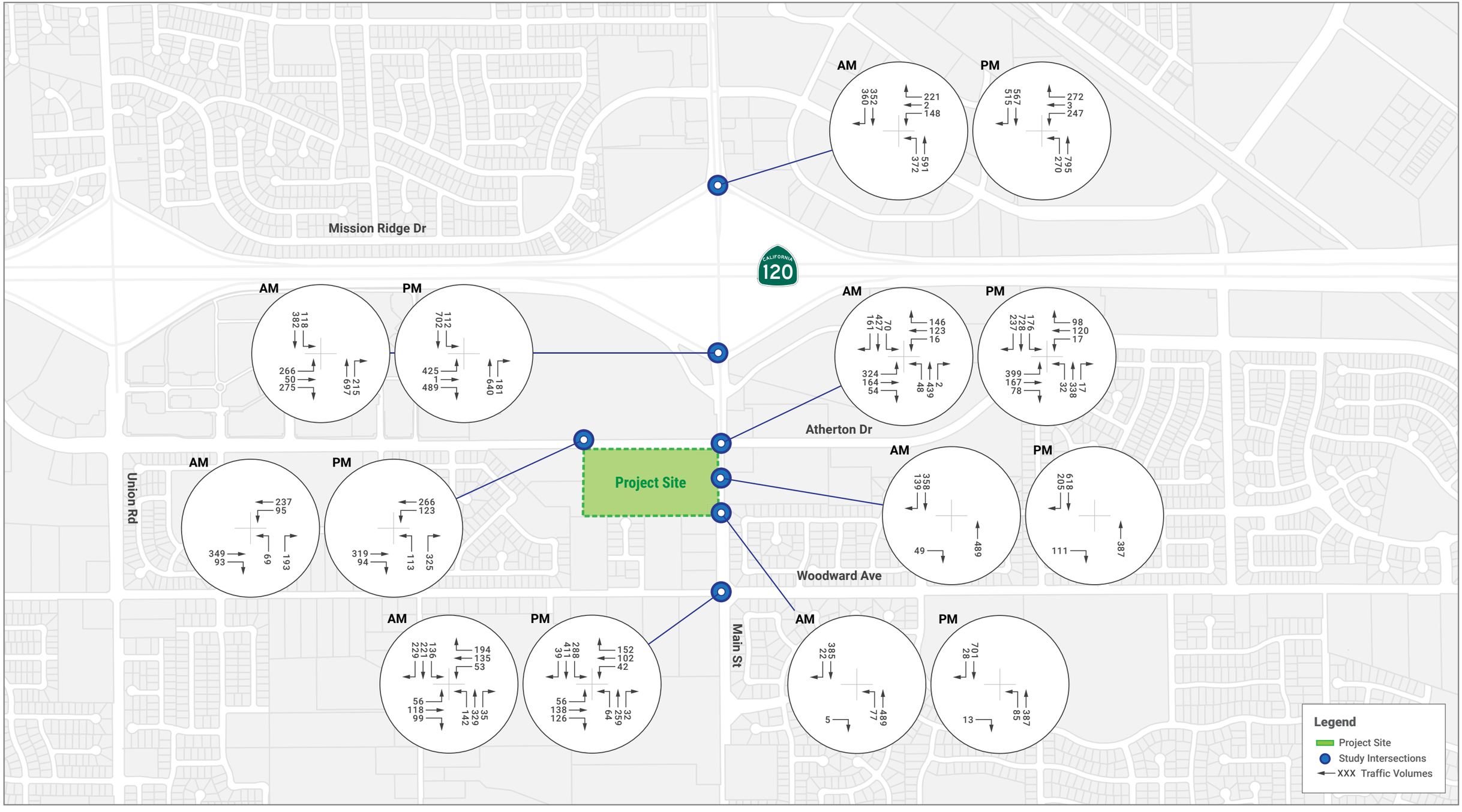
- Main Street & SR 120 Eastbound Ramps (LOS F in the AM and PM peak hours)
    - This signalized intersection operates at unacceptable LOS E in the AM peak under existing conditions. Providing a northbound right turn lane and optimizing the signal splits would result in acceptable LOS in existing plus project conditions. Existing plus project operational results with improvements is presented in **Table 9**.

- Main Street & Woodward Avenue (LOS F in the AM and PM peak hours)
    - This all-way stop controlled intersection meets CAMUTCD peak hour signal warrant #3 with existing traffic and signalization is planned in the future based on the City's PFIP. Signalization of this intersection would result in acceptable LOS in existing plus project conditions. Existing plus project operational results with signalization is presented in **Table 9**, and the peak hour signal warrant evaluation is presented in the **Appendix**.

Table 8: Intersection Operations, Existing Plus Project

No.	Intersection	Traffic Control[2]	Peak Hour	Existing LOS[3] (Delay)[4]	Existing + Project LOS[3] (Delay)[4]
1	Main Street & SR 120 Westbound Ramps	Signal	AM	B (10.5)	B (15.3)
			PM	B (11.0)	B (20.0)
2	Main Street & SR 120 Eastbound Ramps	Signal	AM	**E (65.5)**	**F (133.1)**
			PM	C (23.9)	**F (95.0)**
3	Main Street & Atherton Drive	Signal	AM	C (25.0)	D (39.2)
			PM	C (21.9)	D (46.8)
4	Main Street & Woodward Avenue	AWSC	AM	**F (74.9)**	**F (92.6)**
			PM	**F (52.7)**	**F (66.0)**
5	Atherton Drive & Project Driveway #1[1]	TWSC	AM	N/A	C (20.3)
			PM	N/A	D (27.7)
6	Main Street & Project Driveway #2[1]	TWSC	AM	N/A	B (10.7)
			PM	N/A	B (14.2)
7	Main Street & Project Driveway #3[1]	TWSC	AM	N/A	B (10.9)*
			PM	N/A	C (15.7)*

Source: Kittelson & Associates, Inc. 2022.
Notes:
[1] Intersection does not exist without the project.
[2] Signal = Signalized Intersection, TWSC = Two- or One-Way Stop Control intersection, AWSC = All-Way Stop Control Intersection.
[3] LOS = Level of Service
[4] Delay = Average vehicle delay reported in seconds per vehicle.
*No eastbound left turn project traffic assumed in this analysis.



Scale in Feet
0 1,000
North

Recommended Existing plus Project Intersection Improvements

The following improvements are recommended to provide future intersection operations consistent with the General Plan Policy C-1.2 which specifies that the city shall strive for LOS D operations outside the Downtown area.

Main Street & SR 120 Eastbound Ramps

Under Existing plus Project conditions, the Main Street and SR 120 Eastbound Ramp intersection is anticipated to operate at unacceptable LOS F during the AM and PM peak hours as presented in **Table 8**. Signal timing improvements alone would not improve the intersection to acceptable LOS. By providing a northbound right turn lane with cycle length and signal split optimization, the intersection would operate at acceptable LOS C during the AM and PM peak hours. Weekday AM and PM peak hour intersection delay and LOS with Existing plus Project conditions and the proposed improvements are presented in **Table 9**. The Main Street and SR 120 Ramps are identified in the City's PFIP for future interchange improvements.

Main Street & Woodward Avenue

Under Existing plus Project conditions, the intersection of Main Street and Woodward Avenue is anticipated to operate at unacceptable LOS F during the AM and PM peak hour conditions as presented in **Table 8**. The City's PFIP this intersection for future signal control. Furthermore, the intersection currently meets the CAMUTCD Peak Hour signal warrant (Warrant #3) under existing conditions without project traffic. The intersection of Main Street and Woodward Avenue is anticipated to provide acceptable LOS operations based on an evaluation of the intersection with signal control (protected left turn phasing with existing geometry) and Existing plus Project traffic volumes, as presented in **Table 9**.

Table 9: Intersection Operations, Existing Plus Project with Improvements

No.	Intersection	Peak Hour	Existing + Project LOS[3] (Delay)[4]	Existing + Project with Improvements LOS[3] (Delay)[4]
2	Main Street & SR 120 Eastbound Ramps	AM	**F (133.1)**	C (30.4)
		PM	**F (95.0)**	C (34.0)
4	Main Street & Woodward Avenue	AM	**F (92.6)**	C (27.8)
		PM	**F (66.0)**	C (23.5)

CUMULATIVE TRAFFIC OPERATIONS

The Cumulative and Cumulative plus Project analyzes how the study area's transportation system would operate with development growth and changes of the surrounding community by the year 2040. The future development of the surrounding community and associated traffic changes by 2040 were derived from the Manteca/Lathrop Travel Demand Model. This model includes all of the approved and reasonably foreseeable growth anticipated in Manteca and the surrounding jurisdictions by 2040. The model's assumed future development within the City of Manteca is consistent with the City's adopted General Plan.

TRANSPORTATION IMPROVEMENTS

The Cumulative conditions assume street improvements documented in the Transportation Public Facilities Implementation Plan (PFIP) version effective January 1, 2018. The following summarizes the planned roadway capacity improvements within the project study area based upon the PFIP:

- Main Street (between Woodward Ave. and SR 120 EB Ramps)
  - 2-lane existing cross section widened to 6-lane cross section with 11 ft lanes and 5 ft bike lanes on both sides (PLATE E-3.05 in PFIP).
- Main Street & Woodward Ave Intersection
  - Install signalized intersection with one left turn pocket, one right turn pocket, and right turn overlap phasing on each approach widened per Plates E-1.03, E-2.03, E-2.04, and E-2.06 where applicable.
- Main Street & SR 120 Interchange (eastbound and westbound ramps)
  - The PFIP indicates that interchange improvements are planned at this location and included in PLATE E-1.05. No specific information or conceptual layouts documenting future improvements at this location are currently available. Recommendations are made in this report in regards to what intersection improvements could result in acceptable operations, based on forecasted volumes.

TRAFFIC FORECASTS

The traffic forecasts for cumulative conditions are based on the Manteca/Lathrop Travel Demand Model. The travel model was recently updated in support of the 2021 Manteca General Plan Update and includes future assumptions for land use development and transportation improvements consistent with the General Plan.

Traffic forecasts for specific intersections were based on an incremental adjustment methodology to minimize the effects of differences between the travel model and observed traffic counts. For each study intersection turning movement, the increment was calculated between the model's 2018 base year and the model's 2040 forecast traffic volumes and added to the observed traffic count to create the future AM and PM peak hour intersection turning movement traffic volumes. The adjusted turn movements were then checked to ensure logical growth and continuity between locations.


AM
583
569
241
3
138
1,138
434
PM
726
608
299
3
235
1,153
231
Mission Ridge Dr
CALIFORNIA
120
AM
130
591
599
3
527
256
973
PM
115
846
657
3
415
92
727
AM
183
782
154
169
213
53
243
203
82
92
814
295
PM
181
780
250
148
219
101
189
298
273
61
496
158
Atherton Dr
Project Site
Union Rd
Woodward Ave
Main St
AM
295
442
176
467
197
99
153
165
117
66
594
267
PM
448
588
118
307
142
58
151
159
139
38
252
155
Legend
Project Site
Study Intersections
XXX Traffic Volumes
Scale in Feet
0
1,000
North

Project Driveway #1 (study intersection #5) was evaluated in this study assuming that all motorists traveling to and from the future multifamily development would utilize and share access with the Marketplace @ Main Project Driveway #1 along Atherton Drive. It estimated that the multifamily development would generate approximately 76 weekday AM peak hour trips and 78 weekday PM peak hour trips.

CUMULATIVE INTERSECTION OPERATIONS

Intersection operations were assessed for Cumulative Conditions (2040 growth without the project). The operations analysis assumes intersection improvements consistent with the information provided in the PFIP as listed above. Cumulative conditions intersection geometries assumed in these analyses are summarized and provided in the **Appendix**. Cumulative peak hour traffic volumes without project traffic are shown in **Figure 10**.

Intersection turning movement volumes, lane configurations, and traffic control were used to estimate the average vehicle delay and levels of service at the study intersections for the AM and PM peak hours (**Table 10**). All study intersections would operate at an acceptable LOS D or better during the Cumulative Conditions weekday AM and PM peak hours without project traffic except for the following:

- Main Street & SR 120 Ramps (LOS F during AM peak hour and LOS E during PM peak hour)

Table 10: Intersection Operations, Cumulative

No.	Intersection	Traffic Control[2]	Peak Hour	LOS[3] (Delay)[4]
1	Main Street & SR 120 Westbound Ramps	Signal	AM	C (31.6)
			PM	C (25.2)
2	Main Street & SR 120 Eastbound Ramps	Signal	AM	**F (181.7)**
			PM	**E (67.4)**
3	Main Street & Atherton Drive	Signal	AM	C (34.5)
			PM	C (29.7)
4	Main Street & Woodward Avenue	Signal	AM	C (32.6)
			PM	C (32.7)
5	Atherton Drive & Project Driveway #1[1]	TWSC	AM	C (21.0)
			PM	D (27.7)
6	Main Street & Project Driveway #2[1]	None	AM	N/A
			PM	N/A
7	Main Street & Project Driveway #3[1]	None	AM	N/A
			PM	N/A

Source: Kittelson & Associates, Inc. 2022.
Notes:
[1] Intersection does not exist without the project.
[2] Signal = Signalized Intersection, TWSC = Two- or One-Way Stop Control intersection, AWSC = All-Way Stop Control Intersection.
[3] LOS = Level of Service
[4] Delay = Average vehicle delay reported in seconds per vehicle.

CUMULATIVE PLUS PROJECT INTERSECTION OPERATIONS

Intersection operations were assessed for Cumulative (2040 growth without the project) and Cumulative plus project conditions and the analysis results are shown in **Table 11**. The operations analysis assumes intersection improvements consistent with the information provided in the PFIP as listed above.

Cumulative conditions intersection geometries assumed in these analyses are summarized and provided in the **Appendix** and the assumed project driveway control/geometry are described in the project description section of this report. Cumulative plus Project peak hour traffic volumes are shown in **Figure 11**.

All study intersections would operate at an acceptable LOS D or better during the Cumulative plus project Conditions weekday AM and PM peak hours except for the following:

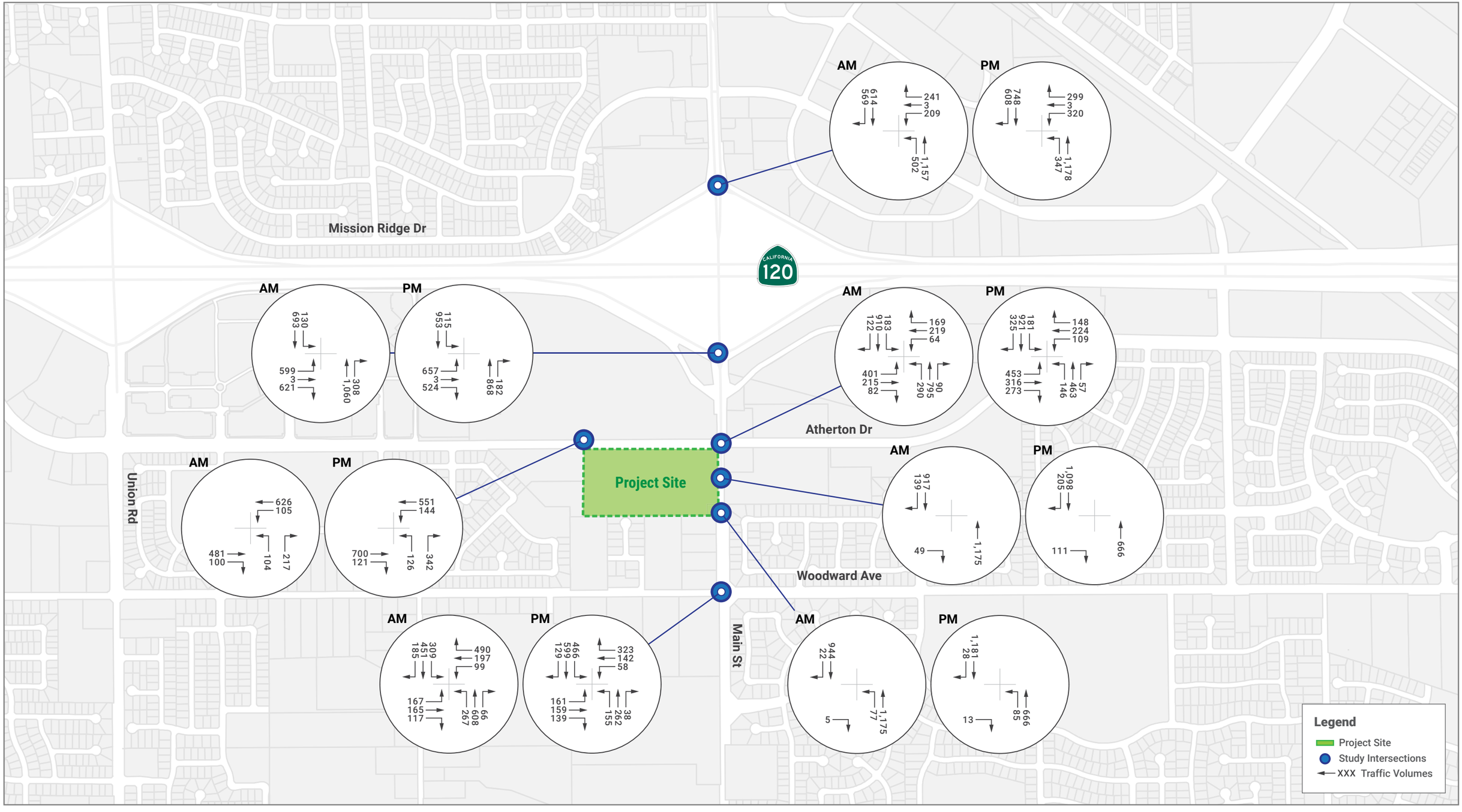
- Main Street & SR 120 Eastbound Ramps (LOS F in AM and PM peak hours)
- Atherton Drive & Project Driveway #1 (LOS F in AM and PM peak hours)

Table 11: Intersection Operations, Cumulative Plus Project Conditions

No.	Intersection	Traffic Control[2]	Peak Hour	Cumulative LOS[3] (Delay)[4]	Cumulative + Project LOS[3] (Delay)[4]
1	Main Street & SR 120 Westbound Ramps	Signal	AM	C (31.6)	D (48.0)
			PM	C (25.2)	D (45.9)
2	Main Street & SR 120 Eastbound Ramps	Signal	AM	**F (181.7)**	**F (223.5)**
			PM	**E (67.4)**	**F (117.7)**
3	Main Street & Atherton Drive	Signal	AM	C (34.5)	D (50.9)
			PM	C (29.7)	D (49.7)
4	Main Street & Woodward Avenue	Signal	AM	C (32.6)	D (35.1)
			PM	C (32.7)	D (36.4)
5	Atherton Drive & Project Driveway #1[1]	TWSC	AM	C (21.0)	**F (60.4)**
			PM	D (27.7)	**F (101.6)**
6	Main Street & Project Driveway #2[1]	None	AM	N/A	C (17.6)
			PM	N/A	C (24.6)
7	Main Street & Project Driveway #3[1]	None	AM	N/A	B (14.3)*
			PM	N/A	C (18.7)*

Source: Kittelson & Associates, Inc. 2022.
Notes:
[1] Intersection does not exist without the project.
[2] Signal = Signalized Intersection, TWSC = Two- or One-Way Stop Control intersection, AWSC = All-Way Stop Control Intersection.
[3] LOS = Level of Service
[4] Delay = Average vehicle delay reported in seconds per vehicle.*No eastbound left turn project traffic assumed in this analysis.

The travel model indicates increases in traffic volumes along Main Street and the intersecting roads for the 2040 forecast year. Therefore, the SR 120 Eastbound ramp intersections with Main Street are anticipated to experience demands that exceed the probable capacity, resulting in LOS F conditions. The travel model also indicates increases in traffic volumes along Atherton Drive, therefore the stop-controlled access at Project Driveway #1 is anticipated to experience demands that exceed the capacity.



Scale in Feet
0 1,000
North

Recommended Intersection Improvements

The following improvements are recommended to provide future intersection operations consistent with the General Plan Policy C-1.2 which specifies that the city shall strive for LOS D operations outside the Downtown area.

Main Street & SR 120 Eastbound Ramps

The Manteca General Plan Major Streets Circulation Plan indicates an ultimate width of six lanes for Main Street south of SR 120 to Atherton Drive. The PFIP also identifies the interchange as one that will be improved; however, the future configuration is not specified. The following configuration is expected to provide LOS D or better operations during the weekday AM and PM peak hour conditions:

- Main Street and SR 120 Eastbound Ramp
  - Two northbound and southbound through lanes
  - One northbound right turn lane
  - One southbound left turn lane
  - Two eastbound left turn lanes and two eastbound right turn lanes

Implementation of the recommended improvements described above is anticipated to result in acceptable operations at the previously deficient study intersections. Analysis results for Main Street and SR 120 EB Ramp is summarized in **Table 12**.

Atherton Drive & Project Driveway #1

The Atherton Drive and Project Driveway #1 intersection is anticipated to operate at unacceptable LOS F during the AM and PM peak hours in Cumulative plus Project conditions. The intersection would meet the CAMUTCD Peak Hour signal warrant (Warrant #3) under Cumulative plus project conditions as presented in the **Appendix** section of this report and Installation of a traffic signal (with a protected westbound left turn phase) at Main Street and Woodward Avenue would provide acceptable LOS, as presented in **Table 12**.

Table 12: Intersection Operations, Cumulative Plus Project Conditions Improvements

No.	Intersection	Traffic Control[2]	Peak Hour	Cumulative + Project LOS[3] (Delay)[4]	Cumulative + Project with Improvements LOS[3] (Delay)[4]
2	Main Street & SR 120 Eastbound Ramps	Signal	AM	**F (223.5)**	C (24.3)
			PM	**F (117.7)**	B (14.5)
5	Atherton Drive & Project Driveway #1[1]	Signal	AM	**F (60.4)**	A (10.0)
			PM	**F (101.6)**	B (16.6)

Source: Kittelson & Associates, Inc. 2022.
Notes:
[1] Intersection does not exist without the project.
[2] Signal = Signalized Intersection, TWSC = Two- or One-Way Stop Control intersection, AWSC = All-Way Stop Control Intersection.
[3] LOS = Level of Service
[4] Delay = Average vehicle delay reported in seconds per vehicle.

PROJECT SITE CIRCULATION

The preliminary site plan for the proposed project was evaluated in terms of access, circulation, and parking, which is discussed in the following sections.

PROJECT ACCESS

Atherton Drive Driveways

The proposed site plan shows three access points along the project's Atherton Drive frontage. Atherton Drive is currently a four-lane divided arterial adjacent to the project site and is anticipated to remain a four-lane divided arterial in the future.

The westernmost driveway along Atherton Drive will be shared with the future multifamily residential development adjacent to the project's western boundary and is proposed to provide full access. This driveway is anticipated to operate at acceptable LOS with stop-sign control in Existing plus Project conditions, however, due to the forecasted increase in vehicular traffic along Atherton Drive in cumulative conditions, the stop-sign controlled driveway would operate at unacceptable LOS F during both AM and PM weekday peak hour conditions in Cumulative plus Project conditions. With Cumulative plus Project volumes, the CAMUTCD Peak Hour Signal Warrant #3 would be satisfied. Signal control, with a westbound left protected phase, is therefore recommended and is anticipated to operate at acceptable LOS during both AM and PM peak hour conditions. The eastbound right turn into the driveway is proposed as a shared right turn and through movement.

Based upon the driveway volumes in the AM and PM peak hours, the anticipated combined major street volumes to warrant a signal are approximately 1,150 in the AM peak and 850 in the PM peak hour. Applying a linear growth rate from the existing volumes to cumulative 2040 conditions, the signal is anticipated to be warranted in 2026 based on PM peak hour traffic volumes. A complete signal warrant study is recommended for this location after project build-out and by 2026 or earlier.

Two right-in/right-out driveways are also indicated in the proposed site plan. Due to proximity to the Atherton Drive and Main Street intersection, these two driveways could cause weaving concerns for motorists who exit from these driveways and then attempt to traverse multiple lanes in a short distance to make a westbound left at the Atherton Drive and Main Street intersection to travel north. The driveway immediately east of the main full access driveway is expected to provide acceptable operations with right-in, right-out access, however, exit from the driveway furthest east along Atherton Drive (near the Main Street intersection) is recommended to only allow right-in traffic. To reduce weaving conflicts at the right-in, right-out driveway east of the main project driveway, countermeasures are recommended to restrict northbound right-turn vehicles to only access the eastbound through movements and eastbound right-turn movement (and restrict access to the eastbound left-turn lane from the project driveway) at the intersection of Main Street & Atherton Drive.

Potential strategies to limit project traffic from exiting the proposed right-in, right-out driveway (east of the main full access driveway along Atherton Drive) and traversing three travel lanes to travel eastbound left at Main Street & Atherton Drive could include the following along the

eastbound left turn pocket at Main Street & Atherton Drive: gore striping with raised pavement markings, delineators, or a traversable concrete separator.

The strategy and design should be coordinated with City of Manteca staff and adhere to the local design standards and industry best practices with a focus on safety and operational efficiency.

South Main Street Driveways

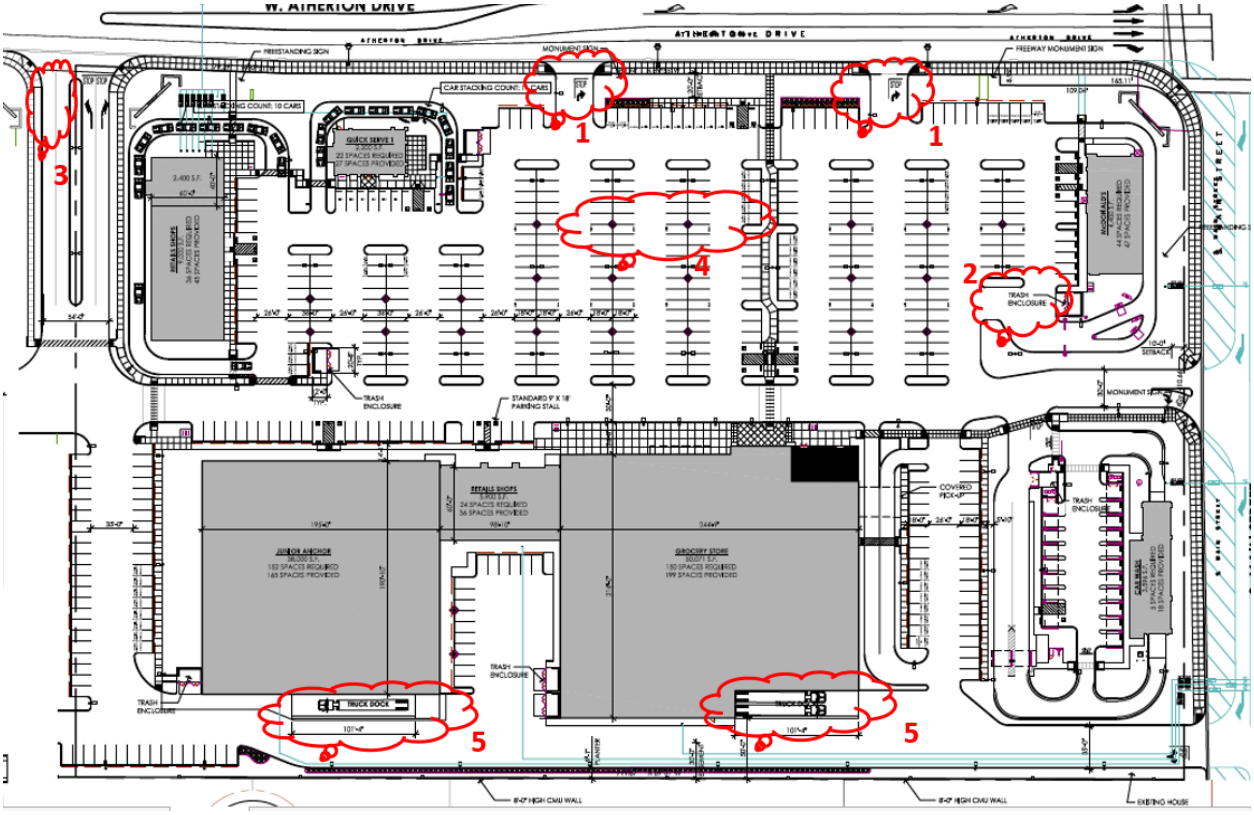
The proposed site plan shows two access points along the project's South Main Street frontage. Main Street is currently a two-lane undivided roadway and is anticipated to be widened to a six-lane divided arterial in the future per the PFIP.

The northernmost project driveway along Main Street is proposed as a right-in/right-out and is anticipated to operate acceptably in Existing and Cumulative conditions with project traffic and a right-turn pocket into the site. The southernmost driveway along Main Street is anticipated to operate acceptably in Existing plus Project conditions as a stop-sign controlled driveway with full access. However, once Main Street is widened to six lanes in the future it is anticipated that motorists and trucks attempting to make left-turns out of the driveway would experience extended delays. In addition, this driveway is anticipated to be utilized by trucks traveling to the retail loading/unloading zones. To exit left out of this southernmost driveway, vehicles would have to traverse the three southbound travel lanes along Main Street to merge into northbound traffic which is anticipated to create both operational and safety concerns. Therefore, once Main Street is widened, the southernmost project driveway along Main Street is recommended to allow right-turns in (with a right-turn pocket), right-turns out, and left-turns in only – prohibiting left-turn out movements when South Main Street traffic volumes increase and, the road is widened to six lanes per the PFIP.

ONSITE CIRCULATION

The proposed site plan was evaluated to determine how onsite traffic circulation would occur at project buildout. The following potential issues are recommended to be addressed prior to finalization of the site plan (**Figure 12**). The bullet number of each issue in the list below corresponds to the number depicted in the graphic.

Figure 12: Site Circulation Issues



1. **Atherton Drive Driveways:** As noted above, it is recommended that the proposed easternmost driveway along Atherton Drive operate as right-turn in only, with no exits permitted. Improvements along the eastbound left-turn pocket on Atherton Drive approaching Main Street should be implemented if right turns out of the proposed middle driveway are permitted. Potential improvements as discussed elsewhere in this document could consist of installation of gore striping with in-road reflectors, delineators, or a traversable concrete barrier to restrict traffic from entering the left-turn pocket from the center driveway.
2. **McDonald's Drive-Thru**: The site plan shows dual drive-thru lanes for the proposed McDonalds building at the northeast corner of the site. Typically, dual drive-thru configurations would provide/allow only one vehicle lane at the drive-thru entrance that splits to two lanes. This arrangement avoids conflicts and simplifies circulation for motorists.
3. **Southbound lanes into site from Atherton Drive:** The site plan shows two southbound lanes into the site from the main project access point along Atherton Drive at the northwest corner of the site. It is anticipated that one lane would provide sufficient capacity to service vehicles entering the site during the AM and PM peak hours and would help to avoid weaving movements.
4. **Parking Space Lengths:** All parking spaces onsite are shown with 18-foot lengths. Typically, 20-foot parking space lengths are recommended for standard parking spaces to accommodate all typical vehicle types. Parking spaces with 18-foot lengths should be

provided only where necessary, and preferably where 2-foot overhangs can be provided in front of the space.

5. **Truck Deliveries and Pick-Ups:** Trash bin enclosures are shown in six locations throughout the site. In addition, two truck loading docks are proposed at the south end of the proposed grocery store and junior anchor buildings. It is recommended that turning templates be prepared showing that the proposed trash and loading dock locations can be accessed by the appropriate design vehicle(s).

PEDESTRIAN FACILITIES

Construction of ADA compliant sidewalks along all project frontages, consistent with nearby developments, is recommended. Pedestrian access to the Terra Bella Park adjacent to the site should be considered and designed for to provide patrons and employees of the site safe access.

All sidewalk and ramp facilities proposed by the project should be constructed consistent with the City's policies and design standards and ADA compliant.

EMERGENCY ACCESS

The project proposes to provide multiple access points along Atherton Drive and South Main Street.

The proposed onsite parking aisle widths range between 26 and 35 feet and are proposed to accommodate a single vehicle travel lane in each direction. It is recommended that the final site plan and turning templates be reviewed to confirm that adequate turning space for larger emergency vehicles will be provided.

PARKING

The Manteca Municipal Code 17.52.050 includes the following requirements for the proposed uses:

- Restaurants, Quick-Service: 1 space per 100 square feet
- Grocery Stores/Supermarkets: 3 spaces per 1,000 square feet
- Retail, General: 4 spaces per 1,000 square feet
- Car Wash: 3 spaces plus 2 per bay

The project proposes to provide a total of 9,000 square feet of quick service restaurants, 88,071 square feet of grocery/supermarket, and 12,500 square feet of general retail, and one car wash with two bays. The code requirement for these proposed land uses is a total of 414 spaces.

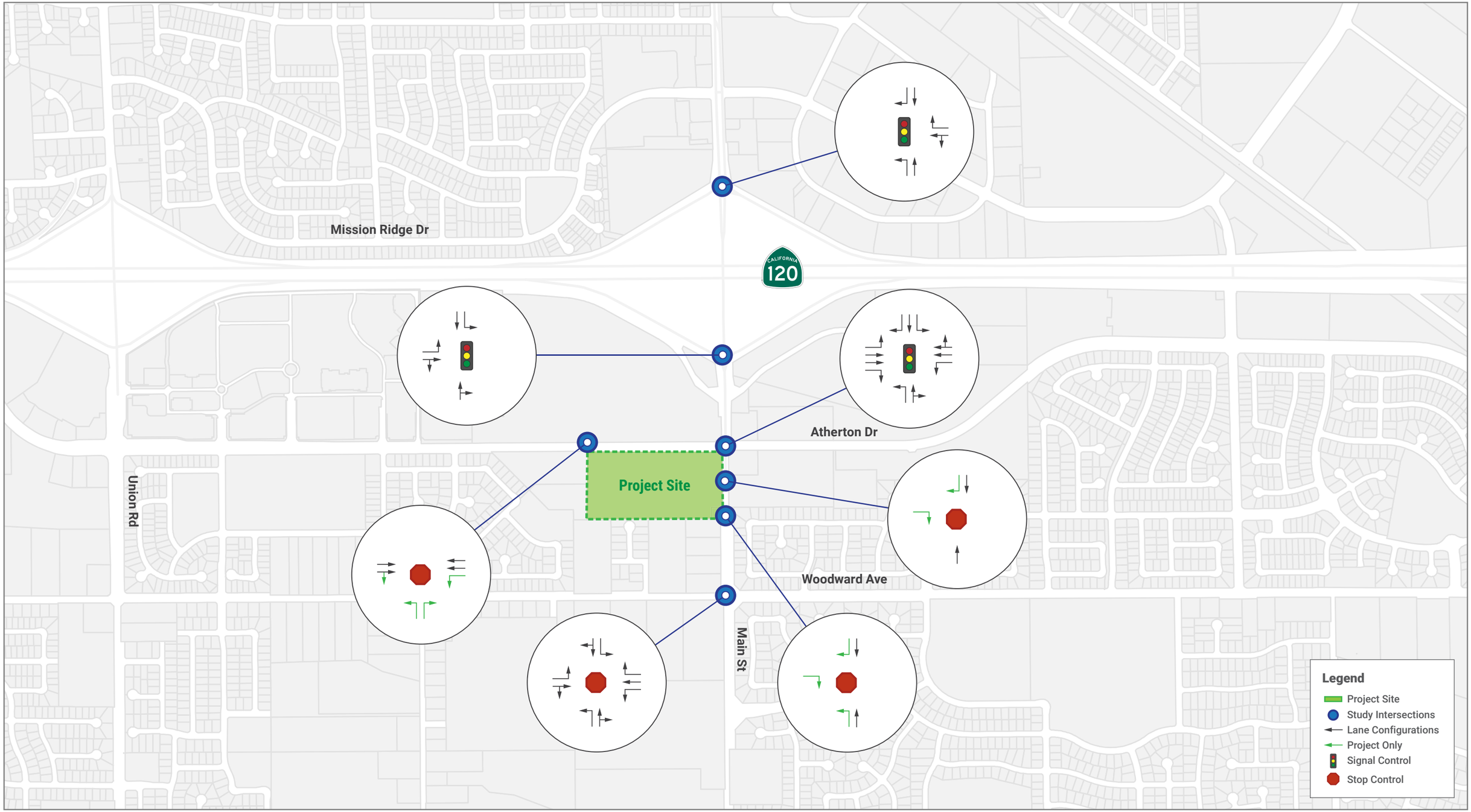
The project proposes to provide 540 parking spaces onsite per the proposed site plan, and it is therefore anticipated that the proposed onsite parking will satisfy the current City of Manteca Municipal Code requirements. Per California ADA requirements, a minimum of 1 out of every 8 spaces must be ADA compliant for parking lot supplies exceed 300 spaces. Since the project proposes to provide 540 spaces, 68 spaces should be ADA compliant (540 * 1/8 = 68). The preliminary site plan shows 8 ADA spaces and it is therefore recommended that the site plan be updated to show sufficient ADA space supply.



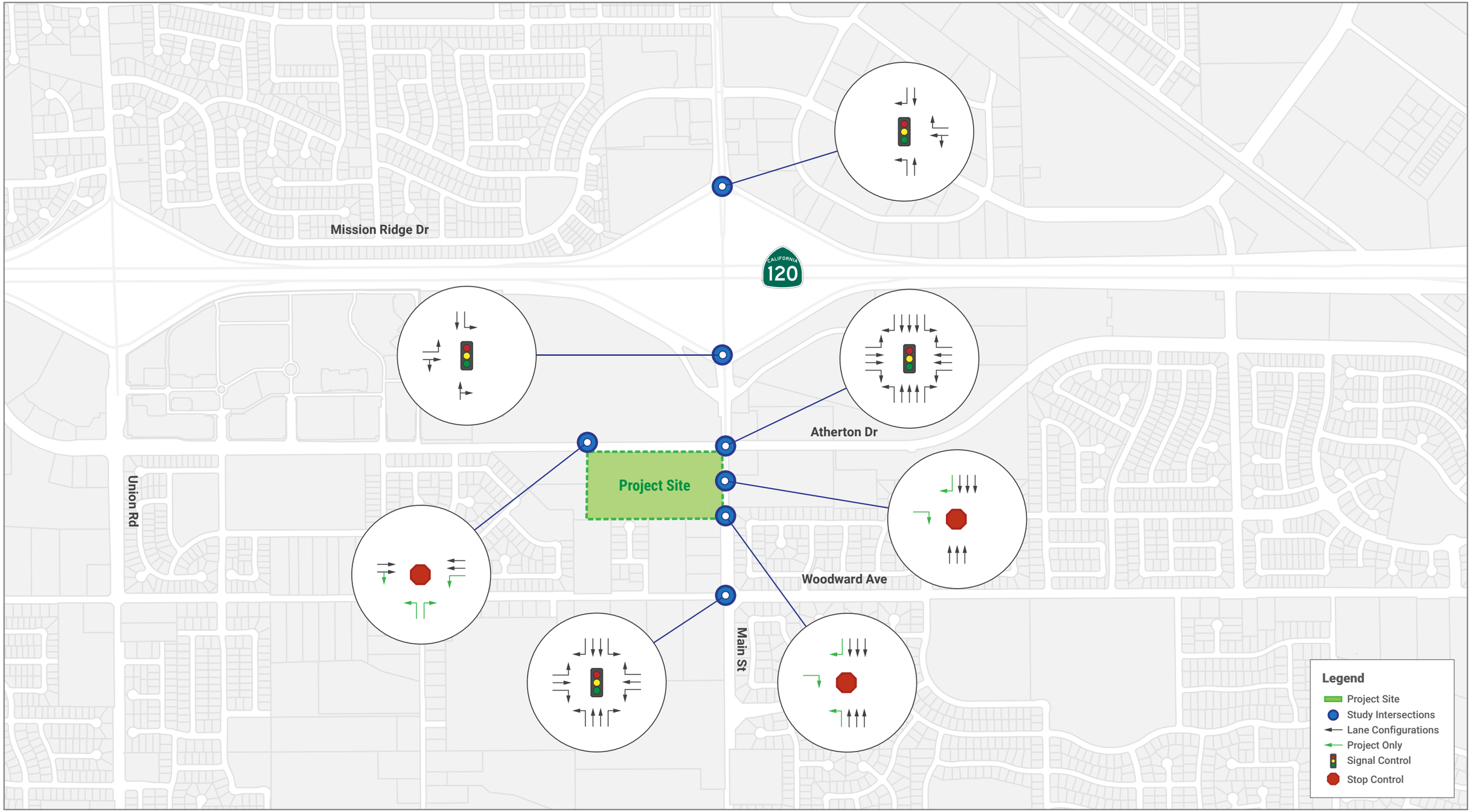
Section 6
Appendix

APPENDIX

EXISTING AND CUMULATIVE LANE CONFIGURATIONS

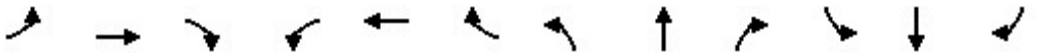


Scale in Feet
0
1,000
North



Scale in Feet
0
1,000
North

EXISTING CONDITIONS



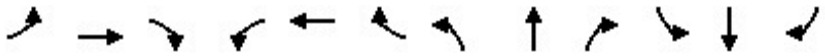
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	77	2	221	304	572	0	0	321	360
Future Volume (veh/h)	0	0	0	77	2	221	304	572	0	0	321	360
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1752	1870	1767	1870	1752	0	0	1767	1722
Adj Flow Rate, veh/h				86	2	0	338	636	0	0	357	400
Peak Hour Factor				0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %				10	2	9	2	10	0	0	9	12
Cap, veh/h				112	3		427	1177	0	0	575	465
Arrive On Green				0.06	0.06	0.00	0.24	0.67	0.00	0.00	0.33	0.33
Sat Flow, veh/h				1743	41	1497	1781	1752	0	0	1767	1429
Grp Volume(v), veh/h				88	0	0	338	636	0	0	357	400
Grp Sat Flow(s),veh/h/ln				1783	0	1497	1781	1752	0	0	1767	1429
Q Serve(g_s), s				1.8	0.0	0.0	6.7	7.0	0.0	0.0	6.4	9.8
Cycle Q Clear(g_c), s				1.8	0.0	0.0	6.7	7.0	0.0	0.0	6.4	9.8
Prop In Lane				0.98		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				114	0		427	1177	0	0	575	465
V/C Ratio(X)				0.77	0.00		0.79	0.54	0.00	0.00	0.62	0.86
Avail Cap(c_a), veh/h				714	0		713	2104	0	0	1415	1144
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				17.3	0.0	0.0	13.4	3.2	0.0	0.0	10.7	11.8
Incr Delay (d2), s/veh				4.1	0.0	0.0	3.3	0.1	0.0	0.0	0.4	1.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.8	0.0	0.0	2.5	0.6	0.0	0.0	1.9	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				21.3	0.0	0.0	16.7	3.3	0.0	0.0	11.1	13.7
LnGrp LOS				C	A		B	A	A	A	B	B
Approach Vol, veh/h					88	A		974			757	
Approach Delay, s/veh					21.3			8.0			12.5	
Approach LOS					C			A			B	

Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		30.5			13.0	17.5		7.0				
Change Period (Y+Rc), s		5.3			4.0	5.3		4.6				
Max Green Setting (Gmax), s		45.0			15.0	30.0		15.0				
Max Q Clear Time (g_c+I1), s		9.0			8.7	11.8		3.8				
Green Ext Time (p_c), s		0.7			0.6	0.4		0.1				

Intersection Summary		
HCM 6th Ctrl Delay	10.5	
HCM 6th LOS	B	

Notes

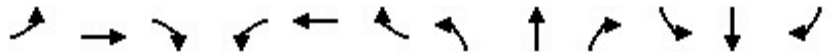
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	266	50	181	0	0	0	0	610	163	118	280	0
Future Volume (veh/h)	266	50	181	0	0	0	0	610	163	118	280	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1678	1752	1796				0	1856	1856	1663	1767	0
Adj Flow Rate, veh/h	292	55	199				0	670	179	130	308	0
Peak Hour Factor	0.91	0.91	0.91				0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	15	10	7				0	3	3	16	9	0
Cap, veh/h	360	75	270				0	555	148	166	1023	0
Arrive On Green	0.23	0.23	0.23				0.00	0.40	0.40	0.10	0.58	0.00
Sat Flow, veh/h	1598	331	1199				0	1404	375	1584	1767	0
Grp Volume(v), veh/h	292	0	254				0	0	849	130	308	0
Grp Sat Flow(s),veh/h/ln	1598	0	1530				0	0	1779	1584	1767	0
Q Serve(g_s), s	8.8	0.0	7.8				0.0	0.0	20.0	4.1	4.5	0.0
Cycle Q Clear(g_c), s	8.8	0.0	7.8				0.0	0.0	20.0	4.1	4.5	0.0
Prop In Lane	1.00		0.78				0.00		0.21	1.00		0.00
Lane Grp Cap(c), veh/h	360	0	345				0	0	703	166	1023	0
V/C Ratio(X)	0.81	0.00	0.74				0.00	0.00	1.21	0.78	0.30	0.00
Avail Cap(c_a), veh/h	947	0	907				0	0	703	626	1023	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	18.6	0.0	18.2				0.0	0.0	15.3	22.1	5.4	0.0
Incr Delay (d2), s/veh	1.7	0.0	1.2				0.0	0.0	106.8	7.9	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.0	2.6				0.0	0.0	27.4	1.7	1.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.2	0.0	19.4				0.0	0.0	122.1	30.0	5.5	0.0
LnGrp LOS	C	A	B				A	A	F	C	A	A
Approach Vol, veh/h		546						849			438	
Approach Delay, s/veh		19.8						122.1			12.8	
Approach LOS		B						F			B	

Timer - Assigned Phs	1	2	4	6
Phs Duration (G+Y+Rc), s	9.3	25.3	16.0	34.6
Change Period (Y+Rc), s	4.0	5.3	4.6	5.3
Max Green Setting (Gmax), s	20.0	20.0	30.0	20.0
Max Q Clear Time (g_c+I1), s	6.1	22.0	10.8	6.5
Green Ext Time (p_c), s	0.3	0.0	0.7	1.1

Intersection Summary	
HCM 6th Ctrl Delay	65.5
HCM 6th LOS	E



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	166	152	54	5	117	146	53	458	4	70	299	93
Future Volume (veh/h)	166	152	54	5	117	146	53	458	4	70	299	93
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1856	1870	1870	1841	1870	1841	1841	1870	1796	1767	1870
Adj Flow Rate, veh/h	205	188	67	6	144	180	65	565	5	86	369	115
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	2	3	2	2	4	2	4	4	2	7	9	2
Cap, veh/h	249	1011	451	17	273	244	106	654	6	117	648	582
Arrive On Green	0.14	0.29	0.29	0.01	0.16	0.16	0.06	0.36	0.36	0.07	0.37	0.37
Sat Flow, veh/h	1781	3526	1571	1781	1749	1560	1753	1821	16	1711	1767	1585
Grp Volume(v), veh/h	205	188	67	6	144	180	65	0	570	86	369	115
Grp Sat Flow(s),veh/h/ln	1781	1763	1571	1781	1749	1560	1753	0	1838	1711	1767	1585
Q Serve(g_s), s	8.1	2.9	2.3	0.2	5.5	8.0	2.6	0.0	20.9	3.6	12.1	3.6
Cycle Q Clear(g_c), s	8.1	2.9	2.3	0.2	5.5	8.0	2.6	0.0	20.9	3.6	12.1	3.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	249	1011	451	17	273	244	106	0	660	117	648	582
V/C Ratio(X)	0.82	0.19	0.15	0.36	0.53	0.74	0.61	0.00	0.86	0.74	0.57	0.20
Avail Cap(c_a), veh/h	492	1948	868	492	966	862	388	0	1015	378	976	876
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.2	19.4	19.2	35.6	28.1	29.1	33.2	0.0	21.5	33.1	18.3	15.6
Incr Delay (d2), s/veh	2.6	0.0	0.1	4.7	0.6	1.6	2.1	0.0	3.2	3.4	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	1.1	0.8	0.1	2.3	3.0	1.1	0.0	8.8	1.5	4.6	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.8	19.5	19.3	40.3	28.7	30.8	35.3	0.0	24.7	36.5	18.6	15.7
LnGrp LOS	C	B	B	D	C	C	D	A	C	D	B	B
Approach Vol, veh/h		460			330			635			570	
Approach Delay, s/veh		25.4			30.0			25.8			20.7	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.9	31.0	5.7	25.8	9.4	31.6	15.1	16.3
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	16.9	40.0	20.0	40.0	16.0	40.0	20.0	40.0
Max Q Clear Time (g_c+I1), s	5.6	22.9	2.2	4.9	4.6	14.1	10.1	10.0
Green Ext Time (p_c), s	0.1	2.3	0.0	0.9	0.0	1.7	0.2	1.3

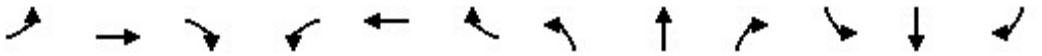
Intersection Summary	
HCM 6th Ctrl Delay	25.0
HCM 6th LOS	C

Intersection	
Intersection Delay, s/veh	74.9
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	42	118	99	53	135	171	142	315	35	122	212	20
Future Vol, veh/h	42	118	99	53	135	171	142	315	35	122	212	20
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Heavy Vehicles, %	21	2	2	8	6	2	2	2	3	7	6	35
Mvmt Flow	55	155	130	70	178	225	187	414	46	161	279	26
Number of Lanes	1	1	0	1	1	1	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	3	2
HCM Control Delay	46.2	26.2	145.1	47.8
HCM LOS	E	D	F	E

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	90%	0%	54%	0%	100%	0%	0%	91%
Vol Right, %	0%	10%	0%	46%	0%	0%	100%	0%	9%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	142	350	42	217	53	135	171	122	232
LT Vol	142	0	42	0	53	0	0	122	0
Through Vol	0	315	0	118	0	135	0	0	212
RT Vol	0	35	0	99	0	0	171	0	20
Lane Flow Rate	187	461	55	286	70	178	225	161	305
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.568	1.323	0.179	0.833	0.217	0.525	0.617	0.492	0.886
Departure Headway (Hd)	10.935	10.34	12.54	11.327	11.965	11.402	10.593	11.764	11.159
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	331	355	288	323	302	318	344	308	327
Service Time	8.705	8.111	10.24	9.027	9.665	9.102	8.293	9.464	8.859
HCM Lane V/C Ratio	0.565	1.299	0.191	0.885	0.232	0.56	0.654	0.523	0.933
HCM Control Delay	27.2	192.9	18	51.7	18	26	28.9	25.3	59.7
HCM Lane LOS	D	F	C	F	C	D	D	D	F
HCM 95th-tile Q	3.3	21.8	0.6	7.2	0.8	2.9	3.9	2.6	8.3



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	162	3	272	154	770	0	0	545	515
Future Volume (veh/h)	0	0	0	162	3	272	154	770	0	0	545	515
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1856	1870	1796	1856	1826	0	0	1870	1826
Adj Flow Rate, veh/h				172	3	0	164	819	0	0	580	548
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				3	2	7	3	5	0	0	2	5
Cap, veh/h				229	4		217	1131	0	0	740	612
Arrive On Green				0.13	0.13	0.00	0.12	0.62	0.00	0.00	0.40	0.40
Sat Flow, veh/h				1752	31	1522	1767	1826	0	0	1870	1547
Grp Volume(v), veh/h				175	0	0	164	819	0	0	580	548
Grp Sat Flow(s),veh/h/ln				1783	0	1522	1767	1826	0	0	1870	1547
Q Serve(g_s), s				3.8	0.0	0.0	3.6	12.3	0.0	0.0	10.8	13.1
Cycle Q Clear(g_c), s				3.8	0.0	0.0	3.6	12.3	0.0	0.0	10.8	13.1
Prop In Lane				0.98		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				233	0		217	1131	0	0	740	612
V/C Ratio(X)				0.75	0.00		0.75	0.72	0.00	0.00	0.78	0.89
Avail Cap(c_a), veh/h				674	0		668	2071	0	0	1414	1170
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				16.6	0.0	0.0	16.8	5.2	0.0	0.0	10.5	11.2
Incr Delay (d2), s/veh				1.8	0.0	0.0	5.2	0.3	0.0	0.0	0.7	1.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				1.4	0.0	0.0	1.5	2.0	0.0	0.0	3.3	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				18.4	0.0	0.0	22.1	5.5	0.0	0.0	11.2	13.1
LnGrp LOS				B	A		C	A	A	A	B	B
Approach Vol, veh/h					175	A		983			1128	
Approach Delay, s/veh					18.4			8.3			12.1	
Approach LOS					B			A			B	

Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		29.9			8.9	21.0		9.8				
Change Period (Y+Rc), s		5.3			4.0	5.3		4.6				
Max Green Setting (Gmax), s		45.0			15.0	30.0		15.0				
Max Q Clear Time (g_c+I1), s		14.3			5.6	15.1		5.8				
Green Ext Time (p_c), s		1.0			0.3	0.6		0.3				

Intersection Summary		
HCM 6th Ctrl Delay	11.0	
HCM 6th LOS	B	

Notes

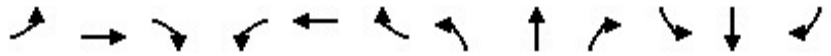
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	425	1	380	0	0	0	0	499	91	112	595	0
Future Volume (veh/h)	425	1	380	0	0	0	0	499	91	112	595	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1796	1870	1870				0	1870	1841	1841	1870	0
Adj Flow Rate, veh/h	447	1	400				0	525	96	118	626	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	7	2	2				0	2	4	4	2	0
Cap, veh/h	517	1	477				0	553	101	156	973	0
Arrive On Green	0.30	0.30	0.30				0.00	0.36	0.36	0.09	0.52	0.00
Sat Flow, veh/h	1711	4	1579				0	1538	281	1753	1870	0
Grp Volume(v), veh/h	447	0	401				0	0	621	118	626	0
Grp Sat Flow(s),veh/h/ln	1711	0	1583				0	0	1819	1753	1870	0
Q Serve(g_s), s	13.7	0.0	13.2				0.0	0.0	18.5	3.7	13.4	0.0
Cycle Q Clear(g_c), s	13.7	0.0	13.2				0.0	0.0	18.5	3.7	13.4	0.0
Prop In Lane	1.00		1.00				0.00		0.15	1.00		0.00
Lane Grp Cap(c), veh/h	517	0	478				0	0	654	156	973	0
V/C Ratio(X)	0.87	0.00	0.84				0.00	0.00	0.95	0.76	0.64	0.00
Avail Cap(c_a), veh/h	922	0	853				0	0	654	630	973	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	18.3	0.0	18.2				0.0	0.0	17.3	24.8	9.6	0.0
Incr Delay (d2), s/veh	1.7	0.0	1.5				0.0	0.0	23.6	7.3	1.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	0.0	4.4				0.0	0.0	10.9	1.7	4.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.1	0.0	19.7				0.0	0.0	41.0	32.1	10.9	0.0
LnGrp LOS	C	A	B				A	A	D	C	B	A
Approach Vol, veh/h		848						621			744	
Approach Delay, s/veh		19.9						41.0			14.3	
Approach LOS		B						D			B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	8.9	25.3		21.4		34.2
Change Period (Y+Rc), s	4.0	5.3		4.6		5.3
Max Green Setting (Gmax), s	20.0	20.0		30.0		20.0
Max Q Clear Time (g_c+I1), s	15.7	20.5		15.7		15.4
Green Ext Time (p_c), s	0.2	0.0		1.1		1.4

Intersection Summary	
HCM 6th Ctrl Delay	23.9
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	149	78	9	115	98	44	371	21	176	587	162
Future Volume (veh/h)	135	149	78	9	115	98	44	371	21	176	587	162
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1841	1870	1767	1856	1870	1870	1870	1870
Adj Flow Rate, veh/h	141	155	81	9	120	102	46	386	22	183	611	169
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	4	2	9	3	2	2	2	2
Cap, veh/h	180	696	306	25	203	159	86	652	37	226	844	715
Arrive On Green	0.10	0.20	0.20	0.01	0.11	0.11	0.05	0.37	0.37	0.13	0.45	0.45
Sat Flow, veh/h	1781	3554	1565	1781	1866	1460	1682	1739	99	1781	1870	1585
Grp Volume(v), veh/h	141	155	81	9	112	110	46	0	408	183	611	169
Grp Sat Flow(s),veh/h/ln	1781	1777	1565	1781	1749	1578	1682	0	1838	1781	1870	1585
Q Serve(g_s), s	5.4	2.5	3.0	0.3	4.2	4.6	1.8	0.0	12.4	6.9	18.5	4.5
Cycle Q Clear(g_c), s	5.4	2.5	3.0	0.3	4.2	4.6	1.8	0.0	12.4	6.9	18.5	4.5
Prop In Lane	1.00		1.00	1.00		0.93	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	180	696	306	25	190	171	86	0	689	226	844	715
V/C Ratio(X)	0.78	0.22	0.26	0.37	0.59	0.64	0.54	0.00	0.59	0.81	0.72	0.24
Avail Cap(c_a), veh/h	514	2050	903	514	1009	910	388	0	1060	411	1079	914
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.4	23.4	23.6	33.9	29.4	29.6	32.1	0.0	17.4	29.4	15.5	11.7
Incr Delay (d2), s/veh	2.8	0.1	0.2	3.4	1.1	1.5	1.9	0.0	0.3	2.6	1.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	1.0	1.1	0.2	1.8	1.8	0.8	0.0	4.9	3.0	7.2	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.3	23.5	23.8	37.3	30.5	31.1	34.1	0.0	17.7	32.1	16.6	11.8
LnGrp LOS	C	C	C	D	C	C	C	A	B	C	B	B
Approach Vol, veh/h		377			231			454			963	
Approach Delay, s/veh		27.2			31.1			19.4			18.7	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.8	31.0	6.0	18.6	8.5	36.3	12.0	12.5
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	16.0	40.0	20.0	40.0	16.0	40.0	20.0	40.0
Max Q Clear Time (g_c+I1), s	8.9	14.4	2.3	5.0	3.8	20.5	7.4	6.6
Green Ext Time (p_c), s	0.1	1.7	0.0	0.8	0.0	2.9	0.1	0.9

Intersection Summary	
HCM 6th Ctrl Delay	21.9
HCM 6th LOS	C

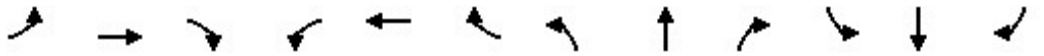
Intersection	
Intersection Delay, s/veh	52.7
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	46	138	126	42	102	136	64	249	32	270	400	28
Future Vol, veh/h	46	138	126	42	102	136	64	249	32	270	400	28
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	3	2	2	2	7
Mvmt Flow	49	147	134	45	109	145	68	265	34	287	426	30
Number of Lanes	1	1	0	1	1	1	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	3	2
HCM Control Delay	32.5	17.6	36.5	83.8
HCM LOS	D	C	E	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	89%	0%	52%	0%	100%	0%	0%	93%
Vol Right, %	0%	11%	0%	48%	0%	0%	100%	0%	7%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	64	281	46	264	42	102	136	270	428
LT Vol	64	0	46	0	42	0	0	270	0
Through Vol	0	249	0	138	0	102	0	0	400
RT Vol	0	32	0	126	0	0	136	0	28
Lane Flow Rate	68	299	49	281	45	109	145	287	455
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.191	0.791	0.14	0.734	0.131	0.302	0.375	0.756	1.127
Departure Headway (Hd)	10.479	9.896	10.756	9.881	11.018	10.495	9.762	9.471	8.908
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	345	368	335	368	328	345	370	382	405
Service Time	8.179	7.596	8.456	7.581	8.718	8.195	7.462	7.255	6.692
HCM Lane V/C Ratio	0.197	0.813	0.146	0.764	0.137	0.316	0.392	0.751	1.123
HCM Control Delay	15.6	41.3	15.2	35.5	15.4	17.7	18.2	36.5	113.6
HCM Lane LOS	C	E	C	E	C	C	C	E	F
HCM 95th-tile Q	0.7	6.7	0.5	5.6	0.4	1.2	1.7	6.1	16.6

EXISTING PLUS PROJECT



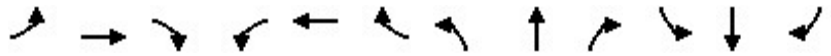
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	148	2	221	372	591	0	0	352	360
Future Volume (veh/h)	0	0	0	148	2	221	372	591	0	0	352	360
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1752	1870	1767	1870	1752	0	0	1767	1722
Adj Flow Rate, veh/h				164	2	0	413	657	0	0	391	400
Peak Hour Factor				0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %				10	2	9	2	10	0	0	9	12
Cap, veh/h				216	3		480	1173	0	0	558	452
Arrive On Green				0.12	0.12	0.00	0.27	0.67	0.00	0.00	0.32	0.32
Sat Flow, veh/h				1761	21	1497	1781	1752	0	0	1767	1429
Grp Volume(v), veh/h				166	0	0	413	657	0	0	391	400
Grp Sat Flow(s),veh/h/ln				1782	0	1497	1781	1752	0	0	1767	1429
Q Serve(g_s), s				4.3	0.0	0.0	10.5	9.5	0.0	0.0	9.3	12.7
Cycle Q Clear(g_c), s				4.3	0.0	0.0	10.5	9.5	0.0	0.0	9.3	12.7
Prop In Lane				0.99		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				219	0		480	1173	0	0	558	452
V/C Ratio(X)				0.76	0.00		0.86	0.56	0.00	0.00	0.70	0.89
Avail Cap(c_a), veh/h				561	0		561	1655	0	0	1113	900
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				20.2	0.0	0.0	16.6	4.2	0.0	0.0	14.3	15.5
Incr Delay (d2), s/veh				2.0	0.0	0.0	11.5	0.2	0.0	0.0	0.6	2.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				1.7	0.0	0.0	5.2	1.6	0.0	0.0	3.2	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				22.2	0.0	0.0	28.1	4.3	0.0	0.0	14.9	17.8
LnGrp LOS				C	A		C	A	A	A	B	B
Approach Vol, veh/h					166	A		1070			791	
Approach Delay, s/veh					22.2			13.5			16.4	
Approach LOS					C			B			B	

Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		37.2			16.8	20.4		10.4				
Change Period (Y+Rc), s		5.3			4.0	5.3		4.6				
Max Green Setting (Gmax), s		45.0			15.0	30.0		15.0				
Max Q Clear Time (g_c+I1), s		11.5			12.5	14.7		6.3				
Green Ext Time (p_c), s		0.8			0.4	0.4		0.3				

Intersection Summary		
HCM 6th Ctrl Delay	15.3	
HCM 6th LOS	B	

Notes

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	266	50	275	0	0	0	0	697	215	118	382	0
Future Volume (veh/h)	266	50	275	0	0	0	0	697	215	118	382	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1678	1752	1796				0	1856	1856	1663	1767	0
Adj Flow Rate, veh/h	292	55	302				0	766	236	130	420	0
Peak Hour Factor	0.91	0.91	0.91				0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	15	10	7				0	3	3	16	9	0
Cap, veh/h	441	65	354				0	494	152	166	959	0
Arrive On Green	0.28	0.28	0.28				0.00	0.37	0.37	0.10	0.54	0.00
Sat Flow, veh/h	1598	233	1282				0	1353	417	1584	1767	0
Grp Volume(v), veh/h	292	0	357				0	0	1002	130	420	0
Grp Sat Flow(s),veh/h/ln	1598	0	1516				0	0	1770	1584	1767	0
Q Serve(g_s), s	8.9	0.0	12.2				0.0	0.0	20.0	4.4	7.8	0.0
Cycle Q Clear(g_c), s	8.9	0.0	12.2				0.0	0.0	20.0	4.4	7.8	0.0
Prop In Lane	1.00		0.85				0.00		0.24	1.00		0.00
Lane Grp Cap(c), veh/h	441	0	419				0	0	647	166	959	0
V/C Ratio(X)	0.66	0.00	0.85				0.00	0.00	1.55	0.78	0.44	0.00
Avail Cap(c_a), veh/h	875	0	830				0	0	647	578	959	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	17.5	0.0	18.8				0.0	0.0	17.4	23.9	7.5	0.0
Incr Delay (d2), s/veh	0.6	0.0	1.9				0.0	0.0	255.0	7.9	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.0	4.0				0.0	0.0	52.7	1.9	2.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.2	0.0	20.7				0.0	0.0	272.4	31.8	7.7	0.0
LnGrp LOS	B	A	C				A	A	F	C	A	A
Approach Vol, veh/h		649						1002			550	
Approach Delay, s/veh		19.6						272.4			13.4	
Approach LOS		B						F			B	

Timer - Assigned Phs	1	2	4	6
Phs Duration (G+Y+Rc), s	9.7	25.3	19.7	35.0
Change Period (Y+Rc), s	4.0	5.3	4.6	5.3
Max Green Setting (Gmax), s	20.0	20.0	30.0	20.0
Max Q Clear Time (g_c+I1), s	6.4	22.0	14.2	9.8
Green Ext Time (p_c), s	0.3	0.0	0.9	1.4

Intersection Summary	
HCM 6th Ctrl Delay	133.1
HCM 6th LOS	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	324	164	54	16	123	146	48	439	2	70	427	161
Future Volume (veh/h)	324	164	54	16	123	146	48	439	2	70	427	161
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1856	1870	1870	1841	1870	1841	1841	1870	1796	1767	1870
Adj Flow Rate, veh/h	400	202	67	20	152	180	59	542	2	86	527	199
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	2	3	2	2	4	2	4	4	2	7	9	2
Cap, veh/h	408	1242	555	47	262	233	92	601	2	110	600	538
Arrive On Green	0.23	0.35	0.35	0.03	0.15	0.15	0.05	0.33	0.33	0.06	0.34	0.34
Sat Flow, veh/h	1781	3526	1574	1781	1749	1560	1753	1833	7	1711	1767	1585
Grp Volume(v), veh/h	400	202	67	20	152	180	59	0	544	86	527	199
Grp Sat Flow(s),veh/h/ln	1781	1763	1574	1781	1749	1560	1753	0	1839	1711	1767	1585
Q Serve(g_s), s	19.5	3.4	2.5	1.0	7.1	9.7	2.9	0.0	24.6	4.3	24.5	8.3
Cycle Q Clear(g_c), s	19.5	3.4	2.5	1.0	7.1	9.7	2.9	0.0	24.6	4.3	24.5	8.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	408	1242	555	47	262	233	92	0	603	110	600	538
V/C Ratio(X)	0.98	0.16	0.12	0.43	0.58	0.77	0.64	0.00	0.90	0.78	0.88	0.37
Avail Cap(c_a), veh/h	408	1616	721	408	802	715	321	0	843	314	810	727
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.4	19.4	19.1	41.8	34.6	35.7	40.5	0.0	28.0	40.2	27.1	21.8
Incr Delay (d2), s/veh	38.9	0.0	0.0	2.2	0.8	2.0	2.8	0.0	8.0	4.6	6.9	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.6	1.4	0.9	0.4	3.0	3.7	1.3	0.0	11.7	1.9	11.0	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.4	19.4	19.1	44.1	35.3	37.7	43.3	0.0	36.0	44.8	34.0	21.9
LnGrp LOS	E	B	B	D	D	D	D	A	D	D	C	C
Approach Vol, veh/h		669			352			603			812	
Approach Delay, s/veh		51.0			37.0			36.7			32.2	
Approach LOS		D			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.6	33.6	7.3	35.7	9.6	34.6	25.0	18.1
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	16.6	40.0	20.0	40.0	16.0	40.0	20.0	40.0
Max Q Clear Time (g_c+I1), s	6.3	26.6	3.0	5.4	4.9	26.5	21.5	11.7
Green Ext Time (p_c), s	0.1	2.0	0.0	1.0	0.0	2.3	0.0	1.4

Intersection Summary	
HCM 6th Ctrl Delay	39.2
HCM 6th LOS	D

Intersection	
Intersection Delay, s/veh	92.6
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	56	118	99	53	135	194	142	329	35	136	221	29
Future Vol, veh/h	56	118	99	53	135	194	142	329	35	136	221	29
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Heavy Vehicles, %	21	2	2	8	6	2	2	2	3	7	6	35
Mvmt Flow	74	155	130	70	178	255	187	433	46	179	291	38
Number of Lanes	1	1	0	1	1	1	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	3	2
HCM Control Delay	50.7	31.9	183.4	63.4
HCM LOS	F	D	F	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	90%	0%	54%	0%	100%	0%	0%	88%
Vol Right, %	0%	10%	0%	46%	0%	0%	100%	0%	12%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	142	364	56	217	53	135	194	136	250
LT Vol	142	0	56	0	53	0	0	136	0
Through Vol	0	329	0	118	0	135	0	0	221
RT Vol	0	35	0	99	0	0	194	0	29
Lane Flow Rate	187	479	74	286	70	178	255	179	329
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.593	1.442	0.246	0.864	0.223	0.542	0.724	0.564	0.981
Departure Headway (Hd)	11.432	10.838	13.121	11.904	12.478	11.914	11.102	12.252	11.623
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	316	335	276	306	289	306	329	297	316
Service Time	9.21	8.617	10.821	9.604	10.178	9.614	8.802	9.952	9.323
HCM Lane V/C Ratio	0.592	1.43	0.268	0.935	0.242	0.582	0.775	0.603	1.041
HCM Control Delay	29.7	243.4	20	58.6	18.7	27.9	38.2	29.7	81.8
HCM Lane LOS	D	F	C	F	C	D	E	D	F
HCM 95th-tile Q	3.6	25.3	0.9	7.7	0.8	3	5.3	3.2	10.3

Intersection	
Int Delay, s/veh	4.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	349	93	95	237	69	193
Future Vol, veh/h	349	93	95	237	69	193
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	265	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	379	101	103	258	75	210

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	480	0	765	240
Stage 1	-	-	-	-	430	-
Stage 2	-	-	-	-	335	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	1079	-	340	761
Stage 1	-	-	-	-	624	-
Stage 2	-	-	-	-	697	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1079	-	308	761
Mov Cap-2 Maneuver	-	-	-	-	308	-
Stage 1	-	-	-	-	624	-
Stage 2	-	-	-	-	631	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.5	13.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	308	761	-	-	1079	-
HCM Lane V/C Ratio	0.244	0.276	-	-	0.096	-
HCM Control Delay (s)	20.4	11.5	-	-	8.7	-
HCM Lane LOS	C	B	-	-	A	-
HCM 95th %tile Q(veh)	0.9	1.1	-	-	0.3	-

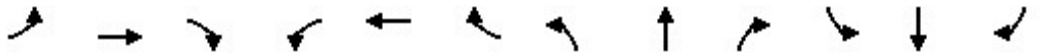
Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	5	77	489	385	22
Future Vol, veh/h	0	5	77	489	385	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	5	84	532	418	24

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1118	418	442	0	-	0
Stage 1	418	-	-	-	-	-
Stage 2	700	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	229	635	1118	-	-	-
Stage 1	664	-	-	-	-	-
Stage 2	493	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	212	635	1118	-	-	-
Mov Cap-2 Maneuver	344	-	-	-	-	-
Stage 1	614	-	-	-	-	-
Stage 2	493	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.7	1.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1118	-	635	-	-
HCM Lane V/C Ratio	0.075	-	0.009	-	-
HCM Control Delay (s)	8.5	-	10.7	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0	-	-



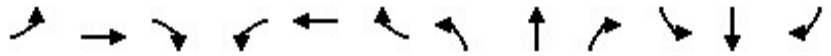
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	247	3	272	270	795	0	0	567	515
Future Volume (veh/h)	0	0	0	247	3	272	270	795	0	0	567	515
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1856	1870	1796	1856	1826	0	0	1870	1826
Adj Flow Rate, veh/h				263	3	0	287	846	0	0	603	548
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				3	2	7	3	5	0	0	2	5
Cap, veh/h				320	4		344	1181	0	0	716	592
Arrive On Green				0.18	0.18	0.00	0.19	0.65	0.00	0.00	0.38	0.38
Sat Flow, veh/h				1762	20	1522	1767	1826	0	0	1870	1547
Grp Volume(v), veh/h				266	0	0	287	846	0	0	603	548
Grp Sat Flow(s),veh/h/ln				1782	0	1522	1767	1826	0	0	1870	1547
Q Serve(g_s), s				8.3	0.0	0.0	9.0	17.6	0.0	0.0	16.9	19.5
Cycle Q Clear(g_c), s				8.3	0.0	0.0	9.0	17.6	0.0	0.0	16.9	19.5
Prop In Lane				0.99		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				324	0		344	1181	0	0	716	592
V/C Ratio(X)				0.82	0.00		0.83	0.72	0.00	0.00	0.84	0.93
Avail Cap(c_a), veh/h				463	0		459	1424	0	0	972	804
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				22.7	0.0	0.0	22.3	6.7	0.0	0.0	16.2	17.0
Incr Delay (d2), s/veh				5.2	0.0	0.0	9.6	1.0	0.0	0.0	3.8	11.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.7	0.0	0.0	4.3	4.7	0.0	0.0	7.0	7.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				27.9	0.0	0.0	32.0	7.7	0.0	0.0	20.1	28.6
LnGrp LOS				C	A		C	A	A	A	C	C
Approach Vol, veh/h					266	A		1133			1151	
Approach Delay, s/veh					27.9			13.8			24.1	
Approach LOS					C			B			C	

Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		42.6			15.2	27.4		15.1				
Change Period (Y+Rc), s		5.3			4.0	5.3		4.6				
Max Green Setting (Gmax), s		45.0			15.0	30.0		15.0				
Max Q Clear Time (g_c+I1), s		19.6			11.0	21.5		10.3				
Green Ext Time (p_c), s		1.0			0.3	0.5		0.4				

Intersection Summary		
HCM 6th Ctrl Delay	20.0	
HCM 6th LOS	B	

Notes

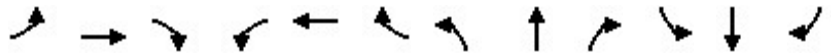
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	425	1	489	0	0	0	0	640	181	112	702	0
Future Volume (veh/h)	425	1	489	0	0	0	0	640	181	112	702	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1796	1870	1870				0	1870	1841	1841	1870	0
Adj Flow Rate, veh/h	447	1	515				0	674	191	118	739	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	7	2	2				0	2	4	4	2	0
Cap, veh/h	618	1	571				0	455	129	155	894	0
Arrive On Green	0.36	0.36	0.36				0.00	0.32	0.32	0.09	0.48	0.00
Sat Flow, veh/h	1711	3	1580				0	1401	397	1753	1870	0
Grp Volume(v), veh/h	447	0	516				0	0	865	118	739	0
Grp Sat Flow(s),veh/h/ln	1711	0	1583				0	0	1798	1753	1870	0
Q Serve(g_s), s	13.9	0.0	19.0				0.0	0.0	20.0	4.1	21.0	0.0
Cycle Q Clear(g_c), s	13.9	0.0	19.0				0.0	0.0	20.0	4.1	21.0	0.0
Prop In Lane	1.00		1.00				0.00		0.22	1.00		0.00
Lane Grp Cap(c), veh/h	618	0	572				0	0	584	155	894	0
V/C Ratio(X)	0.72	0.00	0.90				0.00	0.00	1.48	0.76	0.83	0.00
Avail Cap(c_a), veh/h	833	0	771				0	0	584	569	894	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	17.0	0.0	18.6				0.0	0.0	20.8	27.5	13.9	0.0
Incr Delay (d2), s/veh	1.1	0.0	9.3				0.0	0.0	226.1	7.5	6.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	0.0	7.6				0.0	0.0	44.2	1.9	8.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.1	0.0	28.0				0.0	0.0	246.9	34.9	20.1	0.0
LnGrp LOS	B	A	C				A	A	F	C	C	A
Approach Vol, veh/h		963						865			857	
Approach Delay, s/veh		23.4						246.9			22.2	
Approach LOS		C						F			C	

Timer - Assigned Phs	1	2	4	6
Phs Duration (G+Y+Rc), s	9.4	25.3	26.9	34.7
Change Period (Y+Rc), s	4.0	5.3	4.6	5.3
Max Green Setting (Gmax), s	20.0	20.0	30.0	20.0
Max Q Clear Time (g_c+I1), s	6.1	22.0	21.0	23.0
Green Ext Time (p_c), s	0.2	0.0	1.3	0.0

Intersection Summary	
HCM 6th Ctrl Delay	95.0
HCM 6th LOS	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	399	167	78	17	120	98	32	338	17	176	728	237
Future Volume (veh/h)	399	167	78	17	120	98	32	338	17	176	728	237
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1841	1870	1767	1856	1870	1870	1870	1870
Adj Flow Rate, veh/h	416	174	81	18	125	102	33	352	18	183	758	247
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	4	2	9	3	2	2	2	2
Cap, veh/h	390	1049	464	43	191	144	63	594	30	218	794	673
Arrive On Green	0.22	0.30	0.30	0.02	0.10	0.10	0.04	0.34	0.34	0.12	0.42	0.42
Sat Flow, veh/h	1781	3554	1572	1781	1899	1432	1682	1750	89	1781	1870	1585
Grp Volume(v), veh/h	416	174	81	18	114	113	33	0	370	183	758	247
Grp Sat Flow(s),veh/h/ln	1781	1777	1572	1781	1749	1583	1682	0	1839	1781	1870	1585
Q Serve(g_s), s	20.0	3.3	3.5	0.9	5.8	6.3	1.8	0.0	15.2	9.2	35.9	9.7
Cycle Q Clear(g_c), s	20.0	3.3	3.5	0.9	5.8	6.3	1.8	0.0	15.2	9.2	35.9	9.7
Prop In Lane	1.00		1.00	1.00		0.90	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	390	1049	464	43	176	159	63	0	625	218	794	673
V/C Ratio(X)	1.07	0.17	0.17	0.42	0.65	0.71	0.53	0.00	0.59	0.84	0.95	0.37
Avail Cap(c_a), veh/h	390	1554	687	390	765	692	294	0	804	312	818	693
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.7	23.9	23.9	44.0	39.6	39.8	43.2	0.0	25.0	39.3	25.4	17.9
Incr Delay (d2), s/veh	64.8	0.0	0.1	2.4	1.5	2.2	2.5	0.0	0.3	9.2	20.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.5	1.4	1.3	0.4	2.5	2.5	0.8	0.0	6.5	4.5	19.5	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	100.6	23.9	24.0	46.4	41.1	42.0	45.8	0.0	25.3	48.5	45.9	18.1
LnGrp LOS	F	C	C	D	D	D	D	A	C	D	D	B
Approach Vol, veh/h		671			245			403			1188	
Approach Delay, s/veh		71.4			41.9			27.0			40.5	
Approach LOS		E			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.2	36.1	7.2	32.0	8.4	43.8	25.0	14.2
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	16.0	40.0	20.0	40.0	16.0	40.0	20.0	40.0
Max Q Clear Time (g_c+I1), s	11.2	17.2	2.9	5.5	3.8	37.9	22.0	8.3
Green Ext Time (p_c), s	0.1	1.4	0.0	0.9	0.0	1.0	0.0	0.9

Intersection Summary	
HCM 6th Ctrl Delay	46.8
HCM 6th LOS	D

Intersection	
Intersection Delay, s/veh	66
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	56	138	126	42	102	152	64	259	32	288	411	39
Future Vol, veh/h	56	138	126	42	102	152	64	259	32	288	411	39
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	3	2	2	2	7
Mvmt Flow	60	147	134	45	109	162	68	276	34	306	437	41
Number of Lanes	1	1	0	1	1	1	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	3	2
HCM Control Delay	34.7	19	43.3	109.4
HCM LOS	D	C	E	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	89%	0%	52%	0%	100%	0%	0%	91%
Vol Right, %	0%	11%	0%	48%	0%	0%	100%	0%	9%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	64	291	56	264	42	102	152	288	450
LT Vol	64	0	56	0	42	0	0	288	0
Through Vol	0	259	0	138	0	102	0	0	411
RT Vol	0	32	0	126	0	0	152	0	39
Lane Flow Rate	68	310	60	281	45	109	162	306	479
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.196	0.843	0.174	0.757	0.134	0.311	0.432	0.833	1.224
Departure Headway (Hd)	10.825	10.243	11.113	10.236	11.356	10.832	10.098	9.782	9.202
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	334	356	325	357	318	334	359	371	397
Service Time	8.525	7.943	8.813	7.936	9.056	8.532	7.798	7.537	6.957
HCM Lane V/C Ratio	0.204	0.871	0.185	0.787	0.142	0.326	0.451	0.825	1.207
HCM Control Delay	16.1	49.3	16.1	38.7	15.8	18.3	20.3	46.4	149.8
HCM Lane LOS	C	E	C	E	C	C	C	E	F
HCM 95th-tile Q	0.7	7.6	0.6	6	0.5	1.3	2.1	7.5	19.9

Intersection	
Int Delay, s/veh	6.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	319	94	123	266	113	325
Future Vol, veh/h	319	94	123	266	113	325
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	265	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	347	102	134	289	123	353

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	449	0	811	225
Stage 1	-	-	-	-	398	-
Stage 2	-	-	-	-	413	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	1108	-	317	778
Stage 1	-	-	-	-	647	-
Stage 2	-	-	-	-	636	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1108	-	279	778
Mov Cap-2 Maneuver	-	-	-	-	279	-
Stage 1	-	-	-	-	647	-
Stage 2	-	-	-	-	559	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.7	17.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	279	778	-	-	1108	-
HCM Lane V/C Ratio	0.44	0.454	-	-	0.121	-
HCM Control Delay (s)	27.7	13.4	-	-	8.7	-
HCM Lane LOS	D	B	-	-	A	-
HCM 95th %tile Q(veh)	2.1	2.4	-	-	0.4	-

Intersection	
Int Delay, s/veh	0.9

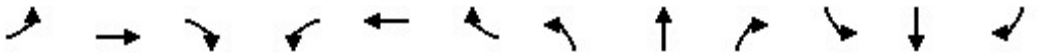
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	13	85	387	701	28
Future Vol, veh/h	0	13	85	387	701	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	100	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	14	92	421	762	30

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	762	792	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	4.12	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	0	405	829	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	405	829	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.2	1.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	829	-	405	-	-
HCM Lane V/C Ratio	0.111	-	0.035	-	-
HCM Control Delay (s)	9.9	-	14.2	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.4	-	0.1	-	-

CUMULATIVE CONDITIONS



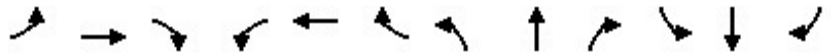
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	138	3	241	434	1138	0	0	583	569
Future Volume (veh/h)	0	0	0	138	3	241	434	1138	0	0	583	569
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1752	1870	1767	1870	1752	0	0	1767	1722
Adj Flow Rate, veh/h				150	3	0	472	1237	0	0	634	618
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				10	2	9	2	10	0	0	9	12
Cap, veh/h				184	4		510	1366	0	0	789	638
Arrive On Green				0.11	0.11	0.00	0.29	0.78	0.00	0.00	0.45	0.45
Sat Flow, veh/h				1748	35	1497	1781	1752	0	0	1767	1429
Grp Volume(v), veh/h				153	0	0	472	1237	0	0	634	618
Grp Sat Flow(s),veh/h/ln				1783	0	1497	1781	1752	0	0	1767	1429
Q Serve(g_s), s				7.2	0.0	0.0	22.1	45.4	0.0	0.0	26.6	36.2
Cycle Q Clear(g_c), s				7.2	0.0	0.0	22.1	45.4	0.0	0.0	26.6	36.2
Prop In Lane				0.98		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				187	0		510	1366	0	0	789	638
V/C Ratio(X)				0.82	0.00		0.92	0.91	0.00	0.00	0.80	0.97
Avail Cap(c_a), veh/h				216	0		561	1423	0	0	797	645
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				37.6	0.0	0.0	29.7	7.1	0.0	0.0	20.5	23.2
Incr Delay (d2), s/veh				16.5	0.0	0.0	20.4	8.1	0.0	0.0	5.5	27.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.9	0.0	0.0	12.0	13.1	0.0	0.0	11.4	16.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				54.1	0.0	0.0	50.1	15.2	0.0	0.0	26.0	50.6
LnGrp LOS				D	A		D	B	A	A	C	D
Approach Vol, veh/h					153	A		1709			1252	
Approach Delay, s/veh					54.1			24.8			38.1	
Approach LOS					D			C			D	

Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		72.2			28.6	43.6		13.6				
Change Period (Y+Rc), s		5.3			4.0	5.3		4.6				
Max Green Setting (Gmax), s		69.7			27.0	38.7		10.4				
Max Q Clear Time (g_c+I1), s		47.4			24.1	38.2		9.2				
Green Ext Time (p_c), s		2.0			0.5	0.1		0.0				

Intersection Summary		
HCM 6th Ctrl Delay	31.6	
HCM 6th LOS	C	

Notes

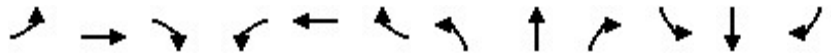
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	599	3	527	0	0	0	0	973	256	130	591	0
Future Volume (veh/h)	599	3	527	0	0	0	0	973	256	130	591	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1678	1752	1796				0	1856	1856	1663	1767	0
Adj Flow Rate, veh/h	651	3	573				0	1058	278	141	642	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	15	10	7				0	3	3	16	9	0
Cap, veh/h	473	2	436				0	758	199	116	1127	0
Arrive On Green	0.30	0.30	0.30				0.00	0.54	0.54	0.07	0.64	0.00
Sat Flow, veh/h	1598	8	1473				0	1409	370	1584	1767	0
Grp Volume(v), veh/h	651	0	576				0	0	1336	141	642	0
Grp Sat Flow(s),veh/h/ln	1598	0	1481				0	0	1780	1584	1767	0
Q Serve(g_s), s	44.4	0.0	44.4				0.0	0.0	80.7	11.0	31.0	0.0
Cycle Q Clear(g_c), s	44.4	0.0	44.4				0.0	0.0	80.7	11.0	31.0	0.0
Prop In Lane	1.00		0.99				0.00		0.21	1.00		0.00
Lane Grp Cap(c), veh/h	473	0	438				0	0	957	116	1127	0
V/C Ratio(X)	1.38	0.00	1.31				0.00	0.00	1.40	1.21	0.57	0.00
Avail Cap(c_a), veh/h	473	0	438				0	0	957	116	1127	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	52.8	0.0	52.8				0.0	0.0	34.7	69.5	15.4	0.0
Incr Delay (d2), s/veh	182.3	0.0	156.9				0.0	0.0	184.3	152.0	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	41.7	0.0	35.6				0.0	0.0	82.9	9.4	12.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	235.1	0.0	209.7				0.0	0.0	219.0	221.5	16.0	0.0
LnGrp LOS	F	A	F				A	A	F	F	B	A
Approach Vol, veh/h		1227						1336			783	
Approach Delay, s/veh		223.2						219.0			53.0	
Approach LOS		F						F			D	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	15.0	86.0		49.0		101.0						
Change Period (Y+Rc), s	4.0	5.3		4.6		5.3						
Max Green Setting (Gmax), s	11.0	80.7		44.4		95.7						
Max Q Clear Time (g_c+I1), s	13.0	82.7		46.4		33.0						
Green Ext Time (p_c), s	0.0	0.0		0.0		3.7						

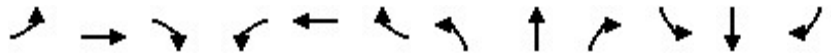
Intersection Summary	
HCM 6th Ctrl Delay	181.7
HCM 6th LOS	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	243	203	82	53	213	169	295	814	92	183	782	154
Future Volume (veh/h)	243	203	82	53	213	169	295	814	92	183	782	154
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1856	1870	1870	1841	1870	1841	1841	1870	1796	1767	1870
Adj Flow Rate, veh/h	264	221	89	58	232	184	321	885	100	199	850	167
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	3	2	2	4	2	4	4	2	7	9	2
Cap, veh/h	299	916	409	89	496	225	356	1720	536	233	1329	437
Arrive On Green	0.17	0.26	0.26	0.05	0.14	0.14	0.20	0.34	0.34	0.14	0.28	0.28
Sat Flow, veh/h	1781	3526	1576	1781	3497	1585	1753	5025	1565	1711	4823	1585
Grp Volume(v), veh/h	264	221	89	58	232	184	321	885	100	199	850	167
Grp Sat Flow(s),veh/h/ln	1781	1763	1576	1781	1749	1585	1753	1675	1565	1711	1608	1585
Q Serve(g_s), s	13.7	4.7	4.2	3.0	5.8	10.6	16.9	13.3	4.2	10.7	14.6	8.0
Cycle Q Clear(g_c), s	13.7	4.7	4.2	3.0	5.8	10.6	16.9	13.3	4.2	10.7	14.6	8.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	299	916	409	89	496	225	356	1720	536	233	1329	437
V/C Ratio(X)	0.88	0.24	0.22	0.66	0.47	0.82	0.90	0.51	0.19	0.85	0.64	0.38
Avail Cap(c_a), veh/h	378	1233	551	113	704	319	465	1720	536	399	1329	437
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.4	27.6	27.4	44.0	37.2	39.3	36.7	24.8	21.8	39.8	30.0	27.7
Incr Delay (d2), s/veh	15.7	0.1	0.1	3.9	0.3	7.3	15.1	0.1	0.1	3.4	0.8	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	2.0	1.6	1.4	2.5	4.5	8.6	5.2	1.5	4.7	5.6	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.1	27.6	27.5	47.9	37.5	46.6	51.8	24.9	21.9	43.3	30.9	27.9
LnGrp LOS	D	C	C	D	D	D	D	C	C	D	C	C
Approach Vol, veh/h		574			474			1306			1216	
Approach Delay, s/veh		39.8			42.3			31.3			32.5	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.8	37.3	9.7	29.5	24.1	31.0	20.8	18.4
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	22.8	29.0	6.0	33.0	25.0	26.0	20.0	19.0
Max Q Clear Time (g_c+I1), s	12.7	15.3	5.0	6.7	18.9	16.6	15.7	12.6
Green Ext Time (p_c), s	0.2	3.9	0.0	1.1	0.3	3.2	0.2	0.8

Intersection Summary	
HCM 6th Ctrl Delay	34.5
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	153	165	117	58	197	467	155	594	38	295	442	176
Future Volume (veh/h)	153	165	117	58	197	467	155	594	38	295	442	176
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1589	1870	1856	1781	1811	1870	1870	1870	1856	1796	1811	1381
Adj Flow Rate, veh/h	166	179	127	63	214	508	168	646	41	321	480	191
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	21	2	3	8	6	2	2	2	3	7	6	35
Cap, veh/h	196	565	475	80	397	678	208	784	347	361	1084	369
Arrive On Green	0.13	0.30	0.30	0.05	0.22	0.22	0.12	0.22	0.22	0.21	0.32	0.32
Sat Flow, veh/h	1513	1870	1572	1697	1811	1564	1781	3554	1572	1711	3441	1171
Grp Volume(v), veh/h	166	179	127	63	214	508	168	646	41	321	480	191
Grp Sat Flow(s),veh/h/ln	1513	1870	1572	1697	1811	1564	1781	1777	1572	1711	1721	1171
Q Serve(g_s), s	8.8	6.1	5.0	3.0	8.6	18.0	7.5	14.2	1.7	15.0	9.1	11.0
Cycle Q Clear(g_c), s	8.8	6.1	5.0	3.0	8.6	18.0	7.5	14.2	1.7	15.0	9.1	11.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	196	565	475	80	397	678	208	784	347	361	1084	369
V/C Ratio(X)	0.85	0.32	0.27	0.79	0.54	0.75	0.81	0.82	0.12	0.89	0.44	0.52
Avail Cap(c_a), veh/h	231	565	475	190	397	678	350	910	403	428	1084	369
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.9	22.1	21.7	38.7	28.3	19.7	35.3	30.4	25.6	31.4	22.4	23.0
Incr Delay (d2), s/veh	21.7	0.3	0.3	15.9	1.4	4.6	7.3	5.5	0.2	18.0	0.3	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	2.6	1.8	1.6	3.8	8.5	3.6	6.5	0.6	7.8	3.6	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.6	22.4	22.0	54.6	29.8	24.4	42.7	35.9	25.7	49.5	22.6	24.3
LnGrp LOS	E	C	C	D	C	C	D	D	C	D	C	C
Approach Vol, veh/h		472			785			855			992	
Approach Delay, s/veh		34.3			28.3			36.7			31.6	
Approach LOS		C			C			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	31.8	22.6	8.3	29.3	14.1	30.3	15.1	22.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	20.5	21.0	9.2	21.3	16.1	25.4	12.5	18.0
Max Q Clear Time (g_c+I1), s	17.0	16.2	5.0	8.1	9.5	13.0	10.8	20.0
Green Ext Time (p_c), s	0.4	1.9	0.0	1.1	0.2	3.2	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	32.6
HCM 6th LOS	C

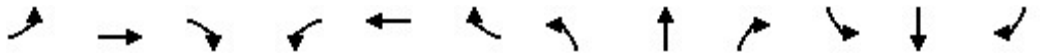
Intersection	
Int Delay, s/veh	0.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	504	7	10	652	35	24
Future Vol, veh/h	504	7	10	652	35	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	265	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	548	8	11	709	38	26

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	556	0	929	278
Stage 1	-	-	-	-	552	-
Stage 2	-	-	-	-	377	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	1011	-	266	719
Stage 1	-	-	-	-	541	-
Stage 2	-	-	-	-	663	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1011	-	263	719
Mov Cap-2 Maneuver	-	-	-	-	263	-
Stage 1	-	-	-	-	541	-
Stage 2	-	-	-	-	656	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	16.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	263	719	-	-	1011	-
HCM Lane V/C Ratio	0.145	0.036	-	-	0.011	-
HCM Control Delay (s)	21	10.2	-	-	8.6	-
HCM Lane LOS	C	B	-	-	A	-
HCM 95th %tile Q(veh)	0.5	0.1	-	-	0	-



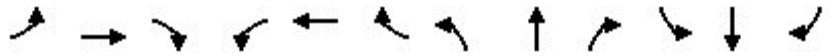
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	235	3	299	231	1153	0	0	726	608
Future Volume (veh/h)	0	0	0	235	3	299	231	1153	0	0	726	608
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1856	1870	1796	1856	1826	0	0	1870	1826
Adj Flow Rate, veh/h				250	3	0	246	1227	0	0	772	647
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				3	2	7	3	5	0	0	2	5
Cap, veh/h				296	4		294	1261	0	0	873	723
Arrive On Green				0.17	0.17	0.00	0.17	0.69	0.00	0.00	0.47	0.47
Sat Flow, veh/h				1761	21	1522	1767	1826	0	0	1870	1547
Grp Volume(v), veh/h				253	0	0	246	1227	0	0	772	647
Grp Sat Flow(s),veh/h/ln				1782	0	1522	1767	1826	0	0	1870	1547
Q Serve(g_s), s				9.6	0.0	0.0	9.4	44.4	0.0	0.0	26.2	26.8
Cycle Q Clear(g_c), s				9.6	0.0	0.0	9.4	44.4	0.0	0.0	26.2	26.8
Prop In Lane				0.99		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				300	0		294	1261	0	0	873	723
V/C Ratio(X)				0.84	0.00		0.84	0.97	0.00	0.00	0.88	0.90
Avail Cap(c_a), veh/h				367	0		404	1715	0	0	1222	1011
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				28.2	0.0	0.0	28.2	10.2	0.0	0.0	16.9	17.1
Incr Delay (d2), s/veh				11.9	0.0	0.0	10.6	12.3	0.0	0.0	4.7	6.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				4.9	0.0	0.0	4.7	16.0	0.0	0.0	10.9	9.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				40.2	0.0	0.0	38.9	22.5	0.0	0.0	21.6	23.4
LnGrp LOS				D	A		D	C	A	A	C	C
Approach Vol, veh/h					253	A		1473			1419	
Approach Delay, s/veh					40.2			25.2			22.4	
Approach LOS					D			C			C	

Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		53.6			15.6	38.0		16.4				
Change Period (Y+Rc), s		5.3			4.0	5.3		4.6				
Max Green Setting (Gmax), s		65.7			16.0	45.7		14.4				
Max Q Clear Time (g_c+I1), s		46.4			11.4	28.8		11.6				
Green Ext Time (p_c), s		1.9			0.3	0.8		0.2				

Intersection Summary		
HCM 6th Ctrl Delay	25.2	
HCM 6th LOS	C	

Notes

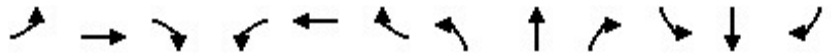
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	657	3	415	0	0	0	0	727	92	115	846	0
Future Volume (veh/h)	657	3	415	0	0	0	0	727	92	115	846	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1796	1870	1870				0	1870	1841	1841	1870	0
Adj Flow Rate, veh/h	692	3	437				0	765	97	121	891	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	7	2	2				0	2	4	4	2	0
Cap, veh/h	650	4	598				0	712	90	117	1005	0
Arrive On Green	0.38	0.38	0.38				0.00	0.44	0.44	0.07	0.54	0.00
Sat Flow, veh/h	1711	11	1574				0	1627	206	1753	1870	0
Grp Volume(v), veh/h	692	0	440				0	0	862	121	891	0
Grp Sat Flow(s),veh/h/ln	1711	0	1585				0	0	1833	1753	1870	0
Q Serve(g_s), s	45.6	0.0	28.6				0.0	0.0	52.5	8.0	50.5	0.0
Cycle Q Clear(g_c), s	45.6	0.0	28.6				0.0	0.0	52.5	8.0	50.5	0.0
Prop In Lane	1.00		0.99				0.00		0.11	1.00		0.00
Lane Grp Cap(c), veh/h	650	0	602				0	0	802	117	1005	0
V/C Ratio(X)	1.06	0.00	0.73				0.00	0.00	1.07	1.04	0.89	0.00
Avail Cap(c_a), veh/h	650	0	602				0	0	802	117	1005	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	37.2	0.0	31.9				0.0	0.0	33.8	56.0	24.5	0.0
Incr Delay (d2), s/veh	53.7	0.0	4.0				0.0	0.0	53.9	93.0	9.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	28.3	0.0	11.5				0.0	0.0	34.6	6.6	23.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	90.9	0.0	35.9				0.0	0.0	87.6	149.0	34.0	0.0
LnGrp LOS	F	A	D				A	A	F	F	C	A
Approach Vol, veh/h		1132						862			1012	
Approach Delay, s/veh		69.5						87.6			47.7	
Approach LOS		E						F			D	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	12.0	57.8		50.2		69.8
Change Period (Y+Rc), s	4.0	5.3		4.6		5.3
Max Green Setting (Gmax), s	8.0	52.5		45.6		64.5
Max Q Clear Time (g_c+I1), s	10.0	54.5		47.6		52.5
Green Ext Time (p_c), s	0.0	0.0		0.0		4.2

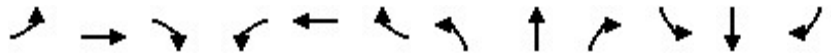
Intersection Summary	
HCM 6th Ctrl Delay	67.4
HCM 6th LOS	E



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	189	298	273	101	219	148	158	496	61	181	780	250
Future Volume (veh/h)	189	298	273	101	219	148	158	496	61	181	780	250
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1841	1870	1767	1856	1870	1870	1870	1870
Adj Flow Rate, veh/h	197	310	284	105	228	154	165	517	64	189	812	260
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	4	2	9	3	2	2	2	2
Cap, veh/h	237	808	358	133	591	268	198	1641	514	222	1689	524
Arrive On Green	0.13	0.23	0.23	0.07	0.17	0.17	0.12	0.32	0.32	0.12	0.33	0.33
Sat Flow, veh/h	1781	3554	1575	1781	3497	1585	1682	5066	1585	1781	5106	1585
Grp Volume(v), veh/h	197	310	284	105	228	154	165	517	64	189	812	260
Grp Sat Flow(s),veh/h/ln	1781	1777	1575	1781	1749	1585	1682	1689	1585	1781	1702	1585
Q Serve(g_s), s	8.7	5.9	13.6	4.7	4.6	7.2	7.7	6.2	2.3	8.3	10.2	10.5
Cycle Q Clear(g_c), s	8.7	5.9	13.6	4.7	4.6	7.2	7.7	6.2	2.3	8.3	10.2	10.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	237	808	358	133	591	268	198	1641	514	222	1689	524
V/C Ratio(X)	0.83	0.38	0.79	0.79	0.39	0.57	0.83	0.31	0.12	0.85	0.48	0.50
Avail Cap(c_a), veh/h	400	1461	648	133	915	415	210	1641	514	222	1689	524
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.9	26.2	29.2	36.5	29.6	30.7	34.6	20.4	19.1	34.4	21.4	21.5
Incr Delay (d2), s/veh	2.9	0.1	1.5	24.5	0.2	0.7	21.3	0.0	0.0	24.7	0.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	2.4	5.1	2.9	1.9	2.7	4.2	2.3	0.8	5.0	3.9	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.8	26.4	30.7	61.0	29.8	31.4	55.9	20.5	19.1	59.1	21.4	21.8
LnGrp LOS	D	C	C	E	C	C	E	C	B	E	C	C
Approach Vol, veh/h		791			487			746			1261	
Approach Delay, s/veh		30.5			37.0			28.2			27.1	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	31.0	11.0	23.2	14.5	31.5	15.7	18.6
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	10.0	26.0	6.0	33.0	10.0	26.0	18.0	21.0
Max Q Clear Time (g_c+I1), s	10.3	8.2	6.7	15.6	9.7	12.5	10.7	9.2
Green Ext Time (p_c), s	0.0	2.4	0.0	1.7	0.0	3.8	0.2	1.0

Intersection Summary	
HCM 6th Ctrl Delay	29.7
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	151	159	139	61	142	307	92	252	47	448	588	118
Future Volume (veh/h)	151	159	139	61	142	307	92	252	47	448	588	118
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.97	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1856	1870	1870	1870	1796
Adj Flow Rate, veh/h	161	169	148	65	151	327	98	268	50	477	626	126
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	3	2	2	2	7
Cap, veh/h	199	551	466	88	435	364	127	424	186	524	1221	511
Arrive On Green	0.11	0.29	0.29	0.05	0.23	0.23	0.07	0.12	0.12	0.29	0.34	0.34
Sat Flow, veh/h	1781	1870	1583	1781	1870	1565	1781	3526	1542	1781	3554	1488
Grp Volume(v), veh/h	161	169	148	65	151	327	98	268	50	477	626	126
Grp Sat Flow(s),veh/h/ln	1781	1870	1583	1781	1870	1565	1781	1763	1542	1781	1777	1488
Q Serve(g_s), s	6.6	5.2	5.4	2.7	5.0	15.1	4.0	5.4	2.2	19.3	10.5	4.5
Cycle Q Clear(g_c), s	6.6	5.2	5.4	2.7	5.0	15.1	4.0	5.4	2.2	19.3	10.5	4.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	199	551	466	88	435	364	127	424	186	524	1221	511
V/C Ratio(X)	0.81	0.31	0.32	0.74	0.35	0.90	0.77	0.63	0.27	0.91	0.51	0.25
Avail Cap(c_a), veh/h	227	551	466	213	451	378	253	898	393	609	1615	676
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.4	20.4	20.5	35.0	23.9	27.8	34.0	31.2	29.8	25.4	19.5	17.6
Incr Delay (d2), s/veh	17.5	0.3	0.4	11.2	0.5	23.0	9.6	1.6	0.8	16.4	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	2.2	2.0	1.4	2.2	7.7	2.0	2.3	0.8	10.0	4.1	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.9	20.7	20.9	46.2	24.4	50.8	43.6	32.8	30.6	41.7	19.8	17.8
LnGrp LOS	D	C	C	D	C	D	D	C	C	D	B	B
Approach Vol, veh/h		478			543			416			1229	
Approach Delay, s/veh		30.6			42.9			35.1			28.1	
Approach LOS		C			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.4	13.5	8.2	26.5	9.8	30.1	12.8	21.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	25.5	19.0	8.9	18.6	10.6	33.9	9.5	18.0
Max Q Clear Time (g_c+I1), s	21.3	7.4	4.7	7.4	6.0	12.5	8.6	17.1
Green Ext Time (p_c), s	0.7	1.4	0.0	1.1	0.1	4.8	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	32.7
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	0.5

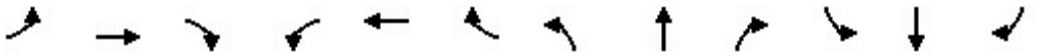
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	743	27	21	606	13	17
Future Vol, veh/h	743	27	21	606	13	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	265	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	808	29	23	659	14	18

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	837	0	1199	419
Stage 1	-	-	-	-	823	-
Stage 2	-	-	-	-	376	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	793	-	178	583
Stage 1	-	-	-	-	392	-
Stage 2	-	-	-	-	664	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	793	-	173	583
Mov Cap-2 Maneuver	-	-	-	-	173	-
Stage 1	-	-	-	-	392	-
Stage 2	-	-	-	-	645	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	18.5
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	173	583	-	-	793	-
HCM Lane V/C Ratio	0.082	0.032	-	-	0.029	-
HCM Control Delay (s)	27.7	11.4	-	-	9.7	-
HCM Lane LOS	D	B	-	-	A	-
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0.1	-

CUMULATIVE PLUS PROJECT



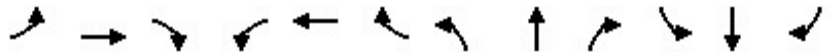
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	209	3	241	502	1157	0	0	614	569
Future Volume (veh/h)	0	0	0	209	3	241	502	1157	0	0	614	569
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1752	1870	1767	1870	1752	0	0	1767	1722
Adj Flow Rate, veh/h				227	3	0	546	1258	0	0	667	618
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				10	2	9	2	10	0	0	9	12
Cap, veh/h				203	3		534	1357	0	0	760	614
Arrive On Green				0.12	0.12	0.00	0.30	0.77	0.00	0.00	0.43	0.43
Sat Flow, veh/h				1759	23	1497	1781	1752	0	0	1767	1429
Grp Volume(v), veh/h				230	0	0	546	1258	0	0	667	618
Grp Sat Flow(s),veh/h/ln				1782	0	1497	1781	1752	0	0	1767	1429
Q Serve(g_s), s				10.4	0.0	0.0	27.0	51.7	0.0	0.0	31.1	38.7
Cycle Q Clear(g_c), s				10.4	0.0	0.0	27.0	51.7	0.0	0.0	31.1	38.7
Prop In Lane				0.99		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				206	0		534	1357	0	0	760	614
V/C Ratio(X)				1.12	0.00		1.02	0.93	0.00	0.00	0.88	1.01
Avail Cap(c_a), veh/h				206	0		534	1357	0	0	760	614
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				39.8	0.0	0.0	31.5	8.1	0.0	0.0	23.5	25.6
Incr Delay (d2), s/veh				97.5	0.0	0.0	44.5	11.0	0.0	0.0	11.0	37.7
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				10.1	0.0	0.0	17.8	16.5	0.0	0.0	14.5	18.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				137.3	0.0	0.0	76.0	19.1	0.0	0.0	34.5	63.4
LnGrp LOS				F	A		F	B	A	A	C	F
Approach Vol, veh/h					230	A		1804			1285	
Approach Delay, s/veh					137.3			36.3			48.4	
Approach LOS					F			D			D	

Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		75.0			31.0	44.0		15.0				
Change Period (Y+Rc), s		5.3			4.0	5.3		4.6				
Max Green Setting (Gmax), s		69.7			27.0	38.7		10.4				
Max Q Clear Time (g_c+I1), s		53.7			29.0	40.7		12.4				
Green Ext Time (p_c), s		2.0			0.0	0.0		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			48.0									
HCM 6th LOS			D									

Notes

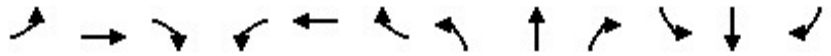
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	599	3	621	0	0	0	0	1060	308	130	693	0
Future Volume (veh/h)	599	3	621	0	0	0	0	1060	308	130	693	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1678	1752	1796				0	1856	1856	1663	1767	0
Adj Flow Rate, veh/h	651	3	675				0	1152	335	141	753	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	15	10	7				0	3	3	16	9	0
Cap, veh/h	484	2	446				0	739	215	106	1115	0
Arrive On Green	0.30	0.30	0.30				0.00	0.54	0.54	0.07	0.63	0.00
Sat Flow, veh/h	1598	7	1474				0	1374	400	1584	1767	0
Grp Volume(v), veh/h	651	0	678				0	0	1487	141	753	0
Grp Sat Flow(s),veh/h/ln	1598	0	1481				0	0	1774	1584	1767	0
Q Serve(g_s), s	45.4	0.0	45.4				0.0	0.0	80.7	10.0	41.1	0.0
Cycle Q Clear(g_c), s	45.4	0.0	45.4				0.0	0.0	80.7	10.0	41.1	0.0
Prop In Lane	1.00		1.00				0.00		0.23	1.00		0.00
Lane Grp Cap(c), veh/h	484	0	448				0	0	954	106	1115	0
V/C Ratio(X)	1.35	0.00	1.51				0.00	0.00	1.56	1.34	0.68	0.00
Avail Cap(c_a), veh/h	484	0	448				0	0	954	106	1115	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	52.3	0.0	52.3				0.0	0.0	34.7	70.0	17.8	0.0
Incr Delay (d2), s/veh	169.1	0.0	242.1				0.0	0.0	256.4	201.8	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	40.9	0.0	46.9				0.0	0.0	101.7	10.0	16.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	221.4	0.0	294.4				0.0	0.0	291.1	271.8	19.2	0.0
LnGrp LOS	F	A	F				A	A	F	F	B	A
Approach Vol, veh/h		1329						1487			894	
Approach Delay, s/veh		258.6						291.1			59.0	
Approach LOS		F						F			E	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	14.0	86.0		50.0		100.0
Change Period (Y+Rc), s	4.0	5.3		4.6		5.3
Max Green Setting (Gmax), s	10.0	80.7		45.4		94.7
Max Q Clear Time (g_c+I1), s	12.0	82.7		47.4		43.1
Green Ext Time (p_c), s	0.0	0.0		0.0		4.8

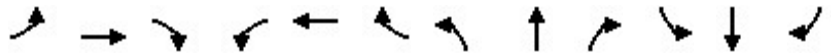
Intersection Summary	
HCM 6th Ctrl Delay	223.5
HCM 6th LOS	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	401	215	82	64	219	169	290	795	90	183	910	222
Future Volume (veh/h)	401	215	82	64	219	169	290	795	90	183	910	222
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1856	1870	1870	1841	1870	1841	1841	1870	1796	1767	1870
Adj Flow Rate, veh/h	436	234	89	70	238	184	315	864	98	199	989	241
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	3	2	2	4	2	4	4	2	7	9	2
Cap, veh/h	357	1019	456	92	490	222	348	1627	507	231	1257	413
Arrive On Green	0.20	0.29	0.29	0.05	0.14	0.14	0.20	0.32	0.32	0.14	0.26	0.26
Sat Flow, veh/h	1781	3526	1577	1781	3497	1585	1753	5025	1565	1711	4823	1585
Grp Volume(v), veh/h	436	234	89	70	238	184	315	864	98	199	989	241
Grp Sat Flow(s),veh/h/ln	1781	1763	1577	1781	1749	1585	1753	1675	1565	1711	1608	1585
Q Serve(g_s), s	20.0	5.0	4.2	3.9	6.3	11.3	17.5	14.0	4.5	11.4	19.0	13.2
Cycle Q Clear(g_c), s	20.0	5.0	4.2	3.9	6.3	11.3	17.5	14.0	4.5	11.4	19.0	13.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	357	1019	456	92	490	222	348	1627	507	231	1257	413
V/C Ratio(X)	1.22	0.23	0.20	0.76	0.49	0.83	0.91	0.53	0.19	0.86	0.79	0.58
Avail Cap(c_a), veh/h	357	1166	522	107	666	302	439	1627	507	377	1257	413
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.9	27.0	26.7	46.7	39.6	41.7	39.1	27.6	24.3	42.2	34.3	32.2
Incr Delay (d2), s/veh	122.1	0.0	0.1	19.4	0.3	9.8	17.1	0.2	0.1	5.8	3.1	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	20.7	2.1	1.6	2.2	2.7	5.0	9.1	5.5	1.7	5.1	7.7	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	162.0	27.0	26.8	66.1	39.8	51.5	56.2	27.7	24.4	48.0	37.4	33.6
LnGrp LOS	F	C	C	E	D	D	E	C	C	D	D	C
Approach Vol, veh/h		759			492			1277			1429	
Approach Delay, s/veh		104.5			47.9			34.5			38.2	
Approach LOS		F			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.5	37.3	10.1	33.8	24.8	31.0	25.0	19.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	22.6	29.0	6.0	33.0	25.0	26.0	20.0	19.0
Max Q Clear Time (g_c+I1), s	13.4	16.0	5.9	7.0	19.5	21.0	22.0	13.3
Green Ext Time (p_c), s	0.2	3.7	0.0	1.1	0.3	2.5	0.0	0.7

Intersection Summary	
HCM 6th Ctrl Delay	50.9
HCM 6th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	167	165	117	58	197	490	155	608	38	309	451	185
Future Volume (veh/h)	167	165	117	58	197	490	155	608	38	309	451	185
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1589	1870	1856	1781	1811	1870	1870	1870	1856	1796	1811	1381
Adj Flow Rate, veh/h	182	179	127	63	214	533	168	661	41	336	490	201
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	21	2	3	8	6	2	2	2	3	7	6	35
Cap, veh/h	211	568	478	80	382	675	208	784	347	372	1106	376
Arrive On Green	0.14	0.30	0.30	0.05	0.21	0.21	0.12	0.22	0.22	0.22	0.32	0.32
Sat Flow, veh/h	1513	1870	1572	1697	1811	1564	1781	3554	1572	1711	3441	1171
Grp Volume(v), veh/h	182	179	127	63	214	533	168	661	41	336	490	201
Grp Sat Flow(s),veh/h/ln	1513	1870	1572	1697	1811	1564	1781	1777	1572	1711	1721	1171
Q Serve(g_s), s	10.0	6.3	5.2	3.1	9.0	18.0	7.8	15.2	1.8	16.3	9.6	12.0
Cycle Q Clear(g_c), s	10.0	6.3	5.2	3.1	9.0	18.0	7.8	15.2	1.8	16.3	9.6	12.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	211	568	478	80	382	675	208	784	347	372	1106	376
V/C Ratio(X)	0.86	0.31	0.27	0.79	0.56	0.79	0.81	0.84	0.12	0.90	0.44	0.53
Avail Cap(c_a), veh/h	222	568	478	151	382	675	395	876	387	411	1106	376
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.9	22.8	22.5	40.2	30.1	21.1	36.7	31.8	26.6	32.5	22.9	23.7
Incr Delay (d2), s/veh	26.8	0.3	0.3	15.9	1.8	6.3	7.3	6.9	0.2	21.4	0.3	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	2.7	1.9	1.6	4.0	9.8	3.8	7.1	0.7	8.8	3.8	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.6	23.2	22.8	56.1	31.9	27.4	44.0	38.8	26.7	53.9	23.2	25.1
LnGrp LOS	E	C	C	E	C	C	D	D	C	D	C	C
Approach Vol, veh/h		488			810			870			1027	
Approach Delay, s/veh		37.8			30.8			39.2			33.6	
Approach LOS		D			C			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.0	23.3	8.5	30.4	14.4	31.9	16.4	22.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	20.5	21.0	7.6	22.9	18.9	22.6	12.5	18.0
Max Q Clear Time (g_c+I1), s	18.3	17.2	5.1	8.3	9.8	14.0	12.0	20.0
Green Ext Time (p_c), s	0.3	1.6	0.0	1.2	0.3	2.7	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	35.1
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	6.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	481	100	105	626	104	217
Future Vol, veh/h	481	100	105	626	104	217
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	265	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	523	109	114	680	113	236

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	632	0	1146	316
Stage 1	-	-	-	-	578	-
Stage 2	-	-	-	-	568	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	947	-	193	680
Stage 1	-	-	-	-	524	-
Stage 2	-	-	-	-	530	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	947	-	170	680
Mov Cap-2 Maneuver	-	-	-	-	170	-
Stage 1	-	-	-	-	524	-
Stage 2	-	-	-	-	466	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.3	28.4
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	170	680	-	-	947	-
HCM Lane V/C Ratio	0.665	0.347	-	-	0.121	-
HCM Control Delay (s)	60.4	13.1	-	-	9.3	-
HCM Lane LOS	F	B	-	-	A	-
HCM 95th %tile Q(veh)	3.9	1.6	-	-	0.4	-

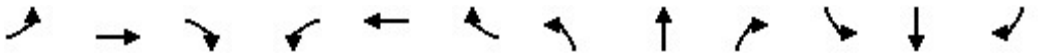
Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	5	77	1175	944	22
Future Vol, veh/h	0	5	77	1175	944	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	5	84	1277	1026	24

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1705	513	1050	0	-	0
Stage 1	1026	-	-	-	-	-
Stage 2	679	-	-	-	-	-
Critical Hdwy	5.74	7.14	5.34	-	-	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	135	433	370	-	-	-
Stage 1	233	-	-	-	-	-
Stage 2	423	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	104	433	370	-	-	-
Mov Cap-2 Maneuver	104	-	-	-	-	-
Stage 1	180	-	-	-	-	-
Stage 2	423	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.4	1.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	370	-	433	-	-
HCM Lane V/C Ratio	0.226	-	0.013	-	-
HCM Control Delay (s)	17.6	-	13.4	-	-
HCM Lane LOS	C	-	B	-	-
HCM 95th %tile Q(veh)	0.9	-	0	-	-



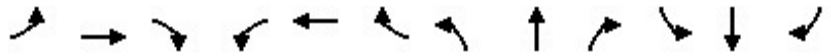
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	320	3	299	347	1178	0	0	748	608
Future Volume (veh/h)	0	0	0	320	3	299	347	1178	0	0	748	608
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1856	1870	1796	1856	1826	0	0	1870	1826
Adj Flow Rate, veh/h				340	3	0	369	1253	0	0	796	647
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				3	2	7	3	5	0	0	2	5
Cap, veh/h				313	3		348	1280	0	0	851	704
Arrive On Green				0.18	0.18	0.00	0.20	0.70	0.00	0.00	0.45	0.45
Sat Flow, veh/h				1766	16	1522	1767	1826	0	0	1870	1547
Grp Volume(v), veh/h				343	0	0	369	1253	0	0	796	647
Grp Sat Flow(s),veh/h/ln				1782	0	1522	1767	1826	0	0	1870	1547
Q Serve(g_s), s				14.4	0.0	0.0	16.0	53.1	0.0	0.0	32.8	31.8
Cycle Q Clear(g_c), s				14.4	0.0	0.0	16.0	53.1	0.0	0.0	32.8	31.8
Prop In Lane				0.99		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				316	0		348	1280	0	0	851	704
V/C Ratio(X)				1.09	0.00		1.06	0.98	0.00	0.00	0.94	0.92
Avail Cap(c_a), veh/h				316	0		348	1476	0	0	1052	870
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				33.4	0.0	0.0	32.6	11.6	0.0	0.0	21.0	20.8
Incr Delay (d2), s/veh				75.6	0.0	0.0	65.1	17.0	0.0	0.0	12.0	11.7
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				12.6	0.0	0.0	12.9	21.4	0.0	0.0	15.9	12.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				109.0	0.0	0.0	97.7	28.5	0.0	0.0	33.1	32.4
LnGrp LOS				F	A		F	C	A	A	C	C
Approach Vol, veh/h					343	A		1622			1443	
Approach Delay, s/veh					109.0			44.3			32.8	
Approach LOS					F			D			C	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	62.2		20.0	42.2		19.0						
Change Period (Y+Rc), s	5.3		4.0	5.3		4.6						
Max Green Setting (Gmax), s	65.7		16.0	45.7		14.4						
Max Q Clear Time (g_c+I1), s	55.1		18.0	34.8		16.4						
Green Ext Time (p_c), s	1.8		0.0	0.8		0.0						

Intersection Summary		
HCM 6th Ctrl Delay		45.9
HCM 6th LOS		D

Notes

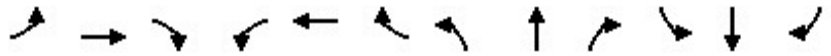
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	657	3	524	0	0	0	0	868	182	115	953	0
Future Volume (veh/h)	657	3	524	0	0	0	0	868	182	115	953	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1796	1870	1870				0	1870	1841	1841	1870	0
Adj Flow Rate, veh/h	692	3	552				0	914	192	121	1003	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	7	2	2				0	2	4	4	2	0
Cap, veh/h	650	3	599				0	656	138	117	1005	0
Arrive On Green	0.38	0.38	0.38				0.00	0.44	0.44	0.07	0.54	0.00
Sat Flow, veh/h	1711	9	1576				0	1498	315	1753	1870	0
Grp Volume(v), veh/h	692	0	555				0	0	1106	121	1003	0
Grp Sat Flow(s),veh/h/ln	1711	0	1584				0	0	1813	1753	1870	0
Q Serve(g_s), s	45.6	0.0	40.1				0.0	0.0	52.5	8.0	64.2	0.0
Cycle Q Clear(g_c), s	45.6	0.0	40.1				0.0	0.0	52.5	8.0	64.2	0.0
Prop In Lane	1.00		0.99				0.00		0.17	1.00		0.00
Lane Grp Cap(c), veh/h	650	0	602				0	0	793	117	1005	0
V/C Ratio(X)	1.06	0.00	0.92				0.00	0.00	1.39	1.04	1.00	0.00
Avail Cap(c_a), veh/h	650	0	602				0	0	793	117	1005	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	37.2	0.0	35.5				0.0	0.0	33.8	56.0	27.7	0.0
Incr Delay (d2), s/veh	53.7	0.0	19.5				0.0	0.0	185.1	93.0	27.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	28.3	0.0	18.4				0.0	0.0	63.1	6.6	34.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	90.9	0.0	55.0				0.0	0.0	218.8	149.0	55.5	0.0
LnGrp LOS	F	A	D				A	A	F	F	E	A
Approach Vol, veh/h		1247						1106			1124	
Approach Delay, s/veh		74.9						218.8			65.5	
Approach LOS		E						F			E	

Timer - Assigned Phs	1	2	4	6
Phs Duration (G+Y+Rc), s	12.0	57.8	50.2	69.8
Change Period (Y+Rc), s	4.0	5.3	4.6	5.3
Max Green Setting (Gmax), s	8.0	52.5	45.6	64.5
Max Q Clear Time (g_c+I1), s	10.0	54.5	47.6	66.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0

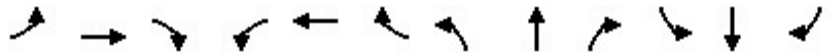
Intersection Summary	
HCM 6th Ctrl Delay	117.7
HCM 6th LOS	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	453	316	273	109	224	148	146	463	57	181	921	325
Future Volume (veh/h)	453	316	273	109	224	148	146	463	57	181	921	325
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1841	1870	1767	1856	1870	1870	1870	1870
Adj Flow Rate, veh/h	472	329	284	114	233	154	152	482	59	189	959	339
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	4	2	9	3	2	2	2	2
Cap, veh/h	378	959	426	126	450	204	183	1551	485	210	1608	499
Arrive On Green	0.21	0.27	0.27	0.07	0.13	0.13	0.11	0.31	0.31	0.12	0.31	0.31
Sat Flow, veh/h	1781	3554	1576	1781	3497	1585	1682	5066	1585	1781	5106	1585
Grp Volume(v), veh/h	472	329	284	114	233	154	152	482	59	189	959	339
Grp Sat Flow(s),veh/h/ln	1781	1777	1576	1781	1749	1585	1682	1689	1585	1781	1702	1585
Q Serve(g_s), s	18.0	6.3	13.6	5.4	5.3	8.0	7.5	6.2	2.3	8.9	13.5	15.8
Cycle Q Clear(g_c), s	18.0	6.3	13.6	5.4	5.3	8.0	7.5	6.2	2.3	8.9	13.5	15.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	378	959	426	126	450	204	183	1551	485	210	1608	499
V/C Ratio(X)	1.25	0.34	0.67	0.91	0.52	0.75	0.83	0.31	0.12	0.90	0.60	0.68
Avail Cap(c_a), veh/h	378	1381	612	126	865	392	198	1551	485	210	1608	499
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.5	24.9	27.6	39.2	34.5	35.7	37.1	22.6	21.2	37.0	24.5	25.4
Incr Delay (d2), s/veh	132.8	0.1	0.7	51.4	0.3	2.1	21.2	0.0	0.0	35.6	0.4	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	21.5	2.6	5.0	4.1	2.2	3.1	4.1	2.4	0.8	5.9	5.3	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	166.3	25.0	28.3	90.6	34.9	37.8	58.3	22.6	21.3	72.5	25.0	28.4
LnGrp LOS	F	C	C	F	C	D	E	C	C	E	C	C
Approach Vol, veh/h		1085			501			693			1487	
Approach Delay, s/veh		87.3			48.5			30.3			31.8	
Approach LOS		F			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	31.0	11.0	27.9	14.3	31.7	23.0	15.9
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	10.0	26.0	6.0	33.0	10.0	26.0	18.0	21.0
Max Q Clear Time (g_c+I1), s	10.3	8.2	7.4	15.6	9.5	17.8	20.0	10.0
Green Ext Time (p_c), s	0.0	2.2	0.0	1.8	0.0	3.5	0.0	1.0

Intersection Summary	
HCM 6th Ctrl Delay	49.7
HCM 6th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	161	159	139	61	142	323	92	262	47	466	599	129
Future Volume (veh/h)	161	159	139	61	142	323	92	262	47	466	599	129
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.97	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1856	1870	1870	1870	1796
Adj Flow Rate, veh/h	171	169	148	65	151	344	98	279	50	496	637	137
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	3	2	2	2	7
Cap, veh/h	208	558	473	86	431	360	126	429	188	537	1250	524
Arrive On Green	0.12	0.30	0.30	0.05	0.23	0.23	0.07	0.12	0.12	0.30	0.35	0.35
Sat Flow, veh/h	1781	1870	1583	1781	1870	1565	1781	3526	1542	1781	3554	1488
Grp Volume(v), veh/h	171	169	148	65	151	344	98	279	50	496	637	137
Grp Sat Flow(s),veh/h/ln	1781	1870	1583	1781	1870	1565	1781	1763	1542	1781	1777	1488
Q Serve(g_s), s	7.3	5.4	5.7	2.8	5.3	17.0	4.2	5.9	2.3	21.1	11.1	5.1
Cycle Q Clear(g_c), s	7.3	5.4	5.7	2.8	5.3	17.0	4.2	5.9	2.3	21.1	11.1	5.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	208	558	473	86	431	360	126	429	188	537	1250	524
V/C Ratio(X)	0.82	0.30	0.31	0.75	0.35	0.95	0.77	0.65	0.27	0.92	0.51	0.26
Avail Cap(c_a), veh/h	216	558	473	203	431	360	242	857	375	581	1541	645
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.7	21.1	21.2	36.7	25.2	29.7	35.7	32.7	31.2	26.4	20.0	18.1
Incr Delay (d2), s/veh	21.4	0.3	0.4	12.5	0.5	35.6	9.7	1.7	0.8	19.9	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	2.3	2.1	1.5	2.3	9.7	2.1	2.6	0.9	11.4	4.4	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.1	21.4	21.6	49.2	25.7	65.3	45.3	34.4	31.9	46.4	20.3	18.3
LnGrp LOS	E	C	C	D	C	E	D	C	C	D	C	B
Approach Vol, veh/h		488			560			427			1270	
Approach Delay, s/veh		33.3			52.8			36.6			30.3	
Approach LOS		C			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.0	14.0	8.3	27.8	10.1	32.0	13.6	22.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	23.5	19.0	8.9	18.6	10.6	33.9	9.5	18.0
Max Q Clear Time (g_c+I1), s	23.1	7.9	4.8	7.7	6.2	13.1	9.3	19.0
Green Ext Time (p_c), s	0.5	1.4	0.0	1.1	0.1	4.9	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	36.4
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	24.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	700	121	144	551	126	342
Future Vol, veh/h	700	121	144	551	126	342
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	265	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	761	132	157	599	137	372

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	893	0	1441	447
Stage 1	-	-	-	-	827	-
Stage 2	-	-	-	-	614	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	755	-	~ 123	559
Stage 1	-	-	-	-	390	-
Stage 2	-	-	-	-	502	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	755	-	~ 97	559
Mov Cap-2 Maneuver	-	-	-	-	~ 97	-
Stage 1	-	-	-	-	390	-
Stage 2	-	-	-	-	398	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.3	101.6
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	97	559	-	-	755	-
HCM Lane V/C Ratio	1.412	0.665	-	-	0.207	-
HCM Control Delay (s)	$ 314.2	23.3	-	-	11	-
HCM Lane LOS	F	C	-	-	B	-
HCM 95th %tile Q(veh)	10.1	4.9	-	-	0.8	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	1.2

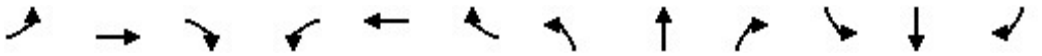
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	13	85	666	1181	28
Future Vol, veh/h	0	13	85	666	1181	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	14	92	724	1284	30

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1758	642	1314	0	-	0
Stage 1	1284	-	-	-	-	-
Stage 2	474	-	-	-	-	-
Critical Hdwy	5.74	7.14	5.34	-	-	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	126	357	275	-	-	-
Stage 1	162	-	-	-	-	-
Stage 2	541	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	84	357	275	-	-	-
Mov Cap-2 Maneuver	84	-	-	-	-	-
Stage 1	108	-	-	-	-	-
Stage 2	541	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.5	2.8	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	275	-	357	-	-
HCM Lane V/C Ratio	0.336	-	0.04	-	-
HCM Control Delay (s)	24.6	-	15.5	-	-
HCM Lane LOS	C	-	C	-	-
HCM 95th %tile Q(veh)	1.4	-	0.1	-	-

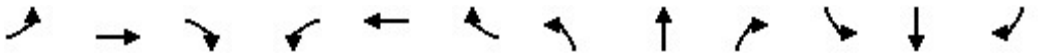
EXISTING PLUS PROJECT WITH IMPROVEMENTS



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	266	50	275	0	0	0	0	697	215	118	382	0
Future Volume (veh/h)	266	50	275	0	0	0	0	697	215	118	382	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1678	1752	1796				0	1856	1856	1663	1767	0
Adj Flow Rate, veh/h	292	55	302				0	766	236	130	420	0
Peak Hour Factor	0.91	0.91	0.91				0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	15	10	7				0	3	3	16	9	0
Cap, veh/h	391	57	314				0	873	724	158	1102	0
Arrive On Green	0.24	0.24	0.24				0.00	0.47	0.47	0.10	0.62	0.00
Sat Flow, veh/h	1598	233	1282				0	1856	1540	1584	1767	0
Grp Volume(v), veh/h	292	0	357				0	766	236	130	420	0
Grp Sat Flow(s),veh/h/ln	1598	0	1515				0	1856	1540	1584	1767	0
Q Serve(g_s), s	12.7	0.0	17.5				0.0	28.0	7.2	6.1	8.8	0.0
Cycle Q Clear(g_c), s	12.7	0.0	17.5				0.0	28.0	7.2	6.1	8.8	0.0
Prop In Lane	1.00		0.85				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	391	0	371				0	873	724	158	1102	0
V/C Ratio(X)	0.75	0.00	0.96				0.00	0.88	0.33	0.82	0.38	0.00
Avail Cap(c_a), veh/h	391	0	371				0	980	813	169	1215	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	26.2	0.0	28.1				0.0	18.0	12.5	33.2	7.0	0.0
Incr Delay (d2), s/veh	6.8	0.0	36.7				0.0	8.8	0.3	25.4	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	0.0	9.8				0.0	12.8	2.4	3.4	2.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.1	0.0	64.8				0.0	26.7	12.8	58.6	7.1	0.0
LnGrp LOS	C	A	E				A	C	B	E	A	A
Approach Vol, veh/h		649						1002			550	
Approach Delay, s/veh		50.5						23.5			19.3	
Approach LOS		D						C			B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	11.5	40.7		23.0		52.2
Change Period (Y+Rc), s	4.0	5.3		4.6		5.3
Max Green Setting (Gmax), s	8.0	39.7		18.4		51.7
Max Q Clear Time (g_c+I1), s	8.1	30.0		19.5		10.8
Green Ext Time (p_c), s	0.0	5.4		0.0		2.1

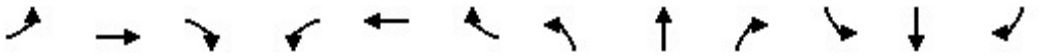
Intersection Summary	
HCM 6th Ctrl Delay	30.4
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	425	1	489	0	0	0	0	640	181	112	702	0
Future Volume (veh/h)	425	1	489	0	0	0	0	640	181	112	702	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1796	1870	1870				0	1870	1841	1841	1870	0
Adj Flow Rate, veh/h	447	1	515				0	674	191	118	739	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	7	2	2				0	2	4	4	2	0
Cap, veh/h	551	1	509				0	755	629	145	1012	0
Arrive On Green	0.32	0.32	0.32				0.00	0.40	0.40	0.08	0.54	0.00
Sat Flow, veh/h	1711	3	1580				0	1870	1558	1753	1870	0
Grp Volume(v), veh/h	447	0	516				0	674	191	118	739	0
Grp Sat Flow(s),veh/h/ln	1711	0	1583				0	1870	1558	1753	1870	0
Q Serve(g_s), s	17.4	0.0	23.4				0.0	24.4	6.0	4.8	21.8	0.0
Cycle Q Clear(g_c), s	17.4	0.0	23.4				0.0	24.4	6.0	4.8	21.8	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	551	0	510				0	755	629	145	1012	0
V/C Ratio(X)	0.81	0.00	1.01				0.00	0.89	0.30	0.81	0.73	0.00
Avail Cap(c_a), veh/h	551	0	510				0	817	680	145	1074	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	22.6	0.0	24.6				0.0	20.2	14.7	32.8	12.6	0.0
Incr Delay (d2), s/veh	8.3	0.0	42.7				0.0	12.0	0.4	28.8	2.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.8	0.0	14.2				0.0	12.1	2.0	3.1	8.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.9	0.0	67.3				0.0	32.2	15.1	61.5	14.8	0.0
LnGrp LOS	C	A	F				A	C	B	E	B	A
Approach Vol, veh/h		963						865			857	
Approach Delay, s/veh		50.4						28.4			21.2	
Approach LOS		D						C			C	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	10.0	34.6		28.0		44.6
Change Period (Y+Rc), s	4.0	5.3		4.6		5.3
Max Green Setting (Gmax), s	6.0	31.7		23.4		41.7
Max Q Clear Time (g_c+I1), s	6.8	26.4		25.4		23.8
Green Ext Time (p_c), s	0.0	2.9		0.0		3.8

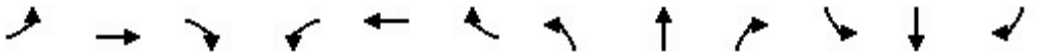
Intersection Summary			
HCM 6th Ctrl Delay			34.0
HCM 6th LOS			C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	118	99	53	135	194	142	329	35	136	221	29
Future Volume (veh/h)	56	118	99	53	135	194	142	329	35	136	221	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1589	1870	1870	1781	1811	1870	1870	1870	1856	1796	1811	1381
Adj Flow Rate, veh/h	74	155	130	70	178	255	187	433	46	179	291	38
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Percent Heavy Veh, %	21	2	2	8	6	2	2	2	3	7	6	35
Cap, veh/h	89	196	164	97	374	321	235	515	55	223	484	63
Arrive On Green	0.06	0.21	0.21	0.06	0.21	0.21	0.13	0.31	0.31	0.13	0.31	0.31
Sat Flow, veh/h	1513	940	788	1697	1811	1551	1781	1662	177	1711	1569	205
Grp Volume(v), veh/h	74	0	285	70	178	255	187	0	479	179	0	329
Grp Sat Flow(s),veh/h/ln	1513	0	1728	1697	1811	1551	1781	0	1839	1711	0	1774
Q Serve(g_s), s	3.0	0.0	9.5	2.5	5.3	9.5	6.2	0.0	14.8	6.2	0.0	9.6
Cycle Q Clear(g_c), s	3.0	0.0	9.5	2.5	5.3	9.5	6.2	0.0	14.8	6.2	0.0	9.6
Prop In Lane	1.00		0.46	1.00		1.00	1.00		0.10	1.00		0.12
Lane Grp Cap(c), veh/h	89	0	360	97	374	321	235	0	569	223	0	547
V/C Ratio(X)	0.84	0.00	0.79	0.72	0.48	0.80	0.80	0.00	0.84	0.80	0.00	0.60
Avail Cap(c_a), veh/h	161	0	518	175	537	460	353	0	780	322	0	735
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.4	0.0	22.9	28.3	21.3	23.0	25.7	0.0	19.7	25.8	0.0	17.9
Incr Delay (d2), s/veh	17.9	0.0	5.3	9.8	0.9	6.2	7.3	0.0	6.1	9.1	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	4.1	1.2	2.2	3.8	2.9	0.0	6.7	2.9	0.0	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.4	0.0	28.2	38.1	22.2	29.2	33.0	0.0	25.8	34.9	0.0	19.0
LnGrp LOS	D	A	C	D	C	C	C	A	C	C	A	B
Approach Vol, veh/h		359			503			666			508	
Approach Delay, s/veh		31.9			28.0			27.8			24.6	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.4	23.4	8.0	17.2	12.5	23.3	8.1	17.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	11.5	25.9	6.3	18.3	12.1	25.3	6.5	18.1
Max Q Clear Time (g_c+I1), s	8.2	16.8	4.5	11.5	8.2	11.6	5.0	11.5
Green Ext Time (p_c), s	0.1	2.1	0.0	0.9	0.2	1.6	0.0	1.1

Intersection Summary	
HCM 6th Ctrl Delay	27.8
HCM 6th LOS	C

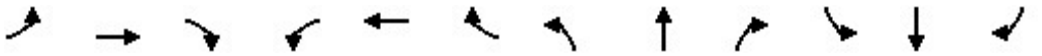


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	138	126	42	102	152	64	259	32	288	411	39
Future Volume (veh/h)	56	138	126	42	102	152	64	259	32	288	411	39
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1856	1870	1870	1870	1796
Adj Flow Rate, veh/h	60	147	134	45	109	162	68	276	34	306	437	41
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	3	2	2	2	7
Cap, veh/h	97	188	171	80	373	309	104	352	43	366	613	58
Arrive On Green	0.05	0.21	0.21	0.05	0.20	0.20	0.06	0.22	0.22	0.21	0.37	0.37
Sat Flow, veh/h	1781	900	820	1781	1870	1550	1781	1615	199	1781	1680	158
Grp Volume(v), veh/h	60	0	281	45	109	162	68	0	310	306	0	478
Grp Sat Flow(s),veh/h/ln	1781	0	1720	1781	1870	1550	1781	0	1814	1781	0	1838
Q Serve(g_s), s	1.8	0.0	8.6	1.4	2.8	5.2	2.1	0.0	9.0	9.2	0.0	12.4
Cycle Q Clear(g_c), s	1.8	0.0	8.6	1.4	2.8	5.2	2.1	0.0	9.0	9.2	0.0	12.4
Prop In Lane	1.00		0.48	1.00		1.00	1.00		0.11	1.00		0.09
Lane Grp Cap(c), veh/h	97	0	359	80	373	309	104	0	395	366	0	671
V/C Ratio(X)	0.62	0.00	0.78	0.56	0.29	0.52	0.65	0.00	0.78	0.83	0.00	0.71
Avail Cap(c_a), veh/h	160	0	556	160	604	501	166	0	602	496	0	950
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.8	0.0	20.9	26.1	19.0	20.0	25.7	0.0	20.6	21.2	0.0	15.2
Incr Delay (d2), s/veh	6.3	0.0	3.9	6.0	0.4	1.4	6.8	0.0	3.8	8.9	0.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	3.5	0.7	1.1	1.8	1.0	0.0	3.9	4.4	0.0	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.1	0.0	24.8	32.1	19.4	21.3	32.4	0.0	24.4	30.1	0.0	16.6
LnGrp LOS	C	A	C	C	B	C	C	A	C	C	A	B
Approach Vol, veh/h		341			316			378			784	
Approach Delay, s/veh		26.1			22.2			25.8			21.9	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	16.6	7.0	16.1	7.8	24.8	7.5	15.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	18.5	5.0	18.0	5.2	28.8	5.0	18.0
Max Q Clear Time (g_c+I1), s	11.2	11.0	3.4	10.6	4.1	14.4	3.8	7.2
Green Ext Time (p_c), s	0.4	1.1	0.0	1.0	0.0	2.6	0.0	0.8

Intersection Summary	
HCM 6th Ctrl Delay	23.5
HCM 6th LOS	C

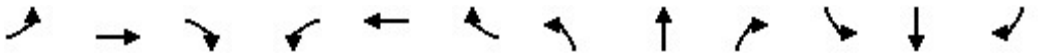
CUMULATIVE PLUS PROJECT WITH IMPROVEMENTS



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	599	0	624	0	0	0	0	1060	308	130	693	0
Future Volume (veh/h)	599	0	624	0	0	0	0	1060	308	130	693	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1678	0	1796				0	1856	1856	1663	1767	0
Adj Flow Rate, veh/h	651	0	678				0	1152	335	141	753	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	15	0	7				0	3	3	16	9	0
Cap, veh/h	811	0	701				0	1410	616	162	1913	0
Arrive On Green	0.26	0.00	0.26				0.00	0.40	0.40	0.10	0.57	0.00
Sat Flow, veh/h	3100	0	2679				0	3618	1540	1584	3445	0
Grp Volume(v), veh/h	651	0	678				0	1152	335	141	753	0
Grp Sat Flow(s),veh/h/ln	1550	0	1340				0	1763	1540	1584	1678	0
Q Serve(g_s), s	11.5	0.0	14.7				0.0	17.1	9.8	5.2	7.3	0.0
Cycle Q Clear(g_c), s	11.5	0.0	14.7				0.0	17.1	9.8	5.2	7.3	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	811	0	701				0	1410	616	162	1913	0
V/C Ratio(X)	0.80	0.00	0.97				0.00	0.82	0.54	0.87	0.39	0.00
Avail Cap(c_a), veh/h	811	0	701				0	1480	646	162	1980	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	20.3	0.0	21.5				0.0	15.7	13.5	26.0	7.0	0.0
Incr Delay (d2), s/veh	5.4	0.0	25.7				0.0	3.7	1.1	37.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	0.0	6.7				0.0	6.6	3.1	3.5	2.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.7	0.0	47.2				0.0	19.5	14.6	63.2	7.1	0.0
LnGrp LOS	C	A	D				A	B	B	E	A	A
Approach Vol, veh/h		1329						1487			894	
Approach Delay, s/veh		36.7						18.4			15.9	
Approach LOS		D						B			B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	10.0	28.8		20.0		38.8
Change Period (Y+Rc), s	4.0	5.3		4.6		5.3
Max Green Setting (Gmax), s	6.0	24.7		15.4		34.7
Max Q Clear Time (g_c+I1), s	7.2	19.1		16.7		9.3
Green Ext Time (p_c), s	0.0	4.4		0.0		4.3

Intersection Summary	
HCM 6th Ctrl Delay	24.3
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	657	3	524	0	0	0	0	868	182	115	953	0
Future Volume (veh/h)	657	3	524	0	0	0	0	868	182	115	953	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1796	1870	1870				0	1870	1841	1841	1870	0
Adj Flow Rate, veh/h	692	3	552				0	914	192	121	1003	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	7	2	2				0	2	4	4	2	0
Cap, veh/h	845	0	709				0	1285	563	154	1900	0
Arrive On Green	0.25	0.25	0.25				0.00	0.36	0.36	0.09	0.53	0.00
Sat Flow, veh/h	3319	0	2784				0	3647	1558	1753	3647	0
Grp Volume(v), veh/h	692	0	552				0	914	192	121	1003	0
Grp Sat Flow(s),veh/h/ln	1659	0	1392				0	1777	1558	1753	1777	0
Q Serve(g_s), s	9.2	0.0	8.7				0.0	10.4	4.2	3.2	8.6	0.0
Cycle Q Clear(g_c), s	9.2	0.0	8.7				0.0	10.4	4.2	3.2	8.6	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	845	0	709				0	1285	563	154	1900	0
V/C Ratio(X)	0.82	0.00	0.78				0.00	0.71	0.34	0.79	0.53	0.00
Avail Cap(c_a), veh/h	1088	0	913				0	1490	653	224	2247	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	16.5	0.0	16.3				0.0	12.9	10.9	21.0	7.1	0.0
Incr Delay (d2), s/veh	3.1	0.0	2.4				0.0	1.5	0.5	10.8	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	2.6				0.0	3.6	1.3	1.6	2.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.5	0.0	18.6				0.0	14.4	11.4	31.8	7.2	0.0
LnGrp LOS	B	A	B				A	B	B	C	A	A
Approach Vol, veh/h		1244						1106			1124	
Approach Delay, s/veh		19.1						13.9			9.9	
Approach LOS		B						B			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	8.1	22.3		16.6		30.4
Change Period (Y+Rc), s	4.0	5.3		4.6		5.3
Max Green Setting (Gmax), s	6.0	19.7		15.4		29.7
Max Q Clear Time (g_c+I1), s	5.2	12.4		11.2		10.6
Green Ext Time (p_c), s	0.0	4.6		0.7		5.6

Intersection Summary	
HCM 6th Ctrl Delay	14.5
HCM 6th LOS	B



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	481	100	105	626	104	217
Future Volume (veh/h)	481	100	105	626	104	217
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	523	109	114	680	113	236
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	870	181	172	1864	380	338
Arrive On Green	0.30	0.30	0.10	0.52	0.21	0.21
Sat Flow, veh/h	3023	608	1781	3647	1781	1585
Grp Volume(v), veh/h	316	316	114	680	113	236
Grp Sat Flow(s),veh/h/ln	1777	1761	1781	1777	1781	1585
Q Serve(g_s), s	5.2	5.3	2.1	3.9	1.8	4.7
Cycle Q Clear(g_c), s	5.2	5.3	2.1	3.9	1.8	4.7
Prop In Lane		0.35	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	528	523	172	1864	380	338
V/C Ratio(X)	0.60	0.60	0.66	0.36	0.30	0.70
Avail Cap(c_a), veh/h	931	923	285	2897	933	831
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.3	10.3	15.0	4.8	11.3	12.5
Incr Delay (d2), s/veh	1.1	1.1	4.3	0.1	0.4	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	1.6	0.9	0.7	0.6	1.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.4	11.5	19.3	4.9	11.8	15.1
LnGrp LOS	B	B	B	A	B	B
Approach Vol, veh/h	632			794	349	
Approach Delay, s/veh	11.4			7.0	14.0	
Approach LOS	B			A	B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	7.8	14.7		11.8		22.5
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5
Max Green Setting (Gmax), s	5.5	18.0		18.0		28.0
Max Q Clear Time (g_c+I1), s	4.1	7.3		6.7		5.9
Green Ext Time (p_c), s	0.0	2.9		0.9		4.8

Intersection Summary	
HCM 6th Ctrl Delay	10.0
HCM 6th LOS	A



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	700	121	144	551	126	342
Future Volume (veh/h)	700	121	144	551	126	342
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	761	132	157	599	137	372
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1002	174	202	1905	499	444
Arrive On Green	0.33	0.33	0.11	0.54	0.28	0.28
Sat Flow, veh/h	3121	525	1781	3647	1781	1585
Grp Volume(v), veh/h	447	446	157	599	137	372
Grp Sat Flow(s),veh/h/ln	1777	1776	1781	1777	1781	1585
Q Serve(g_s), s	11.0	11.0	4.2	4.6	2.9	10.8
Cycle Q Clear(g_c), s	11.0	11.0	4.2	4.6	2.9	10.8
Prop In Lane		0.30	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	588	588	202	1905	499	444
V/C Ratio(X)	0.76	0.76	0.78	0.31	0.27	0.84
Avail Cap(c_a), veh/h	726	726	309	2396	655	583
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.6	14.6	21.1	6.3	13.7	16.6
Incr Delay (d2), s/veh	3.7	3.7	6.7	0.1	0.3	8.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	4.3	2.0	1.3	1.1	4.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	18.3	18.3	27.8	6.4	14.0	24.7
LnGrp LOS	B	B	C	A	B	C
Approach Vol, veh/h	893			756	509	
Approach Delay, s/veh	18.3			10.9	21.9	
Approach LOS	B			B	C	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	10.0	20.7		18.2		30.7
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5
Max Green Setting (Gmax), s	8.5	20.0		18.0		33.0
Max Q Clear Time (g_c+I1), s	6.2	13.0		12.8		6.6
Green Ext Time (p_c), s	0.1	3.2		0.9		4.4

Intersection Summary			
HCM 6th Ctrl Delay		16.6	
HCM 6th LOS		B	

SIGNAL WARRANTS

MUTCD SIGNAL WARRANT ANALYSIS

KITTELSON & ASSOCIATES, INC.
155 Grand Avenue, Suite 505
Oakland, CA 94612
Phone: (510) 839-1742

Project #: 27012
Project Name: South Main TIA
Analyst: SAM
Date: 2/23/2022
Intersection: Main Street and Woodward Avenue
Scenario: Existing AM

Input Assumptions	
North-South Approach =	Major
East-West Approach =	Minor
Major Street Thru Lanes =	1
Minor Street Thru Lanes =	1
Speed > 40 mph?	Yes
Population < 10,000?	Yes

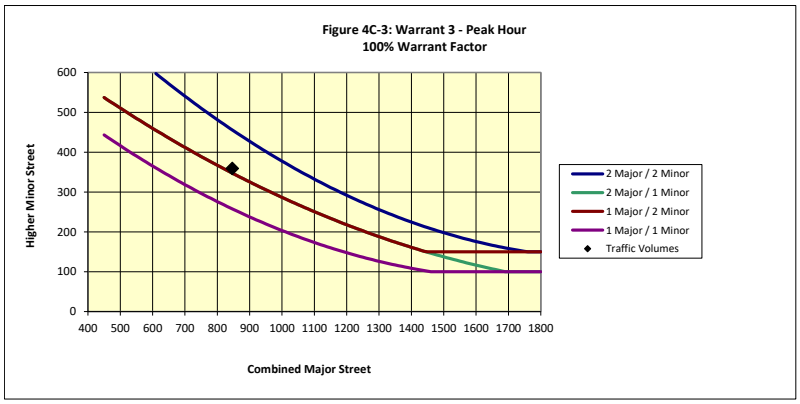
Analysis Volumes	
Major Street	
NB	492
SB	354
Minor Street	
EB	259
WB	359

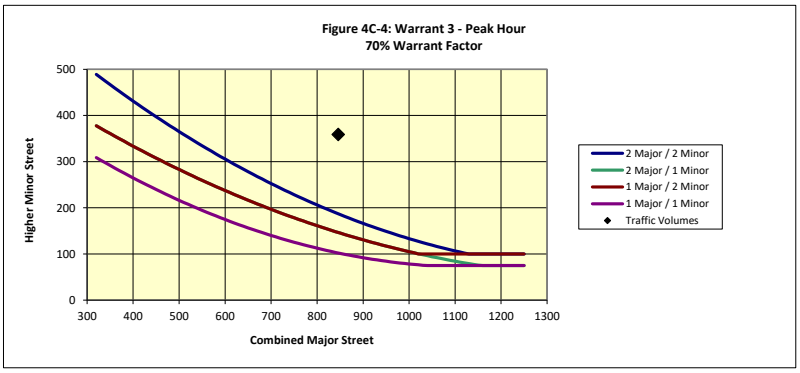
WARRANT 3 - Peak Hour **SATISFIED** Yes*

PART A **SATISFIED** No

		EB	WB
1	Total Stopped Delay Per Vehicle On Minor Approach (sec)	46.2	26.2
	Number Of Lanes On Minor Street Approach	2	2
	Vehicle-Hours Of Stopped Delay On Minor Approach	3.32	2.61
	Satisfied	**No**	**No**
2	Volume on Minor Street Approach During Same Hour	259	359
	Satisfied	**Yes**	**Yes**
3	Total Entering Volume On All Approaches During Same Hour	1464	
	Number of Approaches to Intersection	4	
	Satisfied	**Yes**	

PART B **SATISFIED** Yes





File: H:\27\27012 - Manteca South Main Plaza TIA\Synchro\[27012_Signal_Warrant_South Main_Main St&Woodward_Existing AM.xlsm]SummaryPeak

MUTCD SIGNAL WARRANT ANALYSIS

KITTELSON & ASSOCIATES, INC.
155 Grand Avenue, Suite 505
Oakland, CA 94612
Phone: (510) 839-1742

Project #: 27012
Project Name: South Main TIA
Analyst: SAM
Date: 3/16/2022
Intersection: Main Street and Woodward Avenue
Scenario: Existing PM

Input Assumptions	
North-South Approach =	Major
East-West Approach =	Minor
Major Street Thru Lanes =	1
Minor Street Thru Lanes =	1
Speed > 40 mph?	Yes
Population < 10,000?	Yes

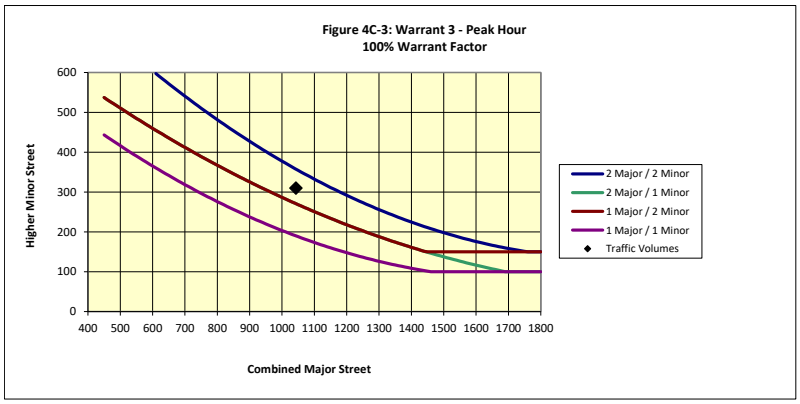
Analysis Volumes	
Major Street	
NB	345
SB	698
Minor Street	
EB	310
WB	280

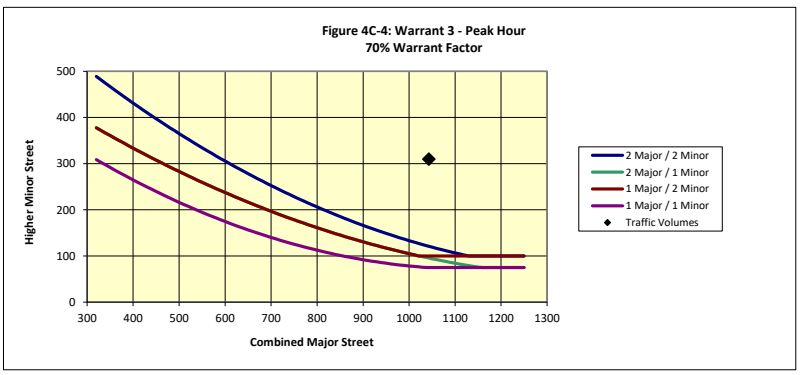
WARRANT 3 - Peak Hour **SATISFIED** Yes*

PART A **SATISFIED** No

		EB	WB
1	Total Stopped Delay Per Vehicle On Minor Approach (sec)	32.5	17.6
	Number Of Lanes On Minor Street Approach	1	1
	Vehicle-Hours Of Stopped Delay On Minor Approach	2.80	1.37
	Satisfied	**No**	**No**
2	Volume on Minor Street Approach During Same Hour	310	280
	Satisfied	**Yes**	**Yes**
3	Total Entering Volume On All Approaches During Same Hour	1633	
	Number of Approaches to Intersection	4	
	Satisfied	**Yes**	

PART B **SATISFIED** Yes





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MUTCD SIGNAL WARRANT ANALYSIS

KITTELSON & ASSOCIATES, INC.
155 Grand Avenue, Suite 505
Oakland, CA 94612
Phone: (510) 839-1742

Project #: 27012
Project Name: South Main TIA
Analyst: SAM
Date: 3/16/2022
Intersection: Atherton Drive and Project Driveway #1
Scenario: Cumulative plus Project AM

Input Assumptions	
North-South Approach =	Minor
East-West Approach =	Major
Major Street Thru Lanes =	2
Minor Street Thru Lanes =	1
Speed > 40 mph?	Yes
Population < 10,000?	Yes

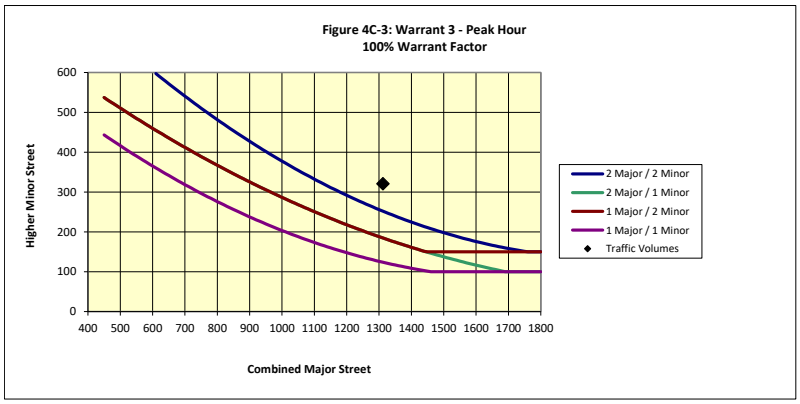
Analysis Volumes	
Major Street	
EB	581
WB	731
Minor Street	
NB	321
SB	0

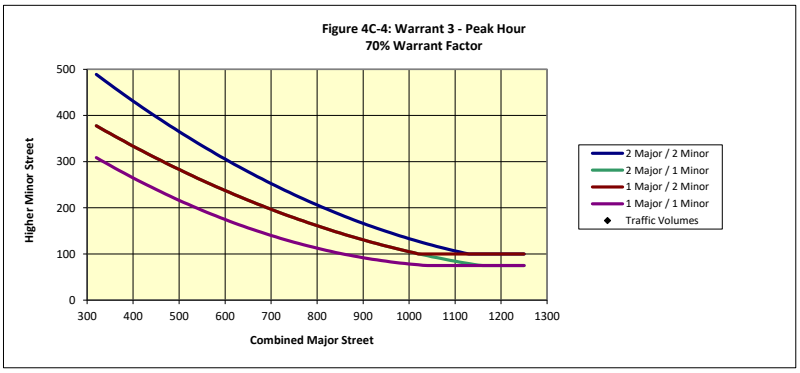
WARRANT 3 - Peak Hour **SATISFIED** Yes*

PART A **SATISFIED** No

		NB	SB
1	Total Stopped Delay Per Vehicle On Minor Approach (sec)	28.4	0.0
	Number Of Lanes On Minor Street Approach	2	0
	Vehicle-Hours Of Stopped Delay On Minor Approach	2.53	0.00
	Satisfied	**No**	**No**
2	Volume on Minor Street Approach During Same Hour	321	0
	Satisfied	**Yes**	**No**
3	Total Entering Volume On All Approaches During Same Hour	1633	
	Number of Approaches to Intersection	3	
	Satisfied	**Yes**	

PART B **SATISFIED** Yes





File: H:\27\27012 - Manteca South Main Plaza TIA\Synchro\[27012_Signal_Warrant_Atherton and Project Driveway_Cumulative plus Project AM.xlsm]SummaryPeak

MUTCD SIGNAL WARRANT ANALYSIS

KITTELSON & ASSOCIATES, INC.
155 Grand Avenue, Suite 505
Oakland, CA 94612
Phone: (510) 839-1742

Project #: 27012
Project Name: South Main TIA
Analyst: SAM
Date: 3/2/2022
Intersection: Atherton Drive and Project Driveway #1
Scenario: Cumulative plus Project PM

Input Assumptions	
North-South Approach =	Minor
East-West Approach =	Major
Major Street Thru Lanes =	2
Minor Street Thru Lanes =	1
Speed > 40 mph?	Yes
Population < 10,000?	Yes

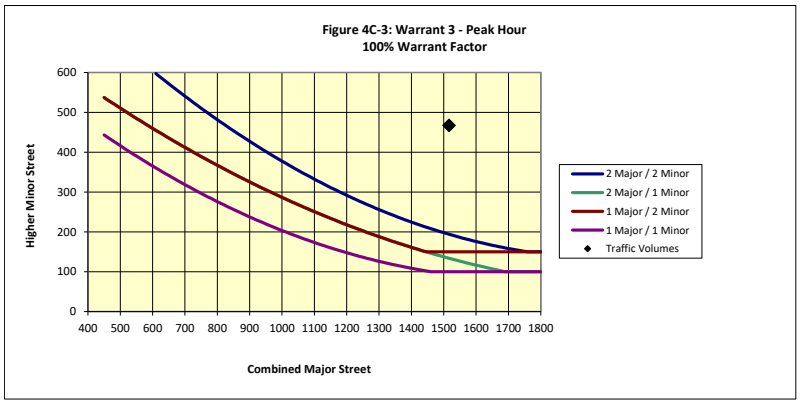
Analysis Volumes	
Major Street	
EB	821
WB	695
Minor Street	
NB	467
SB	0

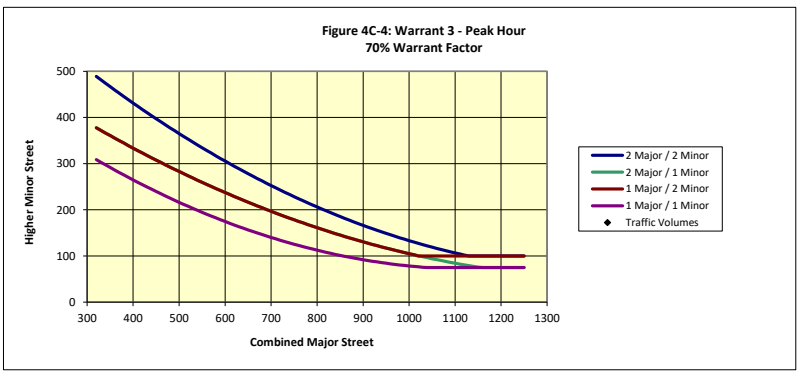
WARRANT 3 - Peak Hour **SATISFIED** Yes*

PART A **SATISFIED** No

		NB	SB
1	Total Stopped Delay Per Vehicle On Minor Approach (sec)	28.4	0.0
	Number Of Lanes On Minor Street Approach	2	0
	Vehicle-Hours Of Stopped Delay On Minor Approach	3.68	0.00
	Satisfied	**No**	**No**
2	Volume on Minor Street Approach During Same Hour	467	0
	Satisfied	**Yes**	**No**
3	Total Entering Volume On All Approaches During Same Hour	1983	
	Number of Approaches to Intersection	3	
	Satisfied	**Yes**	

PART B **SATISFIED** Yes





File: H:\27\27012 - Manteca South Main Plaza TIA\Synchro\[27012_Signal_Warrant_Atherton and Project Driveway_Cumulative plus Project PM.xlsm]Data Input