PUBLIC REVIEW DRAFT

INITIAL STUDY/ MITIGATED NEGATIVE DECLARATION

FOR THE

YOSEMITE AVENUE APARTMENTS PROJECT

1919 W. Yosemite Avenue
Manteca, CA

DECEMBER 2022

Prepared for:

City of Manteca
Community Development Department
1001 W. Center Street
Manteca, CA 95337

Prepared by:

BaseCamp Environmental, Inc.
802 W. Lodi Avenue
Lodi, CA 95240

BaseCamp Environmental, Inc.

PUBLIC REVIEW DRAFT

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

FOR THE

YOSEMITE AVENUE APARTMENTS PROJECT

1919 W. Yosemite Avenue
Manteca, CA

DECEMBER 2022

Prepared for:

City of Manteca
Community Development Department
1001 W. Center Street
Manteca, CA 95337
209-456-8505

Prepared by:

BaseCamp Environmental, Inc.
802 W. Lodi Avenue
Lodi, CA 95240
209-224-8213
www.basecampenv.com

TABLE OF CONTENTS

		Page
NEGATIVE DECLARATION		
A.	General Project Information	viii
B.	Environmental Factors Potentially Affected	ix
C.	Lead Agency Determination	x
Chapter 1.0	INTRODUCTION	
1.1	Project Brief	1-1
1.2	Purpose of Initial Study	1-1
1.3	Project Background	1-2
1.4	Environmental Evaluation Checklist Terminology	1-3
1.5	Summary of Environmental Effects and Mitigation Measures	1-4
Chapter 2.0	PROJECT DESCRIPTION	
2.1	Project Location	2-1
2.2	Project Details	2-1
2.3	Permits and Approvals	2-3
Chapter 3.0	ENVIRONMENTAL EVALUATION FORM	
3.1	Aesthetics	3-1
3.2	Agriculture and Forestry Resources	3-5
3.3	Air Quality	3-6
3.4	Biological Resources	3-12
3.5	Cultural Resources	3-20
3.6	Energy	3-23
3.7	Geology and Soils	3-25
3.8	Greenhouse Gas Emissions	3-30
3.9	Hazards and Hazardous Materials	3-34

	3.10	Hydrology and Water Quality	3-37
	3.11	Land Use and Planning	3-42
	3.12	Mineral Resources	3-44
	3.13	Noise	3-45
	3.14	Population and Housing	3-52
	3.15	Public Services	3-53
	3.16	Recreation	3-56
	3.17	Transportation	3-58
	3.18	Tribal Cultural Resources	3-65
	3.19	Utilities and Service Systems	3-67
	3.20	Wildfire	3-70
	3.21	Mandatory Findings of Significance	3-72
Chapter 4.0		REFERENCES	
	4.1	Document Preparers	4-1
	4.2	Documents Cited	4-1
	4.3	Persons Consulted	4-5
Chapter 5.0		NOTES RELATED TO EVALUATION OF ENVIRONMENTAL IMPACTS	5-1

APPENDICES

A. Air Quality Modeling Results

B. Biological Resource Materials

C. Central California Information Center Report

D. Highway Noise Model Results

E. Noise Study

LIST OF TABLES

1-1	Summary of Environmental Impacts and Mitigation Measures	1-10
2-1	Proposed Project Construction	2-1
3-1	San Joaquin Valley Air Basin Attainment Status	3-7
3-2	SJVAPCD Significance Thresholds and Project Emissions	3-10
3-3	Special-Status Species and Potential for Occurrence	3-15
3-4	Project GHG Emissions	3-33
3-5	City of Manteca Stationary Source Noise Standards	3-46
3-6	Construction Equipment Noise Levels	3-49

LIST OF FIGURES

1-1	Regional Location Map	1-5
1-2	Street Map	1-6
1-3	USGS Map	1-7
1-4	Aerial Photo	1-8
1-5	Assessor Parcel Map	1-9
2-1	Site Plan	2-4
2-2	2-Story Building Elevations	2-5
2-3	3-Story Building Elevations	2-6
3-1	Noise Measurement Locations	3-48

LIST OF ACRONYMS AND ABBREVIATONS USED IN THIS DOCUMENT

AB	Assembly Bill
ARB	California Air Resources Board
BMP	Best Management Practice
CalEEMod	California Emissions Estimator Model
CalEnviroScreen	California Communities Environmental Health Screening Tool
CALGreen	California Green Building Standards Code
Caltrans	California Department of Transportation
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CMU	Commercial Mixed Use
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CO	carbon monoxide
CO_2e	carbon dioxide equivalent
dB	decibel
dBA	decibel, A-weighted
EIR	Environmental Impact Report
EPA	U.S. Environmental Protection Agency
FEMA	Federal Emergency Management Agency
GHG	greenhouse gas
L_{dn}	day-night sound level
L_{eq}	equivalent sound level
LOS	Level of Service
mgd	million gallons per day
MRZ	Mineral Resource Zone
MS4	Municipal Separate Storm Sewer System
NAHC	Native American Heritage Commission
NO_x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
OPR	Governor's Office of Planning and Research
PG&E	Pacific Gas and Electric Company
PM_{10}	particulate matter 10 microns or less in diameter
$PM_{2.5}$	particulate matter 2.5 microns or less in diameter
ROG	reactive organic gases
SB	Senate Bill
SJCOG	San Joaquin Council of Governments

SJMSCP	San Joaquin County Multi-Species Open Space and Habitat Conservation Plan
SJRTD	San Joaquin Regional Transit District
SJVAPCD	San Joaquin Valley Air Pollution Control District
SSJID	South San Joaquin Irrigation District
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
USFWS	U.S. Fish and Wildlife Service
VMT	vehicle miles traveled

NEGATIVE DECLARATION

A. General Project Information

Project Title:	Yosemite Avenue Apartments (SPA 21-165)
Lead Agency Name and Address:	City of Manteca Community Development Department 1001 West Center Street Manteca, CA 95337
Contact Person and Phone Number:	Scott Speer, Associate Planner (209) 456-8565
Project Location:	1919 W. Yosemite Avenue, Manteca, California
Project Sponsor Name and Address:	Mike Singh 3936 Castellina Way Manteca, CA 95227
General Plan Designation:	Commercial Mixed Use
Zoning:	CMU – Mixed Use Commercial
Project Description:	The project proposes the development of an apartment complex consisting of three two- and three-story buildings on a 2.9-acre parcel adjacent to and north of Yosemite Avenue. A total of 62 one-bedroom and two-bedroom apartment units would be constructed. An office and clubhouse would also be provided, along with onsite parking areas. The project would require Major Site Plan/Design Review approval from the City.
Surrounding Land Uses and Setting:	The project site is adjacent to and west of the Kaiser Permanente Hospital complex. It is adjacent to and east of an existing truck yard. South of the project site, across West Yosemite Avenue, is a single-family residential area. Vacant land is to the north.
Other Public Agencies Whose Approval is Required:	None

Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code Section 21080.3.1? If so, has consultation begun?	Add data from City

B. Environmental Factors Potentially Affected

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

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

C. Lead Agency Determination

On the basis of this initial evaluation:

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

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

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

I find that the proposed project MAY have a "potentially significant impact" or

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

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

CITY OF MANTECA

Scott Speer, Associate Planner
Community Development Department

Date

1.0 INTRODUCTION

1.1 Project Brief

This document is an Initial Study/Mitigated Negative Declaration (IS/MND) for the Yosemite Avenue Apartments project (project) in Manteca, California. The 2.9-acre project site is located at 1919 West Yosemite Avenue (Figures 1-1 to 1-5). This IS/MND has been prepared in compliance with the requirements of the California Environmental Quality Act (CEQA). For the purposes of CEQA, the City of Manteca (City) is the Lead Agency for the project.

The project proposes the construction of an apartment complex consisting of three two- and three-story buildings with a total of 62 one-bedroom and two-bedroom units. Parking areas would be installed at the eastern and the northern end of the site. Access to the project site would be provided from Yosemite Avenue, a regional arterial street, and from a proposed extension of Fishback Road. Sewer and water service would be provided by the City. Connection to existing storm drainage would be obtained by extending an existing City main at Airport Way to the project site. The proposed project is allowed by right under the current zoning of the project site, so it would require only Site Plan/Design Review approval by the Manteca Planning Commission.

1.2 Purpose of Initial Study

The California Environmental Quality Act (CEQA) requires that public agencies consider and document the potential environmental effects of the agency's actions that meet CEQA's definition of a "project." Briefly summarized, a "project" is an action that has the potential to result in direct or indirect physical changes in the environment. A project includes the agency's direct activities as well as activities that involve public agency approvals or funding. Guidelines for an agency's implementation of CEQA are found in the CEQA Guidelines (Title 14, Chapter 3 of the California Code of Regulations).

Provided that a project is not exempt from CEQA, the first step in the agency's consideration of its potential environmental effects is the preparation of an Initial Study. The Initial Study evaluates whether the project would involve "significant" environmental effects as defined by CEQA and identifies feasible mitigation measures that would avoid significant effects or reduce them to a level that would be less than significant. If the Initial Study does not identify significant effects, or if it identifies mitigation measures that would reduce all the significant effects of the project to a less-than-significant level, then the agency prepares a Negative Declaration or Mitigated Negative Declaration. If the project would involve significant effects that cannot be readily mitigated, then the agency must prepare an Environmental Impact Report (EIR). The agency may also decide to proceed directly with the preparation of an EIR without preparation of an Initial Study.

The proposed project is a "project" as defined by CEQA and is not exempt from CEQA consideration. The City has determined that the project involves the potential for significant environmental effects and requires preparation of this Initial Study. The Initial Study describes the proposed project and its environmental setting, it discusses the potentially significant environmental effects of the project, and it identifies feasible mitigation measures that would avoid the potentially significant environmental effects of the project or reduce them to a level that would be less than significant. The Initial Study considers the project's potential for significant environmental effects in the following subject areas:

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

The Initial Study concluded that the project would have potentially significant environmental effects, but that recommended mitigation measures would reduce all these effects to a level that would be less than significant. As of the distribution of the IS/MND for public review, the applicant has accepted all the recommended mitigation measures. As a result, the City has prepared a Mitigated Negative Declaration and notified the public of the City's intent to adopt the Initial Study/Mitigated Negative Declaration. A copy of the City's Notice of Intent, which indicates the time available for comment, is inside the cover of this document.

1.3 Project Background

The project site is a currently vacant parcel in western Manteca, adjacent to and north of West Yosemite Avenue near the intersection with Fishback Road. The City plans to install a roundabout at this intersection in the future, although the timing for this project has not been determined. The project has taken into consideration this future roundabout in its design.

The project site is in an area with mixed existing land uses. This has been recognized by the current Manteca General Plan, which has designated much of the surrounding area as Commercial Mixed Use. Land uses south of the project site consist of commercial and single-family residential development. Commercial uses also exist west of the project site, including the Werner Enterprises Drop Yard adjacent to the site. A "drop yard" is a trailer parking yard for larger trucking companies. East of the project site is Kaiser Permanente

Hospital, the most significant land use in the area. North of the site is land is vacant land; vacant parcels are found throughout the surrounding area.

The City of Manteca adopted the most recent update to its Housing Element in 2016. The Housing Element, which is part of the Manteca General Plan, assesses existing housing conditions in the City and sets goals, policies, and implementation programs for future housing development during the planning period (2015-2023). One of the goals of the Housing Element is to provide a range of housing types, densities, and designs, and meet existing and projected housing needs for all economic segments of the community. The Housing Element has policies and implementation programs designed to encourage more production of multifamily housing.

1.4 Environmental Evaluation Checklist Terminology

The project's potential environmental effects are evaluated in the Environmental Evaluation Checklist shown in Chapter 3.0. The checklist includes a list of environmental considerations against which the project is evaluated. For each question, the City determines whether the project would involve: 1) a Potentially Significant Impact, 2) a Less Than Significant Impact with Mitigation Incorporated, 3) a Less Than Significant Impact, or 4) No Impact.

> A Potentially Significant Impact occurs when there is substantial evidence that the project could involve a substantial adverse change to the physical environment, i.e., that the environmental effect may be significant, and mitigation measures have not been defined that would reduce the impact to a less than significant level. If there are one or more Potentially Significant Impact identified in the Initial Study, an EIR is required.
>
> An environmental effect that is Less Than Significant with Mitigation Incorporated is a Potentially Significant Impact that can be avoided or reduced to a level that is less than significant with the application of mitigation measures.
>
> A Less Than Significant Impact occurs when the project would involve effects on an area of environmental concern, but the project would not involve a substantial adverse change to the physical environment and no mitigation measures are required.
>
> A determination of No Impact is self-explanatory.

Some existing regulatory requirements, established by the City and other agencies with jurisdiction, that are routinely implemented in conjunction with new development function as measures that mitigate environmental impacts. These requirements are described in this IS/MND as a part of the existing regulatory setting, along with how these requirements would tend to reduce or avoid the project's environmental effects.

Where existing regulatory requirements are not adequate to reduce the project's environmental impacts to a level that would be less than significant, this IS/MND describes additional non-regulatory mitigation measures that are needed. These mitigation measures

are described in the appropriate technical section of Chapter 3.0 and are summarized in Table 1-1. As of the publication of the Notice of Intent for this project, these measures have been accepted by the project applicant. In all cases for this project, these mitigation measures would avoid potentially significant impacts of the project or reduce them to a level that would be less than significant.

1.5 Summary of Environmental Effects and Mitigation Measures

The pages following the figures contain Table 1-1, Summary of Impacts and Mitigation Measures. The table summarizes the results of the Environmental Checklist Form and associated narrative discussion of the project's potential environmental effects in Chapter 3.0. The potential environmental impacts of the proposed project are summarized in the left-most column of this table. The projected level of significance of each impact without mitigation is indicated in the second column. Mitigation measures proposed to avoid or minimize significant environmental effects are shown in the third column, and the significance of the impact, after mitigation measures are applied, is shown in the fourth column.

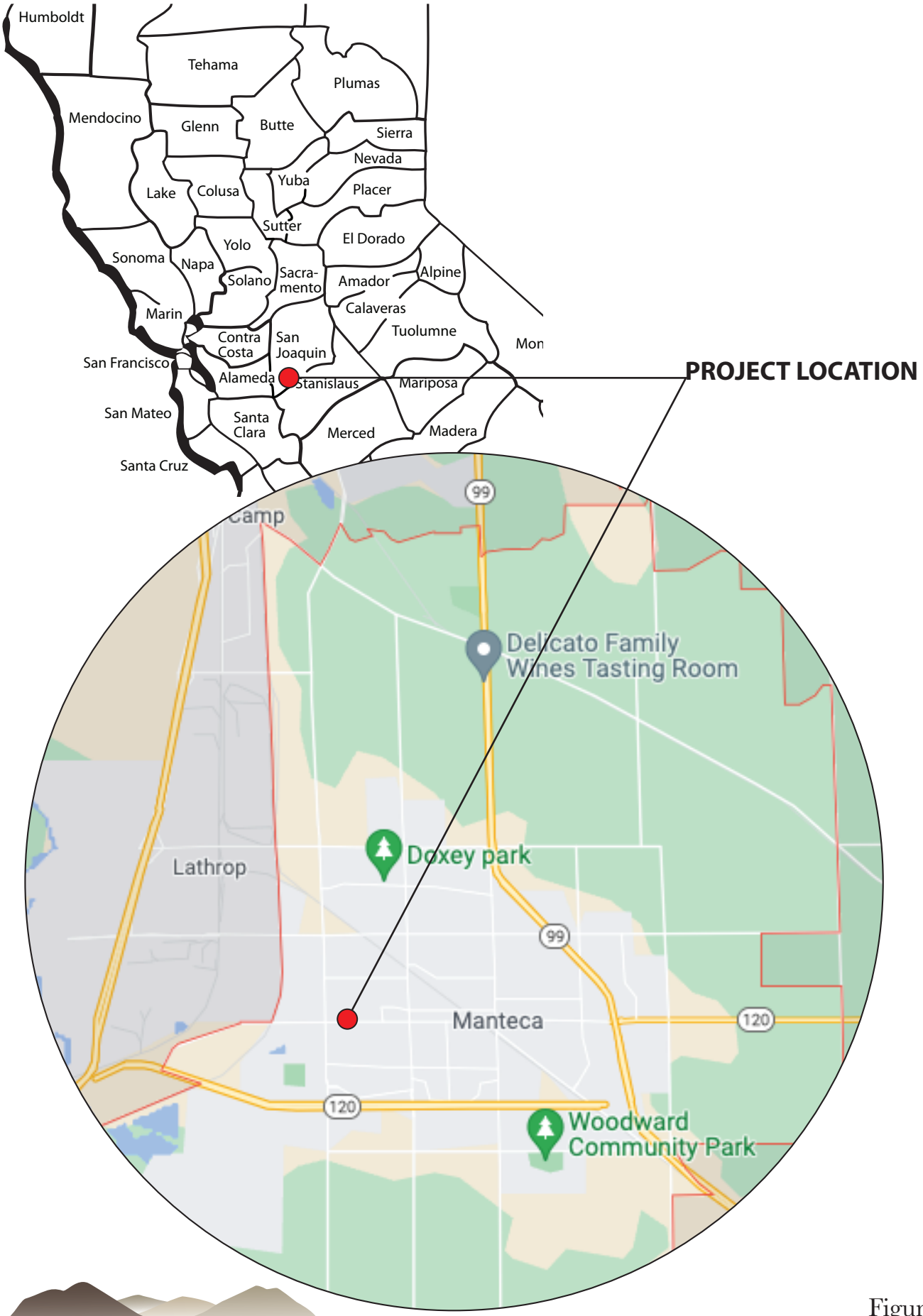
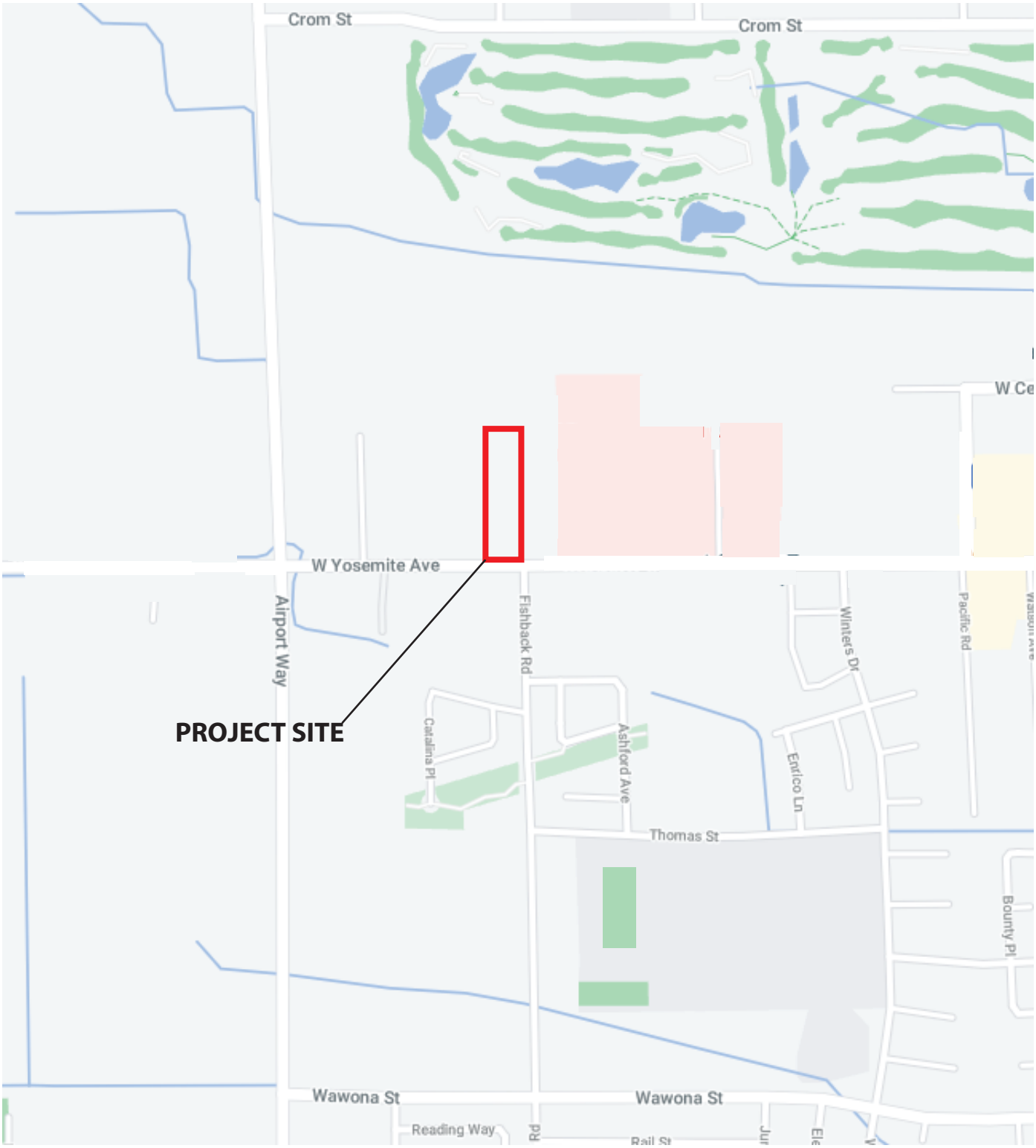
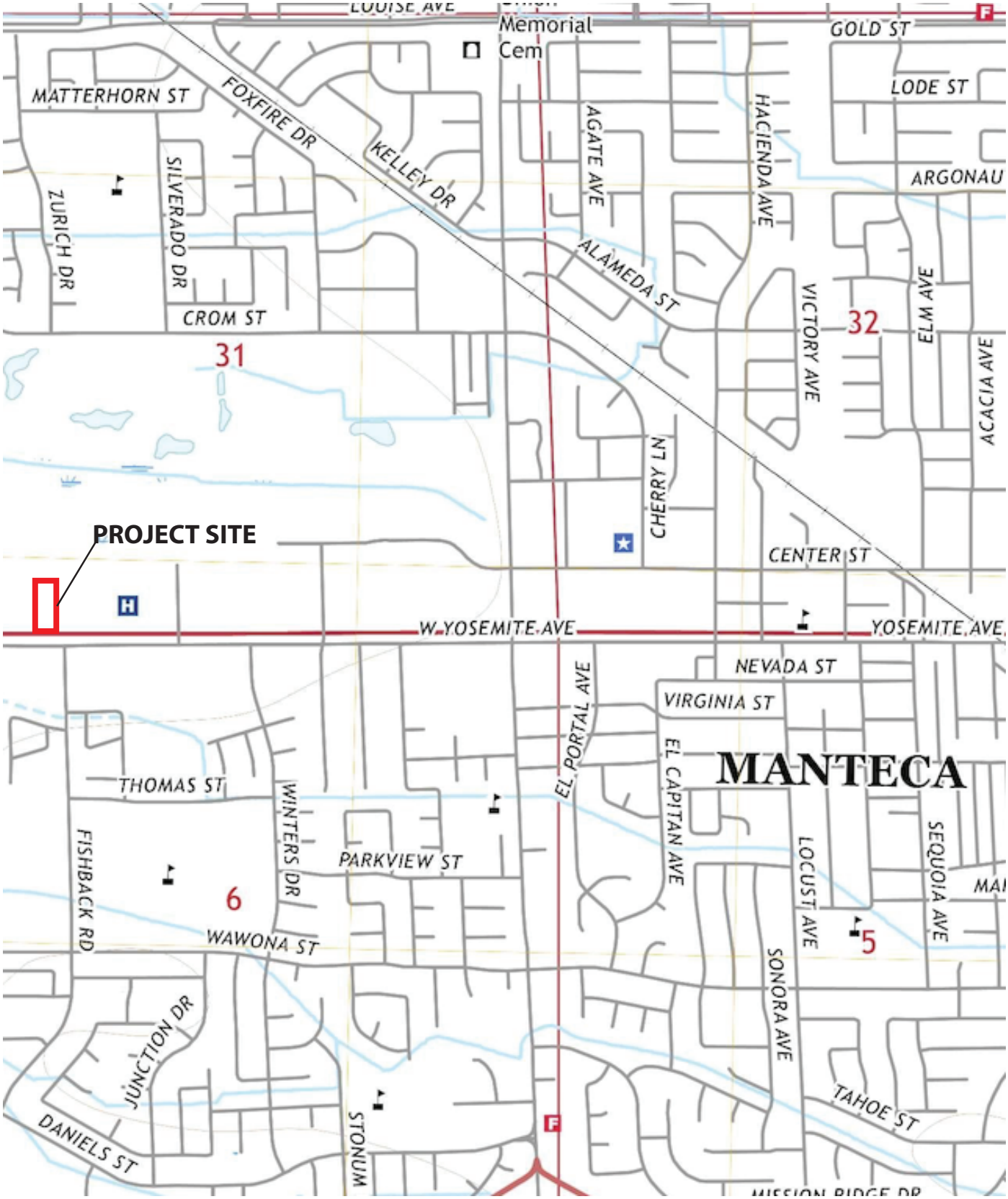


Figure 1-1
REGIONAL LOCATION MAP

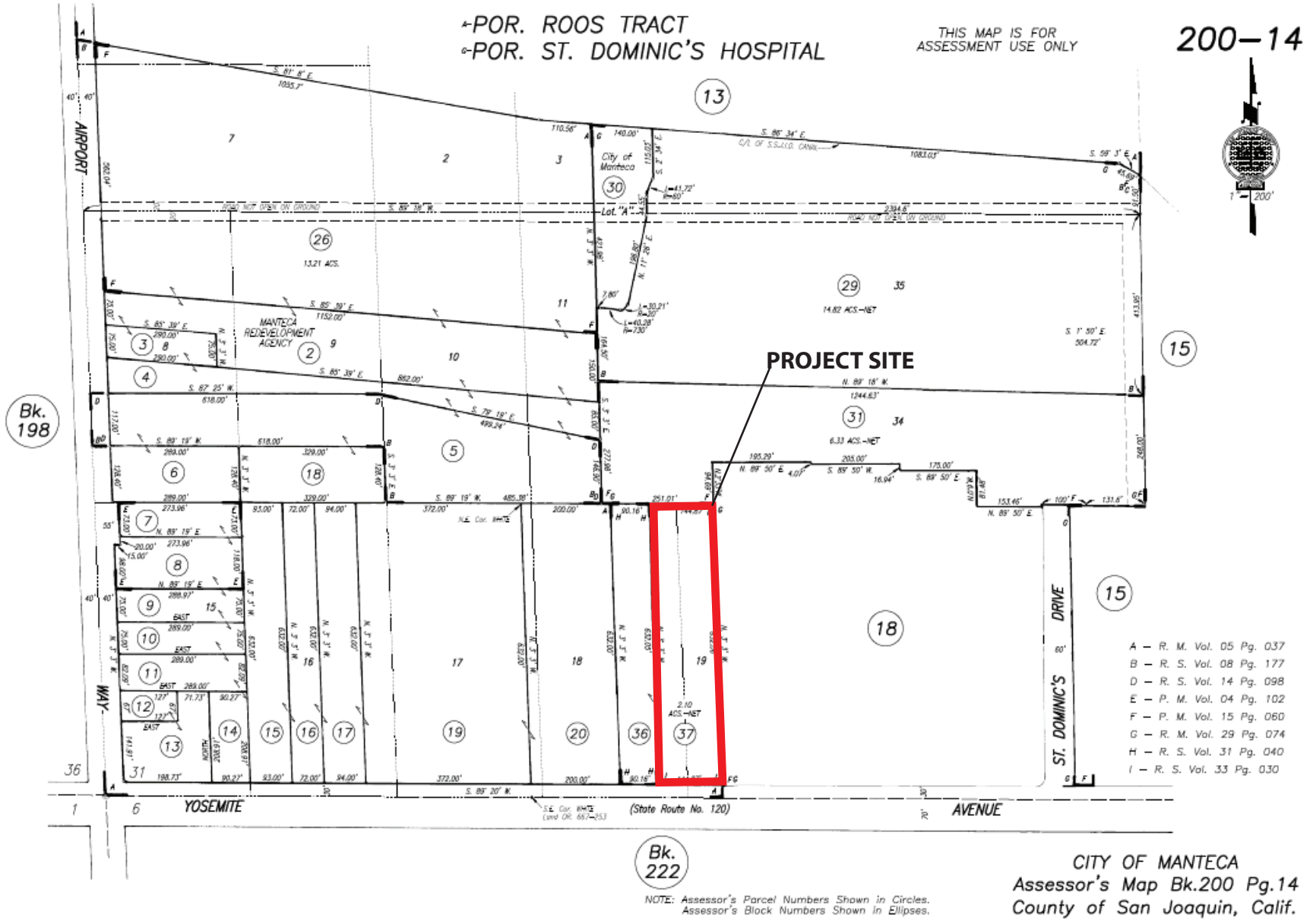


SOURCE: Google Maps



SOURCE: USGS Quadrangle Map, Manteca CA, 2018.

SOURCE: Google Earth



BaseCamp Environmental

Figure 1-5
ASSESSOR PARCEL MAP

TABLE 1-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
3.1 AESTHETICS			
a) Scenic Vistas	LS	None required	-
b) Scenic Resources and Highways	NI	None required	-
c) Visual Character and Quality	LS	None required	-
d) Light and Glare	LS	None required	-
3.2 AGRICULTURE AND FORESTRY RESOURCES			
a) Agricultural Land Conversion	NI	None required	-
b) Agricultural Zoning and Williamson Act	NI	None required	-
c, d) Forest Land Conversion and Zoning	NI	None required	-
e) Indirect Conversion of Farmland of Forest Land	NI	None required	-
3.3 AIR QUALITY			
a) Air Quality Plan Consistency	LS	None required	-
b) Cumulative Emissions	LS	None required	-
c) Exposure of Sensitive Receptors to Pollutants	LS	None required	-
d) Odors and Other Emissions	LS	None required	
3.4 BIOLOGICAL RESOURCES			
a) Special-Status Species	LS	None required	-
b) Riparian and Other Sensitive Habitats	NI	None required	-
c) State and Federal Jurisdictional Wetlands	LS	None required	-

LEGEND: NI = No Impact; LS = Less Than Significant; PS = Potentially Significant

TABLE 1-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
d) Fish and Wildlife Movement	PS	BIO-1: If project construction or vegetation removal commences during the general nesting season (March 1 through July 31), a pre-construction survey for all species of nesting birds shall be conducted. If active nests are found, work in the vicinity of the nests shall be delayed until the young have fledged. No surveys need to be taken should project construction or vegetation removal commence outside the general nesting season.	LS
e) Local Biological Requirements	LS	None required	-
f) Conflict with Habitat Conservation Plans	NI	None required	-
3.5 CULTURAL RESOURCES			
a) Historical Resources	NI	None required	-
b) Archaeological Resources	PS	CULT-1: If any subsurface cultural resources are encountered during construction of the project, the City of Manteca Community Development Department shall be notified and all construction activities in the vicinity of the encounter shall be halted until a qualified archaeologist can examine these materials and determine their significance. If the find is determined to be significant, then the archaeologist shall recommend further mitigation measures that would reduce potential effects on the find to a level that is less than significant. Recommended measures may include, but are not limited to, 1) preservation in place, or 2) excavation, recovery, and curation by qualified professionals. The project developer shall be responsible for retaining qualified professionals, implementing recommended mitigation measures, and documenting mitigation efforts in a written report to the City's Community Development Department, consistent with the requirements of the CEQA Guidelines.	LS

LEGEND: NI = No Impact; LS = Less Than Significant; PS = Potentially Significant

TABLE 1-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
c) Human Burials	LS	None required	-
3.6 ENERGY			
a) Project Energy Consumption	LS	None required	-
b) Consistency with Energy Plans.	LS	None required	-
3.7 GEOLOGY AND SOILS			
a-i) Fault Rupture Hazards	NI	None required	-
a-ii, iii) Seismic Hazards	LS	None required	-
a-iv) Landslides	LS	None required	-
b) Soil Erosion	PS	GEO-1: Prior to commencement of construction activity, the developer shall prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) for the project and file a Notice of Intent (NOI) with the State Water Resources Control Board (SWRCB) in compliance with the Construction General Permit and City of Manteca storm water requirements. The SWPPP shall be available on the construction site at all times. The developer shall incorporate an Erosion Control Plan consistent with all applicable provisions of the SWPPP within the site improvement and building plans. The developer also shall submit the SWRCB Waste Discharger's Identification Number (WDID) to the City prior to approval of development or grading plans.	LS
c) Geologic Instability	NI	None required	-
d) Expansive Soils	LS	None required	-
e) Adequacy of Soils for Wastewater Disposal	NI	None required	-

LEGEND: NI = No Impact; LS = Less Than Significant; PS = Potentially Significant

TABLE 1-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
f) Paleontological Resources and Unique Geological Features	PS	GEO-2: If any subsurface paleontological resources are encountered during construction of the project, the City of Manteca Community Development Department shall be notified and all construction activities within 50 feet of the encounter shall be halted until a qualified paleontologist can examine these materials and determine their significance. If the find is determined to be significant, then the paleontologist shall recommend mitigation measures that would reduce potential effects on the find to a level that is less than significant. Recommended measures may include, but are not limited to, 1) preservation in place, or 2) excavation, recovery, and curation by qualified professionals. The project developer shall be responsible for retaining qualified professionals, implementing recommended mitigation measures, and documenting mitigation efforts in a written report to the City's Community Development Department, consistent with the requirements of the CEQA Guidelines.	LS
3.8 GREENHOUSE GAS EMISSIONS			
a, b) Project GHG Emissions and Consistency with GHG Reduction Plans	LS	None required	-
3.9 HAZARDS AND HAZARDOUS MATERIALS			
a) Hazardous Material Transport, Use, and Storage	LS	None required	-
b) Release of Hazardous Materials	LS	None required	-
c) Hazardous Materials Releases near Schools	NI	None required	-
d) Hazardous Materials Sites	NI	None required	-
e) Public Airport Operations	NI	None required	-

LEGEND: NI = No Impact; LS = Less Than Significant; PS = Potentially Significant

TABLE 1-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
f) Emergency Response and Evacuations	PS	HAZ-1: Prior to the start of project construction, the developer shall prepare and implement a Traffic Control Plan, which shall include such items as traffic control requirements, resident notification of access closure, and daily access restoration. The contractor shall specify dates and times of road closures or restrictions, if any, and shall ensure that adequate access will be provided for emergency vehicles. The Traffic Control Plan shall be reviewed and approved by the City Department of Public Works and shall be coordinated with the Manteca Police Department and the Manteca Fire Department if construction will require road closures or lane restrictions.	LS
g) Wildland Fire Hazards	NI	None required	-
3.10 HYDROLOGY AND WATER QUALITY			
a) Surface Water Quality	LS	None required	-
b) Groundwater Supplies and Recharge	LS	None required	-
c-i, ii) Drainage Patterns	LS	None required	-
c-iii) Runoff	LS	None required	-
c-iv) Flood Flows	LS	None required	-
d) Other Flooding Hazards	LS	None required	-
e) Conflict with Water Quality or Groundwater Plans	NI	None required	-
3.11 LAND USE AND PLANNING			
a) Division of Established Communities	NI	None required	-

LEGEND: NI = No Impact; LS = Less Than Significant; PS = Potentially Significant

TABLE 1-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
b) Conflicts with Plans, Policies and Regulations Mitigating Environmental Effects	LS	None required	-
3.12 MINERAL RESOURCES			
a, b) Availability of Mineral Resources	LS	None required	-
3.13 NOISE			
a) Exposure to Noise Exceeding Local Standards	PS	NOISE-1: The City shall require the construction contractor to implement the following measures during project construction: • In accordance with the Manteca Municipal Code, construction activities shall be limited to between 7:00 a.m. and 7:00 p.m. Monday through Saturday to avoid noise-sensitive hours of the evenings and nights. Construction activities shall be prohibited on Sundays and federally recognized holidays, unless the contractor obtains prior approval from the City. • Project contractors shall use newer equipment with improved muffling and ensure that all equipment items have intact and operational the manufacturers' recommended noise abatement measures, such as mufflers, engine enclosures, and engine vibration isolators. All construction equipment shall be inspected at periodic intervals to ensure proper maintenance and presence of noise control devices (e.g., mufflers, shrouding, etc.). • In accordance with the California Air Resources Board's Regulation for In-Use Off-Road Diesel-Fueled Fleets, idling of construction equipment for more than	LS

LEGEND: NI = No Impact; LS = Less Than Significant; PS = Potentially Significant

TABLE 1-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
		five minutes shall be prohibited unless an activity is specifically exempted by the Regulation.	
b) Exposure to Groundborne Vibration or Noise	LS	None required	-
c) Public Airport and Private Airstrip Noise	NI	None required	-
3.14 POPULATION AND HOUSING			
a) Unplanned Population Growth	LS	None required	-
b) Displacement of Housing or People	NI	None required	-
3.15 PUBLIC SERVICES			
a) Fire Protection	LS	None required	-
b) Police Protection	LS	None required	-
c) Schools	LS	None required	-
d, e) Parks and Other Public Facilities	LS	None required	-
3.16 RECREATION			
a, b) Recreational Facilities	LS	None required	-
3.17 TRANSPORTATION			
a) Conflict with Transportation Plans, Ordinances and Policies	PS	TRANS-1: The project shall provide bicycle racks in accordance with Section 4.106.9 of the California Green Building Standards Code adopted by the City at time of final site plan review. The bicycle racks shall be identified on the final site plan prior to City approval.	LS

LEGEND: NI = No Impact; LS = Less Than Significant; PS = Potentially Significant

TABLE 1-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
		TRANS-2: The project shall designate spaces for electric vehicle charging stations in accordance with Section 4.106.4.2 of the California Green Building Standards Code adopted by the City at time of final site plan review. The electric vehicle spaces shall be identified on the final site plan prior to City approval.	
b) Conflict with CEQA Guidelines Section 15064.3(b)	LS	None required	-
c) Traffic Hazards	LS	None required	-
d) Emergency Access	LS	None required	-
3.18 TRIBAL CULTURAL RESOURCES			
a, b) Tribal Cultural Resources	PS	Mitigation Measure CULT-1.	LS
3.19 UTILITIES AND SERVICE SYSTEMS			
a) Relocation or Construction of New Facilities	LS	None required	-
b) Water Systems and Supply	LS	None required	-
c) Wastewater Treatment Capacity	LS	None required	-
d, e) Solid Waste Services	LS	None required	-
3.20 WILDFIRE			
a) Emergency Response Plans and Emergency Evacuation Plans	NI	None required	-

LEGEND: NI = No Impact; LS = Less Than Significant; PS = Potentially Significant

TABLE 1-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
b) Exposure of Project Occupants to Wildfire Hazards	NI	None required	-
c) Installation and Maintenance of Infrastructure	NI	None required	-
d) Risks from Runoff, Post-Fire Slope Instability, or Drainage Changes	NI	None required	-
3.21 MANDATORY FINDINGS OF SIGNIFICANCE			
a) Findings on Biological and Cultural Resources	PS	Mitigation measures in Sections 3.4 and 3.5.	LS
b) Findings on Individually Limited but Cumulatively Considerable Impacts	LS	None required	-
c) Findings on Adverse Effects on Human Beings	LS	None required	-

LEGEND: NI = No Impact; LS = Less Than Significant; PS = Potentially Significant

2.0 PROJECT DESCRIPTION

2.1 Project Location

The project site is located on 1919 West Yosemite Avenue in western Manteca, near where Fishback Road intersects with West Yosemite Avenue (see Figures 1-1 to 1-5). The site consists of Assessor's Parcel Number 200-140-20. The project site is shown on the U.S. Geological Survey's Manteca, California, 7.5-minute quadrangle map within Section 6, Township 2 South, Range 7 East, Mt. Diablo Base and Meridian. The latitude of the project site is approximately 37° 47′ 53″ North, and the longitude is approximately 121° 14′ 55″ West.

2.2 Project Details

The project proposes to construct an apartment complex consisting of three buildings on a 2.9-acre undeveloped site in western Manteca. Figure 2-1 shows the project site plan. Table 2-1 below summarizes the proposed project construction.

TABLE 2-1
PROPOSED PROJECT CONSTRUCTION

Building[1]	No. of 1-Bedroom Units	No. of 2-Bedroom Units	No. of Units in Building	Total Floor Area (square feet)
Building 1	4	4	16	14,256
Building 2	4	4	24	21,384
Building 3	4	4[2]	22	21,384
TOTAL	**32**	**30**	**62**	**57,024**

[1] See Figure 2-1 for building designations.
[2] Two units reserved for office and clubhouse.

Apartment Buildings

The project proposes to construct three apartment buildings, one two-story building and two three-story buildings. Building 1 would be two-stories with 16 total units, eight one-bedroom units and eight two-bedroom units. Buildings 2 and 3 would have a total of 46 units, 24 one-bedroom units and 22 two-bedroom units. In Buildings 1, 2, and 3, one one-bedroom unit and one two-bedroom unit on the lower story would be constructed in compliance with requirements of the Americans with Disabilities Act. The apartment complex overall would have 32 one-bedroom units and 30 two-bedroom units, for a total of 62 units.

Figure 2-2 shows the color building elevations specifically for Buildings 1, and Figure 2-3 shows the building elevations for Buildings 2 and 3. The two-story apartment building would be approximately 31 feet, 5 inches in height, while the two three-story buildings would be approximately 41 feet, 8 inches in height. The upper floors of all apartment buildings would be accessible by stairs and elevators. Patio/balcony areas would be available for each unit. The materials to be used in apartment building construction would be stucco with brick trim and horizontal siding. A color/materials board is included in the project application.

Office/Clubhouse

Approximately 2,164 square feet of the lower floor of Building 3 would be used as an office and a clubhouse area. The office area would consist of a manager's office and a sales office, each on one side of an entrance foyer. The clubhouse area would consist of a kitchen with a storage room and an indoor lounge area. Other indoor facilities would include men's and women's restrooms and a gymnasium.

Other Features

The project proposes the installation of 110 parking spaces, available to residents and visitors. Of these spaces, 62 would be covered, and 36 would be standard uncovered spaces. There would be 12 electric vehicle charging spaces. Most of the parking spaces would be within two parking areas, located at the eastern and northern portions of the project site. Four of the total parking spaces would be spaces designated for disabled drivers, three of which would be covered. Access to the project site would be provided by a driveway off West Yosemite Avenue. A second driveway is proposed off a proposed extension of Fishback Road north of West Yosemite Road along the eastern boundary of the project site. The Fishback Road project is a City project that is separate from the project analyzed in this document. The project also proposes the installation of parking facilities for 32 bicycles. .

Landscaping would be incorporated throughout the project site, covering approximately 22,748 square feet – approximately 18% of the project site. Of the landscaped area, approximately 66.3% would consist of shrub and groundcover, which would include trees such as Chinese pistache and crape myrtle, shrubs such as yedda hawthorn and petite pink oleander, perennials such as moonshine yarrow and African iris, and groundcover such as baby sunrose and lemon drift rose. Approximately 10.3% of the landscaped area would be covered with turf, and the remaining area would be biofiltration areas located along the northern and eastern boundaries of the project site. Trees would be irrigated with a root watering system and a surface supplemental bubbler. Shrubs, groundcover, and the biofiltration area would be irrigated with low-volume, point source drip/bubblers. Turf areas would use high-efficiency, overhead rotary irrigation. Site irrigation would use a controller with weather-sensing capabilities. The point of connection would utilize a backflow preventer, master valve, and flow sensor to comply with applicable local and State water-efficient landscape codes.

Curb, gutter, and sidewalk would be installed along the West Yosemite Avenue and proposed Fishback Road frontages in accordance with Manteca Municipal Code Section

15.28.010, and sidewalks would be installed in the building areas of the project site. Wrought iron fencing approximately six feet in height, would be installed along the site boundaries. A monument sign would be installed next to the West Yosemite Avenue driveway.

Utilities

Two types of onsite water systems would serve the project: one for potable water; the other for firefighting purposes. Both water systems would connect to an existing City water line beneath West Yosemite Avenue at the project site frontage. The proposed onsite sanitary sewer system would connect to the City's wastewater system via a line crossing West Yosemite Avenue to an existing manhole on Fishback Road before the existing wastewater pump station.

The project proposes an onsite storm drainage system with collection inlets and drains . The project further proposes to extend an existing storm drain line at Airport Way approximately 1,100 feet east along West Yosemite Avenue to the project site. This extension would receive runoff collected in the onsite system and convey it to the City's storm drainage system. As noted, there also would be biofiltration areas on the project site to which drainage would be sent.

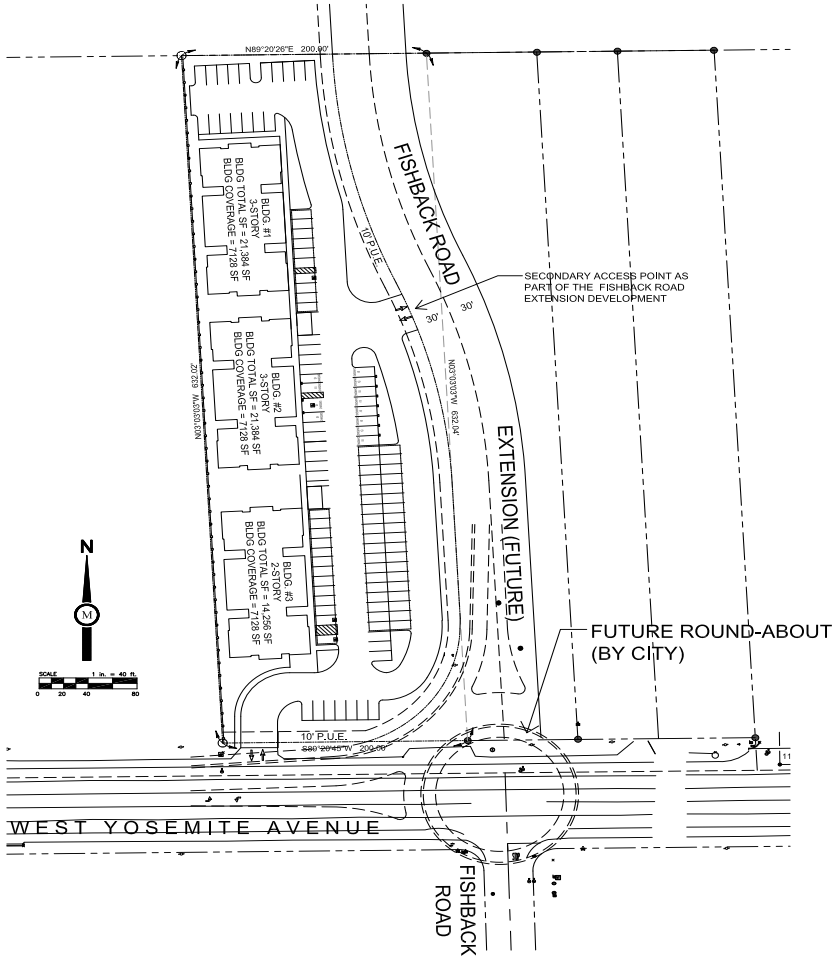
2.3 Permits and Approvals

The proposed project is consistent with the current General Plan and zoning designations of Commercial Mixed Use (CMU) for the parcel. Under CMU zoning, the proposed project would be allowed by right. As such, the project development would require only Site Plan/Design Review approval. The approval would be for a Major Site Plan and Design Review, as the project is a new development that is not exempt from CEQA review. The approving authority is the Manteca Planning Commission; however, decisions by the Planning Commission may be appealed to the City Council.

Should the project be approved, building and grading permits from the City would be required, along with an encroachment permit for any work in City streets. The landscaping plan would be reviewed by the City for conformance to the City's landscaping requirements (Manteca Municipal Code Chapter 17.48), and City approval of a Landscape Certificate of Completion prior to issuance of a Certificate of Occupancy.

YOSEMITE APARTMENTS

1919 WEST YOSEMITE AVENUE, MANTECA, CALIFORNIA



LEGAL DESCRIPTION

REAL PROPERTY IN THE CITY OF MANTECA, COUNTY OF SAN JOAQUIN, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

A PORTION OF LOTS 17 AND 18 OF ROOS TRACT, ACCORDING TO THE OFFICIAL MAP OR PLAT THEREOF FILED FOR RECORD AUGUST 2, 1911 IN VOL. 5 OF MAPS AND PLATS, PAGE 37.

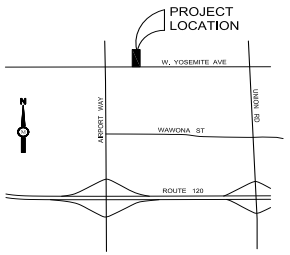
LOT DATA:

A.P.N.:	200-140-020
TOTAL ACREAGE:	126,324 SF (2.90 AC)
BUILDING AREA: APARTMENTS	±57,024 SF (1.31 AC)
BUILDING COVERAGE: APARTMENTS	±28,512 SF (0.65 AC)
LANDSCAPE COVERAGE:	±25,265 SF (0.58 AC)
PAVEMENT COVERAGE:	±72,547 SF (1.67 AC)
EXISTING PARCELS:	1
PROPOSED PARCELS:	1
GENERAL PLAN:	COMMERCIAL USE
EXISTING ZONE:	CMU - MIXED USE COMMERCIAL
PROPOSED ZONE:	SAME
EXISTING USE:	VACANT
PROPOSED USE:	MULTI-FAMILY APARTMENTS

SHEET INDEX

1	COVER SHEET / PROJECT DATA
2	SITE PLAN / UTILITY PLAN
3	CONCEPTUAL GRADING / DRAINAGE PLAN
4	FIRE ACCESS PLAN
5	PHOTO MAP
6	PHOTOMETRIC PLAN
7	PRELIMINARY LANDSCAPE PLAN
8	PRELIMINARY LANDSCAPE PLAN
9	CLUB HOUSE / OFFICE FLOOR PLAN
10	1 BEDROOM UNIT FLOOR PLAN
11	2 BEDROOM UNIT FLOOR PLAN
12	BUILDINGS 1, 2, & 3 MAIN FLOOR PLAN
13	BUILDINGS 1, 2, 3, & 4 UPPER FLOOR PLAN
14	BUILDING 4 MAIN FLOOR PLAN
15	NOT USED
16	BUILDINGS 1, 2, &3 EXTERIOR ELEVATIONS
17	CLUBHOUSE / OFFICE EXTERIOR ELEVATIONS
18	COLORED EXTERIOR ELEVATIONS
19	RENDERINGS
20	MATERIAL BOARD

CITY OF MANTECA



VICINITY MAP
NOT TO SCALE

APPLICANT

MIKE SINGH
3936 CASTELLINA WAY
MANTECA, CA 95337
PHONE: (916) 896-8999

DESIGN FIRM

MILESTONE ASSOCIATES
CONTACT: JULIO TINAJERO
1000 LINCOLN ROAD, STE. H202
YUBA CITY, CA 95991
PHONE: (530) 755-4700

BUILDING / UNIT DATA:

	1 BDRM	2 BDRM	# OF UNITS/BLDG	# OF BLDGS	STORIES	BLDG AREA	BLDG AREA TOTAL
BUILDING 1	4	4	16	1	2	7,128 SF	14,256 SF
BUILDING 2	4	4	24	1	3	7,128 SF	21,384 SF
BUILDING 3	4	4*	22	1	3	7,128 SF	21,384 SF
			TOTAL UNITS				
UNIT TYPE TOTAL	32	30*	62			21,384 SF	±57,024 SF

* LESS 2 UNITS USED FOR OFFICE / CLUBHOUSE

ADDRESS NOTE

THE APARTMENT COMPLEX WILL USE 1919 W YOSEMITE AVE AS THE ADDRESS OF THE COMPLEX AND THE CLUBHOUSE. FIRST FLOOR APARTMENT UNITS WILL BE NUMBERED 101, 102, 103, ETC. AND SECOND FLOOR UNITS WILL BE 201, 202, 203, ETC.

PARKING DATA

PARKING REQUIRED:		PARKING PROVIDED:	
TOTAL NUMBER OF 1-BDRM UNITS (32) 0.5 SPACE PER UNIT =	16	STANDARD SPACE	36
TOTAL NUMBER OF 2-BDRM UNITS (30) 1 SPACE PER UNIT =	30	COVERED SPACE	62
1 COVERED SPACE PER UNIT =	62	EV CHARGING SPACES (1 ACCESSIBLE)	12
ACCESSIBLE SPACES (COVERED SPACES)	(4)	ACCESSIBLE SPACE (3 COVERED)	(4)
TOTAL PARKING REQUIRED:	108	TOTAL PARKING PROVIDED:	110
		BICYCLE PARKING PROVIDED:	
		ON-SITE BICYCLE PARKING	32

Milestone Associates Imagineering, Inc.
1000 Lincoln Road, Suite H202, Yuba City, CA 95991
(530) 755-4700

YOSEMITE APARTMENTS
1919 W. YOSEMITE AVENUE, MANTECA, CA 95337

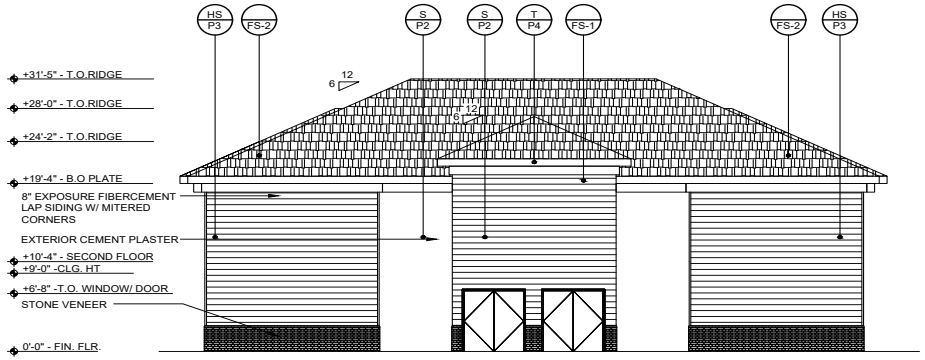
COVER SHEET / PROJECT DATA

1

BaseCamp Environmental

SOURCE: Milestone Associates Imagineering

Figure 2-1
Site Plan



SIDE ELEVATION

1/4" = 1'0"

GENERAL NOTES:

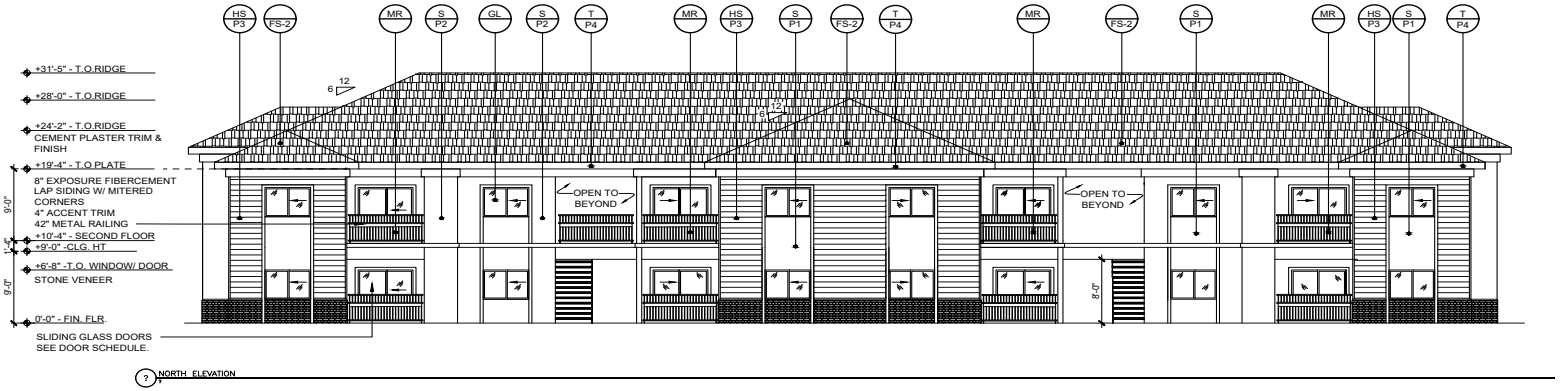
A. REAVEAL LOCATIONS IN FINISH SYSTEM SHOWN ARE TO ALIGN AS CLOSELY AS POSSIBLE TO ELEVATIONS.

MATERIAL LEGEND:

- GL — GLASS
- S — STUCCO
- MR — METAL RAILING
- HS — HORIZONAL SIDING TO MATCH PAINT COLOUR SELECTED
- T — TRIM AND CORNICE

COLOR LEGEND:

- P1 — PACER WHITE SW6098 AS MANUFACTURED BY SHERWIN WILLIAMS
- P2 — ANTLER VELVET SW9111 AS MANUFACTURED BY SHERWIN WILLIAMS
- P3 — LANGUID BLUE SW6226 AS MANUFACTURED BY SHERWIN WILLIAMS
- P4 — GOSSAME VEIL SW9168 AS MANUFACTURED BY SHERWIN WILLIAMS
- FS-1 — STACKED STONE, COLOR: MOUNTAIN AS MANUFACTURED BY NICHIHA
- FS-2 — LANDMARK PRO ROOFING, COLOR: MAX DEF GEORGETOWN GRAY AS MANUFACTURED BY CERTAINTEED ROOFING



FRONT / REAR ELEVATION

1/4" = 1'0"

Milestone Associates Imagineering, Inc.
1000 Lincoln Road, Suite H202, Yuba City, CA 95991
(530) 755-4700

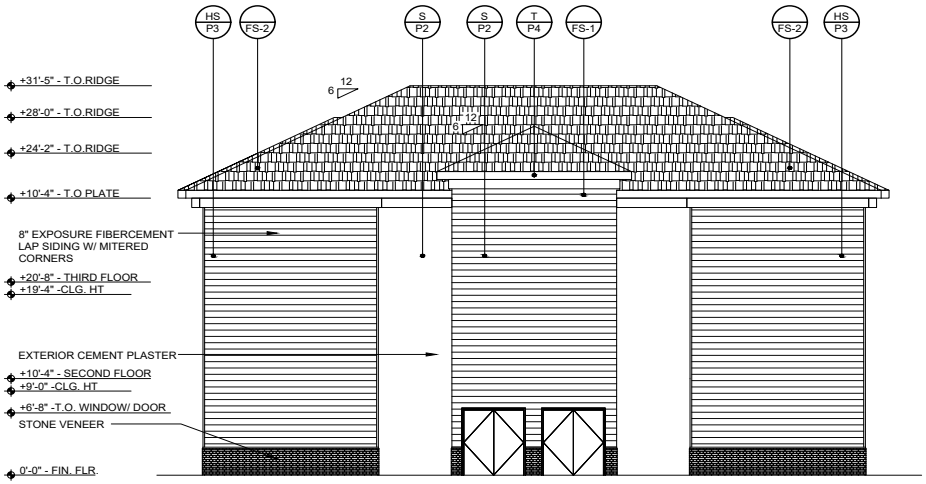
YOSEMITE APARTMENTS
1919 W. YOSEMITE AVENUE, MANTECA, CA 95337

2 STORY BUILDING EXTERIOR ELEVATIONS

16

SOURCE: Milestone Associates Imagineering

Figure 2-2
2-Story Building Elevations



SIDE ELEVATION
1/4" = 1'0"

GENERAL NOTES:

A. REAVEAL LOCATIONS IN FINISH SYSTEM SHOWN ARE TO ALIGN AS CLOSELY AS POSSIBLE TO ELEVATIONS.

MATERIAL LEGEND:

- GL — GLASS
- S — STUCCO
- MR — METAL RAILING
- HS — HORIZONAL SIDING TO MATCH PAINT COLOUR SELECTED
- T — TRIM AND CORNICE

COLOR LEGEND:

- P1 — PACER WHITE SW6098 AS MANUFACTURED BY SHERWIN WILLIAMS
- P2 — ANTLER VELVET SW9111 AS MANUFACTURED BY SHERWIN WILLIAMS
- P3 — LANGUID BLUE SW6226 AS MANUFACTURED BY SHERWIN WILLIAMS
- P4 — GOSSAME VEIL SW9168 AS MANUFACTURED BY SHERWIN WILLIAMS
- FS-1 — STACKED STONE, COLOR: MOUNTAIN AS MANUFACTURED BY NICHIHA
- FS-2 — LANDMARK PRO ROOFING, COLOR: MAX DEF GEORGETOWN GRAY AS MANUFACTURED BY CERTAINTEED ROOFING

FRONT / REAR ELEVATION
1/4" = 1'0"

Milestone Associates Imagineering, Inc.
1000 Lincoln Road, Suite H202, Yuba City, CA 95991
(530) 755-4700

YOSEMITE APARTMENTS
1919 W. YOSEMITE AVENUE, MANTECA, CA 95337

3 STORY BUILDING EXTERIOR ELEVATIONS

16.1

SOURCE: Milestone Associates Imagineering

Figure 2-3
3-Story Building Elevations

3.0 ENVIRONMENTAL CHECKLIST FORM

3.1 AESTHETICS

Except as provided in Public Resources Code Section 21099, would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?			✓	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				✓
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 points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?			✓	
d) Create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area?			✓	

NARRATIVE DISCUSSION

Environmental Setting

The project consists of vacant land covered by mostly grasses and weeds, with a few scattered trees of small to medium height. A site visit revealed some piles of wood debris and a gravel driveway connecting two entryways from West Yosemite Avenue.

Views from the project site include vacant land and residential development to the south and a truck yard and other urban development to the west. To the north, approximately one-quarter mile, is a view of the Manteca Park Golf Course, mainly of the trees lining the course. Vacant land is between the project site and the golf course. To the east are views of a single-family residence, a mobile home, and the Kaiser Permanente Medical Center.

The recently revised Appendix G of the CEQA Guidelines mentions California Public Resources Code Section 21099, which states that the aesthetic and parking impacts of residential, mixed-use residential, or employment center projects on an infill site within a transit priority area shall not be considered significant effects under CEQA. While the project is residential and may be considered an infill project, it is not in a designated transit priority area. Therefore, Public Resources Code Section 21099 does not apply to this project.

Environmental Impacts and Mitigation Measures

a) Scenic Vistas.

Distant views from Manteca mainly consist of the Coast Ranges to the west and the Sierra Nevada mountains to the east. However, due to existing development in the area, views of these mountain ranges are not available from the project site. The project involves the construction of apartment buildings and related site improvements, which have the potential to contribute to obstruction of distant views. However, given their location and existing obstruction in the area, they would not substantially affect views of scenic vistas. Project impacts on scenic vistas would be less than significant.

b) Scenic Resources and Highways.

The project site is topographically flat. A few trees are scattered on the project site, but they are relatively small and have no distinctive features. There are no outstanding scenic features such as rock outcroppings on the project site.

According to the California Department of Transportation (Caltrans) list of designated scenic highways under the California Scenic Highway Program, there are only two officially designated state scenic highways within San Joaquin County: Interstate 5 from the Stanislaus County Line to Interstate 580 (0.7 miles), and Interstate 580 from I-5 to the Alameda County Line (15.4 miles), both in southwestern San Joaquin County (Caltrans 2019). San Joaquin County has designated several local scenic routes; the closest to the project site is Austin Road south of State Route 99, southeast of the project site (San Joaquin County 2016a). There are no designated State or local scenic routes in the vicinity; the nearest scenic route is the County-designated Austin Road southeast of the project site. The project would have no impact on scenic resources or scenic routes.

c) Visual Character and Quality.

As noted, the project site is a vacant parcel covered mostly with grasses and weeds. Aside from the few trees, piles of wood debris and a gravel driveway are the most distinctive features on the project site. The visual quality of the latter two features is considered very low. The project, with its design and landscaping, may be considered an improvement to the existing on-site aesthetics as viewed from West Yosemite Avenue, which is the main public viewing area in the vicinity.

The project would be subject to Site Plan and Design Review by the City, which is intended to promote harmony in appearance in neighborhoods and to reduce negative aesthetic impacts. Under Chapter 17.48, landscaping shall be installed in setbacks, parking areas, and unused areas. A landscaping plan shall be submitted for new development. Compliance with the provisions of the Manteca Municipal Code regarding setbacks and landscaping would make for a more visually pleasing development. Project impacts on visual character and quality would be less than significant.

d) Light and Glare.

There is currently no lighting or features that may produce glare on the project site, as it is vacant. Project construction would involve the installation of lighting, mainly on the apartment buildings and in the parking areas. This would increase the amount of indirect illumination on adjacent properties, most notably the residential property adjacent to the southeast corner of the project site.

Manteca Municipal Code Chapter 17.50 sets forth requirements for the installation of lighting. All outdoor lighting shall be designed, located, installed, directed downward or toward structures, shielded, and maintained to prevent glare, light trespass, and light pollution. The maximum height of freestanding outdoor light fixtures shall be 20 feet. To minimize light trespass on abutting residential property, illumination measured at the nearest residential structure or rear yard setback line shall not exceed the moon's potential ambient illumination of one-tenth footcandle.

Under Chapter 17.50, an outdoor lighting plan is required for all new outdoor lighting installations on commercial, mixed-use, multi-unit residential, industrial, and institutional properties. The lighting plan shall include manufacturer specifications sheets, cut sheets, and other manufacturer-provided information for all proposed outdoor light fixtures to show fixture diagrams and outdoor light output levels. It also shall include photometric data including a computer-generated photometric grid showing foot-candle readings every 10 feet within the property or site and 10 feet beyond the property lines.

The project applicant will be required to prepare a photometric plan in accordance with these requirements. The nearest residence is approximately 200 feet east of the southeastern corner of the project site. No lighting is planned to be installed in the southeastern corner. The nearest illumination to the residence is no greater than one footcandle at the project site boundary, and the residence is approximately 240 feet away. Given this distance and the requirements of Municipal Code Chapter 17.50, it is unlikely that the project would result in an indirect illumination of the residence that exceeds City standards.

The City's Site Plan and Design Review requires a project to identify potentially reflective exterior building materials and their location in relation to motorists and other persons within sight of the project. Also, site plans must identify any exterior light sources and areas subject to potential offsite illumination areas. Potential offsite lighting impacts would be considered during City site plan review, which may lead to the imposition of additional mitigation measures as conditions of approval. Project impacts on light and glare would be less than significant.

3.2 AGRICULTURE AND FORESTRY RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				✓
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				✓
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))?				✓
d) Result in the loss of forest land or conversion of forest land to non-forest use?				✓
e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use, or conversion of forest land to non-forest use?				✓

NARRATIVE DISCUSSION

Environmental Setting

The project site is vacant land. A review of site photographs available on Google Earth indicates limited agricultural activity in the vicinity of the project site. However, the project site itself has not been used for agriculture since at least 1993.

The Important Farmland Maps, prepared by the California Department of Conservation as part of its Farmland Mapping and Monitoring Program, designate the viability of lands for farmland use, based on the physical and chemical properties of the soils and other factors. The maps categorize farmland, in decreasing order of soil quality, as "Prime Farmland," "Unique Farmland," and "Farmland of Statewide Importance." Collectively, these categories are referred to as “Farmland” in the CEQA Checklist in Appendix G of the CEQA Guidelines and in this document. There are also designations for grazing land and for urban/built-up areas, among others. According to the 2018 Important Farmland Map of San Joaquin County, the most recent map available, the project site contains land designated as Rural Residential Land (FMMP 2018).

a) Farmland Conversion.

The project site is designated as Rural Residential by the Farmland Mapping and Monitoring Program. This designation does not meet the CEQA Guidelines Appendix G definition of Farmland; therefore, by definition, the project would not convert Farmland to non-agricultural use. The project would have no impact on Farmland conversion.

b) Agricultural Zoning and Williamson Act.

As previously noted, the project site is zoned for commercial uses, not for agriculture. The Williamson Act is State legislation that seeks to preserve farmland by offering property tax breaks to farmers who sign a contract pledging to keep their land in agricultural use. The project site is not under a Williamson Act contract. The project would have no impact on this issue.

c, d) Forest Land Zoning and Conversion.

The project site is not used, zoned, or otherwise designated for forestry use. The project site does not support any trees, so no forest land potentially available for commercial use exists. The project would have no impact on forest land zoning or forest land conversion.

e) Indirect Conversion of Farmland and Forest Land.

Vacant lands to the north of the project site contain Farmland of Local Importance, which as noted is not Farmland as defined for CEQA purposes. No active agricultural operations are occurring or have occurred on these lands in recent history. All these vacant lands have been designated and zoned for urban development, and urban infrastructure has been extended to the area. Other lands in the vicinity have not been designated as agricultural land. As noted in c, d) above, there are no forest lands in the vicinity. The project would have no impact related to indirect conversion of Farmland or forest land.

3.3 AIR QUALITY

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable Air Quality Attainment Plan?			✓	
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?			✓	
c) Expose sensitive receptors to substantial pollutant concentrations?			✓	

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

NARRATIVE DISCUSSION

Environmental Setting

Air Quality Status

The project site is within the San Joaquin Valley Air Basin. The San Joaquin Valley Air Pollution Control District (SJVAPCD), which includes the City of Manteca, has jurisdiction over most air quality matters in the Air Basin. The SJVAPCD is tasked with implementing programs and regulations required by both the federal and California Clean Air Acts. Under their respective Clean Air Acts, both the federal government and the State of California have established ambient air quality standards for six criteria air pollutants: ozone, particulate matter, carbon monoxide, nitrogen dioxide, sulfur dioxide, and lead. California has four additional criteria pollutants under its Clean Air Act.

Table 3-1 shows the current attainment status of the Air Basin relative to the federal and State ambient air quality standards for criteria pollutants. Except for ozone and particulate matter, which are discussed below, the Air Basin is in attainment of, or unclassified for, all federal and State ambient air quality standards.

TABLE 3-1
SAN JOAQUIN VALLEY AIR BASIN ATTAINMENT STATUS

	Designation/Classification	
Criteria Pollutant	**Federal Primary Standards**	**State Standards**
Ozone - One hour	No Federal Standard	Nonattainment/Severe
Ozone - Eight hour	Nonattainment/Extreme	Nonattainment
PM_{10}	Attainment	Nonattainment
$PM_{2.5}$	Nonattainment	Nonattainment
Carbon Monoxide (CO)	Attainment/Unclassified	Attainment/Unclassified
Nitrogen Dioxide (NO_x)	Attainment/Unclassified	Attainment
Sulfur Dioxide (SO_x)	Attainment/Unclassified	Attainment
Lead	No Designation/Classification	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Sulfates	No Federal Standard	Attainment
Visibility Reducing Particles	No Federal Standard	Unclassified
Vinyl Chloride	No Federal Standard	Attainment

Source: SJVAPCD 2021.

Air Pollutants of Concern

The San Joaquin Valley Air Basin is designated a non-attainment area for ozone. Ozone is not emitted directly into the air. It is formed when reactive organic gases (ROG) and nitrogen oxides (NO_x), referred to as "ozone precursors," react in the atmosphere in the presence of sunlight. Ozone is a respiratory irritant and an oxidant that increases susceptibility to respiratory infections and can cause substantial damage to vegetation and other materials. The SJVAPCD currently has a 2007 Ozone Plan and a 2013 Plan for the Revoked 1-Hour Ozone Standard for the Air Basin to attain federal ambient air quality standards for ozone.

The Air Basin is also designated a non-attainment area for respirable particulate matter, a mixture of solid and liquid particles suspended in air, including dust, pollen, soot, smoke, and liquid droplets. In the San Joaquin Valley, particulate matter is generated by a mix of rural and urban sources, including agricultural activities, industrial emissions, dust suspended by vehicle traffic, and secondary aerosols formed by reactions in the atmosphere.

Health concerns associated with suspended particulate matter focus on those particles small enough to reach the lungs when inhaled; consequently, both the federal and state air quality standards for particulate matter apply to particulates 10 micrometers or less in diameter (PM_{10}) and to particulates less than 2.5 micrometers in diameter ($PM_{2.5}$), which are carried deeper into the lungs. Acute and chronic health effects associated with high particulate levels include the aggravation of chronic respiratory diseases, heart and lung disease, coughing, bronchitis, and respiratory illnesses in children. The SJVAPCD currently has a 2007 PM_{10} Maintenance Plan to maintain the Air Basin's attainment status for federal PM_{10} ambient air quality standards, and a 2008 $PM_{2.5}$ Plan for the Air Basin to attain federal $PM_{2.5}$ ambient air quality standards.

Carbon monoxide (CO) is an odorless, colorless gas that is highly toxic. It is formed by the incomplete combustion of fuels and is emitted directly into the air, unlike ozone. The main source of CO in the San Joaquin Valley is on-road motor vehicles (SJVAPCD 2015). The San Joaquin Valley Air Basin is in attainment/unclassified status for CO; as such, the SJVAPCD has no CO attainment plans. High CO concentrations may occur in areas of limited geographic size, referred to as "hot spots," which are ordinarily associated with areas of highly congested traffic.

In addition to the criteria pollutants, the ARB has identified other air pollutants as toxic air contaminants (TACs) - pollutants that may cause acute or chronic long-term health effects, such as cancer. Some TACs may cause adverse effects even at low levels. Diesel particulate matter is the most common TAC, generated mainly as a product of combustion in diesel engines. Other TACs are less common and are typically associated with industrial activities.

Air Quality Rules and Regulations

As previously noted, the SJVAPCD has jurisdiction over most air quality matters in the Air Basin. It implements the federal and California Clean Air Acts, and the applicable

attainment and maintenance plans, through local regulations. The SJVAPCD has developed plans to attain State and federal standards for ozone and particulate matter, which include emissions inventories to measure the sources of air pollutants and the use of computer modeling to estimate future levels of pollution and make sure that the Valley will meet air quality goals (SJVAPCD 2015). A State Implementation Plan for CO has been adopted by the ARB for the entire state. The SJVAPCD regulations that would be applicable to the project are summarized below.

Regulation VIII (Fugitive Dust PM10 Prohibitions)

Rules 8011-8081 are designed to reduce PM_{10} emissions (predominantly dust/dirt) generated by human activity, including construction and demolition activities, road construction, bulk materials storage, paved and unpaved roads, carryout and track out, landfill operations, etc.

Rule 4101 (Visible Emissions)

This rule prohibits emissions of visible air contaminants to the atmosphere and applies to any source operation that emits or may emit air contaminants.

Rule 9510 (Indirect Source Review)

Rule 9510, also known as the Indirect Source Rule, is intended to reduce or mitigate emissions of NO_x and PM_{10} from new development in the SJVAPCD including construction and operational emissions. This rule requires specific percentage reductions in estimated on-site construction and operation emissions, and/or payment of offsite mitigation fees for required reductions that cannot be met on the project site. Construction emissions of NO_x and PM_{10} exhaust must be reduced by 20% and 45%, respectively. Operational emissions of NO_x and PM_{10} must be reduced by 33.3% and 50%, respectively. Rule 9510 applies to residential development projects of 50 units or more; therefore, the project would be subject to Rule 9510.

Environmental Impacts and Mitigation Measures

In 2015, the SJVAPCD adopted a revised Guide for Assessing and Mitigating Air Quality Impacts (SJVAPCD Guide). The SJVAPCD Guide defines an analysis methodology, thresholds of significance, and mitigation measures for the assessment of air quality impacts for projects within SJVAPCD's jurisdiction. Table 3-2 shows the CEQA thresholds for significance for pollutant emissions within the SJVAPCD. The significance thresholds apply to emissions from both project construction and project operations.

The California Emissions Estimator Model (CalEEMod) was used to estimate both construction and operational emissions from the proposed project. The CalEEMod results are shown in Appendix A of this document. Table 3-2 shows the maximum project construction emissions in a calendar year and the annual operational emissions. The construction period is assumed to be part of two calendar years.

TABLE 3-2
SJVAPCD SIGNIFICANCE THRESHOLDS AND PROJECT EMISSIONS

	ROG	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
SJVAPCD Significance Thresholds[1]	**10**	**10**	**100**	**27**	**15**	**15**
Construction Emissions[2]	0.25	1.16	1.17	<0.01	0.10	0.07
Above Threshold?	*No*	*No*	*No*	*No*	*No*	*No*
Operational Emissions[3]	0.48	0.40	2.64	<0.01	0.50	0.14
Above Threshold?	*No*	*No*	*No*	*No*	*No*	*No*

[1] Applicable to both construction and operational emissions.
[2] Maximum emissions in a calendar year.
[3] Tons per year under mitigated conditions (see Chapter 9.0, Greenhouse Gas Emissions).
Notes: ROG – reactive organic gases; NO_x – nitrogen oxide; CO – carbon monoxide; SO_x – sulfur oxide; PM_{10} – particulate matter 10 microns in diameter; $PM_{2.5}$ – particulate matter 2.5 microns in diameter.
Sources: CalEEMod Version 2020.4.0, SJVAPCD 2015.

a) Air Quality Plan Consistency.

SJVAPCD has attainment plans for ozone and particulate matter, while the State has a CO attainment plan. As indicated in Table 3-2, project construction and operational emissions would not exceed the applicable SJVAPCD significance thresholds. Since all project emissions are estimated to be below their respective SJVAPCD significance thresholds, the project would be consistent with adopted reduction plans for ozone, particulate matter, and CO.

While project emissions would not be significant, the project would still be required to comply with applicable SJVAPCD rules and regulations, which would further reduce potential air quality impacts. As noted, SJVAPCD Regulation VIII contains measures to reduce fugitive dust emissions during construction. Dust control provisions are also routinely included in site improvement plans and specifications, along with construction contracts. In addition, the project would be subject to SJVAPCD Rule 9510, which requires specific NO_x and PM_{10} reductions from construction exhaust and operational emissions. Compliance with Rule 9510 and dust control requirements would further reduce project impacts related to air quality plans that are already less than significant.

b) Cumulative Emissions.

As noted in a) above, project operational emissions would not exceed SJVAPCD significance thresholds. Future attainment of federal and State ambient air quality standards is a function of successful implementation of the SJVAPCD's attainment plans. Consequently, the application of significance thresholds for criteria pollutants is relevant to the determination of whether a project's individual emissions would have a cumulatively significant impact on air quality. Pursuant to the SJVAPCD's guidance, if project-specific emissions would be less than the thresholds of significance for criteria pollutants, the project would not be expected to result in a cumulatively considerable net increase of any

criteria pollutant for which the SJVAPCD is in nonattainment under applicable federal or State ambient air quality standards. As project emissions would not exceed SJVAPCD significance thresholds, the cumulative impacts of these emissions would be less than significant.

c) Exposure of Sensitive Receptors to Pollutants.

As defined in the Guide for Assessing and Mitigating Air Quality Impacts, "sensitive receptors" include residences, schools, parks and playgrounds, day care centers, nursing homes, and hospitals (SJVAPCD 2015). As noted in Section 3.1, Aesthetics, two residences are located approximately 200 feet from the southeast corner of the project site, and the Kaiser Permanente Medical Center is approximately one-quarter mile to the east. These land uses meet the definition of sensitive receptors.

Exposure of sensitive receptors to project construction emissions would be short-term and therefore would not have a lasting impact on health or well-being. As indicated in Table 3-2 above, project operational emissions would not exceed SJVAPCD significance thresholds. As discussed in a) above, the significance thresholds were established in part to ensure consistency with the objectives of air quality attainment plans adopted by the SJVAPCD. These plans are intended to have the Air Basin attain both federal and State ambient air quality standards, including federal primary standards designed to protect human health. Sensitive receptors in the vicinity of the project site would not be exposed to any substantial air pollutant emissions from project construction or operations. The project would have no impact on sensitive receptors.

CO hotspots have the potential to expose receptors to emissions that violate state and/or federal CO standards, even if the broader air basin is in attainment of these standards. The SJVAPCD guide indicates that a project would create no violations of the CO standards if neither of the following criteria are met (SJVAPCD 2015):

- A traffic study for the project indicates that the Level of Service (LOS) on one or more streets or at one or more intersections in the project vicinity will be reduced to LOS E or F; or
- A traffic study indicates that the project will substantially worsen an already existing LOS F on one or more streets or at one or more intersections in the project vicinity (See Section 3.17, Transportation, for an explanation of LOS).

Due to the relatively small amount of traffic generated by the project (see Section 3.17, Transportation), the project would not cause degradation of existing LOS to E or F conditions at any intersection. Therefore, the project would have no adverse impact related to CO emissions.

e) Odors and Other Emissions.

The project proposes the development of an apartment complex, with no development of significant sources of odors such as industrial plants and wastewater treatment plants. The main emissions of concern that could affect sensitive receptors are TACs, specifically

diesel particulate matter emissions, prolonged exposure to which could lead to serious health effects, including cancer.

The main source of diesel particulate matter emissions is diesel engines, which with the project would be limited mainly to construction equipment. Such equipment would be used only until project construction work is completed. Project construction would not result in prolonged exposure of sensitive receptors to diesel particulate matter emissions. Diesel particulate matter emissions from project operations typically are generated by trucks, buses, and other large vehicles; relatively few passenger vehicles have diesel engines. It is expected that the project, being residential, would generate few trips by large vehicles with diesel engines.

The exhaust PM_{10} emissions calculated by CalEEMod provide a reasonable representation of diesel particulate matter emissions that would be generated by the project. According to the CalEEMod results, the project would generate approximately 0.009 tons of exhaust PM_{10} annually, or approximately 0.05 pounds per day. This amount is small and expected to dissipate readily before it reaches sensitive receptors.

The City is concerned about the exposure of residents to diesel particulate matter emissions generated by land use activities that involve substantial truck traffic, such as warehouses and truck stops. The project would be placed adjacent to the Werner Enterprises Drop Yard, which experiences truck traffic. Unlike warehouses, terminals, and truck stops, a drop yard is a place where typically empty trailers are parked until they are needed for use. Because of this, the presence of trucks at a drop yard is generally for a shorter time than at other places with truck traffic and thus would generate fewer diesel particulate matter emissions. Drop yards were not considered a land use of concern by ARB in its recommendations concerning location of sensitive land uses (ARB 2005). As such, residents of the proposed project are not expected to be consistently exposed to substantial diesel particulate matter emissions that could pose a risk to their health.

Project impacts related to odors and other emissions would be less than significant.

3.4 BIOLOGICAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?			✓	
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California				✓

Department of Fish and Wildlife or U.S. Fish and Wildlife Service?				
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?			✓	
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?		✓		
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			✓	
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan?				✓

NARRATIVE DISCUSSION

Environmental Setting

Existing Vegetation and Wildlife

Manteca is in the southern portion of San Joaquin County. Most of the Manteca area is relatively flat, with elevations ranging from approximately 31 to 36 feet above mean sea level. The area outside Manteca's urbanized center and surrounding residential areas is predominantly farmland, including alfalfa, orchards, row crops, and pasture. No major watercourse lies within Manteca. The San Joaquin River is the closest stream to Manteca, approximately three miles west of the project site. Oakwood Lake and Weatherbee Lake, two artificially created lakes, are approximately three miles southwest of the project site.

Vegetation occurring in the Manteca area primarily consists of agricultural, ruderal, and landscaping vegetation. Because of the urban nature of the developed areas within the city and the active agricultural uses in surrounding lands, there is limited natural vegetation in the city. The Manteca General Plan Draft EIR identifies the project site as being within Urban vegetation cover. The structure of urban vegetation varies, with five types of vegetative structure defined: tree grove, street strip, shade tree/lawn, lawn, and shrub cover (City of Manteca 2021). The project site consists of ruderal vegetation, mostly grasses and weeds.

Agricultural and ruderal vegetation found in the Manteca area provides habitat for both common and special-status wildlife populations. Some commonly observed wildlife species in the region include California ground squirrel, California vole, coyote, raccoon, opossum, striped skunk, red-tailed hawk, northern harrier, American kestrel, white-tailed kite, American killdeer, gopher snake, garter snake, and western fence lizard, as well as

many native insect species. There are also several bat species in the region (City of Manteca 2021).

Special-Status Species

Special-status species are plant or wildlife species that are in one or more of the following categories:

- Legally protected under the federal Endangered Species Act, the California Endangered Species Act, or other regulations.
- Designated rare, threatened, or endangered and candidate species for listing by the U.S. Fish and Wildlife Service (USFWS).
- Considered rare enough by the scientific community and trustee agencies to warrant special consideration, particularly with regard to protection of isolated populations, nesting or denning locations, communal roosts, and other essential habitat.
- Considered rare or endangered under the conditions of CEQA Guidelines Section 15380, such as species identified on Lists 1A, 1B and 2 in the Inventory of Rare and Endangered Vascular Plants of California by the California Native Plant Society, and species that are considered sensitive or of special concern due to limited distribution or lack of adequate information to permit listing or rejection for state or federal status, such as those included on List 3 in the California Native Plant Society Inventory.

Table 3-3 lists the special-status species that have been documented or could potentially occur in the greater project vicinity, along with their listing status, habitat requirements, and likelihood of occurrence. The table is based upon searches of the California Natural Diversity Database (CNDDB) maintained by the California Department of Fish and Wildlife (CDFW) and a report from the IPaC database maintained by the USFWS, which are available in Appendix B. No special-status plant species were identified. Special-status wildlife species included four birds, five fish, six reptiles and amphibians, three invertebrates, and one mammal (riparian brush rabbit).

Waters of the U.S. and Wetlands

Waters of the U.S., including wetlands, are broadly defined under 33 Code of Federal Regulations 328 to include navigable waterways, their tributaries, and adjacent wetlands. Jurisdictional wetlands and Waters of the U.S. include, but are not limited to, perennial and intermittent creeks and drainages, lakes, seeps, and springs; emergent marshes; riparian wetlands; and seasonal wetlands. Federal and state agencies regulate these waters. In April 2019, the State Water Resources Control Board (SWRCB) adopted the *State Wetland Definition and Procedures for Discharges of Dredged or Fill Materials to Waters of the State*, which covers wetlands not regulated by federal agencies.

TABLE 3-3
SPECIAL-STATUS SPECIES AND POTENTIAL FOR OCCURRENCE

Common Name	Scientific Name	Federal Status[1]	State Status[2]	Habitat	Potential for Occurrence
Birds					
Swainson's hawk	*Buteo swainsoni*	None	T	Breeds in stands of tall trees in open areas. Requires adjacent suitable foraging habitats such as grasslands or alfalfa fields supporting rodents.	Low: the vegetation on the site provides marginal foraging habitat, and few relatively large trees in and near the site are available for nesting. Project site is adjacent to development.
Tricolored blackbird	*Agelaius tricolor*	None	CE	Requires open water and protected nesting substrate, usually cattails and riparian scrub with surrounding foraging habitat.	Unlikely: There is no suitable nesting habitat for this species on or near the site.
Great egret	*Ardea alba*	None	CDF-S	Marshes, ponds, shores, mud flats.	Unlikely: There is no suitable habitat for this species on or near the site.
Mammals					
Riparian brush rabbit	*Sylvilagus bachmani riparius*	E	E	Riparian thickets in Stanislaus and southern San Joaquin Counties.	Unlikely: The project site and adjacent areas do not provide suitable habitat; there is no scrub-shrub vegetation to support this species.
Reptiles and Amphibians					
California red-legged frog	*Rana aurora draytonii*	T	SC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby, or emergent riparian vegetation.	Unlikely: There is no suitable aquatic habitat on or near the project site. Species is presumed extinct on the floor of the Central Valley of California.
California tiger salamander	*Ambystoma californiense*	T	T	Seasonal water bodies without fish (i.e., vernal pools and stock ponds) and grassland/ woodland habitats	Unlikely: There is no suitable habitat on or near the project site. This species occurs in the transitional bands

Common Name	Scientific Name	Federal Status[1]	State Status[2]	Habitat	Potential for Occurrence
				with summer refugia (i.e., burrows).	between the valley floor and foothills.
Giant garter snake	*Thamnophis gigas*	T	T	Freshwater marsh and low gradient streams; also adapted to drainage canals and irrigation ditches, primarily for dispersal or migration.	Unlikely: There is no suitable aquatic habitat on the project site.
Fish					
Delta smelt	*Hypomesus transpacificus*	T	E	Shallow lower Delta waterways with submersed aquatic plants and other suitable refugia.	None: There is no suitable aquatic habitat on the project site. The site is not in designated critical habitat for this species.
Invertebrates					
Valley elderberry longhorn beetle	*Desmocerus californicus dimorphus*	T	None	Elderberry shrubs, usually in Central Valley riparian habitats.	Unlikely: There are no blue elderberry shrubs on or near the project site.
Moestan blister beetle	*Lytta moesta*	None	S2	Annual grasslands, foothill woodlands, or saltbush scrub.	Unlikely: The project site is outside the known range of this species, from Kern County to Stanislaus County.
Western bumblebee	*Bombus occidentalis*	USFS-S	None	Open coniferous, deciduous and mixed-wood forests, wet and dry meadows, montane meadows and prairie grasslands, meadows bordering riparian zones, and along roadsides in taiga adjacent to wooded areas, urban parks, gardens and agricultural areas, subalpine habitats and more isolated natural areas.	Low: Habitat on the project site is considered marginal. Species requires floral resources, which are marginal on the project site.
Monarch butterfly	*Danaus plexippus*	C	None	Migratory species that prefers pine, fir, and cedar trees for roosting.	Unlikely: There are no trees on the site suitable for roosting.
Vernal pool fairy shrimp	*Branchinecta lynchi*	T	None	Vernal pools	Unlikely: There are no vernal pools on the project site. The site is not within designated

Common Name	Scientific Name	Federal Status[1]	State Status[2]	Habitat	Potential for Occurrence
					critical habitat for this species.
Vernal pool tadpole shrimp	*Lepidurus packardi*	E	None	Vernal pools	Unlikely: There are no vernal pools on the project site. The site is not within designated critical habitat for this species.

[1] T = Threatened; E = Endangered; C = Candidate; USFS-S = U.S. Forest Service Sensitive Species.

[2] T = Threatened; E = Endangered; R = Rare; CE = Candidate for Endangered Status; SC=State of California Species of Special Concern; FP = Fully Protected Species; CDF-S = California Department of Forestry Sensitive Species; S2 = Imperiled Species.

Habitat Conservation Plans

The San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) is a comprehensive program for assessing and mitigating the biological impacts of converting open space or biologically sensitive lands to urban development in San Joaquin County, including the City of Manteca. For the conversion of open space to non-open space uses that affect covered plant, fish, and wildlife species, the SJMSCP provides three compensation methods: preservation of existing sensitive lands, creation of new comparable habitat on the project site, or payment of fees that would be used to secure preserve lands outside the project site. In addition to fee payments, the SJMSCP identifies and requires the applicants to abide by Incidental Take Minimization Measures, which are protection measures that avoid direct impacts of development on special-status species (SJCOG 2000).

The City of Manteca is a participant in the SJMSCP. The San Joaquin Council of Governments (SJCOG) implements the SJMSCP on a project-by-project basis. The project site is in the Category A - No Pay Zone, within which projects are exempted from SJMSCP fees. As a part of SJMSCP procedures, a SJMSCP biologist would perform a pre-construction survey of the project site prior to any ground disturbance, and Incidental Take Minimization Measures would be issued to the project based on the findings by the biologist.

Environmental Impacts and Mitigation Measures

a) Special-Status Species.

As indicated in Table 3-3, most of the identified special-status wildlife species are not expected to occur on the project due to lack of suitable habitat. Only two species are considered to have the potential to be found on the project site, and the potential is considered low in both cases.

Swainson's hawk is a migratory hawk listed as a threatened species under the California Endangered Species Act. Swainson's hawk are found in the Central Valley primarily during their breeding season; a population is known to winter in the San Joaquin Valley. Swainson's hawks prefer nesting sites that provide sweeping views of nearby foraging grounds consisting of grasslands, irrigated pasture, hay, and wheat crops. However, there are no large trees on or near the project site that could be used by nesting Swainson's hawks, and the grasslands on the project site provide low-quality foraging habitat. Given this and the proximity of urban development, the project site has a low probability of supporting Swainson's hawk.

The western bumblebee is considered a sensitive species by the U.S. Forest Service. This insect is found in several habitats, including urban areas. However, the project site does not contain habitat that has been identified for the western bumblebee. Moreover, this species requires floral resources (flowers), which appear to be marginal on the project site. Based on this information, project impacts on special-status species would be less than significant.

b) Riparian and Other Sensitive Habitats.

The project site does not have any riparian vegetation, as there are no streams in Manteca. Four sensitive natural communities have been identified within 15 miles of the Manteca area: Elderberry Savanna, Great Valley Cottonwood Riparian Forest, Great Valley Mixed Riparian Forest, Great Valley Valley Oak Riparian Forest, and Coastal and Valley Freshwater Marsh. None of these are located within one mile of the Manteca area (City of Manteca 2021). The project would have no impact on riparian or other sensitive habitats.

c) State and Federal Jurisdictional Wetlands.

There are no streams on or adjacent to the project site. As noted, the nearest waters to the project site are the San Joaquin River and Oakwood and Weatherbee Lakes. A review of the National Wetlands Inventory indicated the presence of a freshwater emergent wetland on the property adjacent to the east (see Appendix B). A portion of this wetland appears to encroach within a small area of the project site. However, a review of the latest aerial photograph on Google Earth does not show signs of an emergent wetland in the area located on the National Wetlands Inventory, and there is no evidence of such a wetland on the project site. Project impacts on wetlands and Waters of the U.S., therefore, are considered less than significant.

d) Fish and Wildlife Movement.

There are no streams either on or adjacent to the project site, so no fish movements would be affected by the project. There are few trees on the project site that raptors and other protected migratory birds could use for nesting, mostly in areas along adjacent properties. However, the grasslands on the site could provide suitable nesting habitat for smaller birds such as songbirds. A review of the IPac database indicated the possible occurrence of four migratory bird species in the area: common yellowthroat, Nuttall's woodpecker, oak titmouse, and yellow-billed magpie. Some of these birds may be protected by the Migratory

Bird Treaty Act. Development of the project could potentially disrupt their nesting activities. This is a potentially significant impact.

Mitigation described below would require a survey for nesting birds prior to construction and a delay in construction to protect active nests if any are found. Implementation of this mitigation measure would reduce project impacts on protected migratory birds to a level that would be less than significant.

Level of Significance: Potentially significant

Mitigation Measures:

BIO-1: If project construction or vegetation removal commences during the general nesting season (March 1 through July 31), a pre-construction survey for all species of nesting birds shall be conducted. If active nests are found, work in the vicinity of the nests shall be delayed until the young have fledged. No surveys need to be taken should project construction or vegetation removal commence outside the general nesting season.

Significance After Mitigation: Less than significant

e) Local Biological Requirements.

The City of Manteca has few local biological requirements. Manteca Municipal Code Section 17.48.060 addresses the maintenance and removal of existing trees over six inches in trunk diameter, as measured 4.5 feet above ground level. Such trees must be protected from construction equipment, grade changes, excavation for utilities, paving, and footers for proposed structures. It is expected that the project would comply with this provision of the Municipal Code, since there are few trees on the project site that would be affected.

The Resource Conservation Element of the current Manteca General Plan has the following policies related to conservation of biological resources (City of Manteca 2011):

- Minimize impact of new development on native vegetation and wildlife.
- 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 communities and habitats.
- Discourage the premature removal of orchard trees in advance of development, and discourage the removal of other existing healthy mature trees, both native and introduced.
- Protect special status species and other species that are sensitive to human activities.
- Allow contiguous habitat areas.
- Consider the development of new drainage channels planted with native vegetation, which would provide habitat as well as drainage.

The project would have no impact on these General Plan policies, either because the resources discussed in the policies are not found on the project site or the project was determined to have no significant impact on these resources. Overall, project impacts on local biological requirements would be less than significant.

f) Conflict with Habitat Conservation Plans.

The City participates in the SJMSCP; as such, the project would comply with applicable provisions and measures of the SJMSCP as determined by SJCOG. As noted, the project site is in an area exempted from SJMSCP fees. No other habitat conservation plans apply to the project site. The project would have no impact related to conflict with habitat conservation plans.

3.5 CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?				✓
b) Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to Section 15064.5?		✓		
c) Disturb any human remains, including those interred outside of formal cemeteries?			✓	

NARRATIVE DISCUSSION

Environmental Setting

This section is based on information from the Central California Information Center at California State University Stanislaus, supplemented by information from other sources. Appendix C contains a report from the Central California Information Center

Prehistoric Era

The project site is in Northern Valley Yokuts ethnographic territory. Section 3.18, Tribal Cultural Resources, describes the Yokuts in detail. In 2014, the California Legislature enacted Assembly Bill (AB) 52, which focuses on consultation with Native American tribes on land use issues potentially affecting the tribes. Section 3.18, Tribal Cultural Resources, discusses AB 52 and tribal cultural resources in more detail.

Historic Era

Joshua Cowell, known as the "Father of Manteca," was one of the early settlers in the area, arriving in 1862. He acquired 1,000 acres of land in what is now the center of Manteca.

Cowell is credited with having established dairy farming in the region, as well as constructing several of the area's earliest buildings. Once the Central Pacific Railroad built a line through the region, the area was named Cowell Station in honor of Cowell's significant contribution to the development of the region. In 1897, Cowell Station was renamed Manteca. The origin of the name Manteca is a subject of debate.

The City of Manteca was incorporated in 1918. Residential neighborhoods, laid out on an irregular north-south grid, were beginning to fill in by that time. In just ten 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. During the 1950s, the City grew even faster, as its inexpensive housing and small-town atmosphere drew workers from the Sharpe Army Depot in Lathrop and from industrial plants in outlying areas (City of Manteca 2011).

Environmental Impacts and Mitigation Measures

a) Historical Resources.

A records search conducted at the Central California Information Center found no documented historical resources on the project site. A cultural resource report prepared in 2004 noted that the project site contains "Leo's Bar (early 1950s, maybe earlier) + outbuildings". There is no formal record or any other reference for this possible historical resource (CCIC 2021). A site visit found no existing structures on the project site. Therefore, it is unlikely that any historical resources exist on the project site. The project would have no impact on historical resources.

b) Archaeological Resources.

A records search conducted at the Central California Information Center found no documented prehistoric resources on the project site. Based on existing data, the project site has a low sensitivity for the possible discovery of prehistoric and historic archaeological resources (CCIC 2021). However, it is conceivable that excavation associated with the project could unearth archaeological materials of significance that are currently unknown. Procedures to address archaeological discoveries if they should occur are set forth in the mitigation measure below. Implementation of this mitigation would reduce potential impacts to a level that would be less than significant.

Level of Significance: Potentially significant

Mitigation Measures:

CULT-1: If any subsurface cultural resources are encountered during construction of the project, the City of Manteca Community Development Department shall be notified and all construction activities in the vicinity of the encounter shall be halted until a qualified archaeologist can examine these materials and determine their significance. If the find is determined to be significant, then the archaeologist shall recommend further mitigation measures that would reduce potential effects on the find to a level that is less than significant. Recommended measures may

include, but are not limited to, 1) preservation in place, or 2) excavation, recovery, and curation by qualified professionals. The project developer shall be responsible for retaining qualified professionals, implementing recommended mitigation measures, and documenting mitigation efforts in a written report to the City's Community Development Department, consistent with the requirements of the CEQA Guidelines.

Significance after Mitigation: Less than significant

c) Human Burials.

As noted in b) above, no documented prehistoric resources are on the project site. It is not expected that any human burials, particularly those of Native Americans, would be uncovered by construction on the project site, given its distance from probable Native American settlements (see Section 3.18, Tribal Cultural Resources). However, it is conceivable that excavation associated with the project could uncover a previously unknown burial.

CEQA Guidelines Section 15064.5(e) describes the procedure to be followed when human remains are uncovered in a location outside a dedicated cemetery. All work in the vicinity of the find shall be halted, and the County Coroner shall be notified to determine if an investigation of the death is required. If it is determined that the remains are Native American in origin, then the County Coroner must contact the Native American Heritage Commission within 24 hours. The Native American Heritage Commission shall identify the most likely descendants of the deceased Native American, and the most likely descendants may make recommendations on the disposition of the remains and any associated grave goods with appropriate dignity. If a most likely descendant cannot be identified, the descendant fails to make a recommendation, or the landowner rejects the recommendations of the most likely descendant, then the landowner shall rebury the remains and associated grave goods with appropriate dignity on the property in a location not subject to further disturbance.

Compliance with CEQA Guidelines Section 15064.5(e) would ensure that any human remains and associated grave goods encountered during project construction would be treated with appropriate dignity. Project impacts on human remains would be less than significant.

3.6 ENERGY

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?			✓	
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			✓	

NARRATIVE DISCUSSION

Environmental Setting

Electricity and natural gas are major energy sources for residences and businesses in California. In San Joaquin County, based upon the most recent information available, electricity consumption in 2019 totaled approximately 5,583 million kilowatt-hours, of which approximately 1,893 million kilowatt-hours were consumed by residential uses and the remainder by non-residential uses (CEC 2021a). In 2019, natural gas consumption in San Joaquin County totaled approximately 259 million therms, of which approximately 89 million therms were consumed by residential uses and the remainder by non-residential uses (CEC 2021b).

Motor vehicle trips also account for substantial energy usage. The SJCOG estimated countywide daily VMT was 17,868,785 miles in 2015, which led to the consumption of approximately 511 million gallons of gasoline and diesel fuel (SJCOG 2018a).

California has implemented numerous energy efficiency and conservation programs that have resulted in substantial energy savings. The State has adopted comprehensive energy efficiency standards as part of its Building Standards Code, California Code of Regulations, Title 24. Part 6 of Title 24, known as the California Energy Code, contains energy conservation standards applicable to all residential and non-residential buildings throughout California, including schools and community colleges. These standards are occasionally updated. Also, the California Building Standards Commission adopted a voluntary Green Building Standards Code (CALGreen), which became mandatory effective January 1, 2011. CALGreen sets forth mandatory energy efficiency measures for residential structures, which essentially require compliance with the latest building energy efficiency measures adopted by the State. The City has adopted the 2019 version of both the California Energy Code and CALGreen.

California has adopted a Renewables Portfolio Standard, which requires all electricity retailers in the state to generate 33% of electricity they sell from renewable energy sources (solar, wind, geothermal, etc.) by the end of 2020. As of the end of 2019, most of the retail sellers were on track to meet or exceed the 2020 target (CEC 2020). In 2015, SB 350 was signed into law, which increased the electricity generation requirement from renewable

sources to 50% by 2030. In 2018, SB 100 was enacted, which accelerated the schedule for 50% electricity generation from renewable sources to 2026 and set a goal of 60% electrical generation from renewable sources by 2030. It also set the goal that zero-carbon resources will supply 100% of electricity to California by 2045.

Environmental Impacts and Mitigation Measures

a) Project Energy Consumption.

Project construction would involve fuel consumption and use of other non-renewable resources. Construction equipment used for such improvements typically runs on diesel fuel or gasoline. The same fuels typically are used for vehicles that transport equipment and workers to and from a construction site. However, construction-related fuel consumption would be finite, short-term, and consistent with construction activities of a similar character. This energy use would not be considered wasteful, inefficient, or unnecessary.

Electricity may be used for equipment operation during construction activities. It is expected that more electrical construction equipment would be used in the future, as it would generate fewer air pollutant emissions. This electrical consumption would be consistent with construction activities of a similar character; therefore, the use of electricity in construction activities would not be considered wasteful, inefficient, or unnecessary, especially since fossil fuel consumption would be reduced. Moreover, under California's Renewables Portfolio Standard, a greater share of electricity would be provided from renewable energy sources over time, so less fossil fuel consumption to generate electricity would occur. Section 3.8, Greenhouse Gas Emissions, discusses the Renewables Portfolio Standard in detail.

The most recent Residential Energy Consumption Survey by the U.S. Energy Information Administration found that average annual energy consumption by apartment units in buildings with five or more units located in the western United States was 4,581 kWh of electricity per household and 159 cubic feet of natural gas per household (EIA 2018). Based on these factors, proposed development on the project site would consume approximately 284,022 kWh of electricity and 9,858 cubic feet of natural gas annually.

The project would be required to comply with applicable provisions of the adopted California Energy Code and CALGreen in effect at the time of project approval. The provisions of these codes are intended to increase energy efficiency of buildings, thereby reducing energy consumption. Compliance with these standards would reduce energy consumption associated with project operations. Overall, project construction and operations would not consume energy resources in a manner considered wasteful, inefficient, or unnecessary. Project impacts related to energy consumption would be less than significant.

b) Consistency with Energy Plans.

The City does not have adopted plans for renewable energy or energy efficiency. However, the City has adopted the California Energy Code and CALGreen, both of which contain

provisions that promote energy efficiency. The project would be required to comply with the applicable requirements of these two codes, which are designed to improve energy efficiency of structure, thereby forwarding State energy conservation goals. Project impacts related to energy plans would be less than significant.

3.7 GEOLOGY AND SOILS

Would the project:

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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.)				✓
ii) Strong seismic ground shaking?			✓	
iii) Seismic-related ground failure, including liquefaction?			✓	
iv) Landslides?				✓
b) Result in substantial soil erosion or the loss of topsoil?		✓		
c) Be located on strata 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?				✓
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			✓	
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?				✓
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		✓		

NARRATIVE DISCUSSION

Environmental Setting

Existing Conditions

The project site is in the Central Valley, which is a topographically flat, northwest-trending trough about 50 miles wide and 450 miles long. The Geologic Map of the San Francisco-San Jose Quadrangle designates the underlying geology of the project site as the Modesto Formation (Wagner et al. 1991). The Modesto Formation, ranging in depth from 10 to 200 feet, consists primarily of sand, silt, and clay seams deposited by rivers (DWR 2014).

A custom soil survey from the Natural Resources Conservation Services indicates that the soil on the project site is Veritas fine loamy sand. This is a well-drained, nearly level soil on low fan terraces and is deep to a hardpan. Permeability of this soil is moderately rapid, runoff is slow, and the water erosion hazard is slight. The shrink-swell (expansive) potential of this soil is low. The main limitation on homesite development on Veritas fine sandy loam is depth to the hardpan (SCS 1992, NRCS 2021).

The U.S. Geological Survey identifies potential seismic sources within five miles of Manteca. The closest known faults classified as active include an unnamed fault east of the City of Tracy, located approximately five miles to the west of Manteca, and the San Joaquin fault, located approximately 15 miles to the southwest of the city. The Midway fault is located approximately 20 miles to the west. Other faults that could potentially affect the Manteca area include the Corral Hollow-Carnegie fault, the Greenville fault, the Antioch fault, and the Los Positas fault (City of Manteca 2017). There are no known faults on or in the immediate vicinity of the project site.

Earthquakes are generally expressed in terms of intensity and magnitude. Intensity is based on the observed effects of ground shaking on people, buildings, and natural features. By comparison, magnitude is based on the amplitude of the earthquake waves recorded on instruments, which have a common calibration. According to the California Geological Survey's Probabilistic Seismic Hazard Assessment Program, San Joaquin County is within an area that could experience a level of ground shaking correlating to a Modified Mercalli intensity of V to VII, ranging from light shaking to shaking that causes minor damage (City of Manteca 2017).

Paleontological Resources

Paleontological resources, also known as fossils, are the remains or traces of prehistoric plants and animals. Fossils are important scientific and educational resources. Paleontologists consider all vertebrate fossils to be of significance. Fossils of other types are considered significant if they represent a new record, new species, an oldest occurring species, the most complete specimen of its kind, a rare species worldwide, or a species helpful in the dating of formations (City of Manteca 2017).

The database of the Museum of Paleontology at UC Berkeley shows that San Joaquin County has more than 800 documented fossil localities. Most paleontological specimens have been found in rock formations in the foothills of the Diablo Mountain Range, but

remains of extinct animals could be found virtually anywhere in the County, especially along watercourses such as the San Joaquin River and its tributaries (San Joaquin County 2016b). There are no known paleontological resources that have been recorded in Manteca.

Environmental Impacts and Mitigation Measures

a-i) Fault Rupture Hazards.

The Alquist-Priolo Earthquake Fault Zoning Act of 1972 sets forth the policies and criteria of the State Mining and Geology Board, which governs the exercise of governments' responsibilities to prohibit the location of developments and structures for human occupancy across the trace of active faults. The California Geological Survey evaluates faults with available geologic and seismologic data and determines if a fault should be zoned as active, potentially active, or inactive. If a fault is determined to be active, then it is typically incorporated into a Special Studies Zone. There are no designated Special Study Zones in Manteca, including on the project site. In addition, as noted, the nearest potentially active fault is five miles from Manteca. The project would have no impact related to fault rupture hazards.

a-ii, iii) Seismic Hazards.

As noted, San Joaquin County, including Manteca, is within an area that could experience a level of ground shaking such that minor damage could occur. All structures built within the City are subject to the requirements of the California Building Code, the 2019 version of which has been adopted by the City. The California Building Code includes seismic safety provisions that require buildings to be constructed to withstand anticipated ground shaking, based on occupancy type.

When coarse sediments are saturated and compact during an earthquake, soils may lose strength and become fluid, a process called liquefaction. Water from voids may be forced to the ground surface, where it emerges in the form of mud spouts or sand boils. The potential for liquefaction is highest when groundwater levels are high, and loose, fine, sandy soils occur at depths of less than 50 feet (City of Manteca 2017). As discussed in Section 3.10, Hydrology and Water Quality, groundwater levels in the Manteca area are in the range of approximately 20-30 feet below the ground surface, and liquefaction occurs in areas with relatively shallow depths to groundwater. Also, Veritas soil has sandy loam down to the cemented hardpan; no loose, sandy soils are in the soil layers. Therefore, the liquefaction potential on the project site is considered low.

Lateral spreading typically results when ground shaking moves soil toward an area where the soil integrity is weak or unsupported, and it typically occurs on the surface of a slope, although it does not occur strictly on steep slopes. Because the Manteca area, including the project site, is essentially flat, lateral spreading of soils has not been observed (City of Manteca 2017). Project impacts related to seismic hazards are considered less than significant.

a-iv) Landslides.

The topography of the project site and surrounding area is flat; therefore, landslides would not occur. The project would have no impact related to landslides.

b) Soil Erosion.

As noted, Veritas soil has a low water erosion hazard. For all projects that disturb one acre of land or more, a Construction General Permit is required from the SWRCB. The permit requirements include preparation of a Storm Water Pollution Prevention Plan (SWPPP) by a Qualified SWPPP Developer to address potential water quality issues. A SWPPP specifies the Best Management Practices (BMPs) needed to avoid or minimize adverse water quality impacts. Construction BMPs fall within the general categories of Temporary Soil Stabilization, Temporary Sediment Control, Wind Erosion Control, Tracking Control, Non-Storm Water Management, and Waste Management and Materials Pollution Control. BMPs applicable to the project are incorporated in the SWPPP as required. BMPs are incorporated into project improvement plans and specifications, subject to the approval of the City Engineer. BMP function and effectiveness are monitored and reported, and remediation is required to address pollution occurrence.

As the project would disturb more than one acre, it would be required to comply with the provisions of the Construction General Permit from the SWRCB, including preparation of a SWPPP, which is required by the mitigation measure below. Compliance with the mitigation measure, along with other applicable regulations, would minimize the amount of sediment that leaves the construction site and potential construction water quality effects, thereby reducing soil erosion impacts to a level that would be less than significant.

Level of Significance: Potentially significant

Mitigation Measures:

GEO-1: Prior to commencement of construction activity, the developer shall prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) for the project and file a Notice of Intent with the State Water Resources Control Board (SWRCB) in compliance with the Construction General Permit and City of Manteca storm water requirements. The SWPPP shall be available on the construction site at all times. The developer shall incorporate an Erosion Control Plan consistent with all applicable provisions of the SWPPP within the site improvement and building plans. The developer also shall submit the SWRCB Waste Discharger's Identification Number to the City prior to approval of development or grading plans.

Significance after Mitigation: Less than significant

c) Soil Instability.

Collapsible soils undergo a rearrangement of their grains and a loss of cementation, resulting in substantial and rapid settlement under relatively low loads. Soils prone to collapse are commonly associated with manmade fill, wind-laid sands and silts, and alluvial fan and mudflow sediments deposited during flash floods. Examples of common problems associated with collapsible soils include tilting floors, cracking or separation in structures, sagging floors, and nonfunctional windows and doors. Collapsible soils have not been identified in the Manteca area as an issue (City of Manteca 2017).

Subsidence is the gradual settling or sinking of an area with little or no horizontal motion due to changes taking place underground. It is a natural process, although it can also occur, and is greatly accelerated, by human activities. Common causes of land subsidence from human activity include pumping water, oil, and gas from underground reservoirs; dissolution of limestone aquifers (sinkholes); collapse of underground mines; drainage of organic soils; and initial wetting of dry soils. Subsidence has not been identified as an issue in the Manteca area (City of Manteca 2017).

No other potential issues arising from soil instability has been identified in the Manteca area. It is expected that the project would not encounter such issues. The project would have no impact related to soil instability.

d) Expansive Soils.

Expansive soils can undergo significant volume change with changes in moisture content. They shrink and harden when dried and expand and soften when wet. If structures are underlain by expansive soils, it is important that foundation systems be capable of tolerating or resisting any potentially damaging soil movements. In addition, it is important to limit moisture changes in the surficial soils by using positive drainage away from buildings as well as limiting landscaping watering (City of Manteca 2017). As noted, the expansive soil potential of the Veritas soil on the project site is low; therefore, the potential expansive soil hazard is likewise low. Project impacts related to expansive soils would be less than significant.

e) Adequacy of Soils for Sewage Disposal.

The project would be connected to the City's wastewater system. It does not propose to install any septic system or other onsite wastewater disposal system. Because of this, the project would have no impact related to soil adequacy for sewage disposal.

f) Paleontological Resources and Unique Geological Features.

The project site is flat and contains no geological features that may be considered unique. Given past activities on and near the project site, it is unlikely that any intact paleontological resources would be encountered. However, the Museum of Paleontology database includes numerous records of vertebrate fossil localities related to the Modesto or the Riverbank Formations in the greater Central Valley. As noted, the project site is underlain by the Modesto Formation. Because of this, it is conceivable that currently unknown resources may be uncovered during project construction activities. Procedures to

address paleontological discoveries should they occur are set forth in the mitigation measure below. Implementation of this mitigation measure would reduce potential impacts to a level that would be less than significant.

Level of Significance: Potentially significant

Mitigation Measures:

GEO-2: If any subsurface paleontological resources are encountered during construction of the project, the City of Manteca Community Development Department shall be notified and all construction activities within 50 feet of the encounter shall be halted until a qualified paleontologist can examine these materials and determine their significance. If the find is determined to be significant, then the paleontologist shall recommend mitigation measures that would reduce potential effects on the find to a level that is less than significant. Recommended measures may include, but are not limited to, 1) preservation in place, or 2) excavation, recovery, and curation by qualified professionals. The project developer shall be responsible for retaining qualified professionals, implementing recommended mitigation measures, and documenting mitigation efforts in a written report to the City's Community Development Department, consistent with the requirements of the CEQA Guidelines.

Significance after Mitigation: Less than significant

3.8 GREENHOUSE GAS EMISSIONS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			✓	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			✓	

NARRATIVE DISCUSSION

Environmental Setting

GHG Background

Greenhouse gases (GHGs) are gases that absorb and emit radiation within the thermal infrared range, trapping heat in the earth's atmosphere. GHGs are both naturally occurring and are emitted by human activity. GHGs include carbon dioxide, the most abundant GHG, as well as methane, nitrous oxide, and other gases. Potential climate change impacts occurring in the San Joaquin Valley include more intense and frequent heat waves, higher frequency of catastrophic floods, more intense and frequent drought, and more severe and frequent wildfires (Westerling et al. 2018).

Unlike the criteria air pollutants described in Section 3.3, Air Quality, GHGs have no "attainment" standards established by the federal or State government. In fact, GHGs are not generally thought of as traditional air pollutants because their impacts are global in nature, while air pollutants mainly affect the general region of their release to the atmosphere (SJVAPCD 2015). Nevertheless, the U.S. Environmental Protection Agency (EPA) has found that GHG emissions endanger both the public health and public welfare under Section 202(a) of the Clean Air Act due to their impacts associated with climate change (EPA 2009).

GHG emissions in California in 2019, the most recent year for which data are available, were estimated at approximately 418.2 million metric tons carbon dioxide equivalent (CO_2e) – a decrease of approximately 14.6% from the peak level in 2004. Transportation was the largest contributor to GHG emissions in California, with almost 40% of total emissions. Other significant sources include industrial activities, with approximately 21% of total emissions, and electric power generation, both in-state and imported, with approximately 14% of total emissions (ARB 2021). The amount of GHGs emitted by the Manteca community in 2005 was 400,346 metric tons CO_2e, more than half of which were from motor vehicles (City of Manteca 2013).

GHG Emission Reduction Plans

The State of California has implemented GHG emission reduction strategies through AB 32, the Global Warming Solutions Act of 2006, which requires total statewide GHG emissions to reach 1990 levels by 2020, or an approximately 29% reduction from 2004 levels. The 2019 state GHG emissions were almost 13 million metric tons CO_2e below the 2020 target established by AB 32 (ARB 2021).

In 2016, Senate Bill (SB) 32 was enacted. SB 32 extends the GHG reduction objectives of AB 32 by mandating statewide reductions in GHG emissions to levels that are 40% below 1990 levels by the year 2030. The State has adopted an updated Scoping Plan that sets forth strategies for achieving the SB 32 target. The updated Scoping Plan continues many of the programs that were part of the previous Scoping Plans, including the cap-and-trade program, low-carbon fuel standards, renewable energy, and methane reduction strategies.

It also addresses, for the first time, GHG emissions from the natural and working lands of California, including the agriculture and forestry sectors (ARB 2017).

In 2013, the City of Manteca adopted a Climate Action Plan. The Climate Action Plan sets a citywide target of a per capita GHG emission reduction of 21.7% from 1990 levels by 2020. The City proposes to achieve this target by energy efficiency and other GHG reduction measures in City buildings and operations, and by requiring development projects constructed in the City of Manteca to reduce GHG emissions by measures such as designing energy-efficient structures, water conservation and waste reduction measures, and implementing transportation demand management programs in projects with large numbers of employees, among others (City of Manteca 2013). However, the Climate Action Plan applies only to achieving reduction targets to 2020. The City currently has no plans to update the Climate Action Plan.

Environmental Impacts and Mitigation Measures

a) Project GHG Emissions and Consistency with GHG Reduction Plans.

The CalEEMod model estimated the total GHG construction and operational emissions associated with the project (see Appendix A). Table 3-4 presents the results of the CalEEMod run. "Mitigated emissions" are the result of project compliance with applicable laws, rules, and regulations, along with inclusion of project features that reduce GHG emissions. These include the following:

- The density of residential development on the project site (approximately 20 dwelling units per acre).
- Increased diversity of development in the area.
- The project site is approximately 0.25 miles from a transit stop and two miles from downtown Manteca.
- The project would add sidewalks to the Yosemite Avenue site frontage.
- SB X7-7, enacted in 2009, sets an overall goal of reducing per capita urban water use by 20% by December 31, 2020. The California Green Building Code mandates a 20% reduction in indoor water use.
- AB 341 establishes the goal of diverting 75% of California's waste stream from landfills by 2020.
- GHG construction emissions would be limited due to the length of time of construction activity; these emissions would cease once work is completed. Mitigated operational GHG emissions would be approximately 33.8% less than under business-as-usual (unmitigated) conditions.

TABLE 3-4
PROJECT GHG EMISSIONS

GHG Emission Type	Unmitigated Emissions	Mitigated Emissions
Construction[1]	296.3	296.3
Operational[2]	554.9	367.2

[1] Total GHG emissions for construction period in metric tons carbon dioxide equivalent (CO_2e).
[2] Annual emissions in metric tons CO2e.
Sources: California Emissions Estimator Model v. 2020.4.0.

As the City's Climate Action Plan addresses GHG emissions only to the year 2020, analysis of project impacts will be based on the 2017 California Scoping Plan. Approximately 83% of the GHG emission reduction programs in the Scoping Plan counted toward meeting the 29% objective for 2020 are State-level programs, with the remaining 17% to be achieved by programs at the local government level, including development review. Thus, the local action share of the 29% reduction would be 4.93%. Based on this, it can be assumed that a development project that achieves at least a 4.93% reduction in GHG emissions from business-as-usual levels would be consistent with the objectives of both State and SJVAPCD GHG reduction plans. The 33.8% reduction associated with the project would exceed this local share. Therefore, the project would be consistent with the reduction goals of SB 32.

The State of California has comprehensive GHG regulatory requirements, with laws and regulations requiring reductions that affect project emissions. The project is subject to several State regulations applicable to project design, construction, and operation that would reduce GHG emissions, increase energy efficiency, and ensure compliance with the Scoping Plan. Legal mandates to reduce GHG emissions from vehicles, for example, would reduce project-related vehicular emissions. Other mandates that would reduce GHG emissions include reducing per capita water consumption and imposing waste management standards to reduce methane and other GHGs from solid wastes.

As discussed in Section 3.6, Energy, the project would be subject to codes that require energy efficiency measures, which would reduce the demand for electricity produced by fossil fuels – a major source of GHG emissions. Also, as discussed in Section 3.6, attainment of the targets of the Renewables Portfolio Standard would reduce the amount of electricity generated by fossil fuels, further reducing GHG emissions from energy sources.

Based on the information provided above, the project would be consistent with GHG reduction plans of the State. Project impacts related to GHG emissions and consistency with GHG emission reduction plans would be less than significant.

3.9 HAZARDS AND HAZARDOUS MATERIALS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			✓	
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?			✓	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				✓
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?				✓
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?				✓
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?		✓		
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?				✓

NARRATIVE DISCUSSION

Environmental Setting

This section focuses on hazards associated with hazardous materials, proximity to airports, and wildfires. Geologic and soil hazards are addressed in Section 3.7, Geology and Soils, and potential flooding hazards are addressed in Section 3.10, Hydrology and Water Quality.

Data on recorded hazardous material sites are kept in the GeoTracker database, maintained by the SWRCB, and in the EnviroStor database, maintained by the California Department of Toxic Substances Control. Both GeoTracker and EnviroStor provide the names and addresses of documented hazardous material sites, along with their cleanup status. A search

of both GeoTracker and EnviroStor databases indicated no record of any hazardous material incidents on the project site. The GeoTracker database had two records of cleanup activity at the adjacent truck yard to the west, but those cases are now closed (SWRCB 2021, DTSC 2021)

A list of solid waste disposal sites identified by SWRCB with waste constituents above hazardous waste levels outside the waste management unit did not show any locations in the Manteca area (CalEPA 2021a). Likewise, a list by SWRCB containing sites under Cease and Desist Orders and Cleanup and Abatement Orders showed no locations on or near the project site (CalEPA 2021b).

Environmental Impacts and Mitigation Measures

a) Hazardous Material Transport, Use, and Storage.

Hazardous materials that are likely to be used and stored on the project site would include cleaning products, and pesticides, herbicides, and fertilizers for landscaping. Facilities that store significant amounts of hazardous materials are required to prepare a Hazardous Material Business Plan that would be submitted to the County Environmental Health Department. The Hazardous Material Business Plan must be prepared by any facility that handles a hazardous material, or mixture containing a hazardous material, of a quantity at any one time during the reporting year equal to or greater than 55 gallons for liquids, 500 pounds for solids, or 200 cubic feet for a compressed gas. None of the hazardous materials anticipated to be used by the project are likely to be stored in such quantities. Project impacts related to transport, use, or storage of hazardous materials would be less than significant.

b) Release of Hazardous Materials.

Construction activities on the project site may involve the use of hazardous materials such as fuels and solvents, and thus create a potential for hazardous material spills. Construction and maintenance vehicles would transport and use fuels in ordinary quantities. Fuel spills, if any occur, would be minimal and localized and would not typically have significant adverse effects. Potential hazardous materials spills during construction are addressed in the required SWPPP, described in Section 3.7, Geology and Soils. In accordance with SWPPP requirements, contractors have absorbent materials at construction sites to clean up minor spills. Other substances used in the construction process would be stored in approved containers and used in relatively small quantities, in accordance with the manufacturers' recommendations and/or applicable regulations.

As noted in a) above, project operations would not involve the transport, use, or storage of hazardous materials in substantial quantities. Any releases of these materials are not expected to be in quantities large enough to pose a threat to human health and the environment. Overall, impacts related to releases of hazardous materials would be less than significant.

c) Hazardous Materials Releases near Schools.

The nearest school to the project site is Sierra High School, approximately 0.35 miles to the southeast. As noted in a) above, project construction and operations would not require the handling or transport of acutely hazardous materials or waste that would endanger schools or the public. The project would not produce hazardous emissions. The project would have no impact on schools within one-quarter mile of the project site.

d) Hazardous Materials Sites.

As previously noted, a search of the GeoTracker and EnviroStor databases, along with SWRCB lists, did not identify any active hazardous material sites on or adjacent to the project site. As noted in Section 3.2, Agriculture and Forestry Resources, no agricultural activities have occurred on the project site for at least two decades, so contamination of the soil by residual agricultural chemicals is unlikely. The project would have no impact related to hazardous material sites.

e) Public Airport Operations.

The project site is not within two miles of a public or public use airport, nor is it within any Airport Influence Area delineated within the San Joaquin County Airport Land Use Comprehensive Plan (Coffman Associates 2009). The project would have no impact related to airport operations.

f) Emergency Response and Evacuations.

The project would involve construction work on West Yosemite Avenue, mainly street frontage improvements and utility connections. In particular, a sewer line would be installed across West Yosemite Avenue to connect the onsite collection system to the City's wastewater system. Also, a storm drainage main is proposed to be extended from Airport Way to the project site. The main would be installed beneath West Yosemite Avenue. These improvements could potentially interfere with emergency vehicle access and evacuations requiring use of West Yosemite Avenue, which is one of the main roads in the City.

Construction work within public streets would require encroachment permits from the City, which include standard conditions for maintenance of public safety during construction. In addition, mitigation presented below would require preparation of a Traffic Control Plan, which would ensure that vehicle access would be maintained during construction activities within West Yosemite Avenue. Implementation of this mitigation measure would reduce impacts to a level that would be less than significant.

Level of Significance: Potentially significant

Mitigation Measures:

HAZ-1: Prior to the start of project construction, the developer shall prepare and implement a Traffic Control Plan, which shall include such items as traffic control requirements, resident notification of access closure, and

daily access restoration. The contractor shall specify dates and times of road closures or restrictions, if any, and shall ensure that adequate access will be provided for emergency vehicles. The Traffic Control Plan shall be reviewed and approved by the City Department of Public Works and shall be coordinated with the Manteca Police Department and the Manteca Fire Department if construction will require road closures or lane restrictions.

Significance After Mitigation: Less than significant

g) Wildland Fire Hazards.

The project site is in a mainly developed area, except for vacant land to the north, that is not susceptible to wildfires. The project would reduce the existing fire hazard on the site by replacing the existing grasses and weeds with a developed and paved area. The project would have no impact related to wildfires. Section 3.20, Wildfire, provides a more detailed analysis of wildfire impacts.

3.10 HYDROLOGY AND WATER QUALITY

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			✓	
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			✓	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river runoff or through the addition of impervious surfaces, in a manner which would:				
i) Result in substantial erosion or siltation on- or off-site?			✓	
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?			✓	
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?			✓	
iv) Impede or redirect flood flows?			✓	

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?			✓	
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?				✓

NARRATIVE DISCUSSION

Environmental Setting

Local Hydrology

No major streams flow on the project site or in the Manteca area. As noted in Section 3.4, Biological Resources, the San Joaquin River is the closest stream to the project site, approximately three miles to the west. Oakwood Lake and Weatherbee Lake, two artificially created lakes, are approximately three miles to the southwest.

The City is within the Eastern San Joaquin Groundwater Subbasin. Four aquifers have been identified beneath the Manteca area, with depths down to and exceeding 600 feet. According to the most recent available groundwater report, groundwater levels in the Manteca area range from approximately 20 to 30 feet below ground surface (San Joaquin County Flood Control District 2019). The City depends mainly on groundwater for its potable water supply (see Section 3.19, Utilities and Service Systems).

The project site and vicinity has been mapped by the Federal Emergency Management Agency (FEMA) for potential floodplains. According to the FEMA map that includes the project site, with an effective date of October 16, 2009, the site is in Zone X. Zone X indicates an area within the 500-year floodplain, which is an area that would be inundated by a flood that occurs on average once every 500 years (FEMA 2009). It is not within a Special Flood Hazard Area, which is defined as the 100-year floodplain.

Regulatory Framework

Water Quality

Storm water discharges from urban areas, known as "urban runoff," have the potential to contaminate surface waters. Such discharges are prevented by adherence to the National Pollutant Discharge Elimination System (NPDES) program, which is administered by the State of California. The City participates in the NPDES system by complying with a Phase II Small Municipal Separate Storm Sewer System (MS4) General Permit adopted by the State Water Resources Control Board in 2013 as part of the NPDES program. NPDES permits such as the MS4 permit regulate storm water and other discharges, including from industrial sources, to maintain surface water quality.

To implement the requirements of its MS4 permit, the City has prepared a Storm Water Management Program, which limits to the maximum extent practicable the discharge of pollutants from the City's storm sewer system. As part of its Storm Water Management Program, the City has adopted Post-Construction Stormwater Standards. Standards that

apply to new development provide for inclusion and maintenance of urban runoff control measures that will improve water quality and mitigate potential water quality impacts from stormwater discharges. The City's adopted Post-Construction Stormwater Standards require the inclusion of runoff control measures such as bioswales, detention facilities, Low Impact Development measures, and other source control measures of equivalent effectiveness in new development projects to minimize the transport of untreated urban runoff to surface waters. In addition to water quality controls, the City's standards require preparation of a hydromodification management plan to ensure the post-project stormwater runoff flow rates will not exceed estimated pre-project flow rates.

Groundwater

The State enacted the Sustainable Groundwater Management Act in 2014. This act requires the creation of local Groundwater Sustainability Agencies, each of which must prepare and adopt a Groundwater Sustainability Plan to ensure sustainable groundwater yields and prevent groundwater depletion in the agency's jurisdiction. In 2017, the City chose to join the Eastern San Joaquin Groundwater Joint Powers Authority, which is a Groundwater Sustainability Agency that covers most of the Eastern San Joaquin Groundwater Subbasin. The Authority adopted a Groundwater Sustainability Plan for the Subbasin and submitted it to the Department of Water Resources in January 2020.

The goal of the Groundwater Sustainability Plan is to achieve sustainable groundwater management of the Subbasin on a long-term average basis by increasing recharge and/or reducing groundwater pumping, while avoiding undesirable results such as degraded water quality and declining groundwater levels. The Subbasin will achieve sustainability by implementing water supply projects that either replace groundwater use or supplement groundwater supplies to attain the current estimated pumping offset and/or recharge need. A final list of 23 potential projects is included in the Groundwater Sustainability Plan, representing a variety of project types, including direct and in-lieu recharge, intra-basin water transfers, demand conservation, water recycling, and stormwater reuse (ESJGA 2019). The Groundwater Sustainability Plan does not set limits on groundwater use by participants, nor does it prescribe any actions participants must take, although it encourages the development of local water management plans.

Flooding

In 2007, the State of California approved SB 5 and a series of related Senate and Assembly bills intended to set new flood protection standards for urban areas in the Central Valley. This group of bills, referred to collectively in this document as "SB 5," establish the State standard for flood protection in these areas as protection from the 200-year frequency flood. Under SB 5, urban and urbanizing areas must be provided with 200-year flood protection no later than 2025. A map prepared as part of the City's General Plan update indicates the project site is outside the 200-year floodplain (City of Manteca 2017).

a) Surface Water Quality.

As discussed in Section 3.7, Geology and Soils, construction activities could lead to increased sedimentation of surface waters, as loosened soils are carried off the construction site by runoff. The project would be required to obtain a Construction General Permit, which would require the preparation and implementation of a SWPPP to address potential sedimentation issues. Compliance with the Construction General Permit would reduce potential erosion and sedimentation effects to a level that is less than significant. See c-iii) below for a discussion of the potential impacts of runoff on water quality.

b) Groundwater Supplies and Recharge.

Water supply for the project would be provided by the City of Manteca municipal water system; the project would not involve any direct groundwater extraction. The City obtains its water supply from a mix of surface water and groundwater; as such, the project would place an indirect demand on groundwater resources. As discussed in Section 3.19, Utilities and Service Systems, potable water demand from the project would not adversely affect the City's water supplies.

The project would introduce impervious surfaces to the project site, which would reduce the area that would allow percolation of precipitation into the ground, thereby locally reducing groundwater aquifer recharge. Groundwater recharge in the Manteca area comes primarily from irrigation of agricultural lands surrounding the City. The Manteca area has a variety of soil types that allow percolation of water into the ground. However, there are no notable recharge areas within the City due to the lack of streams and alluvial fans (City of Manteca 2003). As there are no notable groundwater recharge areas identified within Manteca, the project would not involve significant groundwater recharge effects. Project impacts on groundwater supplies and recharge would be less than significant.

c-i, ii) Drainage Patterns.

The project would alter existing storm drainage patterns, due to site grading and the introduction of impervious surfaces such as buildings and pavement. However, onsite runoff would be collected by the project's onsite storm drainage control and water quality treatment system which would connect to the City's system. The system would need to comply with the City's Post-Construction Standards for storm drainage. As a result, no significant on-site or off-site erosion or siltation would occur, and no onsite or offsite flooding would result. Project impacts on drainage patterns would be less than significant.

c-iii) Runoff.

As noted above, on-site runoff would be collected by a storm water drainage system that would connect to the City's system. Drainage facilities would be designed in accordance with the City standards and subject to the approval of the City Engineer; as such, it would avoid runoff that exceeds the capacity of the City's system.

With development of the project site, runoff may contain motor vehicle fluids, trace metals, and other contaminants known collectively as "urban runoff" that could enter surface water, with potentially adverse consequences to water quality and aquatic habitat. As noted, the City of Manteca has adopted a Storm Water Management Program to implement the requirements of its MS4 permit. The program includes Post-Construction Stormwater Standards that apply to new development. Compliance with the City's Storm Water Management Program, including implementation of applicable Post-Construction Stormwater Standards, would reduce impacts of runoff on surface water quality and quantity to a level that is less than significant.

c-iv) Flood Flows.

As noted, the project site is in an area designated Zone X by the FEMA flood map for the site. Given the limited flood hazard, project impacts on impeding or redirecting flood flows would be less than significant. Because of this, the project is not expected to impede or redirect 100-year flood flows. In addition, the project site is not located within a 200-year flood area as defined by SB 5. As noted, the City's Post-Construction Stormwater Standards include Low Intensity Development control measures to reduce and/or eliminate the volume of stormwater runoff leaving a project site. Overall, project impacts related to flooding would be less than significant.

d) Release of Pollutants in Flood Zones.

As indicated in c-iv) above, the project site is not within a 100-year flood zone, which is considered a flood hazard zone, nor is the site exposed to potential 200-year flooding. The project site is not located near a large body of water where seiches or tsunamis may occur. A map prepared as part of the City's General Plan update indicates the project site is within a potential inundation area resulting from failure of the San Luis Dam in Merced County (City of Manteca 2017). However, the probability of failure of San Luis Dam is low at a given time, and the dam is subject to maintenance, inspection and improvement as required to address predicted flows and flooding potential.

As noted in Section 3.9, Hazards and Hazardous Materials, the project would not store large quantities of hazardous materials, so any flood that may occur on the project site would not lead to the release of substantial amounts of pollutants into flood flows. Because of this, project impacts related to the release of pollutants during flooding would be less than significant.

e) Conflict with Water Quality or Groundwater Plans.

As noted in c-iii) above, the City has adopted Post-Construction Stormwater Standards to facilitate compliance with the provisions of the NPDES stormwater permit. The project would be required to comply with these Standards.

Also, as noted, a Groundwater Sustainability Plan for the Eastern San Joaquin Groundwater Subbasin has been adopted. The Groundwater Sustainability Plan contains proposed projects at the subbasin level and encourages the preparation of local water management plans. It does not contain any actions or requirements specific to projects. As noted, the

project is not expected to significantly affect groundwater supplies. The project would have no impact on water quality or groundwater sustainability plans.

3.11 LAND USE AND PLANNING

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?				✓
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?			✓	

NARRATIVE DISCUSSION

Environmental Setting

The project site is in a developing area of western Manteca. Land uses surrounding the project site include a mix of residential, commercial, and institutional development, along with vacant land. Land uses north of the project site include vacant land, with the Manteca Park Golf Course approximately one-quarter mile away. East of the project site are two residences, a single-family residence and a mobile home, and the Kaiser Permanente Medical Center. West of the project site is the Werner Enterprises Drop Yard. Beyond the drop yard is limited commercial development along West Yosemite Avenue. Land uses south of the project site consist of vacant land along West Yosemite Avenue and residential subdivisions farther south.

The City of Manteca General Plan guides development within the City and its Planning Area, in part by designating parcels for specific types of development. The current land use designation for the project site is Commercial Mixed Use. The Commercial Mixed Use designation accommodates a variety of purposes, including employment centers, retail commercial, professional offices, and high density residential. The City's General Plan is in the process of being updated, and a draft update has been released for public review. The proposed land use map for the General Plan update, as preferred by the City Council, indicates that the project site would be redesignated Commercial. However, the General Plan update has not yet been adopted.

The City's Zoning Ordinance (Manteca Municipal Code Title 17) is intended to protect and promote the public health, safety, peace, comfort, convenience, prosperity, and general welfare, as well as to set forth and coordinate City regulations governing the development and use of land in accordance with the City of Manteca General Plan. The current City zoning for the project site is CMU – Commercial Mixed Use. The CMU zone allows for high density residential development.

Environmental Justice

Recently, the State has encouraged incorporating environmental justice concerns in local land use planning. Low-income residents, communities of color, tribal nations, and immigrant communities have historically experienced disproportionate environmental burdens and related health problems resulting from land use decisions. This inequity has resulted from many factors, including inappropriate zoning and incomplete land use planning, which has led to development patterns that concentrate pollution emissions and environmental hazards in communities that have not had the political power to protect themselves.

In 2012, the Legislature passed SB 535, directing that 25 percent of the proceeds from the Greenhouse Gas Reduction Fund go to projects that provide a benefit to disadvantaged communities. The California Office of Environmental Health Hazard Assessment has developed the California Communities Environmental Health Screening Tool (CalEnviroScreen) to identify disadvantaged communities as defined by SB 535. CalEnviroScreen measures pollution and population characteristics of each U.S. Census tract in California using 20 indicators such as air and drinking water quality, waste sites, toxic emissions, asthma rates, and poverty. These indicators are used to generate a score from 0 to 100 that rates the level of cumulative environmental impacts on each area. A Census tract with a CalEnviroScreen score in the top 25% (75 or higher) is considered a disadvantaged community under SB 535.

The project site is within Census Tract 6077005123 in west-central Manteca. This Census tract has a CalEnviroScreen score of 58, which does not make it a SB 535 disadvantaged community (OEHHA 2021).

Environmental Impacts and Mitigation Measures

a) Division of Established Communities.

The project site is in an area north of Yosemite Avenue that consists mainly of institutional and commercial land uses and vacant land. The project would not divide existing residential communities in the area, which are located south of the project site across West Yosemite Avenue. The project would have no impact on division of established communities.

b) Conflicts with Plans, Policies and Regulations Mitigating Environmental Effects.

Project development would be consistent with current Commercial Mixed-Use General Plan and zoning designations, which allow for the high-density residential development proposed by the project. The residential component of any Commercial Mixed-Use development shall provide dwellings at densities of 15.1 to 25 units per acre. The project would provide a density of approximately 21 units per acre.

At this time, CEQA does not require an explicit discussion of environmental justice issues, nor does CEQA establish any thresholds of significance related to this topic. However, since environmental justice is tied to issues that can affect the physical environment, a brief discussion of this topic is provided here. As noted above, the Census tract within which the

project site is located has a CalEnviroScreen score that is not within the top 25%, thereby not making it a disadvantaged community. As such, the project would not worsen existing environmental justice conditions. It should be noted that the project proposes the construction of an apartment complex. Apartment units generally are a lower-cost alternative to single-family residential housing, and thus a more affordable alternative to households with lower incomes.

This IS/MND analyzes the potential environmental impacts of the proposed project. For all environmental issues, the project would have no environmental impact, an impact that would be less than significant, or an impact that can be mitigated to a level that would be less than significant. This includes issues for which there are land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. These are discussed under the applicable environmental issue. No potential conflicts have been identified in these other issue sections. Project conflicts with plans and programs that mitigate environmental effects are considered less than significant.

3.12 MINERAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?			✓	
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?			✓	

NARRATIVE DISCUSSION

Environmental Setting

The project site contains no existing mineral resource extraction activities. The only known mine in the Manteca area is an aggregate mine near Oakwood Lake to the south, and this mine is now closed (City of Manteca 2017). The project site contains no active oil or gas wells. The nearest active oil or natural gas field is the McMullin Ranch natural gas field approximately three miles to the south (DOGGR 2021).

Pursuant to the Surface Mining and Reclamation Act of 1975, the California State Mining and Geology Board oversees the Mineral Resource Zone (MRZ) classification system. The MRZ system characterizes both the location and known/presumed economic value of underlying mineral resources. The MRZ classifications include:

MRZ-1 - Areas of No Mineral Resource Significance

MRZ-2 - Areas of Identified Mineral Resource Significance

MRZ-3 - Areas of Undetermined Mineral Resource Significance

MRZ-4 - Areas of Unknown Mineral Resource Significance

The project site has been identified in an area classified as MRZ-3, which is an area containing mineral deposits the significance of which cannot be evaluated from available data.

Environmental Impacts and Mitigation Measures

a, b) Availability of Mineral Resources.

Although the project site is within an area classified as MRZ-3, it is unknown what mineral deposits exist in the MRZ-3 zone or the value of the potential resource. Given the size of the project site, it is unlikely that mineral deposits economically feasible to extract would exist on the project site. As other, more valuable areas would likely be available, the project would have no significant effect on the availability of or access to locally designated or known mineral resources. Project impacts on mineral resources would be less than significant.

3.13 NOISE

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

NARRATIVE DISCUSSION

Environmental Setting

Existing Noise Conditions

Assessment of noise impacts focuses on the “ambient" noise level, which is the general noise level in a project area. The project site is in an area that is a mix of vacant land and urban development. The predominant noise source in the area is traffic on Yosemite Avenue. Another potential noise source is trucking operations at the Werner Enterprises Drop Yard, adjacent to and west of the project site.

A noise level measurement survey, conducted as part of a noise assessment prepared for the project that is available in Appendix D, measured noise at three locations on or near the project site, along the boundary of the drop yard (Figure 3-2). The results of the survey indicated that noise levels ranged from 59 decibels Ldn at 415 feet from the Yosemite Avenue centerline to 75 decibels Ldn at 50 feet from the avenue centerline (Saxelby Acoustics 2022). L_{dn} is the Day-Night Average Level, which equates variable noise levels in the local environment to the same total sound energy being produced over a given period. Then a +10-dB weighting is applied to noise occurring between 10:00 p.m. and 7:00 a.m., on the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. The highest noise levels were recorded at LT-3 on Figure 3-2, along Yosemite Avenue and near the entrance to the drop yard. The maximum daytime noise level was 88 decibels, and the maximum nighttime noise level was 82 (Saxelby Acoustics 2022).

Noise Regulations

The Manteca General Plan and the Manteca Municipal Code establish noise standards for the City. The Noise Element of the General Plan sets performance standards for stationary sources or projects affected by stationary noise sources. These are presented in Table 3-5 below. For these standards, the noise level used is the average, or equivalent, sound level (L_{eq}), which corresponds to a steady-state sound level containing the same total energy as a time-varying signal over a given time period, in this case one hour. The General Plan update in progress would set standards for hourly L_{eq} only and would increase the allowable noise level in daytime to 55 decibels.

TABLE 3-5
CITY OF MANTECA STATIONARY SOURCE NOISE STANDARDS

Noise Level Descriptor	Daytime (7:00 a.m. -10:00 p.m.)	Nighttime (10:00 p.m. – 7:00 a.m.)
Hourly L_{eq}, dB	50	45
Maximum level, dB	70	65

Source: City of Manteca Noise Element.

In addition, General Plan Policy N-P-2 states that 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 of the Noise Element. Table 9-1 indicates that the maximum allowable noise exposure of residential land uses to mobile sources (i.e., traffic) is 60 dB L_{dn} in outdoor activity areas and 45 dB L_{dn}/CNEL in interior spaces. CNEL is the Community Noise Equivalent Level, which is the same as the L_{dn} but with an additional +5-dB weighting applied to noise occurring between 7:00 p.m. and 10:00 p.m.

Section 9.52.030 of the Manteca Municipal Code prohibits excessive or annoying noise or vibration to residential and commercial properties in the City. Section 17.58.050(D) exempts construction activities when conducted as part of an approved building permit, except that construction activities causing a sound that creates a noise disturbance across a residential property line between the hours of 7:00 p.m. and 7:00 a.m. are prohibited.

Environmental Impacts and Mitigation Measures

a) Exposure to Noise Exceeding Local Standards.

Construction Noise

Project construction activities would generate a temporary increase in noise levels. As indicated in Table 3-6, activities involved in construction would generate maximum noise levels ranging from 76 to 90 A-weighted decibels (dBA) at 50 feet. For this project, construction equipment expected to be used include backhoes, dozers, dump trucks, excavators, and pavers.

Construction noise would be temporary and would cease once work is completed. In addition, as noted, the Manteca Municipal Code essentially restricts construction activities to the hours of 7:00 a.m. to 7:00 p.m., thereby avoiding construction noise during nighttime hours when people would be most sensitive to noise. However, daytime noise could potentially exceed City noise standards at the nearby single-family residence and mobile home. Mitigation described below would reduce noise generated by construction equipment to a level that would be less than significant.

Figure 3-1
NOISE MEASUREMENT LOCATIONS

TABLE 3-6
CONSTRUCTION EQUIPMENT NOISE LEVELS

Type of Equipment	Maximum Level (dBA at 50 feet)
Auger Drill Rig	84
Backhoe	78
Compactor	83
Compressor (air)	78
Concrete Saw	90
Dozer	82
Dump Truck	76
Excavator	81
Generator	81
Jackhammer	89
Paver	77
Pneumatic Tools	85

Source: FHWA 2006.

Noise from Project Operations

As the project site is currently vacant, the project would be expected to increase the ambient noise level in the area once construction work is completed. Project operations would generate noise primarily from vehicle traffic to and from the project site. The increased noise resulting from project traffic could adversely affect the existing nearby single-family residence and mobile home.

The project site is in an area with limited development, so few land uses are expected to be affected by the change in ambient noise. Moreover, the proposed project is a residential project, and residential projects are not considered significant stationary noise sources, as are industrial facilities and specific service commercial uses such as automotive repair facilities, salvage yards, and car washes, among others (San Joaquin County 2016a).

Exposure to Noise from Stationary Sources

As noted, the project site is adjacent to the Werner Enterprises Drop Yard, a potential stationary noise source. The noise assessment determined the noise levels generated by the truck yard by conducting continuous noise level measurements at the boundary of the truck yard. The northernmost noise measurement location was used for analysis. Noise levels of 55 dBA Leq were recorded during daytime (7:00 a.m. to 10:00 p.m.) hours and levels of 53 dBA Leq were recorded during nighttime (10:00 p.m. to 7:00 a.m.) hours. These noise levels were corrected to account for the contribution of West Yosemite Avenue to the ambient noise environment at this location. It was determined that the truck yard contributed noise levels at the project boundary of less than 45 dBA Leq during daytime

and nighttime (Saxelby Acoustics 2022). Based on the Manteca General Plan noise standards, drop yard noise would have no significant impact on the project.

Exposure to Noise from Traffic

As noted, the project site is adjacent to Yosemite Avenue, traffic on which is a significant noise source. The noise assessment calculated traffic noise levels at the proposed residential uses due to traffic on West Yosemite Avenue. The results of this analysis indicated that exterior noise levels at the project buildings would range from 54 dBA to 75 dBA at the second story of the buildings closest to West Yosemite Avenue (Saxelby Acoustics 2022). The higher noise levels would exceed Manteca General Plan noise standards of 60 dB. Moreover, the buildings close to West Yosemite Avenue would experience interior noise levels of up to 50 dBA L_{dn} at the second story receivers, based on typical building construction. This exceeds the City of Manteca interior noise level standard of 45 dB L_{dn}.

Impacts of existing environmental conditions on a project are not considered CEQA impacts, with limited exceptions - an interpretation upheld in *California Building Industry Association v. Bay Area Air Quality Management District* (2015). Therefore, impacts of traffic noise on the proposed development are not subject to CEQA mitigation requirements. Nevertheless, the noise assessment made the following recommendations to reduce noise exposure of the structures indicated in Figure 4 of the noise assessment (see Appendix D):

- Glazing shall have a sound transmission class (STC) rating of 36 minimum in bedrooms and 33 in living rooms;
- Exterior finish shall be stucco with sheathing;
- Interior gypsum at exterior walls shall be 5/8-inches on resilient channel or 5/8-inches on staggered stud wall assembly;
- Ceiling gypsum shall be 5/8-inches;
- Mechanical ventilation shall be installed in all residential uses to allow residents to keep doors and windows closed, as desired for acoustical isolation; and
- No packaged terminal air conditioners shall be used.

It is expected that the City would require the implementation of these recommendations as part of its conditions of approval for the project.

In summary, project impacts related to noise generally would be less than significant, except for temporary noise increases associated with project construction and noise impacts on proposed residential units. Implementation of mitigation described below would minimize construction noise impacts to a level that would be less than significant.

Level of Significance: Potentially significant

Mitigation Measures:

NOISE-1: The City shall require the construction contractor to implement the following measures during project construction:

- In accordance with the Manteca Municipal Code, construction activities shall be limited to between 7:00 a.m. and 7:00 p.m. Monday through Saturday to avoid noise-sensitive hours of the evenings and nights. Construction activities shall be prohibited on Sundays and federally recognized holidays, unless the contractor obtains prior approval from the City.

- Project contractors shall use newer equipment with improved muffling and ensure that all equipment items have intact and operational the manufacturers' recommended noise abatement measures, such as mufflers, engine enclosures, and engine vibration isolators. All construction equipment shall be inspected at periodic intervals to ensure proper maintenance and presence of noise control devices (e.g., mufflers, shrouding, etc.).

- In accordance with the California Air Resources Board's Regulation for In-Use Off-Road Diesel-Fueled Fleets, idling of construction equipment for more than five minutes shall be prohibited unless an activity is specifically exempted by the Regulation.

Significance After Mitigation: Less than significant

b) Exposure to Groundborne Vibration or Noise.

Groundborne vibration is not a common environmental problem. It is typically associated with transportation facilities, although it is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads. Some common sources of groundborne vibration are trains, buses on rough roads, and construction activities such as blasting, pile-driving, and operating heavy earth-moving equipment.

Other than operation of construction equipment during construction, the project would not involve these potential noise sources. In most cases, vibration induced by typical construction equipment does not result in adverse effects on people or structures. Noise from the equipment typically overshadows any meaningful ground vibration effects on people (Caltrans 2013). As the nearest residence is approximately 200 feet from the southeastern corner of the project site, the residence is unlikely to receive any vibrations from the project site that would be perceptible. In any case, any vibrations generated by construction activities would cease once construction work is completed, and project operations would not generate any vibrations. Project impacts related to groundborne vibrations would be less than significant.

c) Public Airport and Private Airstrip Noise.

As noted in Section 3.9, Hazards and Hazardous Materials, there are no public or public use airports within two miles of the project site. The project would involve no significant exposure to airport or air traffic noise. There are no private airstrips in the project vicinity. The project would have no impact related to airport/airstrip noise.

3.14 POPULATION AND HOUSING

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

NARRATIVE DISCUSSION

Environmental Setting

According to the 2020 U.S. Census, the population of Manteca is 83,498, which is an increase from the 2010 population of 67,096. The number of housing units in Manteca in 2020 was 27,623 (U.S. Census Bureau 2020) According to estimates from the California Department of Finance, approximately 78.2% of housing units in the City were single-family detached units. Apartments of five units or more constituted approximately 11.0% of total housing units (California Department of Finance 2021).

Environmental Impacts and Mitigation Measures

a) Unplanned Population Growth.

The project would involve the construction of 62 apartment units on a 2.9-acre site. Based on the estimated average number of persons per household in Manteca of 3.18 (California Department of Finance 2021), the project would result in a potential population increase of approximately 197 people.

The proposed development is consistent with the Manteca General Plan designation of Commercial Mixed Use, which allows for high density residential development. It also would be consistent with Policy H-P-15 of the Housing Element of the Manteca General Plan, which encourages the use of infill sites for residential and commercial mixed-use, or multifamily residential use. The project site was included as an "underutilized" property

that could be used for residential development (City of Manteca 2016a). Therefore, the project site was included as a potential area for residential development that could accommodate projected population growth.

The project would provide employment opportunities in Manteca during its construction, which may attract people from outside the Manteca area. However, these opportunities would be limited in number and would most likely be met from the existing population in the Manteca area. Project impacts on unplanned population growth would be less than significant.

b) Displacement of Housing or People.

The project site is currently vacant and has no structures, residential or otherwise. Therefore, the project would not displace housing or people. The project would have no impact on displacement of people or housing.

3.15 PUBLIC SERVICES

Would the project:

a) Result in substantial adverse physical impacts associated with the provision of, or the 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:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
i) Fire protection?			✓	
ii) Police protection?			✓	
iii) Schools?			✓	
iv) Parks?			✓	
v) Other public facilities?			✓	

NARRATIVE DISCUSSION

Environmental Setting

The project site is within the jurisdiction of the City of Manteca; as such, the City would provide most of the public services to the project site. Fire protection and emergency medical response services would be provided by the Manteca Fire Department. The Manteca Fire Department operates out of five stations located throughout the City. Existing Fire Department stations are at 399 W. Louise Avenue and 1154 S. Union Road, both of which are within approximately two miles of the project site and would be available to respond to emergency calls. Apparatus includes three engines, three reserve engines, one

ladder truck, one medium rescue unit, one rescue trailer, eight staff vehicles, two pick-up trucks, and a public education trailer (City of Manteca 2021).

The Manteca Fire Department maintains a goal for the initial company of three firefighters to arrive on scene for fire and emergency medical service incidents within five minutes 90% of the time. The Fire Department is currently meeting this goal. The Insurance Services Office Public Protection Classification Program currently rates the Fire Department as a 2 on a scale of 1 to 10, with 1 being the highest possible protection rating (City of Manteca 2021).

Police protection services would be provided by the Manteca Police Department. The Police Department operates out of its headquarters located at 1001 W. Center Street**.** In 2019, the Police Department had 74 sworn officers. The City has not established a standard for police response times. However, for Priority 1 calls, which involve a threat to life or a crime of violence, the average response time has been 4 minutes and 27 seconds (City of Manteca 2021)

The project site is within the boundaries of the Manteca Unified School District, which provides school services for grades kindergarten through 12 within the communities of Manteca, Lathrop, Stockton, and French Camp. Within the City, there are 14 schools serving elementary age and middle school students (grades K-8), one K-6 school, four high schools (grades 9-12), one 7-12 school, and one vocational high school (grades 11-12). The Manteca Unified School District served more than 23,834 students during the 2019-20 school year (City of Manteca 2021). As noted in Section 3.9, Hazards and Hazardous Materials, Sierra High School is south of the project site. Students from the project site would attend Stella Brockman Elementary School (grades K-8) and Sierra High School (grades 9-12). As of the 2020-21 school year, Stella Brockman Elementary School had an enrollment of 710 students, and Sierra High School had an enrollment of 1,463 students (EdData 2021).

Parks and recreational services are provided by the City of Manteca and by San Joaquin County in their respective jurisdictions (see Section 3.16, Recreation). Other public facilities providing services include the Manteca Branch Library, part of the Stockton-San Joaquin County Library system and located at 320 W. Center Street. The Manteca Senior Center, located at 295 Cherry Lane, is a 10,000-plus square-foot, multi-purpose senior center serving and involving adults and seniors aged 50 and above throughout the greater Manteca area. A branch of the San Joaquin County Superior Court is at 315 East Center Street.

Environmental Impacts and Mitigation Measures

a-i) Fire Protection.

The project would place new demands upon the Manteca Fire Department for fire protection services. However, as noted, there are two fire stations within two miles of the project site, which would provide adequate response times for emergencies. No new or expanded facilities are required. Additionally, the project would be required to comply with the adopted 2019 California Fire Code, which contains requirements on fire resistance of

buildings and on fire protection and life safety systems. The Manteca Fire Department, in its review of the project, had no comment other than noting requirements related to fire hydrants and access roads (Salas comment letter).

The Manteca General Plan Update EIR evaluated potential impacts of future development on public services, including fire protection services, and concluded that policies and actions in the General Plan update would ensure that public services are provided at acceptable levels (City of Manteca 2021). Consistent with the policies of the Manteca General Plan, the project would be assessed a Fire Facilities Fee by the City to fund future fire facilities when necessary. Project impacts on fire protection facilities would be less than significant.

a-ii) Police Protection.

The project would generate a demand for police protection services. As discussed in Section 3.14, Population and Housing, the project is not expected to affect the City's population in a manner unplanned by the City. Because of this, the project is not expected to affect the officer/population ratio such that new officers would need to be hired and facilities would need to be built or expanded to accommodate them. Also, the City police station is approximately one mile from the project site, which would provide adequate response times for emergencies.

As noted, the Manteca General Plan Update EIR evaluated potential impacts of future development on public services, including police protection services, and concluded that policies and actions in the General Plan update would ensure that public services are provided at acceptable levels (City of Manteca 2021). The project would be assessed a Government Building Facilities Fee by the City to fund future police facilities when necessary. Project impacts on police protection facilities would be less than significant.

a-iii) Schools.

The proposed project is likely to house students who would attend schools in the Manteca Unified School District. Based on student generation rates for multifamily residences used in a fee justification study, the project would generate approximately 24 grade K-6 students, six grade 7-8 students, and ten grade 9-12 students (MUSD 2017).

Existing capacity at Stella Brockman Elementary School is 1,203 students at two sites, while existing capacity at Sierra High School is 1,595 (MUSD 2014). Both schools currently have an enrollment below capacity and can accommodate the additional students generated by the project without the need for new or expanded facilities.

The project would pay required developer fees to the School District to defray the costs of providing new school facilities. The current developer fee for new residential development is $4.57 per square foot. Under State law, payment of developer fees is considered adequate mitigation of potential environmental impacts, so project impacts on schools are considered less than significant.

a-iv, v) Parks and Other Public Facilities.

The addition of the units could result in an increase in residents who may visit parks and libraries and use other public facilities within the City. As discussed in Section 3.14, Population and Housing, the population increase resulting from the project is not expected to be significant. Therefore, additional demands on parks and other public facilities such as libraries and court facilities are expected to be incremental, and no new or expanded public facilities would be required. Project impacts would be less than significant. Section 3.16, Recreation, discusses project impacts on parks and recreational facilities in more detail.

3.16 RECREATION

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated?			✓	
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?			✓	

NARRATIVE DISCUSSION

Environmental Setting

As noted in Section 3.15, Public Services, public parks and recreational services are provided by the City of Manteca and by San Joaquin County. The City, through its Parks and Recreation Department, manages 50 neighborhood parks (generally 5 to 7 acres), six community parks (generally 15 to 25 acres), and 10 special-use facilities that include a major multi-use recreation trail that covers over 3.5 miles of terrain. The total acreage managed by the Parks and Recreation Department is more than 483 acres (City of Manteca 2021).

The closest city park to the project site is Union West Park, a 3.64-acre neighborhood park approximately 0.75 miles to the southeast. Union West Park has a baseball field, an outdoor basketball court, play equipment, and three barbeque grills (City of Manteca 2016). Other nearby park and recreational facilities include the Manteca Park Golf Course, a 101-acre, 18-hole facility approximately one-quarter mile north of the project site, and Big League Dreams, a baseball field complex approximately 0.85 miles to the southwest.

The City adopted its Parks Master Plan in 2016. The Parks Master Plan established goals in the provision of parkland to City residents based on acres per 1,000 population. For

neighborhood parks, the City's goal is three acres per 1,000 population. For both community parks and special-use facilities, the City's goal is one acre per 1,000 population (City of Manteca 2016b). The City currently exceeds all three goals for provision of park facilities (City of Manteca 2021).

On a regional scale, the City is in the Sacramento-San Joaquin Delta, which contains several recreational areas and facilities, primarily for water-based recreation. Regional County parks near the city include the 9.85-acre Dos Reis Regional Park and the 3.7-acre Mossdale Crossing Regional Park, both located along the San Joaquin River. Each of these parks includes boat launch ramps, picnic/barbeque areas, and children's play areas. Dos Reis Regional Park also has camping facilities (City of Manteca 2021).

Environmental Impacts and Mitigation Measures

a, b) Recreational Facilities.

As noted in Section 3.14, Population and Housing, the project is expected to generate an occupancy of approximately 197 residents. The residents of the proposed project would generate a demand for recreational facilities and services.

The existing parks and recreational facilities are expected to accommodate the additional residents without causing a substantial physical deterioration of these facilities. As noted, the City currently exceeds goals for the provision of parkland to City residents, and it is expected that the additional residents would not substantially reduce the park ratios established by the City Master Plan. The General Plan Update proposes a citywide ratio of five acres of parkland in general per 1,000 residents. The City currently meets that ratio as well (City of Manteca 2021), and the project is not expected to have a substantial impact on that ratio.

The City of Manteca Municipal Code, Fee Schedule VI Development Fee includes development impact fees to fund public facilities, including parks (City of Manteca 2021). The project is expected to pay development impacts fees, which would defray the costs of constructing any new parks or recreational facilities in the City.

The project proposes to construct a clubhouse area that would be available for recreational use. This would reduce the impact on offsite facilities that may occur with the increase in localized population resulting from the project. Project impacts on recreational facilities are considered less than significant.

3.17 TRANSPORTATION

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?		✓		
b) Conflict with or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?			✓	
c) Substantially increase hazards 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?			✓	

NARRATIVE DISCUSSION

Environmental Setting

Information for this section primarily comes from a traffic study conducted for the project by KD Anderson and Associates, Inc. Appendix E contains the traffic study, which describes existing traffic conditions in the vicinity of the project site and analyzes conditions with implementation of the project, both under Existing Plus Project and Cumulative conditions. An analysis of traffic under Cumulative conditions, with the project, is presented in Section 3.21, Mandatory Findings of Significance.

Existing Transportation Facilities and Services

Streets and Intersections

The project site is adjacent to West Yosemite Avenue. Yosemite Avenue is one of the main east-west streets in Manteca. East of State Route 99, Yosemite Avenue becomes State Route 120. At the project site, West Yosemite Avenue is a four-lane road with a center left-turn lane. West of the project site, West Yosemite Avenue intersects with Airport Way and continues westward into the City of Lathrop. Between Airport Way and Union Road, which includes the project site frontage, Yosemite Avenue currently carries approximately 20,000 vehicles per day (City of Manteca 2021).

Fishback Road intersects with, and currently ends at, West Yosemite Avenue adjacent to the southeastern corner of the project site. Fishback Road is a two-lane, local road that primarily serves residential development south of West Yosemite Avenue. As noted in Chapter 1.0, Introduction, the City has long-term plans to install a roundabout at the intersection of Fishback Road and West Yosemite Avenue and to extend Fishback Road north of West Yosemite Avenue.

Public Transportation

Manteca Transit is the primary transit provider in the City. It provides regularly scheduled fixed-route service to major activity centers and transit hubs within the City limits. Four routes provide hourly service weekdays from 6:00 a.m. to 7:00 p.m., and three of these routes also provide hourly service on Saturday from 9:00 a.m. to 4:00 p.m. No service is provided on Sunday or on designated holidays. Routes 1 and 4 pass by the project site on West Yosemite Avenue (Route 4 operates on weekdays only). Manteca Transit also provides paratransit services for people who are unable to independently use the transit system due to a physical or mental disability.

The San Joaquin Regional Transit District, based in Stockton, provides transit services from Stockton that make stops at the Manteca Transit Center at the corner of Main Street and Moffat Boulevard. The Altamont Corridor Express rail service connects Manteca to San Jose and the San Francisco Bay Area to the west and Stockton to the north. Weekdays, two westbound trains serve Manteca in the morning and two eastbound trains serve the city in the evening. The Lathrop/Manteca station is located on Shideler Parkway just north of Yosemite Avenue in the City of Lathrop just west of the Manteca City limit.

Bicycle and Pedestrian Facilities

Bicycle circulation in Manteca is supported by an existing network of multi-use off-street (Class I) paths, on-street (Class II) bike lanes, and bicycle routes (Class III). In general, most Manteca schools, parks, and public buildings are equipped with bike racks for short-term bicycle parking. There are no designated bikeways of any class in the vicinity of the project site. Manteca Municipal Code Section 17.52.110 specifies bicycle parking requirements, including number of spaces and locations, the latter including multifamily land uses.

Pedestrian facilities include multi-use off-street (Class I) paths, sidewalks, crosswalks, pedestrian signal infrastructure, curb ramps, and streetscape amenities. Most developed arterial streets in Manteca provide sidewalk coverage, accessible curb ramps, and marked crosswalks. No sidewalks have been installed along the project site frontage to West Yosemite Avenue or in the vicinity.

Transportation Plans and Guidelines

Manteca General Plan

The current version of the Manteca General Plan sets forth guidelines for the operation of streets and transportation facilities in Manteca. Policies C-P-1 through C-P-3 promote balanced Level of Service (LOS) across all modes. LOS is a qualitative measure of traffic movement on roadways and through intersections. LOS is represented by letter designations from A to F, with A representing the best movement conditions and F representing the worst. Manteca General Plan policy sets a standard of vehicular LOS of D or better on City streets and roads, except in downtown and certain other locations where other goals predominate. However, the use of LOS in assessing environmental impacts of projects has been superseded by VMT, which is discussed below.

State CEQA Guidelines Section 15064.3

The State of California has recently added Section 15064.3 to the CEQA Guidelines, which is meant to incorporate SB 743 into CEQA analysis. SB 743 was enacted in 2013 with the intent to balance congestion management needs and the mitigation of the environmental impacts of traffic with statewide GHG emission reduction goals, mainly by developing an alternative mechanism for evaluating transportation impacts. Section 15064.3 states that VMT is the preferred method for evaluating transportation impacts, rather than the commonly used LOS. The VMT metric measures the total miles traveled by vehicles as a result of a given project. VMT accounts for the total environmental impact of transportation associated with a project, including use of non-vehicle travel modes.

While a quantitative analysis of VMT is preferred, a qualitative analysis may be used if existing models or methods are not available to estimate VMT for the project being considered. All local jurisdictions are required under SB 743 to establish VMT standards by July 1, 2020. The Manteca General Plan Update EIR shows VMT standards by land use (City of Manteca 2021).

The Governor's Office of Planning and Research has issued a Technical Advisory on evaluating transportation impacts using VMT. The Technical Advisory recommends several approaches in developing screening thresholds to determine significance of the transportation impacts of projects (OPR 2018).

Regional Transportation Plan

As the designated metropolitan planning organization representing San Joaquin County, SJCOG is required by both federal and State law to prepare a long-range transportation planning document known as a Regional Transportation Plan. The most recently adopted Regional Transportation Plan, in 2018, sets forth how the SJCOG region will meet its transportation needs for the period from 2017 to 2042, considering existing and projected land use patterns and forecasted population and job growth. It identifies and prioritizes expenditures of anticipated funding for transportation projects of all transportation modes, as well as transportation demand management measures and transportation systems management (SJCOG 2018).

Environmental Impacts and Mitigation Measures

a) Conflict with Transportation Plans, Ordinances and Policies.

Development of the project would generate new vehicle trips and potentially affect traffic operations at nearby intersections. The CalEEMod model (see Section 3.3, Air Quality) estimates the vehicle trips generated by a project, using trip generation rates developed by the Institute of Transportation Engineers. According to the CalEEMod run for the project (see Appendix A), the proposed development would generate approximately 454 daily vehicle trips on weekdays, 505 trips on Saturdays, and 389 trips on Sundays. Expressed as peak hour traffic, approximately 10% of the average daily trip projections, peak hour traffic to and from the site would be in the range of 45-50 trips.

According to a traffic study prepared for the Manteca General Plan update, the maximum traffic volume for a four-lane roadway with a center left-turn lane that still maintains a LOS D is 37,200 at the 45 miles-per-hour speed limit posted for the project site frontage (City of Manteca 2021). Even when the Saturday vehicle trips are used, the project traffic volume, when added to the existing traffic volume on West Yosemite Avenue, would not cause the roadway to exceed this maximum volume for LOS D. Moreover, when volume from approved projects is added to the baseline traffic volumes, thereby totaling 32,300, the project traffic volume would still not cause LOS on West Yosemite Avenue to degrade below LOS D (City of Manteca 2021).

Based on this information, traffic flow on West Yosemite Avenue would not be adversely affected by the project, and no new or expanded traffic facilities would be required to accommodate project traffic. It is expected that the proposed roundabout, to be constructed separately from the project if approved by the City, would reduce potential traffic issues at the intersection of Fishback Road and West Yosemite Avenue. Therefore, potential conflict with transportation plans related to roads and streets are considered less than significant.

The project would result in an increase in demand for public transit service. The frequency and proximity of future transit service is not known at this time and, as a result, demand for transit cannot be quantified. However, it is expected that The Bus routes can accommodate the additional passengers the project would generate. This would be consistent with the goals of the RTP, which encourage further use of public transit. Impacts on public transit are considered less than significant.

The project would result in an increase in demand for bicycle and pedestrian facilities. As noted in Chapter 2.0, Project Description, the project includes construction of sidewalks and bike lanes on the east side of Main Street along the length of the project site frontage, as well as a bike lane on a portion of the west side of Main Street. This would be consistent with the goals of the RTP.

In addition, the adopted CALGreen has requirements related to transportation. CALGreen 4.106.9 requires on-site bicycle parking for at least one bicycle per every two dwelling units and permanently anchored bicycle racks within 100 feet of the visitor's entrance, readily visible to passers-by, for 5 percent of visitor motorized vehicle parking capacity with a minimum of one two-bike capacity rack. CALGreen Section 4.106.4.2 requires, for residential parking, that 10 percent of the total number of parking spaces on a building site, provided for all types of parking facilities, shall be electric vehicle charging spaces capable of supporting future electric vehicle supply equipment. Mitigation described below would require the project to comply with these transportation-specific provisions of CALGreen, which would minimize project impacts on transportation to a level that would be less than significant.

Level of Significance: Potentially significant

Mitigation Measures:

TRANS-1: The project shall provide bicycle racks in accordance with Section 4.106.9 of the California Green Building Standards Code adopted by the City at time of final site plan review. The bicycle racks shall be identified on the final site plan prior to City approval.

TRANS-2: The project shall designate spaces for electric vehicle charging stations in accordance with Section 4.106.4.2 of the California Green Building Standards Code adopted by the City at time of final site plan review. The electric vehicle spaces shall be identified on the final site plan prior to City approval.

Significance After Mitigation: Less than significant

b) Conflict with CEQA Guidelines Section 15064.3(b).

As discussed above, VMT is now the preferred method for evaluating transportation impacts, rather than LOS. The City currently does not have traffic impact standards based on VMT. Therefore, guidance provided by the OPR Technical Advisory is used for this analysis.

The OPR Technical Advisory identifies screening criteria that can be used to determine whether sufficient evidence exists to presume a project will have a less-than-significant VMT impact without conducting a detailed study. Each project should be evaluated against the evidence supporting that screening criteria to determine if it applies. Projects meeting at least one of the criteria below can be presumed to have a less-than-significant VMT impact, absent substantial evidence that the project will lead to a significant impact:

- ***Small Projects:*** Defined as a project that generates 110 or fewer average daily vehicle trips. The project is projected to generate 586 daily vehicle trips; therefore, it does not meet this criterion.

- ***Local Serving Retail*****:** Defined as retail uses of 50,000 square feet or less can be presumed to have a less-than-significant impact. As the project is not a retail project, this criterion does not apply.

- ***Projects in Low VMT-Generating Area:*** Defined as a residential or office project that is in a VMT-efficient area based on an available VMT estimation tool. The project must be consistent in size and land use type (i.e., density, mix of uses, transit accessibility, etc.) as the surrounding built environment. As neither the City nor Merced County have yet identified such locations, this criterion does not apply.

- ***Proximity to High Quality Transit:*** Employment and residential development located within one-half mile of a high-quality transit corridor can be presumed to have a less-than-significant impact. While The Bus service is available in the vicinity of the project, the current transit service does not meet the OPR definition of "high quality transit**,**" which requires service on 15-minute headways. Therefore, this criterion is not applicable.

- ***Affordable Housing:*** Defined as a project consisting of deed-restricted affordable housing. OPR states that a project consisting of a high percentage of affordable housing may be a basis for the lead agency to find a less-than-significant impact on VMT. Evidence supports a presumption of less-than-significant impact for a 100% affordable residential development in infill locations (OPR 2018).

The proposed project is designated an affordable housing development, with 100% of its units affordable to very-low-income households. Based on OPR guidance, project impacts based on VMT is less than significant. This conclusion is supported by the project's proximity to retail services and schools, as well as the location of existing transit services and the provision of bicycle racks, the latter being augmented by implementation of Mitigation Measure TRANS-1 described above. Therefore, the project would not conflict with CEQA Guidelines Section 15064.3(b), and impacts would be less than significant.

c) Transportation Hazards.

The project site is located along West Yosemite Avenue, which currently has no improvements along the site frontage. As described in Chapter 2.0, Project Description, the project site frontage would be improved with curb, gutter, and sidewalk in accordance with City standards and specifications. As noted in Section 3.9, Hazards and Hazardous Materials, the project would not obstruct traffic on West Yosemite Avenue once project construction is completed. Traffic generated by the project would be mostly passenger vehicles, similar in composition to current traffic on West Yosemite Avenue. Vehicles that could affect traffic flow, such as farm equipment, would not be generated by the project. Project impacts related to traffic hazards would be less than significant.

d) Emergency Access.

The project proposes construction of vehicle access drives that would accommodate and allow fire apparatus access throughout the project site with no obstructions, based on a fire access diagram submitted with the project application. This accessway would have a minimum 20 feet clear width and minimum 13.5 clear height. The interior turn radius would be 25 feet, and the exterior turn radius would be 44 feet. In addition, access to the project site would be provided by two driveways. Project impacts related to emergency access would be less than significant.

3.18 TRIBAL CULTURAL RESOURCES

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:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) 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				
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	✓		

NARRATIVE DISCUSSION

Environmental Setting

The project site, along with Manteca, lies within the northern portion of the ethnographic territory of the Yokuts people. The Yokuts held portions of the San Joaquin Valley from the Tehachapis in the south to Stockton in the north. Settlements were oriented along the waterways, with their village sites normally placed adjacent to these features for their nearby water and food resources. House structures varied in size and shape, with most constructed from the readily available tules found in the extensive marshes of the low-lying valley areas. Economic subsistence was based on the acorn, with substantial dependency on gathering and processing of wild seeds and other vegetable foods. The rivers, streams, and sloughs that formed a maze within the valley provided abundant food resources such as fish, shellfish, and turtles. Game, wild fowl, and small mammals were trapped and hunted to provide protein augmentation of the diet. Trade was well developed, with mutually beneficial interchange of needed or desired goods with tribes on the coast and in the Sierra Nevada and the Great Basin (City of Manteca 2017).

In 2014, the California Legislature enacted AB 52, which focuses on CEQA consultation with Native American tribes on projects potentially affecting the tribes. The intent of this consultation is to avoid or mitigate potential impacts on "tribal cultural resources," which are defined as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe." Under AB 52, when a tribe requests consultation with a CEQA lead agency on projects within its traditionally and culturally affiliated geographical area, the lead agency must provide the tribe with notice of a proposed project within 14 days of a project application being deemed complete or when the lead agency decides to undertake the project if it is the agency's own project. The tribe has up to 30 days to respond to the notice and request consultation; if consultation is requested, then the local agency has up to 30 days to initiate consultation.

Matters which may be subjects of AB 52 consultation include the type of CEQA environmental review necessary, the significance of tribal cultural resources, and project alternatives or appropriate measures for preservation or mitigation of the tribal cultural resource that the tribe may recommend to the lead agency. The consultation process ends when either (1) the resource in question is not considered significant, (2) the parties agree to mitigate or avoid a significant effect on a tribal cultural resource, or (3) a party, acting

in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. Regardless of the outcome, a lead agency is still obligated under CEQA to mitigate any significant environmental effects, as explicitly noted in AB 52.

Environmental Impacts and Mitigation Measures

a, b) Tribal Cultural Resources.

As noted, the village sites of the Yokuts were normally placed adjacent to waterways. The project site is not located on or near any waterways. As part of the Manteca General Plan Update, a letter was sent to the Northern Valley Yokuts inviting the tribe to consult per AB 52. The Northern Valley Yokuts did not respond to the letter (City of Manteca 2021). As noted in Section 3.5, Cultural Resources, no prehistoric resources have been recorded on the project site. Therefore, it appears unlikely that there are any cultural resources on the project site that would be of value to the Yokuts. The Wilton Rancheria requested AB 52 with the City on the General Plan Update. However, there is no record of any tribal cultural resources on the project site pertaining to the Wilton Rancheria.

Project construction could potentially uncover previously unknown archaeological resources, including those of Native American origin. Mitigation Measure CULT-1 would require construction work to stop at an uncovered resource site until an archaeologist can evaluate the resource and give recommendations for its disposition. Implementation of this mitigation measure would reduce potential impacts on tribal cultural resources to a level that would be less than significant.

Level of Significance: Potentially significant

Mitigation Measures: Implementation of Mitigation Measure CULT-1.

Significance After Mitigation: Less than significant

3.19 UTILITIES AND SERVICE SYSTEMS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?			✓	
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?			✓	
c) Result in a determination by the wastewater treatment provider that would serve the project that it has adequate			✓	

capacity to serve the project's projected demand in addition to the provider's existing commitments?				
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?			✓	
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			✓	

NARRATIVE DISCUSSION

Environmental Setting

The City of Manteca currently provides water, sewer, and storm drainage services to the project vicinity and would provide such services to the project. The City's potable water supply is provided by 15 municipal groundwater wells, which in 2015 produced 7,249 acre-feet per year of water, 5,639 acre-feet per year of which was used as potable water. The wells are supplemented by treated surface water from SSJID as part of the South County Surface Water Program. The City has been allotted 11,500 acre-feet per year of this surface. Potable water demand in 2015 totaled 12,844 acre-feet. The City has shifted from potable water to recycled water for irrigation, to reduce demand on potable water supplies and costs of groundwater treatment. Total recycled water demand in 2015 was 1,463 acre-feet (City of Manteca 2017, 2021). An existing water main is located beneath West Yosemite Avenue along the project site frontage.

Wastewater collected in the City is treated at the Wastewater Quality Control Facility located southwest of downtown Manteca. The Wastewater Quality Control Facility provides primary, secondary, and tertiary treatment of wastewater. It treats an average dry weather flow of about 6.0 million gallons per day (mgd) and has an average dry weather design capacity of 9.87 mgd. The City is planning to expand the facility in phases from the currently permitted 9.87 mgd to 27 mgd by buildout, based on growth anticipated by the updated General Plan currently in progress (City of Manteca 2017). An existing wastewater main is located beneath West Yosemite Avenue along the project site frontage.

The City operates and maintains a storm drain system to control stormwater and protect residents and businesses from flooding. The City system includes approximately 150 miles of pipelines, 52 pump stations, and 54 detention basins. Additionally, SSJID owns a complex network of irrigation laterals and drains that run within the City limits to which the City pumps stormwater. An agreement between the City and SSJID requires that the City monitor stormwater discharges to SSJID facilities to make sure that facility capacities are not exceeded. The detention basins are used to detain stormwater to attenuate peak flows before pumping drainage flows into SSJID facilities (City of Manteca 2017). There are currently no storm drainage lines on or adjacent to the project site.

The City provides solid waste collection service through its Solid Waste Division. Most of the collected solid waste is sent to the Forward Landfill on Austin Road near Stockton. The

San Joaquin County Board of Supervisors recently approved an expansion of Forward Landfill, which would extend the life of the landfill to 2036 (Crunden 2020). Lesser amounts of solid waste are sent to the Foothill Sanitary Landfill and the North County landfill in San Joaquin County. The California Integrated Waste Management Act (AB 939) required local jurisdictions to divert at least 50% of their solid waste from landfills by 2000. AB 341 increased the recycling requirement to 75% of solid waste by 2020.

PG&E provides electrical and natural gas service to residences and businesses throughout the City of Manteca. PG&E's infrastructure is in place to distribute natural gas and electricity to Manteca, and PG&E typically can accommodate new developments upon request. It should be noted that the SSJID is seeking to replace PG&E as the electricity distributor in Manteca and nearby cities. This change was approved by the San Joaquin Local Agency Formation Commission in 2014; however, ongoing litigation has delayed implementation of this change.

Environmental Impacts and Mitigation Measures

a) Relocation or Construction of New Facilities.

Existing water and wastewater mains are along the project site frontage beneath West Yosemite Avenue. The project would connect to existing electricity, natural gas, and telecommunication lines in the vicinity with no need for extensions. The project would require a 1,100-foot extension of a storm drainage main from Airport Way to the project site. However, as noted in Section 3.9, Hazards and Hazardous Materials, this extension would be installed beneath West Yosemite Avenue within its existing right-of-way; no additional right-of-way would need to be acquired. Infrastructure serving the proposed buildings would be installed as part of site development, and therefore would not have impacts distinct from overall site development. Project impacts related to the construction or relocation of infrastructure would be less than significant.

b) Water Systems and Supply.

The project would connect to the City's water supply system. An existing water main is along the project site frontage. According to the City's Urban Water Management Plan, medium-density residential development consumed approximately 2,800 gallons per day per acre (City of Manteca 2016c).[1] Based on this, project water demand would be 8,120 gallons per day, or approximately 9.1 acre-feet per year.

The City's Urban Water Management Plan estimated available water supply for the City during a normal year, a single dry year, and multiple dry years. In a normal year, the City would have 37,000 acre-feet of water available per year. Available volume would be 32,375 acre-feet per year in a single dry year, and 34,040 acre-feet per year in a third multiple dry year (City of Manteca 2016c). Projected total potable water demand is projected to rise from the 2015 figure of 12,844 acre-feet to 27,530 acre-feet by 2040 (City of Manteca 2021). Based on this, there would be adequate water supply available for the project without requiring new or expanded water entitlements.

[1] No factor was estimated for high-density residential development, so the medium-density factor was used.

The City requires that all projects shall comply with the more restrictive of the outdoor potable water reduction requirements of CALGreen Section 4.304 and the Manteca Water Efficient Landscape Ordinance, which shall be noted on all site plans. The project would comply with this requirement and note it on its final site plan. Compliance with this requirement would further reduce water use of the project and thereby its impact on the City's water supplies. Project impacts on water supply would be less than significant.

c) Wastewater Treatment Capacity.

The project would connect to the City's wastewater system. An existing wastewater line is along the project site frontage. As noted, the Wastewater Quality Control Facility treats an average dry weather flow of about 6.0 mgd and has an average dry weather design capacity of 9.87 mgd. High-density residential development generates approximately 2,337 gallons per day per acre (City of Manteca 2021). Based on this, the project would generate approximately 6,773 gallons per day (0.0068 mgd). The Wastewater Quality Control Facility would have adequate capacity to treat wastewater from the project. Moreover, as noted, the City has plans to expand the treatment capacity of the facility. Project impacts on wastewater treatment capacity would be less than significant.

d, e) Solid Waste Services.

Development of the project site would generate a substantial new demand for solid waste disposal services. CalRecycle posted solid waste generation rates for single-family residences from several sources that range from 7.4 to 11.4 pounds per dwelling unit per day (CalRecycle 2019). For this analysis, 10 pounds per unit per day will be used. Using this factor, the project would generate an estimated 2,040 pounds per day, or approximately 372.3 tons per year.

While the content of a ton of solid waste varies, it has been approximated that a cubic yard of solid waste weighs 300 pounds, so the project would generate approximately 2,482 cubic yards of solid waste per year. Total capacity at all three landfills to which the City's solid waste is sent is approximately 168.6 million cubic yards (City of Manteca 2021). Therefore, sufficient capacity exists at the County landfills to accommodate the solid waste generated by the project. Solid waste would be processed and disposed of in a manner consistent with applicable federal, State, and local regulations. Project impacts related to solid waste would be less than significant.

The project is expected to comply with applicable State and local solid waste regulations. These include the State recycling statutes and Manteca Municipal Code Chapter 8.12, which sets forth solid waste collection, disposal, and diversion requirements for residential, commercial, industrial, and other uses and addresses yard waste, hazardous materials, recyclables, and other forms of solid waste. The City's Solid Waste Division had no comment on the project other than the location and sizing of trash enclosures (Mahil comment letter). The trash enclosures are depicted on Figure 2-1 in Chapter 2.0, Project Description. The project would have no impact related to compliance with solid waste regulations.

3.20 WILDFIRE

If located in or near State Responsibility Areas or lands classified as Very High Fire Hazard Severity Zones, would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?				✓
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?				✓
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?				✓
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?				✓

NARRATIVE DISCUSSION

Environmental Setting

Wildland fires are an annual hazard in San Joaquin County. Wildland fires burn natural vegetation on undeveloped lands and include rangeland, brush, and grass fires. Long, hot, and dry summers, with temperatures often exceeding 100°F, add to the County's fire hazard. Human activities are the major cause of wildland fires, with lightning another significant cause. High hazard areas for wildland fires are the grass-covered areas in the east and the southwest foothills of the County (San Joaquin County 2016a).

The California Department of Forestry and Fire Protection's Fire and Resource Assessment Program identifies fire threat based on a combination of two factors: 1) fire frequency, or the likelihood of a given area burning, and 2) potential fire behavior (hazard). These two factors are combined in determining the following Fire Hazard Severity Zones: Moderate, High, Very High, Extreme. These zones apply to areas designated as State Responsibility Areas – areas in which the State has primary firefighting responsibility. The project site is not within a State Responsibility Area and therefore has not been placed in a Fire Hazard Severity Zone. The area surrounding the project site is likewise not in any designated fire hazard zone (Cal Fire 2007).

Environmental Impacts and Mitigation Measures

a) Emergency Response Plans and Emergency Evacuation Plans.

As noted in Section 3.9, Hazards and Hazardous Materials, the project would not interfere with movement of emergency response vehicles or evacuations once construction work is completed. The project would have no impact on emergency responses and evacuations.

b) Exposure of Project Occupants to Wildfire Hazards.

The project site is within a predominantly developed area that is not in a Fire Hazard Severity Zone. The nearest wildlands are along the San Joaquin River, which is four miles to the west and is separated from the project site by roadways and urban development. Wildland along the San Joaquin River is limited, so fires and smoke produced by them would likewise be limited. The project would have no impact related to exposure of project occupants to wildfire hazards.

c) Installation and Maintenance of Infrastructure.

The project proposes the installation of roads and parking areas and the extension of utilities. The installation of these facilities is not expected to exacerbate the wildfire risk on the project site, which is minimal as explained in b) above. The project would have no impact related to exacerbation of wildfire hazards by infrastructure improvements.

d) Risks from Runoff, Post-Fire Slope Instability, or Drainage Changes.

The project site is in a topographically flat area. There are no streams or other channels that cross the site. As such, it is not expected that people or structures would be exposed to significant risks from changes resulting from fires in steeper areas, including downslope or downstream flooding or landslides. The project would have no impact related to risks from runoff, post-fire slope instability, or drainage changes.

3.21 MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		✓		

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

NARRATIVE DISCUSSION

a) Findings on Biological and Cultural Resources.

The project's potential biological resource impacts were described in Section 3.4, and its potential cultural resource impacts were described in Sections 3.5 and 3.18. Potentially significant environmental effects were identified in both issue areas, but these effects would be reduced to levels that would be less than significant with implementation of identified mitigation measures.

b) Findings on Individually Limited but Cumulatively Considerable Impacts.

The potential cumulative impacts of urban development of the site as part of development of the City were accounted for in the Manteca General Plan Update EIR (City of Manteca 2021). The potential environmental effects identified in this IS/MND have been considered in conjunction with each other as to their potential to generate other potentially significant effects.

As described in this IS/MND, the potential environmental effects of the project would either be less than significant or would have no impact at all. Where the project involves potentially significant effects, these effects would be avoided or reduced to a level that is less than significant with proposed mitigation measures and/or compliance with applicable regulations and conditions of required permits. The various potential environmental effects of the project would not combine to generate any potentially significant cumulative effects.

c) Findings on Adverse Effects on Human Beings.

Potential adverse effects on human beings were discussed in Section 3.7, Geology and Soils (seismic hazards); Section 3.9, Hazards and Hazardous Materials; Section 3.10, Hydrology and Water Quality (flooding); Section 3.17, Transportation (traffic hazards); and Section 3.20, Wildfire. All potential adverse effects on human beings identified in those sections would be reduced to levels that are less than significant through mitigation measure or through compliance with applicable laws, regulations, and ordinances.

4.0 REFERENCES

4.1 DOCUMENT PREPARERS

This IS/MND was prepared by BaseCamp Environmental, Inc. for use by and under the supervision of the City of Stockton Department of Community Development. The following persons were involved in preparation of the IS/MND:

City of Manteca Department of Community Development

J. D. Hightower, Planning Manager
Scott Speer, Associate Planner

BaseCamp Environmental, Inc.

Charlie Simpson, Principal
Terry Farmer, AICP, Senior Environmental Planner
Krista Simpson, Graphic Artist

4.2 DOCUMENTS CITED

California Air Resources Board (ARB). 2017. California's 2017 Climate Change Scoping Plan. November 2017.

_____. 2021. California Greenhouse Gas Emissions for 2000 to 2019: Trends of Emissions and Other Indicators. July 28, 2021.

California Department of Conservation, Division of Land Resources Protection, Farmland Mapping and Monitoring Program (FMMP). 2018. San Joaquin County Important Farmland 2018 (map).

California Department of Conservation, Division of Oil, Gas and Geothermal Resources (DOGGR). 2021. Well Finder – CalGEM GIS. Available online at https://maps.conservation.ca.gov/doggr/wellfinder/. Accessed December 2, 2021.

California Department of Finance. 2021. Report E-5 - Population and Housing Estimates for Cities, Counties, and the State, January 1, 2011-2021, with 2010 Benchmark. Released May 1, 2021.

California Department of Forestry and Fire Protection (Cal Fire). 2007. Fire Hazard Severity Zones in SRA, San Joaquin County (map). Adopted November 7, 2007.

California Department of Resources Recovery and Recycling (CalRecycle). 2019. Solid Waste Generation Rates. Available online at https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates#Residential. Accessed August 7, 2019.

California Department of Toxic Substances Control (DTSC). 2021. EnviroStor database, www.envirostor.dtsc.ca.gov. Accessed December 2, 2021.

California Department of Transportation (Caltrans). 2013. Transportation and Construction Vibration Guidance Manual. September 2013.

_____. 2019. List of Officially Designated State Scenic Highways. Available online at http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/scenic_hwy.htm. August 2019.

California Department of Water Resources (DWR). 2014. Geology of the Northern Sacramento Valley. June 2014, updated September 22, 2014.

California Energy Commission (CEC). 2020. 2020 California Renewables Portfolio Standard Annual Report. November 2020.

_____. 2021a. Electricity Consumption by County – San Joaquin County 2019. Available online at ecdms.energy.ca.gov/elecbycounty.aspx. Accessed August 20, 2021.

_____. 2021b. Gas Consumption by County – San Joaquin County 2019. Available online at ecdms.energy.ca.gov/gasbycounty.aspx. Accessed August 20, 2021.

California Environmental Protection Agency (CalEPA). 2021a. Sites Identified with Waste Constituents Above Hazardous Waste Levels Outside the Waste Management Unit. Available online at https://calepa.ca.gov/wp-content/uploads/sites/6/2016/10/SiteCleanup-CorteseList-CurrentList.pdf. Accessed March 5, 2021.

_____. 2021b. List of "Active" CDO and CAO from Water Board. Available online at http://www.calepa.ca.gov/SiteCleanup/CorteseList/default.htm. Accessed January 14, 2021.

California Office of Environmental Health Hazard Assessment (OEHHA). 2021. CalEnviroScreen 4.0. Available online at oehha.ca.gov/calenviroscreen/report/calenviroscreen-30. Accessed December 2, 2021.

Central California Information Center. 2021. Records Search File #: 11955L. Project: Yosemite Apartments, APN 200-140-020, 1919 W. Yosemite Ave., Manteca, CA. October 26, 2021.

City of Manteca. 2003. Manteca General Plan 2023 Draft Environmental Impact Report. Prepared by Wade Associates. Certified October 6, 2003.

_____. 2011. City of Manteca General Plan 2023. Adopted October 6, 2003; Circulation Element amended April 5, 2011.

_____. 2013. City of Manteca Climate Action Plan. Prepared by Michael Brandman Associates. Adopted October 15, 2013.

_____. 2016a. City of Manteca 2015-2023 Housing Element. Adopted January 19, 2016.

_____. 2016b. City of Manteca Parks and Recreation Master Plan. Prepared by RJM Design Group. Approved by City Council December 6, 2016.

_____. 2016c. 2015 Urban Water Management Plan for City of Manteca. Prepared by Kennedy Jenks Consultants. September 2016.

_____. 2017. Manteca General Plan Update Existing Conditions Report. Prepared by De Novo Planning Group. October 2017.

_____. 2021. Draft Environmental Impact Report for the Manteca General Plan Update. Prepared by De Novo Planning Group. March 2021.

Coffman Associates, Inc. 2016. Airport Land Use Compatibility Plan Update for Stockton Metropolitan Airport. May 2016.

Crunden, E.A. 2020. Republic landfill expansion moves ahead in California after failed appeal. Waste Dive, January 10, 2020.

Eastern San Joaquin Groundwater Authority (ESJGA). 2019. Eastern San Joaquin Groundwater Subbasin Groundwater Sustainability Plan. November 2019.

EdData. 2021. Census Day Enrollment. Available online at ed-data.org/school/San Joaquin/. Accessed December 3, 2021.

Egan, M. David. 1988. Architectural Acoustics. McGraw Hill, New York.

Federal Emergency Management Agency. 2009. Flood Insurance Rate Map (FEMA #06077C0640F). San Joaquin County, California. Effective date October 16, 2009.

Governor's Office of Planning and Research (OPR). 2018. Technical Advisory on Evaluating Transportation Impacts in CEQA. December 2018.

Manteca Unified School District (MUSD). 2014. Manteca Unified School District 2014 Facility Master Plan. Prepared by California Financial Services. February 18, 2014.

_____. 2017. School Mitigation Fee Justification Study, Final Draft Report. Prepared by Economic & Planning Systems, Inc. March 2017.

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

_____. 2018. 2018 Regional Transportation Plan/Sustainable Communities Strategy Draft Programmatic Environmental Impact Report. March 2018.

San Joaquin County. 2016a. San Joaquin County General Plan Background Report. Prepared by Mintier Harnish. December 2016.

_____. 2016b. San Joaquin County General Plan Policy Document. Adopted December 2016.

San Joaquin County Flood Control and Water Conservation District. 2019. Groundwater Report, Spring 2019.

San Joaquin Valley Air Pollution Control District (SJVAPCD). 2009. Final Staff Report – Climate Change Action Plan: Addressing Greenhouse Gas Emissions Impact under the San Joaquin Valley Air Pollution Control District.

_____. 2015. Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI). March 19, 2015.

_____. 2021. Ambient Air Quality Standards and Valley Attainment Status. SJVAPCD website, http://www.valleyair.org/aqinfo/attainment.htm. Accessed March 5, 2021.

State Water Resources Control Board (SWRCB). 2021. GeoTracker website, www.geotracker.swrcb.ca.gov. Accessed December 2, 2021.

U.S. Census Bureau. 2021. Geographic Profile - Manteca, California. Available online at https://data.census.gov/cedsci/. Accessed December 2, 2021.

U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS). 2021. Custom Soil Resource Report for San Joaquin County, California: Yosemite Avenue Apts. December 2, 2021.

U.S. Department of Agriculture, Soil Conservation Service (SCS). 1992. Soil Survey of San Joaquin County, California.

U.S. Energy Information Administration (EIA). 2018. 2015 Residential Energy Consumption Survey: Energy Consumption and Expenditures Tables. Table CE4.10: Annual household site end-use consumption by fuel in the West - averages, 2015. Release date May 2018.

U.S. Environmental Protection Agency (EPA). 2009. Endangerment and Cause of Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act. Federal Register Vol. 74, No. 239, pp. 66496-66546. December 15, 2009.

Wagner, D. L., E. J. Bortugno, and R. D. McJunkin. 1991. Geologic Map of the San Francisco-San Jose Quadrangle, California, 1:250,000. California Division of Mines and Geology, Regional Geologic Map Series.

Westerling, Leroy, Josue Medellin-Azuara, and Joshua Viers. 2018. San Joaquin Valley Summary Report. California's Fourth Climate Change Assessment. Publication number: SUM-CCCA4-2018-003.

4.3 PERSONS CONSULTED

Lumen Arceo, Senior Plan Check Engineer, City of Manteca Building Department

Laurel Boyd, Associate Habitat Planner, San Joaquin Council of Governments

Tim Carroll, Wastewater Maintenance Supervisor, City of Manteca Public Works Department

Tabitha Fraser, GIS Specialist II, City of Manteca Information Technology Department

Avneet Mahil, Solid Waste Manager, Manteca Solid Waste

George Montross, Deputy Public Works Director/Water Resources, City of Manteca Public Works Department

Luis Salas, Fire Inspector II, City of Manteca Fire Department

Luke Saxelby, Principal Consultant, Saxelby Associates LLC

5.0 NOTES RELATED TO EVALUATION OF ENVIRONMENTAL IMPACTS

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

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

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

4) "Negative Declaration: Less Than Significant with Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

    a) Earlier Analysis Used: Identify and state where they are available for review.

    b) Impacts Adequately Addressed: Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

c) Mitigation Measures: For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures, which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

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

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

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

9) The explanation of each issue should identify:

a) the significance criteria or threshold, if any, used to evaluate each question; and

b) the mitigation measure identified, if any, to reduce the impact to less than significance.

APPENDIX A
AIR QUALITY MODELING RESULTS

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

Yosemite Avenue Apartments

San Joaquin County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Low Rise	62.00	Dwelling Unit	2.90	57,024.00	197

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 - Project square footage and acreage.

Construction Phase - No demolition.

Grading - Total site acreage.

Architectural Coating - Per SJVAPCD Rule 4601.

Woodstoves - No fireplaces or woodstoves.

Area Coating - Per SJVAPCD Rule 4601.

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Area Mitigation -

Water Mitigation -

Waste Mitigation -

Yosemite Avenue Apartments - San Joaquin County, Annual

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
tblArchitecturalCoating	EF_Residential_Exterior	150.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	150.00	50.00
tblAreaCoating	Area_EF_Residential_Exterior	150	50
tblAreaCoating	Area_EF_Residential_Interior	150	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	PhaseEndDate	6/12/2023	5/15/2023
tblConstructionPhase	PhaseEndDate	5/15/2023	4/17/2023
tblConstructionPhase	PhaseEndDate	6/28/2022	5/31/2022
tblConstructionPhase	PhaseEndDate	7/11/2022	6/13/2022
tblConstructionPhase	PhaseEndDate	5/29/2023	5/1/2023
tblConstructionPhase	PhaseEndDate	7/1/2022	6/3/2022
tblConstructionPhase	PhaseStartDate	5/30/2023	5/2/2023
tblConstructionPhase	PhaseStartDate	7/12/2022	6/14/2022
tblConstructionPhase	PhaseStartDate	7/2/2022	6/4/2022
tblConstructionPhase	PhaseStartDate	5/16/2023	4/18/2023
tblConstructionPhase	PhaseStartDate	6/29/2022	6/1/2022
tblFireplaces	NumberGas	34.10	0.00
tblFireplaces	NumberNoFireplace	27.90	62.00
tblGrading	AcresOfGrading	6.00	2.90
tblGrading	AcresOfGrading	4.50	2.90
tblLandUse	LandUseSquareFeet	62,000.00	57,024.00
tblLandUse	LotAcreage	3.88	2.90

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	0.1517	1.1610	1.1655	2.2400e-003	0.0506	0.0541	0.1047	0.0182	0.0518	0.0699	0.0000	189.5094	189.5094	0.0324	2.1700e-003	190.9671
2023	0.2545	0.5826	0.6527	1.2300e-003	0.0163	0.0260	0.0423	4.3800e-003	0.0248	0.0292	0.0000	104.5389	104.5389	0.0178	1.1000e-003	105.3137
Maximum	**0.2545**	**1.1610**	**1.1655**	**2.2400e-003**	**0.0506**	**0.0541**	**0.1047**	**0.0182**	**0.0518**	**0.0699**	**0.0000**	**189.5094**	**189.5094**	**0.0324**	**2.1700e-003**	**190.9671**

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	0.1517	1.1610	1.1655	2.2400e-003	0.0390	0.0541	0.0931	0.0125	0.0518	0.0643	0.0000	189.5092	189.5092	0.0324	2.1700e-003	190.9669
2023	0.2545	0.5826	0.6527	1.2300e-003	0.0163	0.0260	0.0423	4.3800e-003	0.0248	0.0292	0.0000	104.5388	104.5388	0.0178	1.1000e-003	105.3136
Maximum	**0.2545**	**1.1610**	**1.1655**	**2.2400e-003**	**0.0390**	**0.0541**	**0.0931**	**0.0125**	**0.0518**	**0.0643**	**0.0000**	**189.5092**	**189.5092**	**0.0324**	**2.1700e-003**	**190.9669**

Yosemite Avenue Apartments - San Joaquin County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**17.36**	**0.00**	**7.90**	**25.04**	**0.00**	**5.70**	**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**	0.5670	0.5670
2	**9-1-2022**	**11-30-2022**	0.5563	0.5563
3	**12-1-2022**	**2-28-2023**	0.5245	0.5245
4	**3-1-2023**	**5-31-2023**	0.5062	0.5062
		Highest	0.5670	0.5670

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	0.2544	5.3100e-003	0.4605	2.0000e-005		2.5500e-003	2.5500e-003		2.5500e-003	2.5500e-003	0.0000	0.7520	0.7520	7.2000e-004	0.0000	0.7701
Energy	3.9000e-003	0.0333	0.0142	2.1000e-004		2.6900e-003	2.6900e-003		2.6900e-003	2.6900e-003	0.0000	62.0394	62.0394	4.5400e-003	1.1700e-003	62.5006
Mobile	0.2263	0.3629	2.1682	4.9900e-003	0.4883	4.1100e-003	0.4924	0.1306	3.8600e-003	0.1344	0.0000	461.0464	461.0464	0.0257	0.0244	468.9537
Waste						0.0000	0.0000		0.0000	0.0000	5.7893	0.0000	5.7893	0.3421	0.0000	14.3428
Water						0.0000	0.0000		0.0000	0.0000	1.2816	2.8471	4.1286	0.1321	3.1600e-003	8.3737
Total	**0.4846**	**0.4016**	**2.6429**	**5.2200e-003**	**0.4883**	**9.3500e-003**	**0.4976**	**0.1306**	**9.1000e-003**	**0.1397**	**7.0709**	**526.6848**	**533.7557**	**0.5052**	**0.0287**	**554.9409**

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2544	5.3100e-003	0.4605	2.0000e-005		2.5500e-003	2.5500e-003		2.5500e-003	2.5500e-003	0.0000	0.7520	0.7520	7.2000e-004	0.0000	0.7701
Energy	3.9000e-003	0.0333	0.0142	2.1000e-004		2.6900e-003	2.6900e-003		2.6900e-003	2.6900e-003	0.0000	62.0394	62.0394	4.5400e-003	1.1700e-003	62.5006
Mobile	0.1882	0.2519	1.5185	3.1200e-003	0.2997	2.6600e-003	0.3023	0.0801	2.4900e-003	0.0826	0.0000	288.0592	288.0592	0.0198	0.0169	293.5982
Waste						0.0000	0.0000		0.0000	0.0000	1.4473	0.0000	1.4473	0.0855	0.0000	3.5857
Water						0.0000	0.0000		0.0000	0.0000	1.0253	2.2777	3.3029	0.1057	2.5300e-003	6.6990
Total	**0.4465**	**0.2905**	**1.9931**	**3.3500e-003**	**0.2997**	**7.9000e-003**	**0.3076**	**0.0801**	**7.7300e-003**	**0.0879**	**2.4726**	**353.1282**	**355.6008**	**0.2163**	**0.0206**	**367.1535**

	ROG	NOx	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	**7.86**	**27.67**	**24.59**	**35.82**	**38.63**	**15.51**	**38.19**	**38.63**	**15.05**	**37.09**	**65.03**	**32.95**	**33.38**	**57.19**	**28.18**	**33.84**

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	6/1/2022	6/3/2022	5	3	
3	Grading	Grading	6/4/2022	6/13/2022	5	6	

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

4	Building Construction	Building Construction	6/14/2022	4/17/2023	5	220	
5	Paving	Paving	4/18/2023	5/1/2023	5	10	
6	Architectural Coating	Architectural Coating	5/2/2023	5/15/2023	5	10	

Acres of Grading (Site Preparation Phase): 2.9

Acres of Grading (Grading Phase): 2.9

Acres of Paving: 0

Residential Indoor: 115,474; Residential Outdoor: 38,491; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; 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
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Scrapers	1	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37

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
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45

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	5	13.00	0.00		10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00		10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00		10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	45.00	7.00		10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00		10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	9.00	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

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

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	0.0000	0.0000	0.0000	0.0000	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**

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

3.2 Demolition - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	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					1.5400e-003	0.0000	1.5400e-003	1.7000e-004	0.0000	1.7000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0700e-003	0.0235	0.0151	4.0000e-005		8.9000e-004	8.9000e-004		8.2000e-004	8.2000e-004	0.0000	3.2321	3.2321	1.0500e-003	0.0000	3.2582
Total	**2.0700e-003**	**0.0235**	**0.0151**	**4.0000e-005**	**1.5400e-003**	**8.9000e-004**	**2.4300e-003**	**1.7000e-004**	**8.2000e-004**	**9.9000e-004**	**0.0000**	**3.2321**	**3.2321**	**1.0500e-003**	**0.0000**	**3.2582**

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	4.0000e-005	3.0000e-005	3.0000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0776	0.0776	0.0000	0.0000	0.0784
Total	**4.0000e-005**	**3.0000e-005**	**3.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0776**	**0.0776**	**0.0000**	**0.0000**	**0.0784**

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

3.3 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					6.9000e-004	0.0000	6.9000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0700e-003	0.0235	0.0151	4.0000e-005		8.9000e-004	8.9000e-004		8.2000e-004	8.2000e-004	0.0000	3.2321	3.2321	1.0500e-003	0.0000	3.2582
Total	**2.0700e-003**	**0.0235**	**0.0151**	**4.0000e-005**	**6.9000e-004**	**8.9000e-004**	**1.5800e-003**	**7.0000e-005**	**8.2000e-004**	**8.9000e-004**	**0.0000**	**3.2321**	**3.2321**	**1.0500e-003**	**0.0000**	**3.2582**

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	4.0000e-005	3.0000e-005	3.0000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0776	0.0776	0.0000	0.0000	0.0784
Total	**4.0000e-005**	**3.0000e-005**	**3.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0776**	**0.0776**	**0.0000**	**0.0000**	**0.0784**

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					0.0196	0.0000	0.0196	0.0101	0.0000	0.0101	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.6200e-003	0.0510	0.0277	6.0000e-005		2.2300e-003	2.2300e-003		2.0500e-003	2.0500e-003	0.0000	5.4308	5.4308	1.7600e-003	0.0000	5.4747
Total	**4.6200e-003**	**0.0510**	**0.0277**	**6.0000e-005**	**0.0196**	**2.2300e-003**	**0.0218**	**0.0101**	**2.0500e-003**	**0.0122**	**0.0000**	**5.4308**	**5.4308**	**1.7600e-003**	**0.0000**	**5.4747**

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	9.0000e-005	7.0000e-005	7.5000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1940	0.1940	1.0000e-005	1.0000e-005	0.1959
Total	**9.0000e-005**	**7.0000e-005**	**7.5000e-004**	**0.0000**	**2.4000e-004**	**0.0000**	**2.4000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.1940**	**0.1940**	**1.0000e-005**	**1.0000e-005**	**0.1959**

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

3.4 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.8200e-003	0.0000	8.8200e-003	4.5400e-003	0.0000	4.5400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.6200e-003	0.0510	0.0277	6.0000e-005		2.2300e-003	2.2300e-003		2.0500e-003	2.0500e-003	0.0000	5.4308	5.4308	1.7600e-003	0.0000	5.4747
Total	**4.6200e-003**	**0.0510**	**0.0277**	**6.0000e-005**	**8.8200e-003**	**2.2300e-003**	**0.0111**	**4.5400e-003**	**2.0500e-003**	**6.5900e-003**	**0.0000**	**5.4308**	**5.4308**	**1.7600e-003**	**0.0000**	**5.4747**

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	9.0000e-005	7.0000e-005	7.5000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1940	0.1940	1.0000e-005	1.0000e-005	0.1959
Total	**9.0000e-005**	**7.0000e-005**	**7.5000e-004**	**0.0000**	**2.4000e-004**	**0.0000**	**2.4000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.1940**	**0.1940**	**1.0000e-005**	**1.0000e-005**	**0.1959**

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	0.1336	1.0515	1.0334	1.8000e-003		0.0506	0.0506		0.0485	0.0485	0.0000	149.5297	149.5297	0.0289	0.0000	150.2509
Total	**0.1336**	**1.0515**	**1.0334**	**1.8000e-003**		**0.0506**	**0.0506**		**0.0485**	**0.0485**	**0.0000**	**149.5297**	**149.5297**	**0.0289**	**0.0000**	**150.2509**

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	1.0600e-003	0.0278	7.6600e-003	1.1000e-004	3.3300e-003	3.0000e-004	3.6400e-003	9.6000e-004	2.9000e-004	1.2500e-003	0.0000	10.0897	10.0897	7.0000e-005	1.5300e-003	10.5472
Worker	0.0103	7.1400e-003	0.0806	2.3000e-004	0.0258	1.4000e-004	0.0259	6.8600e-003	1.2000e-004	6.9900e-003	0.0000	20.9555	20.9555	6.9000e-004	6.3000e-004	21.1618
Total	**0.0113**	**0.0349**	**0.0883**	**3.4000e-004**	**0.0291**	**4.4000e-004**	**0.0296**	**7.8200e-003**	**4.1000e-004**	**8.2400e-003**	**0.0000**	**31.0452**	**31.0452**	**7.6000e-004**	**2.1600e-003**	**31.7090**

Yosemite Avenue Apartments - San Joaquin County, Annual

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

3.5 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1336	1.0515	1.0334	1.8000e-003		0.0506	0.0506		0.0485	0.0485	0.0000	149.5295	149.5295	0.0289	0.0000	150.2507
Total	**0.1336**	**1.0515**	**1.0334**	**1.8000e-003**		**0.0506**	**0.0506**		**0.0485**	**0.0485**	**0.0000**	**149.5295**	**149.5295**	**0.0289**	**0.0000**	**150.2507**

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	1.0600e-003	0.0278	7.6600e-003	1.1000e-004	3.3300e-003	3.0000e-004	3.6400e-003	9.6000e-004	2.9000e-004	1.2500e-003	0.0000	10.0897	10.0897	7.0000e-005	1.5300e-003	10.5472
Worker	0.0103	7.1400e-003	0.0806	2.3000e-004	0.0258	1.4000e-004	0.0259	6.8600e-003	1.2000e-004	6.9900e-003	0.0000	20.9555	20.9555	6.9000e-004	6.3000e-004	21.1618
Total	**0.0113**	**0.0349**	**0.0883**	**3.4000e-004**	**0.0291**	**4.4000e-004**	**0.0296**	**7.8200e-003**	**4.1000e-004**	**8.2400e-003**	**0.0000**	**31.0452**	**31.0452**	**7.6000e-004**	**2.1600e-003**	**31.7090**

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	0.0651	0.5177	0.5402	9.5000e-004		0.0233	0.0233		0.0224	0.0224	0.0000	78.9268	78.9268	0.0149	0.0000	79.2999
Total	**0.0651**	**0.5177**	**0.5402**	**9.5000e-004**		**0.0233**	**0.0233**		**0.0224**	**0.0224**	**0.0000**	**78.9268**	**78.9268**	**0.0149**	**0.0000**	**79.2999**

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	2.8000e-004	0.0118	3.4600e-003	5.0000e-005	1.7600e-003	8.0000e-005	1.8300e-003	5.1000e-004	7.0000e-005	5.8000e-004	0.0000	5.1250	5.1250	3.0000e-005	7.7000e-004	5.3565
Worker	4.9700e-003	3.2900e-003	0.0389	1.2000e-004	0.0136	7.0000e-005	0.0137	3.6200e-003	6.0000e-005	3.6800e-003	0.0000	10.7030	10.7030	3.3000e-004	3.1000e-004	10.8028
Total	**5.2500e-003**	**0.0151**	**0.0424**	**1.7000e-004**	**0.0154**	**1.5000e-004**	**0.0155**	**4.1300e-003**	**1.3000e-004**	**4.2600e-003**	**0.0000**	**15.8281**	**15.8281**	**3.6000e-004**	**1.0800e-003**	**16.1593**

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

3.5 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0651	0.5177	0.5402	9.5000e-004		0.0233	0.0233		0.0224	0.0224	0.0000	78.9267	78.9267	0.0149	0.0000	79.2998
Total	**0.0651**	**0.5177**	**0.5402**	**9.5000e-004**		**0.0233**	**0.0233**		**0.0224**	**0.0224**	**0.0000**	**78.9267**	**78.9267**	**0.0149**	**0.0000**	**79.2998**

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	2.8000e-004	0.0118	3.4600e-003	5.0000e-005	1.7600e-003	8.0000e-005	1.8300e-003	5.1000e-004	7.0000e-005	5.8000e-004	0.0000	5.1250	5.1250	3.0000e-005	7.7000e-004	5.3565
Worker	4.9700e-003	3.2900e-003	0.0389	1.2000e-004	0.0136	7.0000e-005	0.0137	3.6200e-003	6.0000e-005	3.6800e-003	0.0000	10.7030	10.7030	3.3000e-004	3.1000e-004	10.8028
Total	**5.2500e-003**	**0.0151**	**0.0424**	**1.7000e-004**	**0.0154**	**1.5000e-004**	**0.0155**	**4.1300e-003**	**1.3000e-004**	**4.2600e-003**	**0.0000**	**15.8281**	**15.8281**	**3.6000e-004**	**1.0800e-003**	**16.1593**

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	4.4000e-003	0.0431	0.0584	9.0000e-005		2.1700e-003	2.1700e-003		2.0000e-003	2.0000e-003	0.0000	7.7564	7.7564	2.4600e-003	0.0000	7.8179
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.4000e-003**	**0.0431**	**0.0584**	**9.0000e-005**		**2.1700e-003**	**2.1700e-003**		**2.0000e-003**	**2.0000e-003**	**0.0000**	**7.7564**	**7.7564**	**2.4600e-003**	**0.0000**	**7.8179**

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	2.2000e-004	1.4000e-004	1.7100e-003	1.0000e-005	6.0000e-004	0.0000	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.4694	0.4694	1.0000e-005	1.0000e-005	0.4738
Total	**2.2000e-004**	**1.4000e-004**	**1.7100e-003**	**1.0000e-005**	**6.0000e-004**	**0.0000**	**6.0000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.4694**	**0.4694**	**1.0000e-005**	**1.0000e-005**	**0.4738**

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

3.6 Paving - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.4000e-003	0.0431	0.0584	9.0000e-005		2.1700e-003	2.1700e-003		2.0000e-003	2.0000e-003	0.0000	7.7564	7.7564	2.4600e-003	0.0000	7.8178
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.4000e-003**	**0.0431**	**0.0584**	**9.0000e-005**		**2.1700e-003**	**2.1700e-003**		**2.0000e-003**	**2.0000e-003**	**0.0000**	**7.7564**	**7.7564**	**2.4600e-003**	**0.0000**	**7.8178**

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	2.2000e-004	1.4000e-004	1.7100e-003	1.0000e-005	6.0000e-004	0.0000	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.4694	0.4694	1.0000e-005	1.0000e-005	0.4738
Total	**2.2000e-004**	**1.4000e-004**	**1.7100e-003**	**1.0000e-005**	**6.0000e-004**	**0.0000**	**6.0000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.4694**	**0.4694**	**1.0000e-005**	**1.0000e-005**	**0.4738**

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	0.1784					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6000e-004	6.5100e-003	9.0600e-003	1.0000e-005		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2785
Total	**0.1794**	**6.5100e-003**	**9.0600e-003**	**1.0000e-005**		**3.5000e-004**	**3.5000e-004**		**3.5000e-004**	**3.5000e-004**	**0.0000**	**1.2766**	**1.2766**	**8.0000e-005**	**0.0000**	**1.2785**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	9.0000e-005	1.0200e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.2817	0.2817	1.0000e-005	1.0000e-005	0.2843
Total	**1.3000e-004**	**9.0000e-005**	**1.0200e-003**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**0.2817**	**0.2817**	**1.0000e-005**	**1.0000e-005**	**0.2843**

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

3.7 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1784					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6000e-004	6.5100e-003	9.0600e-003	1.0000e-005		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2785
Total	**0.1794**	**6.5100e-003**	**9.0600e-003**	**1.0000e-005**		**3.5000e-004**	**3.5000e-004**		**3.5000e-004**	**3.5000e-004**	**0.0000**	**1.2766**	**1.2766**	**8.0000e-005**	**0.0000**	**1.2785**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	9.0000e-005	1.0200e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.2817	0.2817	1.0000e-005	1.0000e-005	0.2843
Total	**1.3000e-004**	**9.0000e-005**	**1.0200e-003**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**0.2817**	**0.2817**	**1.0000e-005**	**1.0000e-005**	**0.2843**

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

Increase Density

Increase Diversity

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.1882	0.2519	1.5185	3.1200e-003	0.2997	2.6600e-003	0.3023	0.0801	2.4900e-003	0.0826	0.0000	288.0592	288.0592	0.0198	0.0169	293.5982
Unmitigated	0.2263	0.3629	2.1682	4.9900e-003	0.4883	4.1100e-003	0.4924	0.1306	3.8600e-003	0.1344	0.0000	461.0464	461.0464	0.0257	0.0244	468.9537

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	453.84	504.68	389.36	1,309,499	803,684
Total	453.84	504.68	389.36	1,309,499	803,684

4.3 Trip Type Information

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

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.80	7.30	7.50	45.60	19.00	35.40	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	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	23.4736	23.4736	3.8000e-003	4.6000e-004	23.7057
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	23.4736	23.4736	3.8000e-003	4.6000e-004	23.7057
NaturalGas Mitigated	3.9000e-003	0.0333	0.0142	2.1000e-004		2.6900e-003	2.6900e-003		2.6900e-003	2.6900e-003	0.0000	38.5658	38.5658	7.4000e-004	7.1000e-004	38.7949
NaturalGas Unmitigated	3.9000e-003	0.0333	0.0142	2.1000e-004		2.6900e-003	2.6900e-003		2.6900e-003	2.6900e-003	0.0000	38.5658	38.5658	7.4000e-004	7.1000e-004	38.7949

Yosemite Avenue Apartments - San Joaquin County, Annual

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	722695	3.9000e-003	0.0333	0.0142	2.1000e-004		2.6900e-003	2.6900e-003		2.6900e-003	2.6900e-003	0.0000	38.5658	38.5658	7.4000e-004	7.1000e-004	38.7949
Total		**3.9000e-003**	**0.0333**	**0.0142**	**2.1000e-004**		**2.6900e-003**	**2.6900e-003**		**2.6900e-003**	**2.6900e-003**	**0.0000**	**38.5658**	**38.5658**	**7.4000e-004**	**7.1000e-004**	**38.7949**

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					
Apartments Low Rise	722695	3.9000e-003	0.0333	0.0142	2.1000e-004		2.6900e-003	2.6900e-003		2.6900e-003	2.6900e-003	0.0000	38.5658	38.5658	7.4000e-004	7.1000e-004	38.7949
Total		**3.9000e-003**	**0.0333**	**0.0142**	**2.1000e-004**		**2.6900e-003**	**2.6900e-003**		**2.6900e-003**	**2.6900e-003**	**0.0000**	**38.5658**	**38.5658**	**7.4000e-004**	**7.1000e-004**	**38.7949**

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

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	253703	23.4736	3.8000e-003	4.6000e-004	23.7057
Total		**23.4736**	**3.8000e-003**	**4.6000e-004**	**23.7057**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	253703	23.4736	3.8000e-003	4.6000e-004	23.7057
Total		**23.4736**	**3.8000e-003**	**4.6000e-004**	**23.7057**

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	0.2544	5.3100e-003	0.4605	2.0000e-005		2.5500e-003	2.5500e-003		2.5500e-003	2.5500e-003	0.0000	0.7520	0.7520	7.2000e-004	0.0000	0.7701
Unmitigated	0.2544	5.3100e-003	0.4605	2.0000e-005		2.5500e-003	2.5500e-003		2.5500e-003	2.5500e-003	0.0000	0.7520	0.7520	7.2000e-004	0.0000	0.7701

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	0.0178					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2227					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0139	5.3100e-003	0.4605	2.0000e-005		2.5500e-003	2.5500e-003		2.5500e-003	2.5500e-003	0.0000	0.7520	0.7520	7.2000e-004	0.0000	0.7701
Total	**0.2544**	**5.3100e-003**	**0.4605**	**2.0000e-005**		**2.5500e-003**	**2.5500e-003**		**2.5500e-003**	**2.5500e-003**	**0.0000**	**0.7520**	**0.7520**	**7.2000e-004**	**0.0000**	**0.7701**

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0178					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2227					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0139	5.3100e-003	0.4605	2.0000e-005		2.5500e-003	2.5500e-003		2.5500e-003	2.5500e-003	0.0000	0.7520	0.7520	7.2000e-004	0.0000	0.7701
Total	**0.2544**	**5.3100e-003**	**0.4605**	**2.0000e-005**		**2.5500e-003**	**2.5500e-003**		**2.5500e-003**	**2.5500e-003**	**0.0000**	**0.7520**	**0.7520**	**7.2000e-004**	**0.0000**	**0.7701**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	3.3029	0.1057	2.5300e-003	6.6990
Unmitigated	4.1286	0.1321	3.1600e-003	8.3737

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	4.03955 / 2.54667	4.1286	0.1321	3.1600e-003	8.3737
Total		**4.1286**	**0.1321**	**3.1600e-003**	**8.3737**

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

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	3.23164 / 2.03734	3.3029	0.1057	2.5300e-003	6.6990
Total		**3.3029**	**0.1057**	**2.5300e-003**	**6.6990**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1.4473	0.0855	0.0000	3.5857
Unmitigated	5.7893	0.3421	0.0000	14.3428

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

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	28.52	5.7893	0.3421	0.0000	14.3428
Total		**5.7893**	**0.3421**	**0.0000**	**14.3428**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	7.13	1.4473	0.0855	0.0000	3.5857
Total		**1.4473**	**0.0855**	**0.0000**	**3.5857**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/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

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 B
BIOLOGICAL RESOURCE MATERIALS

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.

NOT FOR CONSULTATION

Location

San Joaquin County, California

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.

---

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:

NOT FOR CONSULTATION

Reptiles

NAME	STATUS
Giant Garter Snake Thamnophis gigas Wherever found No critical habitat has been designated for this species. http://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. http://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. http://ecos.fws.gov/ecp/species/2076	Threatened

Fishes

NAME	STATUS
Delta Smelt Hypomesus transpacificus Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. http://ecos.fws.gov/ecp/species/321	Threatened

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. http://ecos.fws.gov/ecp/species/9743	Candidate

NOT FOR CONSULTATION

NAME	STATUS
Valley Elderberry Longhorn Beetle Desmocerus californicus dimorphus Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. http://ecos.fws.gov/ecp/species/7850	Threatened

Crustaceans

NAME	STATUS
Vernal Pool Fairy Shrimp Branchinecta lynchi Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. http://ecos.fws.gov/ecp/species/498	Threatened
Vernal Pool Tadpole Shrimp Lepidurus packardi Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. http://ecos.fws.gov/ecp/species/2246	Endangered

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.

NOT FOR CONSULTATION

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
- 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.

NOT FOR CONSULTATION

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 http://ecos.fws.gov/ecp/species/2084	Breeds May 20 to Jul 31

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
http://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.
http://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.
http://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.
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

NOT FOR CONSULTATION

presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

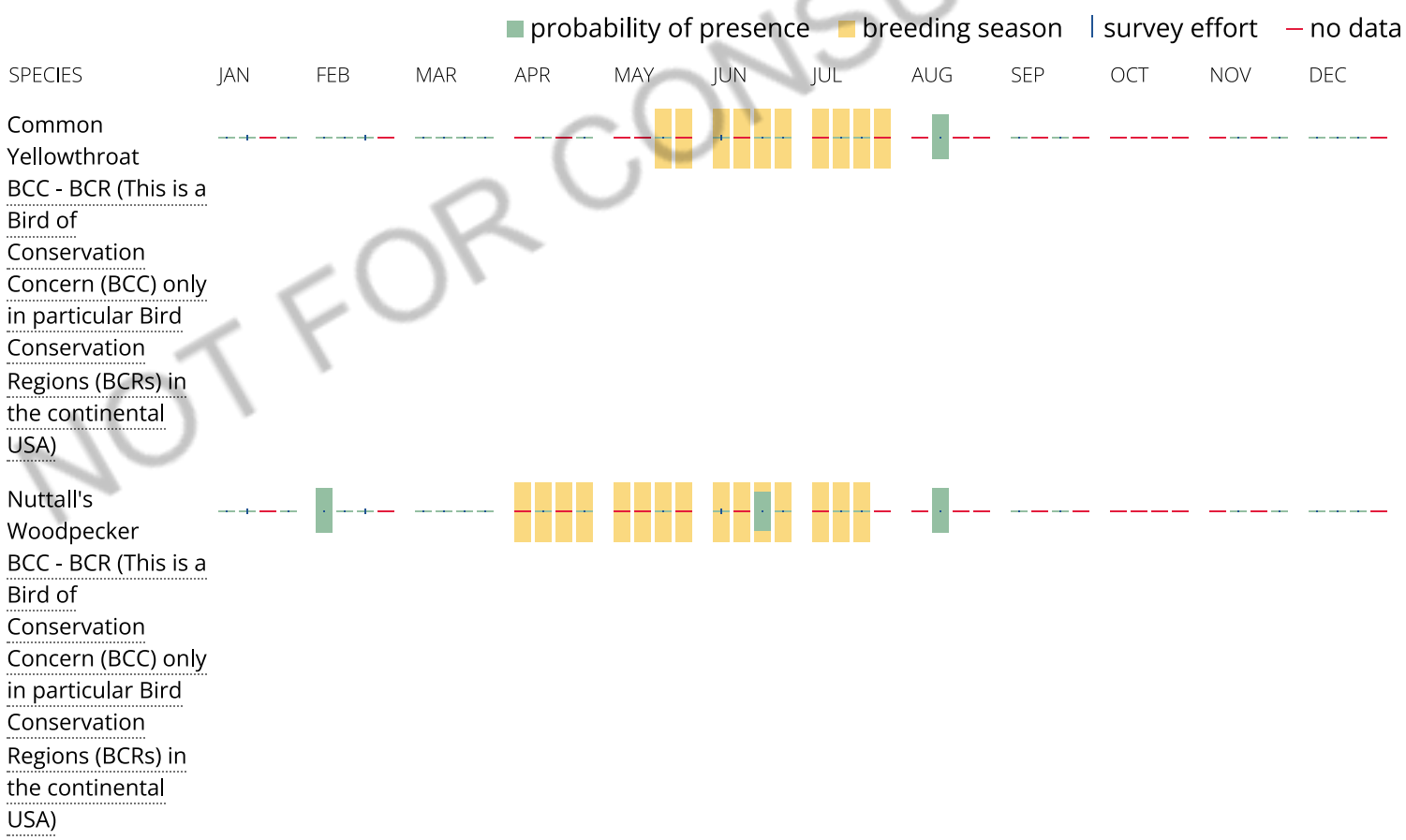
Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

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.

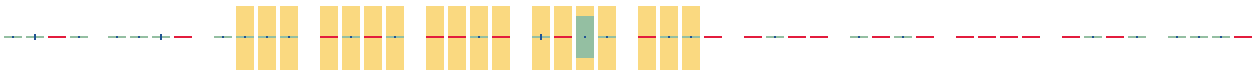
No Data (–)
A week is marked as having no data if there were no survey events for that week.

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.

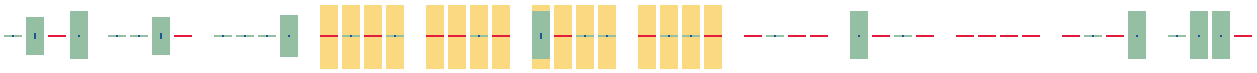


NOT FOR CONSULTATION

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.)



NOT FOR CONSULTATION

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 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?

NOT FOR CONSULTATION

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.

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.

NOT FOR CONSULTATION

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER EMERGENT WETLAND

PEM1C

A full description for each wetland code can be found at the National Wetlands Inventory website

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.

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.

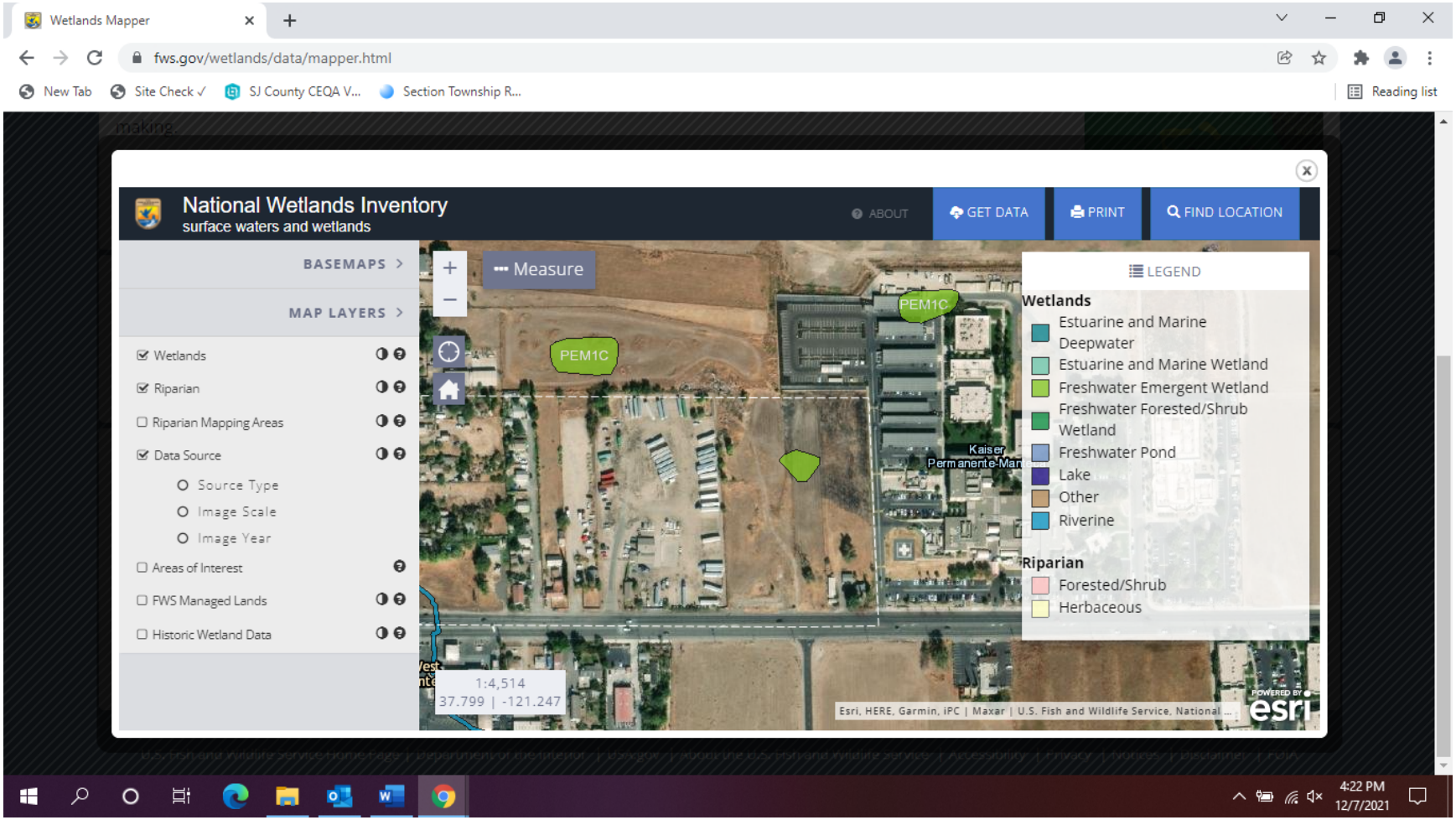
NOT FOR CONSULTATION

Element_Typ	Scientific_Na	Common_Na	Element_Coc	Federal_Stat	State_Status	CDFW_Statu
Animals - Bir	Buteo swain	Swainson's h	ABNKC1907C	None	Threatened	-
Animals - Bir	Ardea alba	great egret	ABNGA0404(	None	None	-
Animals - Bir	Agelaius tric	tricolored bla	ABPBXB002C	None	Threatened	SSC
Animals - Ins	Bombus occi	western bum	IIHYM24250	None	None	-
Animals - Ins	Lytta moesta	moestan blis	IICOL4C020	None	None	-
Animals - Ma	Sylvilagus ba	riparian brus	AMAEB0102	Endangered	Endangered	-

CA_Rare_Pla	Quad_Code	Quad_Name	Data_Status	Taxonomic_Sort
-	3712172	MANTECA	Mapped and	Animals - Birds - Accipitridae - Buteo sv
-	3712172	MANTECA	Unprocessed	Animals - Birds - Ardeidae - Ardea alba
-	3712172	MANTECA	Mapped	Animals - Birds - Icteridae - Agelaius tri
-	3712172	MANTECA	Mapped	Animals - Insects - Apidae - Bombus oc
-	3712172	MANTECA	Mapped	Animals - Insects - Meloidae - Lytta mo
-	3712172	MANTECA	Unprocessed	Animals - Mammals - Leporidae - Sylvil

*w*ainsoni

color
cidentalis
esta
agus bachmani riparius


Wetlands Mapper
fws.gov/wetlands/data/mapper.html
New Tab
Site Check ✓
SJ County CEQA V...
Section Township R...
Reading list
National Wetlands Inventory
surface waters and wetlands
ABOUT
GET DATA
PRINT
FIND LOCATION
BASEMAPS
MAP LAYERS
Wetlands
Riparian
Riparian Mapping Areas
Data Source
Source Type
Image Scale
Image Year
Areas of Interest
FWS Managed Lands
Historic Wetland Data
Measure
PEM1C
PEM1C
LEGEND
Wetlands
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Freshwater Emergent Wetland
Freshwater Forested/Shrub Wetland
Freshwater Pond
Lake
Other
Riverine
Riparian
Forested/Shrub
Herbaceous
1:4,514
37.799 | -121.247
Esri, HERE, Garmin, iPC | Maxar | U.S. Fish and Wildlife Service, National ...
POWERED BY esri
4:22 PM
12/7/2021

APPENDIX C
CENTRAL CALIFORNIA INFORMATION CENTER REPORT

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: 10/26/2021

Records Search File #: 11955L
Project: Yosemite Apartments, APN 200-140-020, 1919 W. Yosemite Ave., Manteca, CA

Rayanna Beck
BaseCamp Environmental, Inc.
802 W. Lodi Ave.
Lodi, CA 95240
209-224-8213 rbeck@basecampenv.com

Dear Ms. Beck:

We have conducted a non-confidential extended records search as per your request for the above-referenced project area located on the Manteca USGS 7.5-minute quadrangle map in San Joaquin County.

Search of our files includes review of our maps for the specific project area and the immediate vicinity of the project area, and review of the following:

National Register of Historic Places (NRHP)
California Register of Historical Resources (CRHR)
California Inventory of Historic Resources (1976)
California Historical Landmarks
California Points of Historical Interest listing
Office of Historic Preservation Built Environment Resource Directory (BERD) and the Archaeological Determinations of Eligibility (ADOE)
Survey of Surveys (1989)
Caltrans State and Local Bridges Inventory
General Land Office Plats
Other pertinent historic data available at the CCaIC for each specific county

The following details the results of the records search:

Prehistoric or historic resources within the project area:

- There are no formally reported prehistoric or historic archaeological resources or historic buildings or structures within the project area.

- In CCaIC Report SJ-05840 (Busby 2004:8, referenced below), the project area within APN 200-140-020 at 1919 W. Yosemite Avenue contains “Leo’s Bar (early 1950s, may

be earlier) + outbuildings". There is no formal record or any other reference for this possible historical resource on file at the Information Center.

- The General Land Office Survey Plat for T1S R7E (dated 1855) shows the SW ¼ of Section 31 divided into three separate parcels.

- The Map of the County of San Joaquin (1883) references the historic landowner in the SW ¼ of Section 31 as Michael Joyce.

- The 1914 edition of the Manteca USGS quadrangle shows Yosemite Avenue as an established street.

- The 1952 edition of the Manteca USUS Quadrangle shows several buildings on the north side of Yosemite Avenue in the SW ¼ of Section 31, T1s R7E, that would be 69 years in age (or older) and considered as possible historical resources.

Prehistoric or historic resources within the immediate vicinity of the project area: None have been formally reported to the Information Center.

Resources that are known to have value to local cultural groups: None has been formally reported to the Information Center.

Previous investigations within the project area: The subject project area is within two archival research project areas. The two referenced documents are as follows:

Windmiller, Ric and Donald Napoli (Ric Windmiller, Consulting Archaeologist (and) Donald Napoli, of Historic Preservation Planning; for Wade Associates, Sacramento, CA)
2002 *City of Manteca--General Plan Update, Background Reports: Archaeological Resources, Historical Resources, Records Search Results.*
CCaIC Report SJ-04786

Busby, C. (Basin Research Associates)
2004 *Letter Report: Archaeological Resources--Manteca Properties (9-Parcel Project Area).*
CCaIC Report SJ-05840

The "Management Recommendations" provided by Busby (2004:10-11) in reference to the project area at 1919 W. Yosemite Avenue are as follows:

> This report represents the results of a literature/archive search and a broad field reconnaissance of the properties. The following recommendations are suggested to complete future environmental compliance requirements:

1. Complete a systematic archaeological inventory of the properties. This would involve access to all properties and s systematic surface inspection of all exposed native soil to determine the presence/absence of significant prehistoric and historic cultural materials.
2. Undertake a systematic review of the built environment by a qualified architectural historian to determine the presence/absence of properties with buildings over 45-50 years old. This would involve the identification and evaluation of all buildings and structures 45-50 years in age on a parcel by parcel basis.
3. Prepare a *Historic Properties Survey Report* detailing the results of the literature search and the archaeological and architectural filed inventories. Consider the effect of the proposed project on any properties eligible for the California Register of Historical Resources and develop appropriate mitigation measures to reduce impacts to a less-than-significant effect.

Recommendations/Comments:

Please be advised that a historical resource is defined as a building, structure, object, prehistoric or historic archaeological site, or district possessing physical evidence of human activities over 45 years old. Since the project area has not been subject to direct field investigations, there may be unidentified features involved in your project that are 45 years or older and considered as historical resources requiring further study and evaluation by a qualified professional of the appropriate discipline, as recommended by Busby (2004:10-11, referenced above).

If the current project does not include ground disturbance, further study for archaeological resources is not recommended at this time. If ground disturbance is considered a part of the current project, we recommend further review for the possibility of identifying prehistoric or historic-era archaeological resources.

If the proposed project contains buildings or structures that meet the minimum age requirement (45 years in age or older) it is recommended that the resource/s be assessed by a professional familiar with architecture and history of the county. Review of the available historic building/structure data has included only those sources listed above and should not be considered comprehensive.

If at any time you might require the services of a qualified professional the Statewide Referral List for Historical Resources Consultants is posted for your use on the internet at http://chrisinfo.org

If archaeological resources are encountered during project-related activities**,** work should be temporarily halted in the vicinity of the discovered materials and workers should avoid altering the materials and their context until a qualified professional archaeologist has evaluated the situation and provided appropriate recommendations. Project personnel should not collect cultural resources.

If human remains are discovered, California Health and Safety Code Section 7050.5 requires you to protect the discovery and notify the county coroner, who will determine if the find is Native American. If the remains are recognized as Native American, the coroner shall then notify the Native American Heritage Commission (NAHC). California Public Resources Code Section 5097.98 authorizes the NAHC to appoint a Most Likely Descendant (MLD) who will make recommendations for the treatment of the discovery.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the State 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.

The California Office of Historic Preservation (OHP) contracts with the California Historical Resources Information System's (CHRIS) regional Information Centers (ICs) to maintain information in the CHRIS inventory and make it available to local, state, and federal agencies, cultural resource professionals, Native American tribes, researchers, and the public. Recommendations made by IC coordinators or their staff regarding the interpretation and application of this information are advisory only. Such recommendations do not necessarily represent the evaluation or opinion of the State Historic Preservation Officer in carrying out the OHP's regulatory authority under federal and state law.

We thank you for contacting this office regarding historical resource preservation. Please let us know when we can be of further service. Thank you for sending the signed **Access Agreement Short Form. Note:** The necessary legal location information has been corrected on the form submitted.

Note: Billing will be transmitted separately via email from the Financial Services office ($225.00), 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

APPENDIX D
NOISE MATERIALS

Environmental Noise Assessment

W. Yosemite Ave Apartments

City of Manteca, California

May 3, 2022

Project #220104

Prepared for:

BaseCamp Environmental, Inc.
802 West Lodi Ave
Lodi, California 95240

Prepared by:

Saxelby Acoustics LLC

Luke Saxelby, INCE Bd. Cert.
Principal Consultant
Board Certified, Institute of Noise Control Engineering (INCE)

(916) 760-8821
www.SaxNoise.com | Luke@SaxNoise.com
915 Highland Pointe Drive, Suite 250
Roseville, CA 95678

Table of Contents

INTRODUCTION **3**

ENVIRONMENTAL SETTING **3**

BACKGROUND INFORMATION ON NOISE *3*

EXISTING AMBIENT NOISE LEVELS **8**

REGULATORY CONTEXT **9**

FEDERAL *9*

STATE *9*

LOCAL *9*

EVALUATION OF TRANSPORTATION NOISE ON PROJECT SITE **18**

EXTERIOR NOISE *18*

INTERIOR NOISE *20*

EVALUATION OF STATIONARY NOISE ENVIRONMENT ON THE PROJECT SITE **22**

CONCLUSION **24**

REFERENCES **25**

Appendices

Appendix A: Acoustical Terminology
Appendix B: Noise Measurement Results
Appendix C: Interior Noise Reduction Calculations

List of Figures

Figure 1: Site Plan 4
Figure 2: Noise Measurement Locations 5
Figure 3: Future Transportation Noise Contours, L_{dn} 19
Figure 4: Interior Noise Control Measures 21
Figure 5: Werner Enterprises Drop Yard Noise Contours 23

List of Tables

Table 1: Typical Noise Levels 6
Table 2: Summary of Existing Background Noise Measurement Data 8
Table 3: Maximum Allowable Noise Exposure Mobile Noise Sources (General Plan) 10
Table 4: Performance Standards for Stationary Noise Sources (General Plan)[1,2] 10
Table 5: Maximum Allowable Noise Exposure From Mobile Noise Sources (General Plan Update) 16
Table 6: Performance Standards for Stationary Noise Sources (General Plan Update) 17

INTRODUCTION

The W. Yosemite Avenue Apartments project consists of the development of four multi-family residential buildings. The project is located along West Yosemite Avenue and east of South Airport Way. The project shares its western project boundary with a commercial truck yard.

Figure 1 shows the project site plan. **Figure 2** shows the noise measurement locations and an aerial view of the project site.

ENVIRONMENTAL SETTING

BACKGROUND INFORMATION ON NOISE

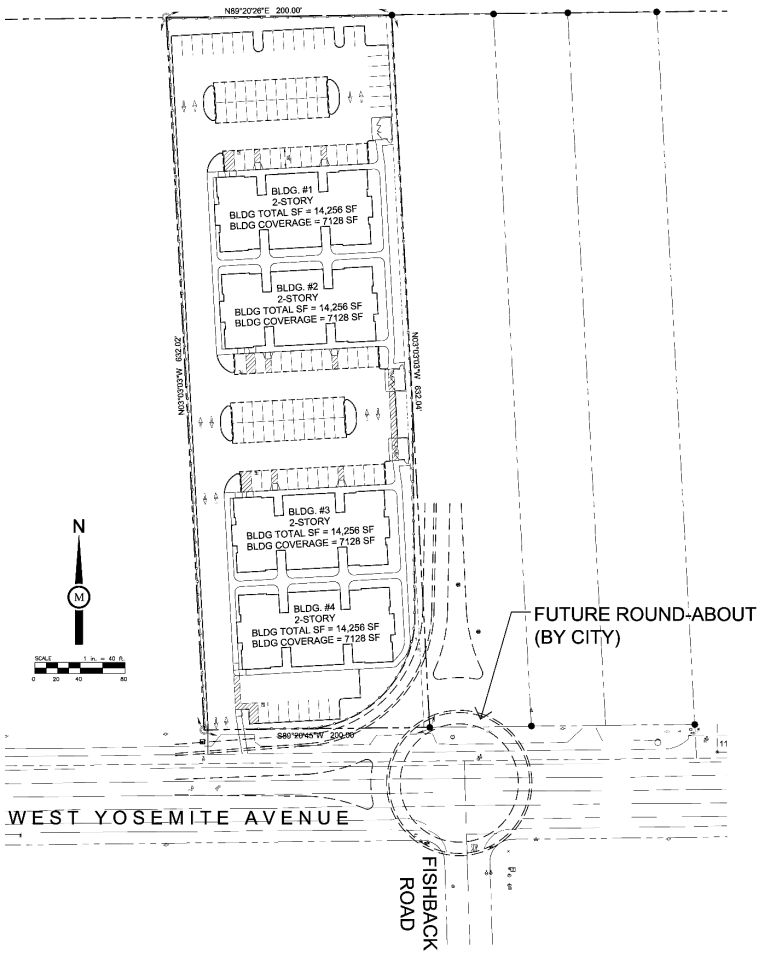
Fundamentals of Acoustics

Acoustics is the science of sound. Sound may be thought of as mechanical energy of a vibrating object transmitted by pressure waves through a medium to human (or animal) ears. If the pressure variations occur frequently enough (at least 20 times per second), then they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound and is expressed as cycles per second or Hertz (Hz).

Noise is a subjective reaction to different types of sounds. Noise is typically defined as (airborne) sound that is loud, unpleasant, unexpected or undesired, and may therefore be classified as a more specific group of sounds. Perceptions of sound and noise are highly subjective from person to person.

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals), as a point of reference, defined as 0 dB. Other sound pressures are then compared to this reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels (dB) correspond closely to human perception of relative loudness.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by A-weighted sound levels. There is a strong correlation between A-weighted sound levels (expressed as dBA) and the way the human ear perceives sound. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment.



LEGAL DESCRIPTION

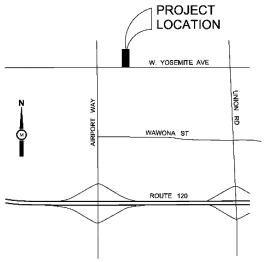
REAL PROPERTY IN THE CITY OF MANTECA, COUNTY OF SAN JOAQUIN, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

A PORTION OF LOTS 17 AND 18 OF ROOS TRACT, ACCORDING TO THE OFFICIAL MAP OR PLAT THEREOF FILED FOR RECORD AUGUST 2, 1911 IN VOL. 5 OF MAPS AND PLATS, PAGE 37.

LOT DATA:

A.P.N.:	200-140-020
TOTAL ACREAGE:	126,324 SF (2.90 AC)
BUILDING AREA:	
APARTMENTS	±57,024 SF (1.31 AC)
BUILDING COVERAGE:	
APARTMENTS	±28,512 SF (0.65 AC)
LANDSCAPE COVERAGE:	±25,265 SF (0.58 AC)
PAVEMENT COVERAGE:	±72,547 SF (1.67 AC)
EXISTING PARCELS:	1
PROPOSED PARCELS:	1
GENERAL PLAN:	COMMERCIAL USE
EXISTING ZONE:	CMU - MIXED USE COMMERCIAL
PROPOSED ZONE:	SAME
EXISTING USE:	VACANT
PROPOSED USE:	MULTI-FAMILY APARTMENTS

CITY OF MANTECA



VICINITY MAP

NOT TO SCALE

APPLICANT

MIKE SINGH
3936 CASTELLINA WAY
MANTECA, CA 95337
PHONE: (916) 896-8999

DESIGN FIRM

MILESTONE ASSOCIATES
CONTACT: JULIO TINAJERO
1000 LINCOLN ROAD, STE. H202
YUBA CITY, CA 95991
PHONE: (530) 755-4700

SHEET INDEX

1	COVER SHEET / PROJECT DATA
2	SITE PLAN / UTILITY PLAN
3	GRADING / DRAINAGE PLAN
4	FIRE LANE PLAN
5	PHOTO MAP
6	PHOTOMETRIC PLAN
7	LANDSCAPE PLAN
8	LANDSCAPE PLAN FLOOR PLAN -
9	MODEL A FLOOR PLANS
10	MODEL A ELEVATIONS
11	MODEL A SECTIONS
12	MODEL B FLOOR PLANS
13	MODEL B ELEVATIONS
14	MODEL B - SECTIONS
15	CLUB HOUSE FLOOR PLAN
16	CLUB HOUSE ELEVATIONS
17	TRASH ENCLOSURE

BUILDING / UNIT DATA:

	1 BDRM	2 BDRM	# OF UNITS/BLDG	# OF BLDGS	STORIES	BLDG AREA	BLDG AREA TOTAL
BUILDING 1	4	4	16	1	2	7,128 SF	14,256 SF
BUILDING 2	4	4	16	1	2	7,128 SF	14,256 SF
BUILDING 3	4	4	16	1	2	7,128 SF	14,256 SF
BUILDING 4	4	4*	16	1	2	7,128 SF	14,256 SF
			TOTAL UNITS				
UNIT TYPE TOTAL	32	30	62			28,512 SF	±57,024 SF

* LESS 2 UNITS USED FOR OFFICE / CLUBHOUSE

PARKING DATA

PARKING REQUIRED:	
TOTAL NUMBER OF 1-BDRM UNITS (32) 0.5 SPACE PER UNIT =	16
TOTAL NUMBER OF 2-BDRM UNITS (30) 1 SPACE PER UNIT =	30
1 COVERED SPACE PER UNIT =	62
ACCESSIBLE SPACES (COVERED SPACES)	(3)
TOTAL PARKING REQUIRED:	108

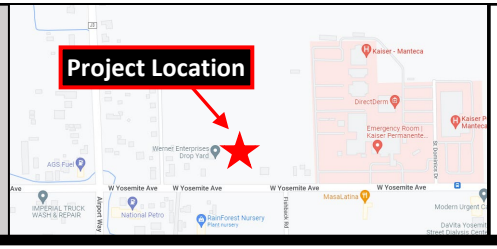
PARKING PROVIDED:	
STANDARD SPACE	50
COVERED SPACE	62
VAN ACCESSIBLE SPACE (3 COVERED)	(4)
TOTAL PARKING PROVIDED:	112

W. Yosemite Ave. Apartments

City of Manteca, California

Figure 1

Project Site Plan



SAXELBY ACOUSTICS
Acoustics · Noise · Vibration

W. Yosemite Ave. Apartments

City of Manteca, California

Figure 2

Noise Measurement Sites

Legend

- Project Site
- Noise Measurement - Long Term

25 ft 75 ft 125 ft 175 ft

Projection: UTM Zone 10 / WGS84 / meters
Rev. Date: 02/24/2022

SAXELBY ACOUSTICS
Acoustics · Noise · Vibration

The decibel scale is logarithmic, not linear. In other words, two sound levels 10-dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic decibel is A-weighted, an increase of 10-dBA is generally perceived as a doubling in loudness. For example, a 70-dBA sound is half as loud as an 80-dBA sound, and twice as loud as a 60 dBA sound.

Community noise is commonly described in terms of the ambient noise level, which is defined as the all-encompassing noise level associated with a given environment. A common statistical tool is the average, or equivalent, sound level (L_{eq}), which corresponds to a steady-state A weighted sound level containing the same total energy as a time varying signal over a given time period (usually one hour). The L_{eq} is the foundation of the composite noise descriptor, L_{dn}, and shows very good correlation with community response to noise.

The day/night average level (DNL or L_{dn}) is based upon the average noise level over a 24-hour day, with a +10-decibel weighing applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because L_{dn} represents a 24-hour average, it tends to disguise short-term variations in the noise environment.

Table 1 lists several examples of the noise levels associated with common situations. **Appendix A** provides a summary of acoustical terms used in this report.

TABLE 1: TYPICAL NOISE LEVELS

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	--110--	Rock Band
Jet Fly-over at 300 m (1,000 ft.)	--100--	
Gas Lawn Mower at 1 m (3 ft.)	--90--	
Diesel Truck at 15 m (50 ft.), at 80 km/hr. (50 mph)	--80--	Food Blender at 1 m (3 ft.) Garbage Disposal at 1 m (3 ft.)
Noisy Urban Area, Daytime Gas Lawn Mower, 30 m (100 ft.)	--70--	Vacuum Cleaner at 3 m (10 ft.)
Commercial Area Heavy Traffic at 90 m (300 ft.)	--60--	Normal Speech at 1 m (3 ft.)
Quiet Urban Daytime	--50--	Large Business Office Dishwasher in Next Room
Quiet Urban Nighttime	--40--	Theater, Large Conference Room (Background)
Quiet Suburban Nighttime	--30--	Library
Quiet Rural Nighttime	--20--	Bedroom at Night, Concert Hall (Background)
	--10--	Broadcast/Recording Studio
Lowest Threshold of Human Hearing	--0--	Lowest Threshold of Human Hearing

Source: Caltrans, Technical Noise Supplement, Traffic Noise Analysis Protocol. September, 2013.

Effects of Noise on People

The effects of noise on people can be placed in three categories:

- Subjective effects of annoyance, nuisance, and dissatisfaction
- Interference with activities such as speech, sleep, and learning
- Physiological effects such as hearing loss or sudden startling

Environmental noise typically produces effects in the first two categories. Workers in industrial plants can experience noise in the last category. There is no completely satisfactory way to measure the subjective effects of noise or the corresponding reactions of annoyance and dissatisfaction. A wide variation in individual thresholds of annoyance exists and different tolerances to noise tend to develop based on an individual's past experiences with noise.

Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted: the so-called ambient noise level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it.

With regard to increases in A-weighted noise level, the following relationships occur:

- Except in carefully controlled laboratory experiments, a change of 1-dBA cannot be perceived;
- Outside of the laboratory, a 3-dBA change is considered a just-perceivable difference;
- A change in level of at least 5-dBA is required before any noticeable change in human response would be expected; and
- A 10-dBA change is subjectively heard as approximately a doubling in loudness, and can cause an adverse response.

Stationary point sources of noise – including stationary mobile sources such as idling vehicles – attenuate (lessen) at a rate of approximately 6-dB per doubling of distance from the source, depending on environmental conditions (i.e. atmospheric conditions and either vegetative or manufactured noise barriers, etc.). Widely distributed noises, such as a large industrial facility spread over many acres, or a street with moving vehicles, would typically attenuate at a lower rate.

EXISTING AMBIENT NOISE LEVELS

To quantify the existing ambient noise environment in the project vicinity, Saxelby Acoustics conducted a continuous (24-hr.) noise level measurement at three locations on the project site. Noise measurement locations are shown on **Figure 2**. A summary of the noise level measurement survey results is provided in **Table 2**. **Appendix B** contains the complete results of the noise monitoring.

The sound level meters were programmed to record the maximum, median, and average noise levels at each site during the survey. The maximum value, denoted L_{max}, represents the highest noise level measured. The average value, denoted L_{eq}, represents the energy average of all of the noise received by the sound level meter microphone during the monitoring period. The median value, denoted L_{50}, represents the sound level exceeded 50 percent of the time during the monitoring period.

Larson Davis Laboratories (LDL) model 820 precision integrating sound level meters were used for the ambient noise level measurement survey. The meters were calibrated before and after use with a CAL200 acoustical calibrator to ensure the accuracy of the measurements. The equipment used meets all pertinent specifications of the American National Standards Institute for Type 1 sound level meters (ANSI S1.4).

TABLE 2: SUMMARY OF EXISTING BACKGROUND NOISE MEASUREMENT DATA

Location	Date	L_{dn}	Daytime L_{eq}	Daytime L_{50}	Daytime L_{max}	Nighttime L_{eq}	Nighttime L_{50}	Nighttime L_{max}
LT-1: 415 ft. to CL of Yosemite Ave.	1/12/22	59	55	54	70	53	50	77
LT-2: 335 ft. to CL of Yosemite Ave.	1/12/22	62	58	56	77	55	51	71
LT-3: 50 ft. to CL of Yosemite Ave.	1/12/22	75	73	70	88	67	57	83

Notes:

- *All values shown in dBA*
- *Daytime hours: 7:00 a.m. to 10:00 p.m.*
- *Nighttime Hours: 10:00 p.m. to 7:00 a.m.*
- *Source: Saxelby Acoustics 2022*

REGULATORY CONTEXT

FEDERAL

There are no federal regulations related to noise that apply to the Proposed Project.

STATE

There are no state regulations related to noise that apply to the Proposed Project.

LOCAL

City of Manteca General Plan

Exterior and interior noise standards for residential land uses are established within the City of Manteca General Plan Noise Element. Policies contained in the Noise Element applicable to the proposed project include:

The City of Manteca General Plan – Existing (2003) General Plan

The City of Manteca General Plan Noise Element contains goals, policies, and implementation measures for assessing noise impacts within the City. Listed below are the noise goals, policies, and implementation measures that are applicable to the proposed Project (City of Manteca as amended through 2016):

Goals: Noise

- N-1. Protect the residents of Manteca from the harmful and annoying effects of exposure to excessive noise.
- N-3. Ensure that the downtown core noise levels remain acceptable and compatible with commercial and higher density residential land uses.
- N-4. Protect public health and welfare by eliminating existing noise problems where feasible, by establishing standards for acceptable indoor and outdoor noise, and by preventing significant increases in noise levels.
- N-5. Incorporate noise considerations into land use planning decisions, and guide the location and design of transportation facilities to minimize the effects of noise on adjacent land uses.

Policies: 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 [**Table 3**].

TABLE 3: MAXIMUM ALLOWABLE NOISE EXPOSURE MOBILE NOISE SOURCES (GENERAL PLAN)

Land Use[4]	Outdoor Activity Areas[1]	Interior Spaces	
		Ldn/CNEL, dB	Leq/CNEL, dB[3]
Residential	60[2]	45	--
Transient Lodging	60[2]	45	--
Hospitals, Nursing Homes	60[2]	45	--
Theatres, Auditoriums, Music Halls	--	--	35
Churches, Music Halls	60[2]	--	40
Office Buildings	65	--	45
Schools, Libraries, Museums	--	--	45
Playgrounds, Neighborhood Parks	70	--	--

Notes: *[1] Outdoor activity areas for residential development are considered to be backyard patios or decks of single family dwellings, and the 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.*
[2] In areas where it is not possible to reduce exterior noise levels to 60 dB L_{dn} or below using a practical application of the best noise-reduction technology, an exterior noise level of up to 65 L_{dn} will be allowed.
[3] Determined for a typical worst-case hour during periods of use.
[4] 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.

Source: *City of Manteca General Plan, Noise Element, 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 [**Table 4**]. Noise mitigation may be required to meet Table 9-2 [**Table 4**] performance standards.

TABLE 4: PERFORMANCE STANDARDS FOR STATIONARY NOISE SOURCES (GENERAL PLAN)[1,2]

Noise Level Descriptor	Daytime (7 AM – 10 PM)	Nighttime (10 PM – 7 AM)
Hourly L_{eq}, dB	50	45
Maximum Level, dB	70	65

Notes: *[1] 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 are a primary source of noise complaints.*
[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.

Source: *City of Manteca General Plan, Noise Element, Table 9-2.*

- N-P-5. In accord with the Table 9-2 [**Table 4**] standards, the City shall regulate construction-related noise impacts on adjacent uses.

Implementation Measures: Noise

- 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-3. In making a determination of impact under the California Environmental Quality Act (CEQA), a substantial increase will occur if ambient noise levels are increased by 10 dB or more. An increase from 5-10 dB may be substantial. Factors to be considered in determining the significance of increases from 5-10 dB include:
    - the resulting noise levels
    - the duration and frequency of the noise
    - the number of people affected
    - the land use designation of the affected receptor sites
    - public reactions or controversy as demonstrated at workshops or hearings, or by correspondence
    - prior CEQA determinations by other agencies specific to the project
- N-I-4. 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.

The City of Manteca General Plan – Proposed General Plan Update

It is expected that the City's General Plan update may be adopted prior to the approval of the 320 Airport Way project. Therefore, the goals and policies of the proposed General Plan are also considered in this document. The City of Manteca General Plan Update noise goals, policies, and implementation measures are included below:

Goals

Goal S-5: Protect the quality of life by protecting the community from harmful and excessive noise.

Policies

S-5.1 Incorporate noise considerations into land use, transportation, and infrastructure planning decisions, and guide the location and design of noise-producing uses to minimize the effects of noise on adjacent noise-sensitive land uses, including residential uses and schools.

S-5.2 Ensure that Downtown noise levels remain acceptable and compatible with a pedestrian-oriented environment and higher density residential land uses.

S-5.3 Areas within Manteca exposed to existing or projected exterior noise levels from mobile noise sources exceeding the performance standards in Table S-1 (**Table 5**) shall be designated as noise-impacted areas.

S-5.4 Require residential and other noise-sensitive development projects to satisfy the noise level

criteria in Tables S-1 and S-2.

S-5.5 Require new stationary noise sources proposed adjacent to noise sensitive uses to be mitigated so as to not exceed the noise level performance standards in Table S-2 (**Table 6**), or a substantial increase in noise levels established through a detailed ambient noise survey.

S-5.6 Regulate construction-related noise to reduce impacts on adjacent uses to the criteria identified in Table S-2 (**Table 6**) or, if the criteria in Table S-2 (**Table 6**) cannot be met, to the maximum level feasible using best management practices and complying with the MMC Chapter 9.52.

S-5.7 Where the development of residential or other noise-sensitive land use is proposed for a noise-impacted area or where the development of a stationary noise source is proposed in the vicinity of noise-sensitive uses, 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 S-1 (**Table 5**) or Table S-2 (**Table 6**), 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.
- If necessary, describe a post-project assessment program to monitor the effectiveness of the proposed mitigation measures.

S-5.8 Apply noise level criteria applied to land uses other than residential or other noise-sensitive uses consistent with noise performance levels of Table S-1 (**Table 5**) and Table S-2 (**Table 6**).

S-5.9 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.

S-5.10 Ensure that new equipment and vehicles purchased by the City comply with noise level performance standards consistent with the best available noise reduction technology.

S-5.11 Require the Manteca Police Department to actively enforce requirements of the California Vehicle Code relating to vehicle mufflers and modified exhaust systems.

S-5.12 For new residential development backing on to a freeway or railroad right-of-way, the developer shall be required to provide appropriate mitigation measures to satisfy the performance standards in Table S-1 (**Table 5**).

S-5.13 It is recognized that the City and surrounding areas are considered to be urban in nature and rely upon both the industrial and agricultural economy of the area. Therefore, it is recognized that noise sources of existing uses may exceed generally accepted standards.

S-5.14 Carefully review and give potentially affected residents an opportunity to fully review any proposals for the establishment of helipads or heliports.

S-5.15 Recognizing that existing noise-sensitive uses may be exposed to increase noise levels due to circulation improvement projects associated with development under the General Plan and that it may not be feasible to reduce increased traffic noise levels to the criteria identified in Table S-1 (**Table 5**), the following criteria may be used to determine the significance of noise impacts associated with circulation improvement projects:

- Where existing traffic noise levels are less than 60 dB Ldn at the outdoor activity areas of noise-sensitive uses, a +5 dB Ldn increase in noise levels due to roadway improvement projects will be considered significant; and
- Where existing traffic noise levels range between 60 and 65 dB Ldn at the outdoor activity areas of noise-sensitive uses, a +3 dB Ldn increase in noise levels due to roadway improvement projects will be considered significant; and
- Where existing traffic noise levels are greater than 65 dB Ldn at the outdoor activity areas of noise-sensitive uses, a + 1.5 dB Ldn increase in noise levels due to roadway improvement projects will be considered significant.

S-5.16 Work with the Federal Railroad Administration and passenger and freight rail operators to reduce exposure to rail and train noise, including establishing train horn "quiet zones" consistent with the federal regulations.

Implementation

S-5a Require an acoustical analysis that complies with the requirements of S-5.7 where:

- *Noise sensitive land uses are proposed in areas exposed to existing or projected noise levels exceeding the levels specified in Table S-1 (**Table 5**) or S-2 (**Table 6**).*
- *Proposed transportation projects are likely to produce noise levels exceeding the levels specified in Table S-1 (**Table 5**) or S-2 (**Table 6)** at existing or planned noise sensitive uses.*

S-5b Assist in enforcing compliance with noise emissions standards for all types of vehicles, established by the California Vehicle Code and by federal regulations, through coordination with the Manteca Police Department and the California Highway Patrol.

S-5c Update the City's Noise Ordinance (Chapter 9.52) to reflect the noise standards established in

this Noise Element and proactively enforce the City's Noise Ordinance, including requiring the following measures for construction:

- *Restrict construction activities to the hours of 7:00 a.m. to 7:00 p.m. on Monday through Friday, and 8:00 a.m. to 6:00 p.m. on Saturdays. No construction shall be permitted outside of these hours or on Sundays or federal holidays, without a specific exemption issued by the City.*
- *A Construction Noise Management Plan shall be submitted by the applicant for construction projects, when determined necessary by the City. The Construction Noise Management Plan shall include proper posting of construction schedules, appointment of a noise disturbance coordinator, and methods for assisting in noise reduction measures.*
- *Noise reduction measures may include, but are not limited to, the following:*
    a. *Equipment and trucks used for project construction shall utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically attenuating shields or shrouds) wherever feasible.*
    b. *Except as provided herein, impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used. This muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used, if such jackets are commercially available. this could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever such procedures are available and consistent with construction procedures.*
    c. *Temporary power poles shall be used instead of generators where feasible.*
    d. *Stationary noise sources shall be located as far from adjacent properties as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or use other measures as determined by the City of provide equivalent noise reduction.*
    e. *The noisiest phases of construction shall be limited to less than 10 days at a time. Exceptions may be allowed if the City determines an extension is necessary and all available noise reduction controls are implemented.*
    f. *Delivery of materials shall observe the hours of operation described above.*
    g. *Truck traffic should avoid residential areas to the extent possible.*

S-5d *In making a determination of impact under the California Environmental Quality Act (CEQA), a substantial increase will occur if ambient noise levels are have a substantial increase. Generally, a 3 dB increase in noise levels is barely perceptible, and a 5 dB increase in noise levels is clearly perceptible. Therefore, increases in noise levels shall be considered to be substantial when the following occurs:*

- *When existing noise levels are less than 60 dB, a 5 dB increase in noise will be considered substantial;*
- *When existing noise levels are between 60 dB and 65 dB, a 3 dB increase in noise will be considered substantial;*
- *When existing noise levels exceed 65 dB, a 1.5 dB increase in noise will be considered substantial.*

Additional or alternative criteria can be used for determining a substantial increase in noise levels. For instance, if the overall increase in noise levels occurs where no noise-sensitive uses are located, then the City may use their discretion in determining if there is any impact at all. In such a case, the following alternative factors may be used for determining a substantial increase in noise levels:

- *the resulting noise levels;*
- *the duration and frequency of the noise;*
- *the number of people affected;*
- *conforming or non-conforming land uses;*
- *the land use designation of the affected receptor sites;*
- *public reactions or controversy as demonstrated at workshops or hearings, or by correspondence; and*
- *prior CEQA determinations by other agencies specific to the project.*

S-5e *Control noise at the source through use of insulation, berms, building design and orientation, buffer space, staggered operating hours, and similar techniques. Where such techniques would not meet acceptable levels, use noise barriers to attenuate noise associated with new noise sources to acceptable levels.*

S-5f *Require that all noise-attenuating features are designed to be attractive and to minimize maintenance.*

S-5g *Evaluate new transportation projects, such as truck routes, rail or public transit routes, and transit stations, using the standards contained in Table S-1 (**Table 5**). However, noise from these projects may be allowed to exceed the standards contained in Table S-1 (**Table 5**), if the City Council finds that there are special overriding circumstances.*

S-5h *Work with the Federal Rail Authority and passenger and freight rail service providers to establish a Quiet Zone at at-grade crossings in the City. Where new development would be affected by the train and rail noise, require project applicants to fund a fair-share of: a) studies associated with the application for a Quiet Zone, and b) alternative safety measures associated with the Quiet Zone (including, but not limited to signage, gates, lights, etc.).*

S-5i *Work in cooperation with Caltrans, the Union Pacific Railroad, San Joaquin Regional Rail*

*Commission, and other agencies where appropriate to maintain noise level standards for both new and existing projects in compliance with Table S-1 (**Table 5**).*

S-5j The City shall require new residential projects located adjacent to major freeways, truck routes, hard rail lines, or light rail lines to follow the FTA screening distance criteria to ensure that groundborne vibrations to do not exceed acceptable levels.

TABLE 5: MAXIMUM ALLOWABLE NOISE EXPOSURE FROM MOBILE NOISE SOURCES (GENERAL PLAN UPDATE)

Land Use[1]	Outdoor Activity Areas[2,3]	Interior Spaces	
		Ldn/ CNEL, dBA	Leq, dBA[4]
Residential	60	45	-
Motels/Hotels	65	45	-
Mixed-Use	65	45	
Hospitals, Nursing Homes	60	45	-
Theaters, Auditoriums	-	-	35
Churches	60	-	40
Office Buildings	65	-	45
Schools, Libraries, Museums	70	-	45
Playgrounds, Neighborhood Parks	70	-	-
Industrial	75	-	45
Golf Courses, Water Recreation	70	-	-

[1]Where a proposed use is not specifically listed, the use shall comply with the standards for the most similar use as determined by the City.
[2]Outdoor activity areas for residential development are considered to be the back yard patios or decks of single family units and the common areas where people generally congregate for multi-family developments. Where common outdoor activity areas for multi-family developments comply with the outdoor noise level standard, the standard will not be applied at patios or decks of individual units provided noise-reducing measures are incorporated (e.g., orientation of patio/deck, screening of patio with masonry or other noise-attenuating material). Outdoor activity areas for non-residential developments are the common areas where people generally congregate, including pedestrian plazas, seating areas, and outside lunch facilities; not all residential developments include outdoor activity areas.
[3]In areas where it is not possible to reduce exterior noise levels to achieve the outdoor activity area standard w using a practical application of the best noise-reduction technology, an increase of up to 5 Ldn over the standard will be allowed provided that available exterior noise reduction measures have been implemented and interior noise levels are in compliance with this table
[4]Determined for a typical worst-case hour during periods of use.

TABLE 6: PERFORMANCE STANDARDS FOR STATIONARY NOISE SOURCES (GENERAL PLAN UPDATE)

Noise Level Descriptor	Daytime	Nighttime
	7 am to 10 pm	10 pm to 7 am
Hourly Leq, dBA	55	45

[1]Each of the noise levels specified above should be lowered by 5 dB for simple noise tones, noises consisting primarily of speech or music, or recurring impulsive noises. Such noises are generally considered to be particularly annoying and are a primary source of noise complaints.

[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.

[3]Stationary noise sources which are typically of concern include, but are not limited to, the following:

HVAC Systems	*Cooling Towers/Evaporative Condensers*
Pump Stations	*Lift Stations*
Emergency Generators	*Boilers*
Steam Valves	*Steam Turbines*
Generators	*Fans*
Air Compressors	*Heavy Equipment*
Conveyor Systems	*Transformers*
Pile Drivers	*Grinders*
Drill Rigs	*Gas or Diesel Motors*
Welders	*Cutting Equipment*
Outdoor Speakers	*Blowers*

[4]The types of uses which may typically produce the noise sources described above include but are not limited to: industrial facilities, pump stations, trucking operations, tire shops, auto maintenance shops, metal fabricating shops, shopping centers, drive-up windows, car washes, loading docks, public works projects, batch plants, bottling and canning plants, recycling centers, electric generating stations, race tracks, landfills, sand and gravel operations, and athletic fields.

City of Manteca Municipal Code Noise Ordinance

Section 9.52.030 of the City of Manteca Municipal Code prohibits excessive or annoying noise or vibration to residential and commercial properties in the City. The following general rules are outline in the ordinance:

9.52.030 Prohibited noises—General standard

No person shall make, or cause to suffer, or permit to be made upon any public property, public right-of-way or private property, any unnecessary and unreasonable noises, sounds or vibrations which are physically annoying to reasonable persons of ordinary sensitivity or which are so harsh or so prolonged or unnatural or unusual in their use, time or place as to cause or contribute to the unnecessary and unreasonable discomfort of any persons within the neighborhood from which said noises emanate or

which interfere with the peace and comfort of residents or their guests, or the operators or customers in places of business in the vicinity, or which may detrimentally or adversely affect such residences or places of business. (Ord. 1374 § 1(part), 2007)

17.58.050 D. Exempt Activities

8. Construction activities when conducted as part of an approved Building Permit, except as prohibited in Subsection 17.58.050(E)(1) (Prohibited Activities) below.

17.58.050 E. Prohibited Activities

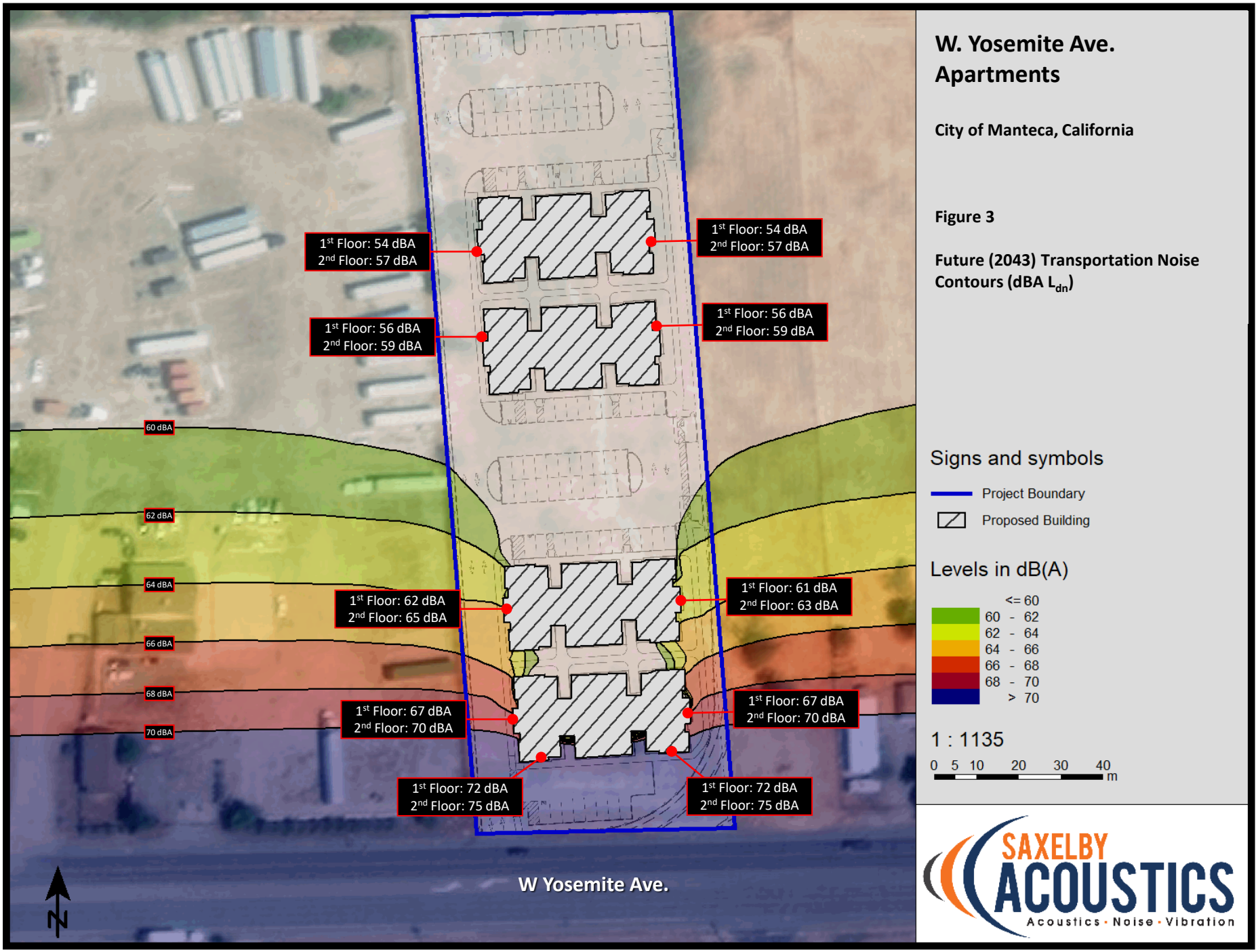
1. Construction Noise. Operating or causing the operation of tools or equipment on private property used in alteration, construction, demolition, drilling, or repair work daily between the hours of 7:00 p.m. and 7:00 a.m., so that the sound creates a noise disturbance across a residential property line, except for emergency work of public service utilities.

EVALUATION OF TRANSPORTATION NOISE ON PROJECT SITE

EXTERIOR NOISE

Saxelby Acoustics used the SoundPLAN noise model to calculate traffic noise levels at the proposed residential uses due to traffic on West Yosemite Avenue. Inputs to the SoundPLAN noise model include topography, existing structures, roadway elevations, and the proposed building pad elevations. It was estimated that existing noise levels would increase by +1 dBA based upon an assumed 1% per year increase in traffic volumes on West Yosemite Avenue. The results of this analysis are shown graphically on **Figure 3**.

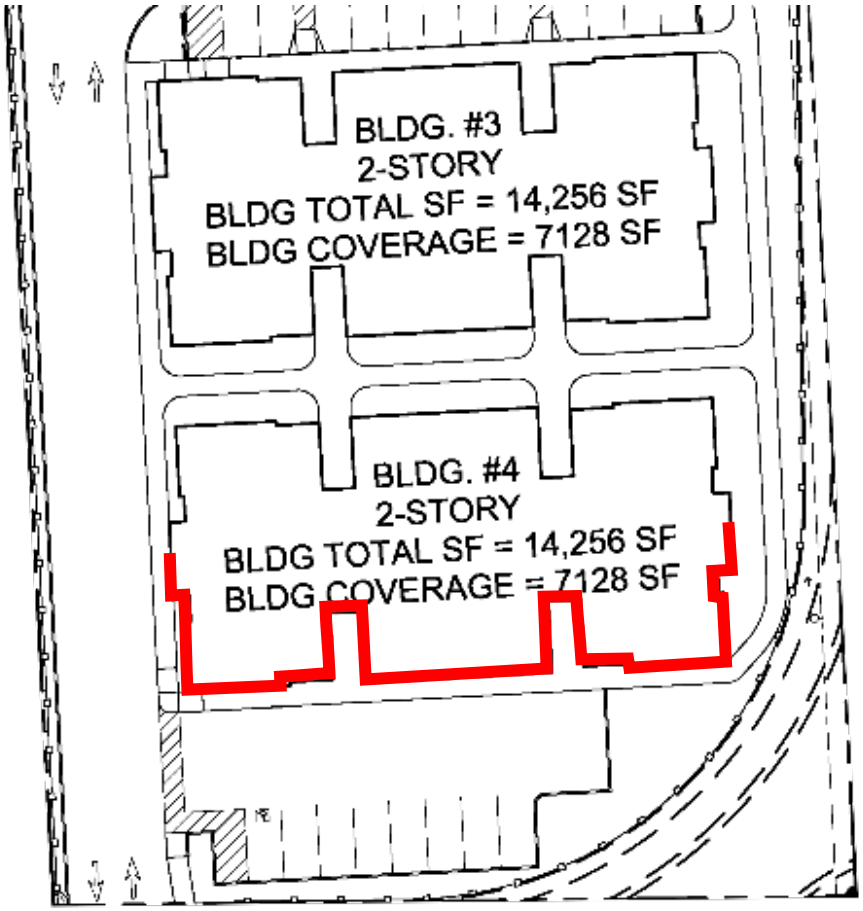
As illustrated on **Figure 3**, exterior noise levels at the project buildings range between 54 dBA to 75 dBA.


1st Floor: 54 dBA
2nd Floor: 57 dBA
1st Floor: 54 dBA
2nd Floor: 57 dBA
1st Floor: 56 dBA
2nd Floor: 59 dBA
1st Floor: 56 dBA
2nd Floor: 59 dBA
60 dBA
62 dBA
64 dBA
66 dBA
68 dBA
70 dBA
1st Floor: 62 dBA
2nd Floor: 65 dBA
1st Floor: 61 dBA
2nd Floor: 63 dBA
1st Floor: 67 dBA
2nd Floor: 70 dBA
1st Floor: 67 dBA
2nd Floor: 70 dBA
1st Floor: 72 dBA
2nd Floor: 75 dBA
1st Floor: 72 dBA
2nd Floor: 75 dBA
W Yosemite Ave.
N
W. Yosemite Ave.
Apartments
City of Manteca, California
Figure 3
Future (2043) Transportation Noise Contours (dBA L_{dn})
Signs and symbols
Project Boundary
Proposed Building
Levels in dB(A)
<= 60
60 - 62
62 - 64
64 - 66
66 - 68
68 - 70
> 70
1 : 1135
0 5 10 20 30 40
m
SAXELBY ACOUSTICS
Acoustics · Noise · Vibration

INTERIOR NOISE

Modern building construction methods typically yield an exterior-to-interior noise level reduction of 25 dBA. Therefore, where exterior noise levels are 70 dBA L_{dn}, or less, no additional interior noise control measures are typically required. For this project, exterior noise levels are predicted to be up to 75 dBA L_{dn} at the second story of the buildings closest to West Yosemite Avenue. This would result in interior noise levels of up to 50 dBA L_{dn} at the second story receivers based on typical building construction. This exceeds the City of Manteca which requires that interior noise levels do not exceed 45 dB L_{dn}. Therefore, additional noise control measures are required to reduce interior noise to acceptable levels.

The proposed residential buildings located along the West Yosemite Avenue frontage shall be designed to achieve a 30 dBA exterior to interior noise level reduction to satisfy the requirements of the City of Manteca. **Figure 4** shows the locations of facades requiring acoustic upgrades. **Figure 4** and **Appendix C** provide an estimate of interior noise control measures required to meet the applicable standards. It should be noted that interior noise control measures are based upon an estimate of the future residence layouts. These assumptions should be verified once floor plans become available for an accurate assessment of interior noise control measures.



Interior Noise Control Measures
(Required for Indicated Facades of Proposed Building)

- *Glazing shall have a sound transmission class (STC) rating of 36 minimum in bedrooms and 33 in living rooms;*
- *Exterior finish shall be stucco with sheathing;*
- *Interior gypsum at exterior walls shall be 5/8" on resilient channel or 5/8" on staggered stud wall assembly;*
- *Ceiling gypsum shall be 5/8";*
- *Mechanical ventilation shall be installed in all residential uses to allow residents to keep doors and windows closed, as desired for acoustical isolation;*
- *No PTAC's shall be used.*

Yosemite Avenue Apartments

City of Manteca, California

Figure 4

Interior Noise Control Measures

Legend

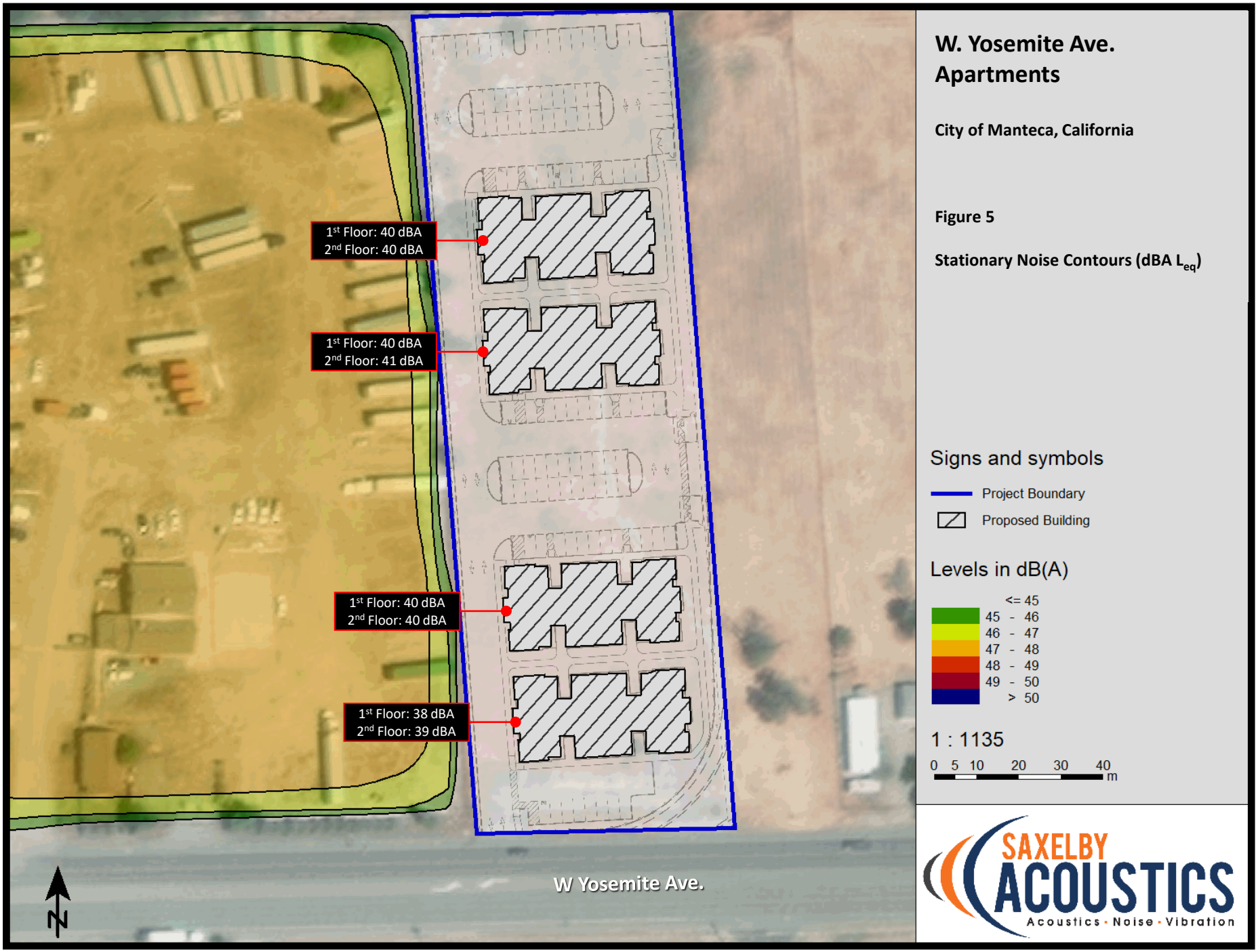
Facades Needing Acoustic Upgrades

SAXELBY ACOUSTICS
Acoustics · Noise · Vibration

EVALUATION OF STATIONARY NOISE ENVIRONMENT ON THE PROJECT SITE

The proposed project shares its western boundary with the Werner Enterprises Drop Yard. The existing truck yard would generate noise at the proposed residential uses. Saxelby Acoustics determined the noise levels generated by the truck yard by conducting continuous noise level measurements at the boundary of the truck yard. The northernmost noise measurement location was used for analysis. Noise levels of 55 dBA L_{eq} were recorded during daytime (7:00 a.m. to 10:00 p.m.) hours and levels of 53 dBA L_{eq} were recorded during nighttime (10:00 p.m. to 7:00 a.m.) hours. Saxelby Acoustics corrected these noise levels to account for the contribution of West Yosemite Avenue to the ambient noise environment at this location. It was determined that the truck yard contributed noise levels at the project boundary of less than 45 dBA L_{eq} during daytime and nighttime.

The truck yard noise level contours were mapped using the SoundPLAN noise modeling software. **Figure 5** shows the predicted noise level contours for the truck yard.


1st Floor: 40 dBA
2nd Floor: 40 dBA
1st Floor: 40 dBA
2nd Floor: 41 dBA
1st Floor: 40 dBA
2nd Floor: 40 dBA
1st Floor: 38 dBA
2nd Floor: 39 dBA
W Yosemite Ave.
N
W. Yosemite Ave. Apartments
City of Manteca, California
Figure 5
Stationary Noise Contours (dBA Leq)
Signs and symbols
Project Boundary
Proposed Building
Levels in dB(A)
<= 45
45 - 46
46 - 47
47 - 48
48 - 49
49 - 50
> 50
1 : 1135
0 5 10 20 30 40
m
SAXELBY ACOUSTICS
Acoustics · Noise · Vibration

CONCLUSION

The interior noise levels due to transportation noise at the proposed residential uses are predicted to exceed the City of Manteca interior noise level standard of 45 dBA L_{dn}. Therefore, additional noise control measures would be required. **Figure 4** shows the facades which require noise control and an estimate of the necessary acoustic upgrades. It should be noted that these measures are an estimate and should be reevaluated when floor plans become available.

Noise levels due to stationary noise sources at the proposed residential uses are predicted to comply with the City of Manteca noise level standards. The Werner Enterprises Drop Yard directly west of the project is predicted to comply with the City of Manteca 45 dBA L_{eq} nighttime noise level standard for stationary noise sources at the project boundary. Therefore, no additional noise control measures would be required to reduce noise from the drop yard on the project site.

REFERENCES

American National Standards Institute. (1998). *[Standard] ANSI S1.43-1997 (R2007): Specifications for integrating-averaging sound level meters*. New York: Acoustical Society of America.

American Standard Testing Methods, *Standard Guide for Measurement of Outdoor A-Weighted Sound Levels, American Standard Testing Methods (ASTM) E1014-08*, 2008.

ASTM E1014-12. *Standard Guide for Measurement of Outdoor A-Weighted Sound Levels*. ASTM International. West Conshohocken, PA. 2012.

ASTM E1780-12. *Standard Guide for Measuring Outdoor Sound Received from a Nearby Fixed Source.* ASTM International. West Conshohocken, PA. 2012.

Barry, T M. (1978). *FHWA highway traffic noise prediction model* (FHWA-RD-77-108). Washington, DC: U.S. Department of transportation, Federal highway administration, Office of research, Office of environmental policy.

California Department of Transportation (Caltrans), *Technical Noise Supplement, Traffic Noise Analysis Protocol*, September 2013.

Egan, M. D. (1988). Architectural acoustics. United States of America: McGraw-Hill Book Company.

Federal Highway Administration. *FHWA Roadway Construction Noise Model User's Guide.* FHWA-HEP-05-054 DOT-VNTSC-FHWA-05-01. January 2006.

Hanson, Carl E. (Carl Elmer). (2006). *Transit noise and vibration impact assessment*. Washington, DC: U.S. Department of Transportation, Federal Transit Administration, Office of Planning and Environment.

International Electrotechnical Commission. Technical committee 29: Electroacoustics. International Organization of Legal Metrology. (2013). *Electroacoustics: Sound level meters*.

International Organization for Standardization. (1996). *Acoustic - ISO 9613-2: Attenuation of sound during propagation outdoors. Part 2: General methods of calculation*. Ginevra: I.S.O.

Miller, L. N., Bolt, Beranek, & and Newman, Inc. (1981). *Noise control for buildings and manufacturing plants*. Cambridge, MA: Bolt, Beranek and Newman, Inc.

SoundPLAN. SoundPLAN GmbH. Backnang, Germany. http://www.soundplan.eu/english/

Appendix A: Acoustical Terminology

Acoustics	The science of sound.
Ambient Noise	The distinctive acoustical characteristics of a given space consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.
ASTC	Apparent Sound Transmission Class. Similar to STC but includes sound from flanking paths and correct for room reverberation. A larger number means more attenuation. The scale, like the decibel scale for sound, is logarithmic.
Attenuation	The reduction of an acoustic signal.
A-Weighting	A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.
Decibel or dB	Fundamental unit of sound, A Bell is defined as the logarithm of the ratio of the sound pressure squared over the reference pressure squared. A Decibel is one-tenth of a Bell.
CNEL	Community Noise Equivalent Level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by +5 dBA and nighttime hours weighted by +10 dBA.
DNL	See definition of Ldn.
IIC	Impact Insulation Class. An integer-number rating of how well a building floor attenuates impact sounds, such as footsteps. A larger number means more attenuation. The scale, like the decibel scale for sound, is logarithmic.
Frequency	The measure of the rapidity of alterations of a periodic signal, expressed in cycles per second or hertz (Hz).
Ldn	Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.
Leq	Equivalent or energy-averaged sound level.
Lmax	The highest root-mean-square (RMS) sound level measured over a given period of time.
L(n)	The sound level exceeded a described percentile over a measurement period. For instance, an hourly L50 is the sound level exceeded 50% of the time during the one-hour period.
Loudness	A subjective term for the sensation of the magnitude of sound.
NIC	Noise Isolation Class. A rating of the noise reduction between two spaces. Similar to STC but includes sound from flanking paths and no correction for room reverberation.
NNIC	Normalized Noise Isolation Class. Similar to NIC but includes a correction for room reverberation.
Noise	Unwanted sound.
NRC	Noise Reduction Coefficient. NRC is a single-number rating of the sound-absorption of a material equal to the arithmetic mean of the sound-absorption coefficients in the 250, 500, 1000, and 2,000 Hz octave frequency bands rounded to the nearest multiple of 0.05. It is a representation of the amount of sound energy absorbed upon striking a particular surface. An NRC of 0 indicates perfect reflection; an NRC of 1 indicates perfect absorption.
RT60	The time it takes reverberant sound to decay by 60 dB once the source has been removed.
Sabin	The unit of sound absorption. One square foot of material absorbing 100% of incident sound has an absorption of 1 Sabin.
SEL	Sound Exposure Level. SEL is a rating, in decibels, of a discrete event, such as an aircraft flyover or train pass by, that compresses the total sound energy into a one-second event.
SPC	Speech Privacy Class. SPC is a method of rating speech privacy in buildings. It is designed to measure the degree of speech privacy provided by a closed room, indicating the degree to which conversations occurring within are kept private from listeners outside the room.
STC	Sound Transmission Class. STC is an integer rating of how well a building partition attenuates airborne sound. It is widely used to rate interior partitions, ceilings/floors, doors, windows and exterior wall configurations. The STC rating is typically used to rate the sound transmission of a specific building element when tested in laboratory conditions where flanking paths around the assembly don't exist. A larger number means more attenuation. The scale, like the decibel scale for sound, is logarithmic.
Threshold of Hearing	The lowest sound that can be perceived by the human auditory system, generally considered to be 0 dB for persons with perfect hearing.
Threshold of Pain	Approximately 120 dB above the threshold of hearing.
Impulsive	Sound of short duration, usually less than one second, with an abrupt onset and rapid decay.
Simple Tone	Any sound which can be judged as audible as a single pitch or set of single pitches.

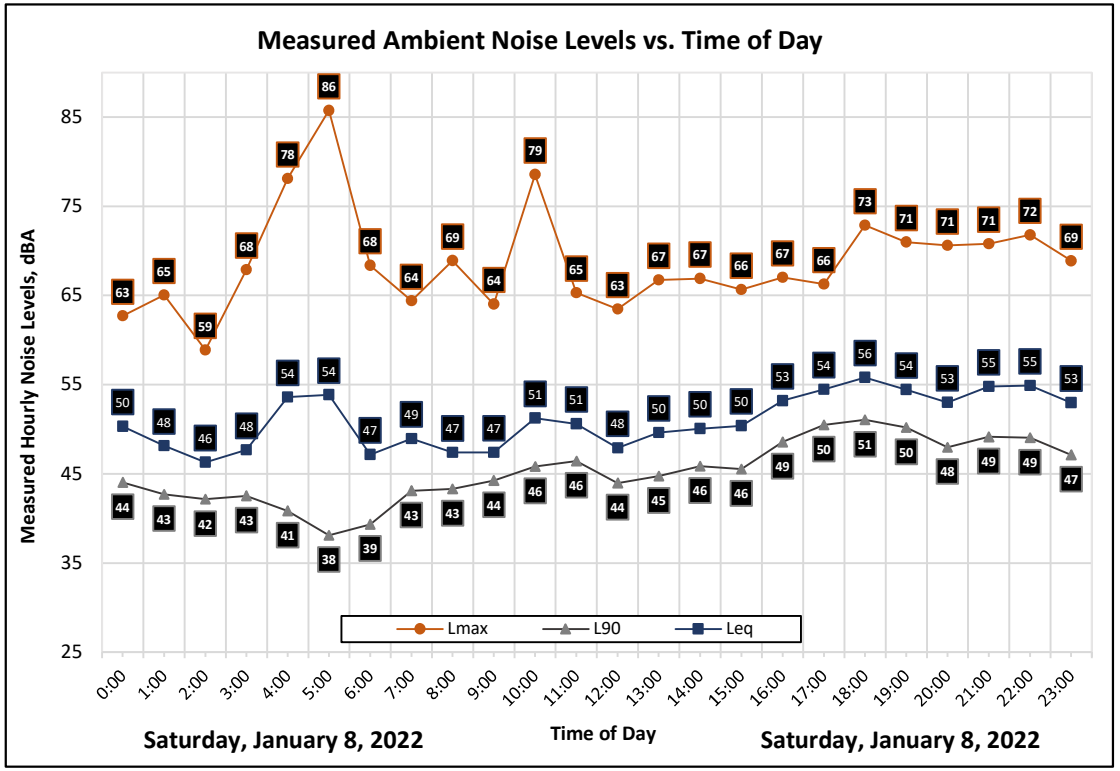
Appendix B: Continuous Ambient Noise Measurement Results

Appendix B1: Continuous Noise Monitoring Results

Site: LT-1 Saturday
Project: W. Yosemite Avenue Apartments
Location: Northwest Along Fence
Coordinates: 37.7984778°, -121.2489242°
Meter: LDL 820-7
Calibrator: CAL200

Date	Time	Measured Level, dBA			
		L_{eq}	L_{max}	L_{50}	L_{90}
Saturday, January 8, 2022	0:00	50	63	47	44
Saturday, January 8, 2022	1:00	48	65	46	43
Saturday, January 8, 2022	2:00	46	59	44	42
Saturday, January 8, 2022	3:00	48	68	46	43
Saturday, January 8, 2022	4:00	54	78	45	41
Saturday, January 8, 2022	5:00	54	86	41	38
Saturday, January 8, 2022	6:00	47	68	43	39
Saturday, January 8, 2022	7:00	49	64	46	43
Saturday, January 8, 2022	8:00	47	69	46	43
Saturday, January 8, 2022	9:00	47	64	47	44
Saturday, January 8, 2022	10:00	51	79	48	46
Saturday, January 8, 2022	11:00	51	65	50	46
Saturday, January 8, 2022	12:00	48	63	47	44
Saturday, January 8, 2022	13:00	50	67	48	45
Saturday, January 8, 2022	14:00	50	67	49	46
Saturday, January 8, 2022	15:00	50	66	49	46
Saturday, January 8, 2022	16:00	53	67	53	49
Saturday, January 8, 2022	17:00	54	66	54	50
Saturday, January 8, 2022	18:00	56	73	54	51
Saturday, January 8, 2022	19:00	54	71	53	50
Saturday, January 8, 2022	20:00	53	71	51	48
Saturday, January 8, 2022	21:00	55	71	53	49
Saturday, January 8, 2022	22:00	55	72	53	49
Saturday, January 8, 2022	23:00	53	69	51	47

Statistics	Leq	Lmax	L50	L90
Day Average	52	68	50	47
Night Average	51	70	46	43
Day Low	47	63	46	43
Day High	56	79	54	51
Night Low	46	59	41	38
Night High	54	86	53	49
Ldn	57	Day %		71
CNEL	58	Night %		29

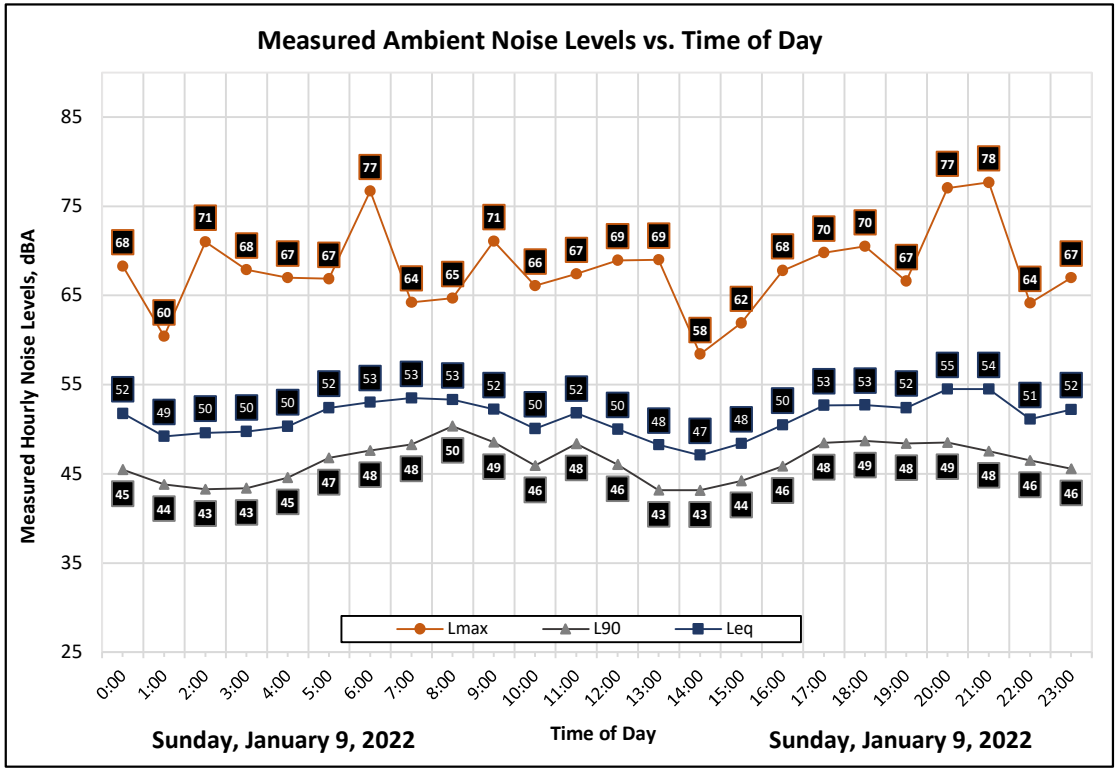


Appendix B1: Continuous Noise Monitoring Results

Site: LT-1 Sunday
Project: W. Yosemite Avenue Apartments
Location: Northwest Along Fence
Coordinates: 37.7984778°, -121.2489242°
Meter: LDL 820-7
Calibrator: CAL200

Date	Time	Measured Level, dBA			
		L_{eq}	L_{max}	L_{50}	L_{90}
Sunday, January 9, 2022	0:00	52	68	49	45
Sunday, January 9, 2022	1:00	49	60	46	44
Sunday, January 9, 2022	2:00	50	71	46	43
Sunday, January 9, 2022	3:00	50	68	47	43
Sunday, January 9, 2022	4:00	50	67	47	45
Sunday, January 9, 2022	5:00	52	67	50	47
Sunday, January 9, 2022	6:00	53	77	51	48
Sunday, January 9, 2022	7:00	53	64	52	48
Sunday, January 9, 2022	8:00	53	65	53	50
Sunday, January 9, 2022	9:00	52	71	51	49
Sunday, January 9, 2022	10:00	50	66	49	46
Sunday, January 9, 2022	11:00	52	67	50	48
Sunday, January 9, 2022	12:00	50	69	49	46
Sunday, January 9, 2022	13:00	48	69	46	43
Sunday, January 9, 2022	14:00	47	58	46	43
Sunday, January 9, 2022	15:00	48	62	47	44
Sunday, January 9, 2022	16:00	50	68	49	46
Sunday, January 9, 2022	17:00	53	70	52	48
Sunday, January 9, 2022	18:00	53	70	51	49
Sunday, January 9, 2022	19:00	52	67	51	48
Sunday, January 9, 2022	20:00	55	77	51	49
Sunday, January 9, 2022	21:00	54	78	50	48
Sunday, January 9, 2022	22:00	51	64	49	46
Sunday, January 9, 2022	23:00	52	67	49	46

Statistics	Leq	Lmax	L50	L90
Day Average	52	68	50	47
Night Average	51	68	48	45
Day Low	47	58	46	43
Day High	55	78	53	50
Night Low	49	60	46	43
Night High	53	77	51	48
Ldn	57	Day %		69
CNEL	58	Night %		31

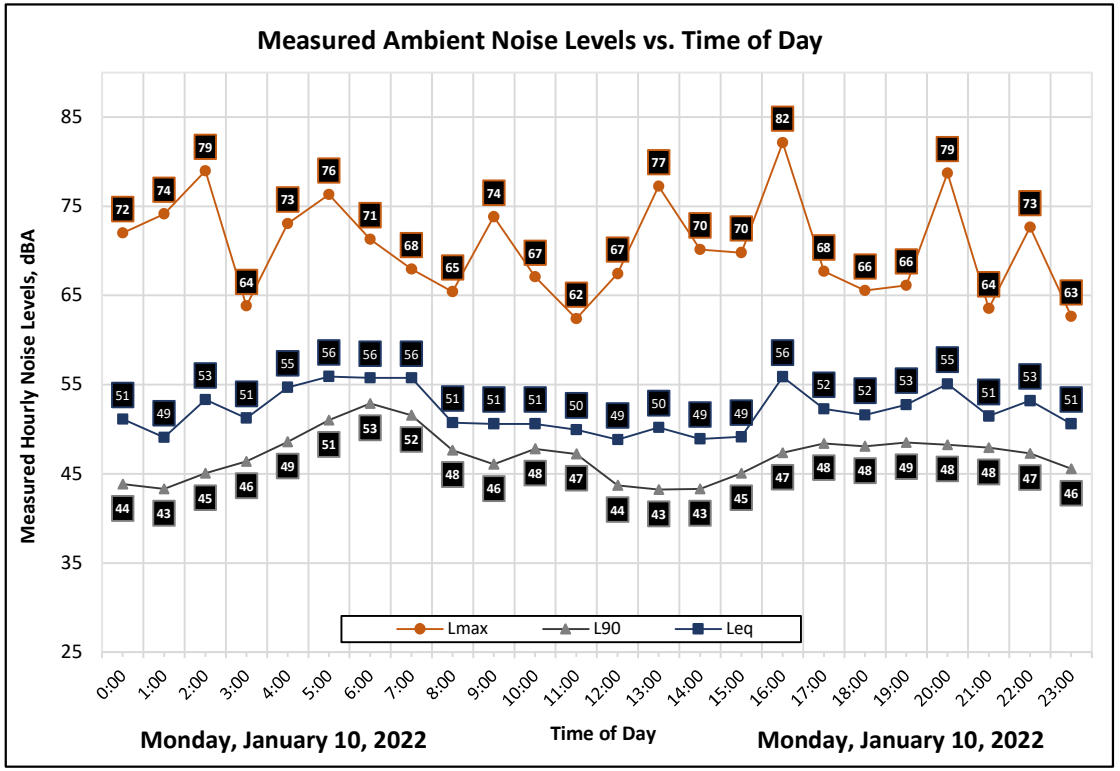


Appendix B1: Continuous Noise Monitoring Results

Site: LT-1 Monday
Project: W. Yosemite Avenue Apartments
Location: Northwest Along Fence
Coordinates: 37.7984778°, -121.2489242°
Meter: LDL 820-7
Calibrator: CAL200

Date	Time	Measured Level, dBA			
		L_{eq}	L_{max}	L_{50}	L_{90}
Monday, January 10, 2022	0:00	51	72	48	44
Monday, January 10, 2022	1:00	49	74	46	43
Monday, January 10, 2022	2:00	53	79	49	45
Monday, January 10, 2022	3:00	51	64	49	46
Monday, January 10, 2022	4:00	55	73	52	49
Monday, January 10, 2022	5:00	56	76	54	51
Monday, January 10, 2022	6:00	56	71	55	53
Monday, January 10, 2022	7:00	56	68	55	52
Monday, January 10, 2022	8:00	51	65	50	48
Monday, January 10, 2022	9:00	51	74	49	46
Monday, January 10, 2022	10:00	51	67	50	48
Monday, January 10, 2022	11:00	50	62	50	47
Monday, January 10, 2022	12:00	49	67	47	44
Monday, January 10, 2022	13:00	50	77	46	43
Monday, January 10, 2022	14:00	49	70	46	43
Monday, January 10, 2022	15:00	49	70	48	45
Monday, January 10, 2022	16:00	56	82	50	47
Monday, January 10, 2022	17:00	52	68	51	48
Monday, January 10, 2022	18:00	52	66	51	48
Monday, January 10, 2022	19:00	53	66	51	49
Monday, January 10, 2022	20:00	55	79	51	48
Monday, January 10, 2022	21:00	51	64	50	48
Monday, January 10, 2022	22:00	53	73	50	47
Monday, January 10, 2022	23:00	51	63	49	46

Statistics	Leq	Lmax	L50	L90
Day Average	52	70	50	47
Night Average	53	72	50	47
Day Low	49	62	46	43
Day High	56	82	55	52
Night Low	49	63	46	43
Night High	56	79	55	53
Ldn	59	Day %		59
CNEL	59	Night %		41

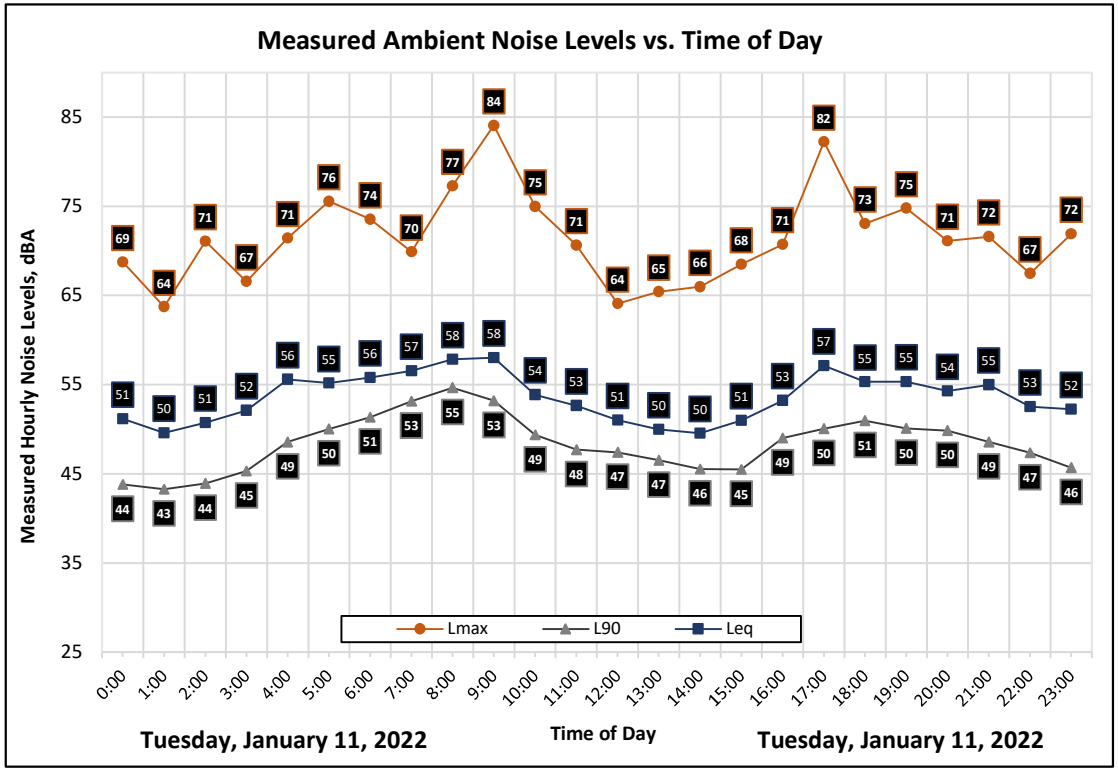


Appendix B1: Continuous Noise Monitoring Results

Site: LT-1 Tuesday
Project: W. Yosemite Avenue Apartments
Meter: LDL 820-7
Location: Northwest Along Fence
Calibrator: CAL200
Coordinates: 37.7984778°, -121.2489242°

Date	Time	Measured Level, dBA			
		L_{eq}	L_{max}	L_{50}	L_{90}
Tuesday, January 11, 2022	0:00	51	69	47	44
Tuesday, January 11, 2022	1:00	50	64	46	43
Tuesday, January 11, 2022	2:00	51	71	47	44
Tuesday, January 11, 2022	3:00	52	67	50	45
Tuesday, January 11, 2022	4:00	56	71	53	49
Tuesday, January 11, 2022	5:00	55	76	52	50
Tuesday, January 11, 2022	6:00	56	74	55	51
Tuesday, January 11, 2022	7:00	57	70	56	53
Tuesday, January 11, 2022	8:00	58	77	57	55
Tuesday, January 11, 2022	9:00	58	84	56	53
Tuesday, January 11, 2022	10:00	54	75	53	49
Tuesday, January 11, 2022	11:00	53	71	51	48
Tuesday, January 11, 2022	12:00	51	64	50	47
Tuesday, January 11, 2022	13:00	50	65	49	47
Tuesday, January 11, 2022	14:00	50	66	49	46
Tuesday, January 11, 2022	15:00	51	68	49	45
Tuesday, January 11, 2022	16:00	53	71	52	49
Tuesday, January 11, 2022	17:00	57	82	54	50
Tuesday, January 11, 2022	18:00	55	73	54	51
Tuesday, January 11, 2022	19:00	55	75	53	50
Tuesday, January 11, 2022	20:00	54	71	53	50
Tuesday, January 11, 2022	21:00	55	72	52	49
Tuesday, January 11, 2022	22:00	53	67	50	47
Tuesday, January 11, 2022	23:00	52	72	49	46

Statistics	Leq	Lmax	L50	L90
Day Average	55	72	53	49
Night Average	53	70	50	47
Day Low	50	64	49	45
Day High	58	84	57	55
Night Low	50	64	46	43
Night High	56	76	55	51
Ldn	60	Day %		72
CNEL	60	Night %		28

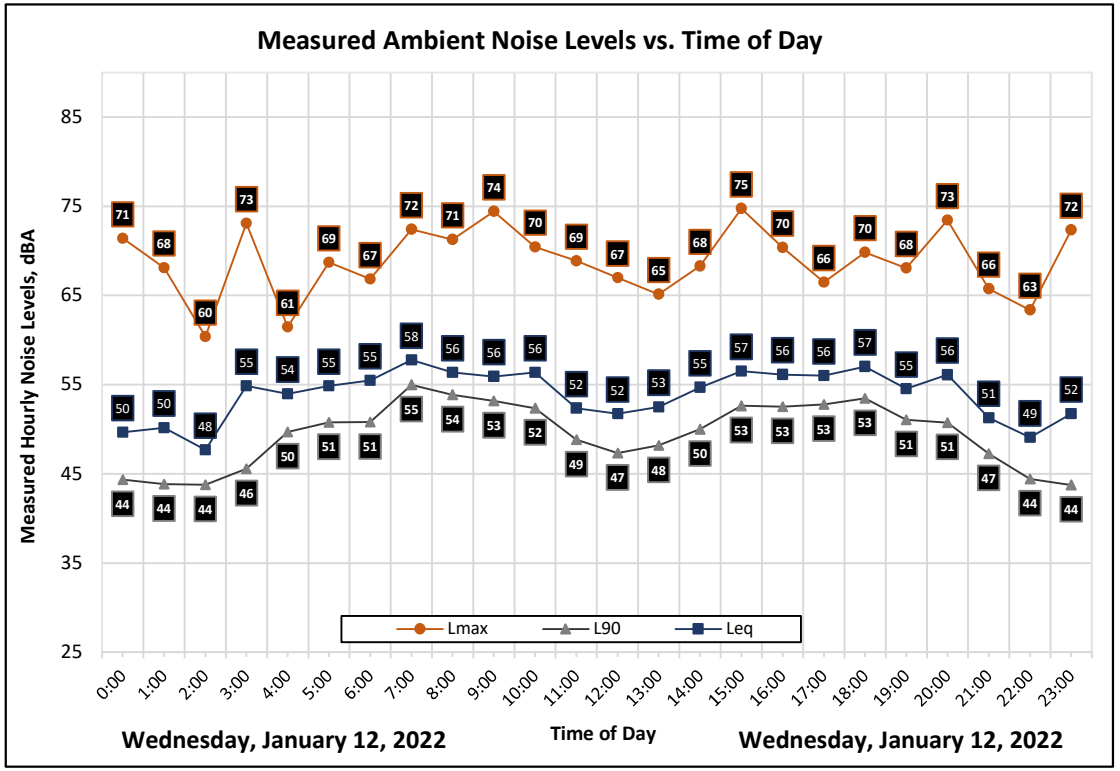


Appendix B1: Continuous Noise Monitoring Results

Site: LT-1 Wednesday
Project: W. Yosemite Avenue Apartments
Meter: LDL 820-7
Location: Northwest Along Fence
Calibrator: CAL200
Coordinates: 37.7984778°, -121.2489242°

Date	Time	Measured Level, dBA			
		L_{eq}	L_{max}	L_{50}	L_{90}
Wednesday, January 12, 2022	0:00	50	71	47	44
Wednesday, January 12, 2022	1:00	50	68	48	44
Wednesday, January 12, 2022	2:00	48	60	46	44
Wednesday, January 12, 2022	3:00	55	73	50	46
Wednesday, January 12, 2022	4:00	54	61	53	50
Wednesday, January 12, 2022	5:00	55	69	54	51
Wednesday, January 12, 2022	6:00	55	67	55	51
Wednesday, January 12, 2022	7:00	58	72	57	55
Wednesday, January 12, 2022	8:00	56	71	56	54
Wednesday, January 12, 2022	9:00	56	74	55	53
Wednesday, January 12, 2022	10:00	56	70	56	52
Wednesday, January 12, 2022	11:00	52	69	52	49
Wednesday, January 12, 2022	12:00	52	67	51	47
Wednesday, January 12, 2022	13:00	53	65	52	48
Wednesday, January 12, 2022	14:00	55	68	54	50
Wednesday, January 12, 2022	15:00	57	75	56	53
Wednesday, January 12, 2022	16:00	56	70	56	53
Wednesday, January 12, 2022	17:00	56	66	55	53
Wednesday, January 12, 2022	18:00	57	70	56	53
Wednesday, January 12, 2022	19:00	55	68	54	51
Wednesday, January 12, 2022	20:00	56	73	54	51
Wednesday, January 12, 2022	21:00	51	66	50	47
Wednesday, January 12, 2022	22:00	49	63	47	44
Wednesday, January 12, 2022	23:00	52	72	48	44

Statistics	Leq	Lmax	L50	L90
Day Average	55	70	54	51
Night Average	53	67	50	46
Day Low	51	65	50	47
Day High	58	75	57	55
Night Low	48	60	46	44
Night High	55	73	55	51
Ldn	59	Day %		76
CNEL	60	Night %		24

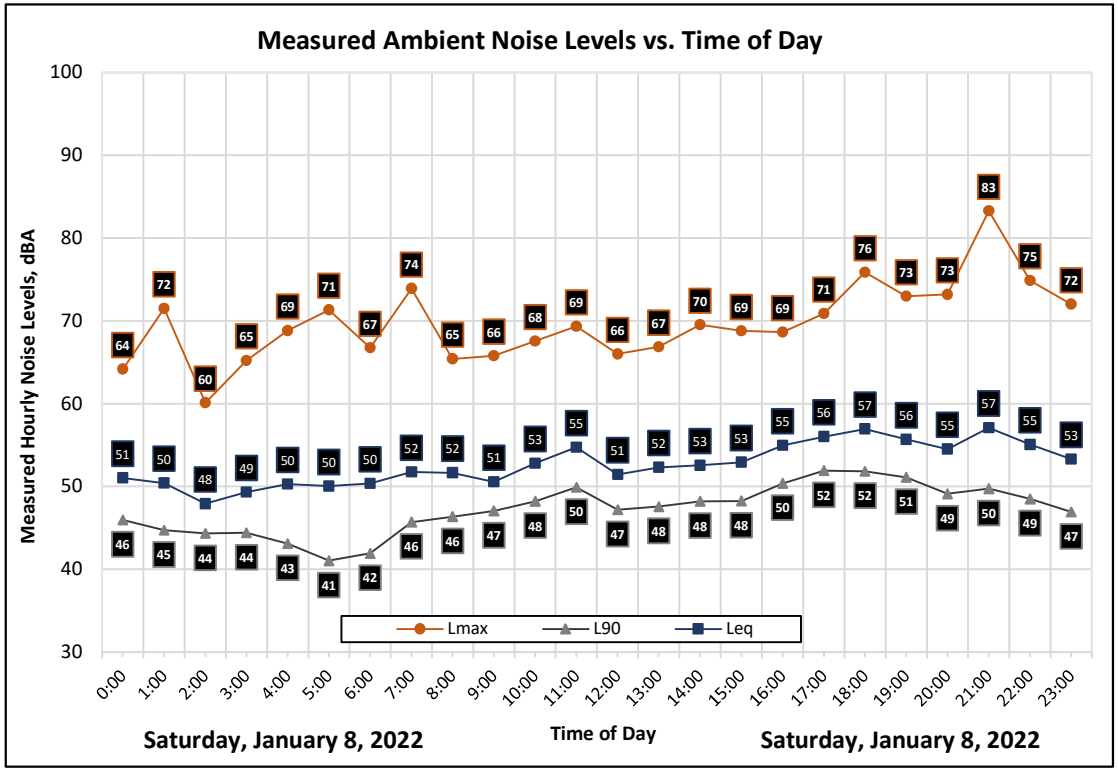


Appendix B2: Continuous Noise Monitoring Results

Site: LT-2 Saturday
Project: W. Yosemite Avenue Apartments
Location: West Along Fence
Coordinates: 37.7982614°, -121.2489219°
Meter: LDL 820-6
Calibrator: CAL200

Date	Time	Measured Level, dBA			
		L_{eq}	L_{max}	L_{50}	L_{90}
Saturday, January 8, 2022	0:00	51	64	49	46
Saturday, January 8, 2022	1:00	50	72	48	45
Saturday, January 8, 2022	2:00	48	60	46	44
Saturday, January 8, 2022	3:00	49	65	48	44
Saturday, January 8, 2022	4:00	50	69	47	43
Saturday, January 8, 2022	5:00	50	71	45	41
Saturday, January 8, 2022	6:00	50	67	46	42
Saturday, January 8, 2022	7:00	52	74	49	46
Saturday, January 8, 2022	8:00	52	65	50	46
Saturday, January 8, 2022	9:00	51	66	50	47
Saturday, January 8, 2022	10:00	53	68	52	48
Saturday, January 8, 2022	11:00	55	69	54	50
Saturday, January 8, 2022	12:00	51	66	51	47
Saturday, January 8, 2022	13:00	52	67	51	48
Saturday, January 8, 2022	14:00	53	70	51	48
Saturday, January 8, 2022	15:00	53	69	52	48
Saturday, January 8, 2022	16:00	55	69	54	50
Saturday, January 8, 2022	17:00	56	71	55	52
Saturday, January 8, 2022	18:00	57	76	55	52
Saturday, January 8, 2022	19:00	56	73	54	51
Saturday, January 8, 2022	20:00	55	73	52	49
Saturday, January 8, 2022	21:00	57	83	54	50
Saturday, January 8, 2022	22:00	55	75	53	49
Saturday, January 8, 2022	23:00	53	72	51	47

Statistics	Leq	Lmax	L50	L90
Day Average	54	71	52	49
Night Average	51	68	48	45
Day Low	51	65	49	46
Day High	57	83	55	52
Night Low	48	60	45	41
Night High	53	75	53	49
Ldn	57	Day %		81
CNEL	58	Night %		19

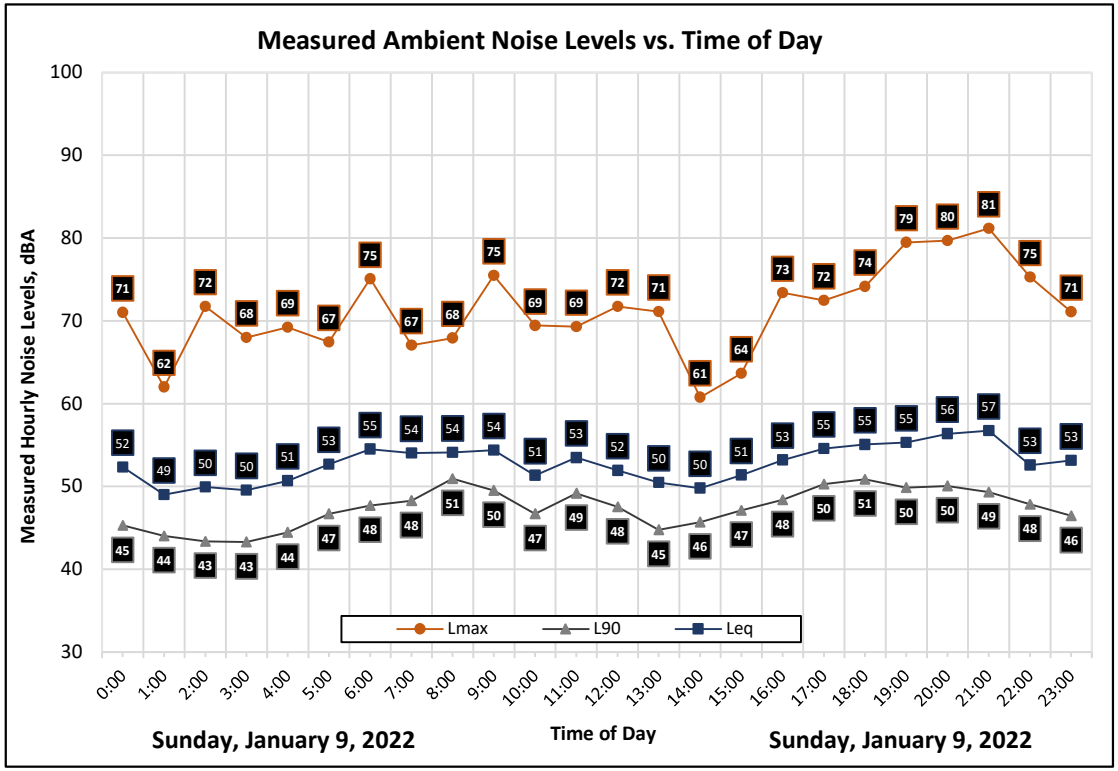


Appendix B2: Continuous Noise Monitoring Results

Site: LT-2 Sunday
Project: W. Yosemite Avenue Apartments
Location: West Along Fence
Coordinates: 37.7982614°, -121.2489219°
Meter: LDL 820-6
Calibrator: CAL200

Date	Time	Measured Level, dBA			
		L_{eq}	L_{max}	L_{50}	L_{90}
Sunday, January 9, 2022	0:00	52	71	49	45
Sunday, January 9, 2022	1:00	49	62	46	44
Sunday, January 9, 2022	2:00	50	72	46	43
Sunday, January 9, 2022	3:00	50	68	46	43
Sunday, January 9, 2022	4:00	51	69	47	44
Sunday, January 9, 2022	5:00	53	67	50	47
Sunday, January 9, 2022	6:00	55	75	51	48
Sunday, January 9, 2022	7:00	54	67	53	48
Sunday, January 9, 2022	8:00	54	68	53	51
Sunday, January 9, 2022	9:00	54	75	53	50
Sunday, January 9, 2022	10:00	51	69	50	47
Sunday, January 9, 2022	11:00	53	69	52	49
Sunday, January 9, 2022	12:00	52	72	51	48
Sunday, January 9, 2022	13:00	50	71	48	45
Sunday, January 9, 2022	14:00	50	61	49	46
Sunday, January 9, 2022	15:00	51	64	50	47
Sunday, January 9, 2022	16:00	53	73	52	48
Sunday, January 9, 2022	17:00	55	72	53	50
Sunday, January 9, 2022	18:00	55	74	53	51
Sunday, January 9, 2022	19:00	55	79	53	50
Sunday, January 9, 2022	20:00	56	80	53	50
Sunday, January 9, 2022	21:00	57	81	52	49
Sunday, January 9, 2022	22:00	53	75	50	48
Sunday, January 9, 2022	23:00	53	71	50	46

Statistics	Leq	Lmax	L50	L90
Day Average	54	72	52	49
Night Average	52	70	48	45
Day Low	50	61	48	45
Day High	57	81	53	51
Night Low	49	62	46	43
Night High	55	75	51	48
Ldn	58	Day %		75
CNEL	59	Night %		25

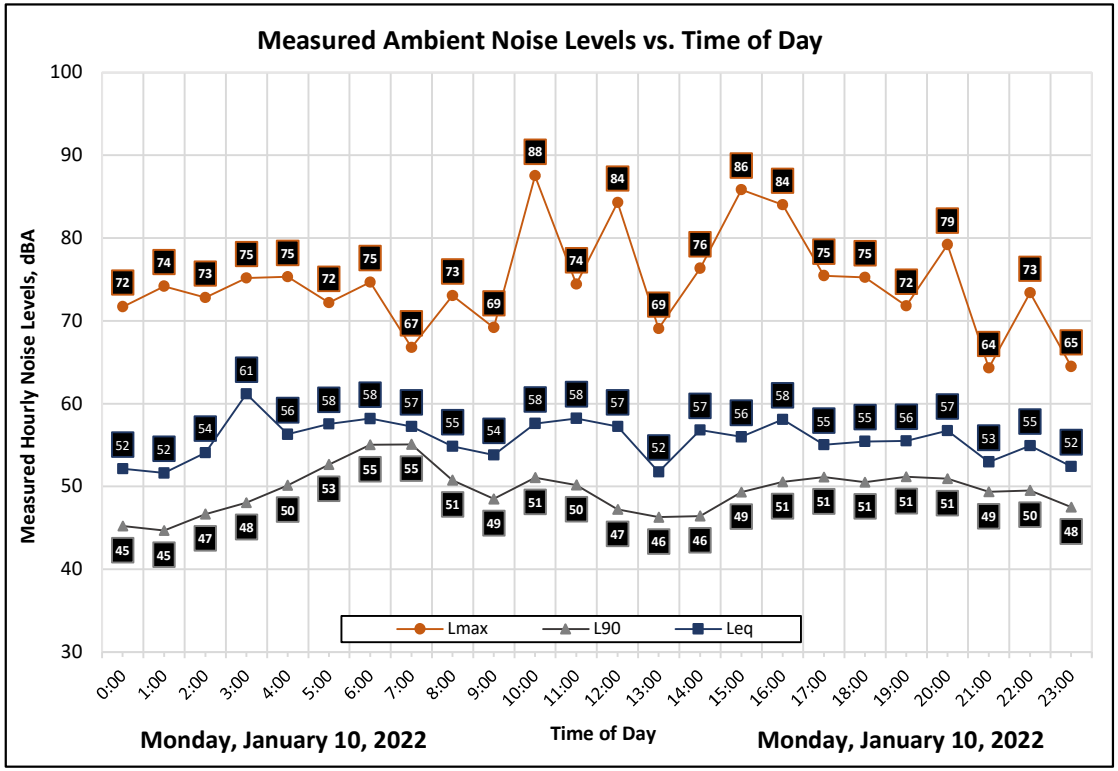


Appendix B2: Continuous Noise Monitoring Results

Site: LT-2 Monday
Project: W. Yosemite Avenue Apartments
Location: West Along Fence
Coordinates: 37.7982614°, -121.2489219°
Meter: LDL 820-6
Calibrator: CAL200

Date	Time	Measured Level, dBA			
		L_{eq}	L_{max}	L_{50}	L_{90}
Monday, January 10, 2022	0:00	52	72	48	45
Monday, January 10, 2022	1:00	52	74	48	45
Monday, January 10, 2022	2:00	54	73	50	47
Monday, January 10, 2022	3:00	61	75	51	48
Monday, January 10, 2022	4:00	56	75	53	50
Monday, January 10, 2022	5:00	58	72	55	53
Monday, January 10, 2022	6:00	58	75	57	55
Monday, January 10, 2022	7:00	57	67	57	55
Monday, January 10, 2022	8:00	55	73	54	51
Monday, January 10, 2022	9:00	54	69	52	49
Monday, January 10, 2022	10:00	58	88	53	51
Monday, January 10, 2022	11:00	58	74	53	50
Monday, January 10, 2022	12:00	57	84	51	47
Monday, January 10, 2022	13:00	52	69	50	46
Monday, January 10, 2022	14:00	57	76	50	46
Monday, January 10, 2022	15:00	56	86	51	49
Monday, January 10, 2022	16:00	58	84	53	51
Monday, January 10, 2022	17:00	55	75	54	51
Monday, January 10, 2022	18:00	55	75	53	51
Monday, January 10, 2022	19:00	56	72	54	51
Monday, January 10, 2022	20:00	57	79	54	51
Monday, January 10, 2022	21:00	53	64	52	49
Monday, January 10, 2022	22:00	55	73	52	50
Monday, January 10, 2022	23:00	52	65	51	48

Statistics	Leq	Lmax	L50	L90
Day Average	56	76	53	50
Night Average	57	73	52	49
Day Low	52	64	50	46
Day High	58	88	57	55
Night Low	52	65	48	45
Night High	61	75	57	55
Ldn	63	Day %		63
CNEL	63	Night %		37

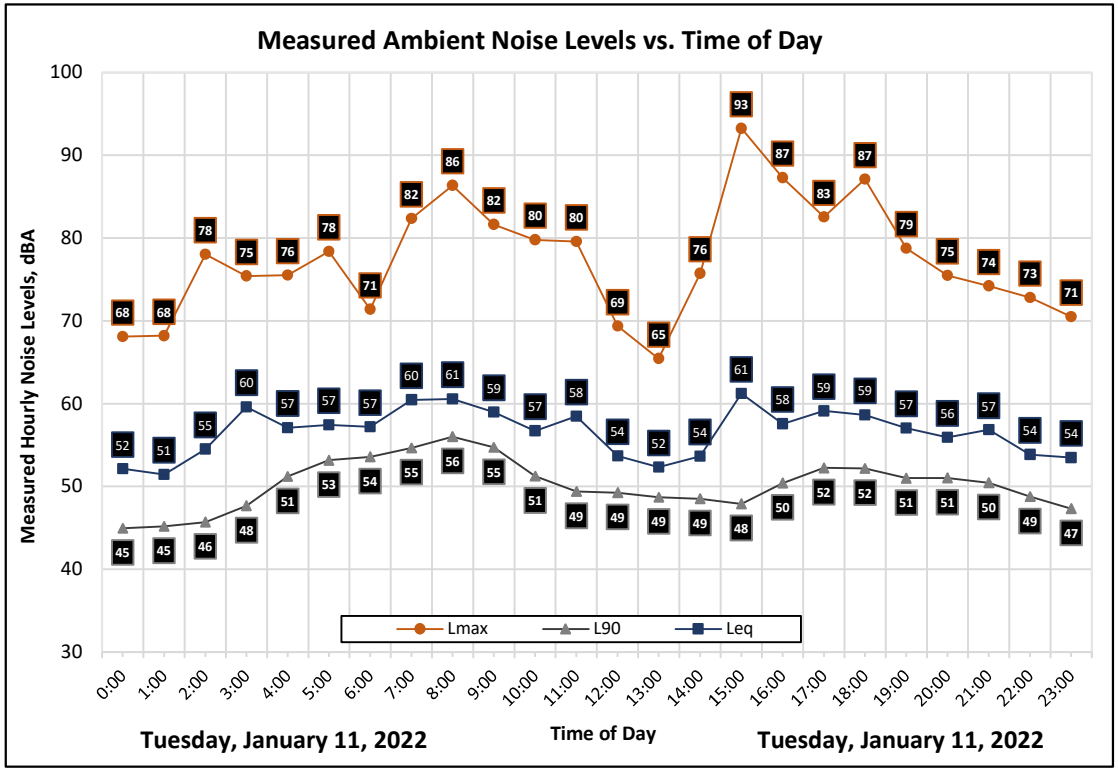


Appendix B2: Continuous Noise Monitoring Results

Site: LT-2 Tuesday
Project: W. Yosemite Avenue Apartments
Location: West Along Fence
Coordinates: 37.7982614°, -121.2489219°
Meter: LDL 820-6
Calibrator: CAL200

Date	Time	Measured Level, dBA			
		L_{eq}	L_{max}	L_{50}	L_{90}
Tuesday, January 11, 2022	0:00	52	68	48	45
Tuesday, January 11, 2022	1:00	51	68	47	45
Tuesday, January 11, 2022	2:00	55	78	48	46
Tuesday, January 11, 2022	3:00	60	75	51	48
Tuesday, January 11, 2022	4:00	57	76	55	51
Tuesday, January 11, 2022	5:00	57	78	55	53
Tuesday, January 11, 2022	6:00	57	71	56	54
Tuesday, January 11, 2022	7:00	60	82	58	55
Tuesday, January 11, 2022	8:00	61	86	58	56
Tuesday, January 11, 2022	9:00	59	82	57	55
Tuesday, January 11, 2022	10:00	57	80	54	51
Tuesday, January 11, 2022	11:00	58	80	55	49
Tuesday, January 11, 2022	12:00	54	69	52	49
Tuesday, January 11, 2022	13:00	52	65	52	49
Tuesday, January 11, 2022	14:00	54	76	52	49
Tuesday, January 11, 2022	15:00	61	93	52	48
Tuesday, January 11, 2022	16:00	58	87	54	50
Tuesday, January 11, 2022	17:00	59	83	56	52
Tuesday, January 11, 2022	18:00	59	87	56	52
Tuesday, January 11, 2022	19:00	57	79	54	51
Tuesday, January 11, 2022	20:00	56	75	54	51
Tuesday, January 11, 2022	21:00	57	74	53	50
Tuesday, January 11, 2022	22:00	54	73	52	49
Tuesday, January 11, 2022	23:00	54	71	50	47

Statistics	Leq	Lmax	L50	L90
Day Average	58	80	55	51
Night Average	56	73	51	49
Day Low	52	65	52	48
Day High	61	93	58	56
Night Low	51	68	47	45
Night High	60	78	56	54
Ldn	63	Day %		74
CNEL	63	Night %		26

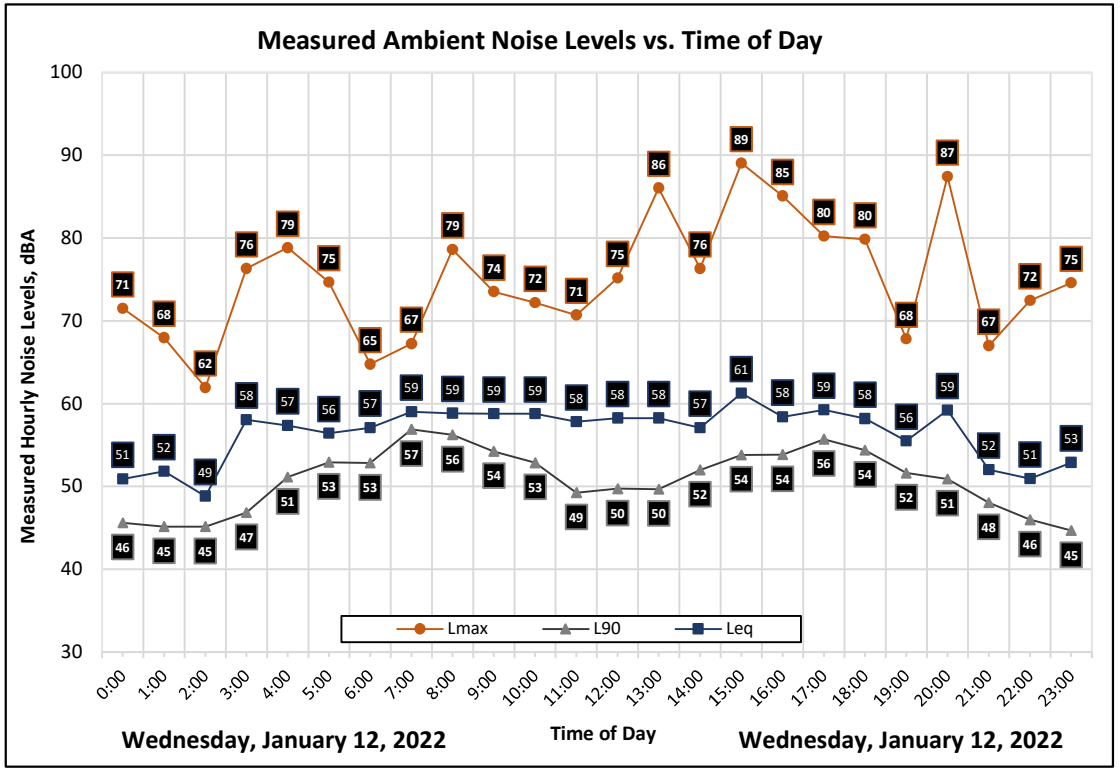


Appendix B2: Continuous Noise Monitoring Results

Site: LT-2 Wednesday
Project: W. Yosemite Avenue Apartments
Location: West Along Fence
Coordinates: 37.7982614°, -121.2489219°
Meter: LDL 820-6
Calibrator: CAL200

Date	Time	Measured Level, dBA			
		L_{eq}	L_{max}	L_{50}	L_{90}
Wednesday, January 12, 2022	0:00	51	71	48	46
Wednesday, January 12, 2022	1:00	52	68	49	45
Wednesday, January 12, 2022	2:00	49	62	47	45
Wednesday, January 12, 2022	3:00	58	76	51	47
Wednesday, January 12, 2022	4:00	57	79	54	51
Wednesday, January 12, 2022	5:00	56	75	55	53
Wednesday, January 12, 2022	6:00	57	65	56	53
Wednesday, January 12, 2022	7:00	59	67	59	57
Wednesday, January 12, 2022	8:00	59	79	58	56
Wednesday, January 12, 2022	9:00	59	74	57	54
Wednesday, January 12, 2022	10:00	59	72	56	53
Wednesday, January 12, 2022	11:00	58	71	54	49
Wednesday, January 12, 2022	12:00	58	75	56	50
Wednesday, January 12, 2022	13:00	58	86	54	50
Wednesday, January 12, 2022	14:00	57	76	56	52
Wednesday, January 12, 2022	15:00	61	89	57	54
Wednesday, January 12, 2022	16:00	58	85	57	54
Wednesday, January 12, 2022	17:00	59	80	59	56
Wednesday, January 12, 2022	18:00	58	80	57	54
Wednesday, January 12, 2022	19:00	56	68	55	52
Wednesday, January 12, 2022	20:00	59	87	55	51
Wednesday, January 12, 2022	21:00	52	67	51	48
Wednesday, January 12, 2022	22:00	51	72	49	46
Wednesday, January 12, 2022	23:00	53	75	49	45

Statistics	Leq	Lmax	L50	L90
Day Average	58	77	56	53
Night Average	55	71	51	48
Day Low	52	67	51	48
Day High	61	89	59	57
Night Low	49	62	47	45
Night High	58	79	56	53
Ldn	62	Day %		79
CNEL	62	Night %		21

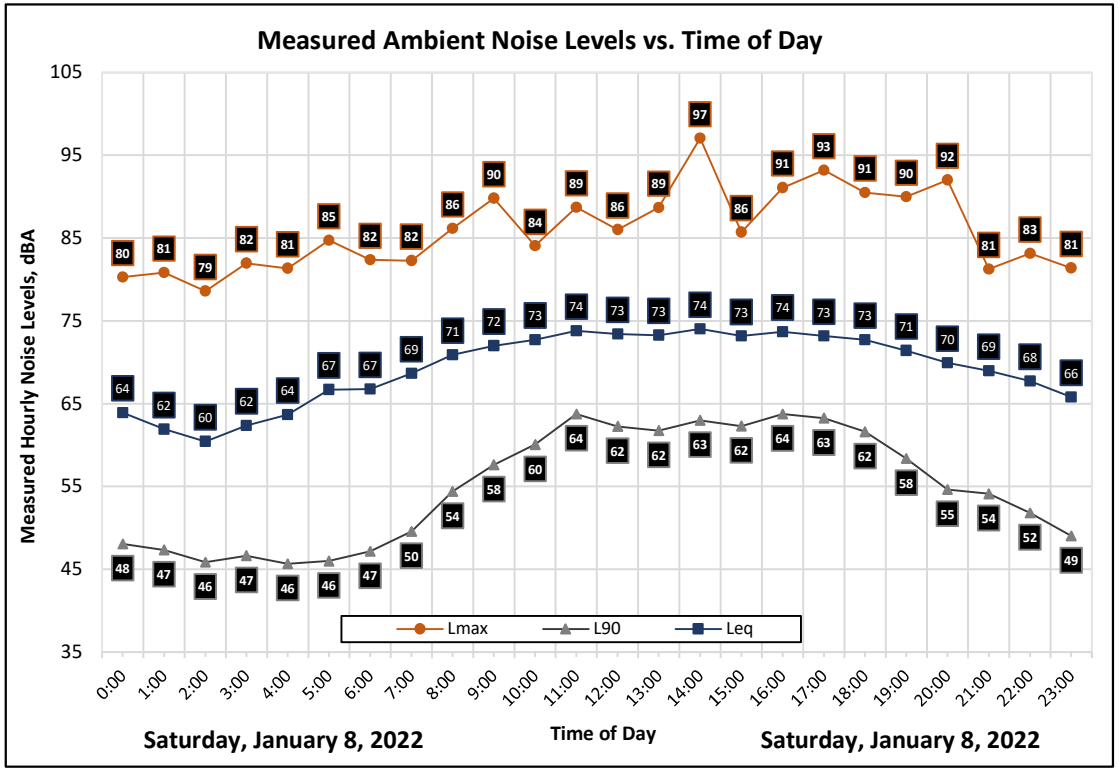


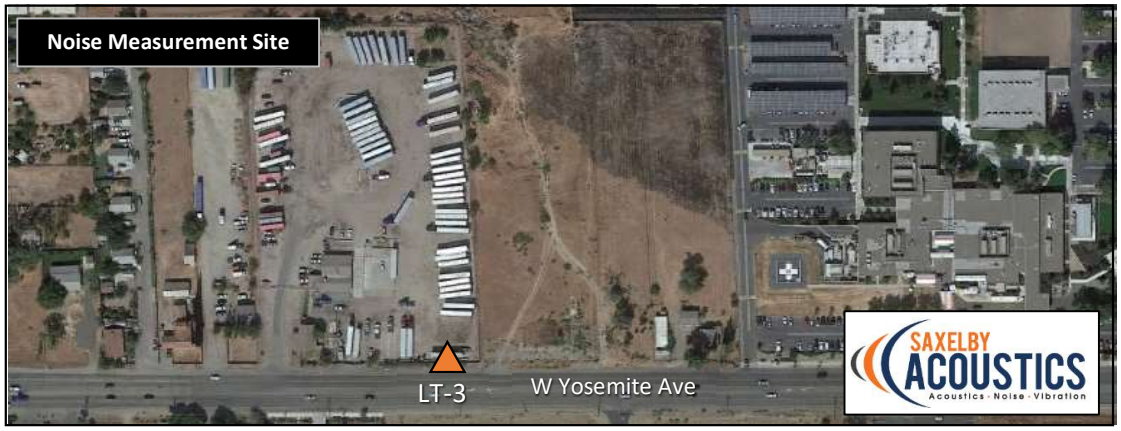
Appendix B3: Continuous Noise Monitoring Results

Site: LT-3 Saturday
Project: W. Yosemite Avenue Apartments
Location: South Along Fence
Coordinates: 37.7974613°, -121.2489890°
Meter: LDL 820-2
Calibrator: CAL200

Date	Time	Measured Level, dBA			
		L_{eq}	L_{max}	L_{50}	L_{90}
Saturday, January 8, 2022	0:00	64	80	54	48
Saturday, January 8, 2022	1:00	62	81	51	47
Saturday, January 8, 2022	2:00	60	79	50	46
Saturday, January 8, 2022	3:00	62	82	51	47
Saturday, January 8, 2022	4:00	64	81	51	46
Saturday, January 8, 2022	5:00	67	85	55	46
Saturday, January 8, 2022	6:00	67	82	58	47
Saturday, January 8, 2022	7:00	69	82	63	50
Saturday, January 8, 2022	8:00	71	86	67	54
Saturday, January 8, 2022	9:00	72	90	69	58
Saturday, January 8, 2022	10:00	73	84	71	60
Saturday, January 8, 2022	11:00	74	89	72	64
Saturday, January 8, 2022	12:00	73	86	72	62
Saturday, January 8, 2022	13:00	73	89	72	62
Saturday, January 8, 2022	14:00	74	97	72	63
Saturday, January 8, 2022	15:00	73	86	72	62
Saturday, January 8, 2022	16:00	74	91	72	64
Saturday, January 8, 2022	17:00	73	93	71	63
Saturday, January 8, 2022	18:00	73	91	70	62
Saturday, January 8, 2022	19:00	71	90	69	58
Saturday, January 8, 2022	20:00	70	92	65	55
Saturday, January 8, 2022	21:00	69	81	64	54
Saturday, January 8, 2022	22:00	68	83	61	52
Saturday, January 8, 2022	23:00	66	81	57	49

Statistics	Leq	Lmax	L50	L90
Day Average	72	88	69	59
Night Average	64	82	54	48
Day Low	69	81	63	50
Day High	74	97	72	64
Night Low	60	79	50	46
Night High	67	85	61	52
Ldn	73	Day %		92
CNEL	74	Night %		8



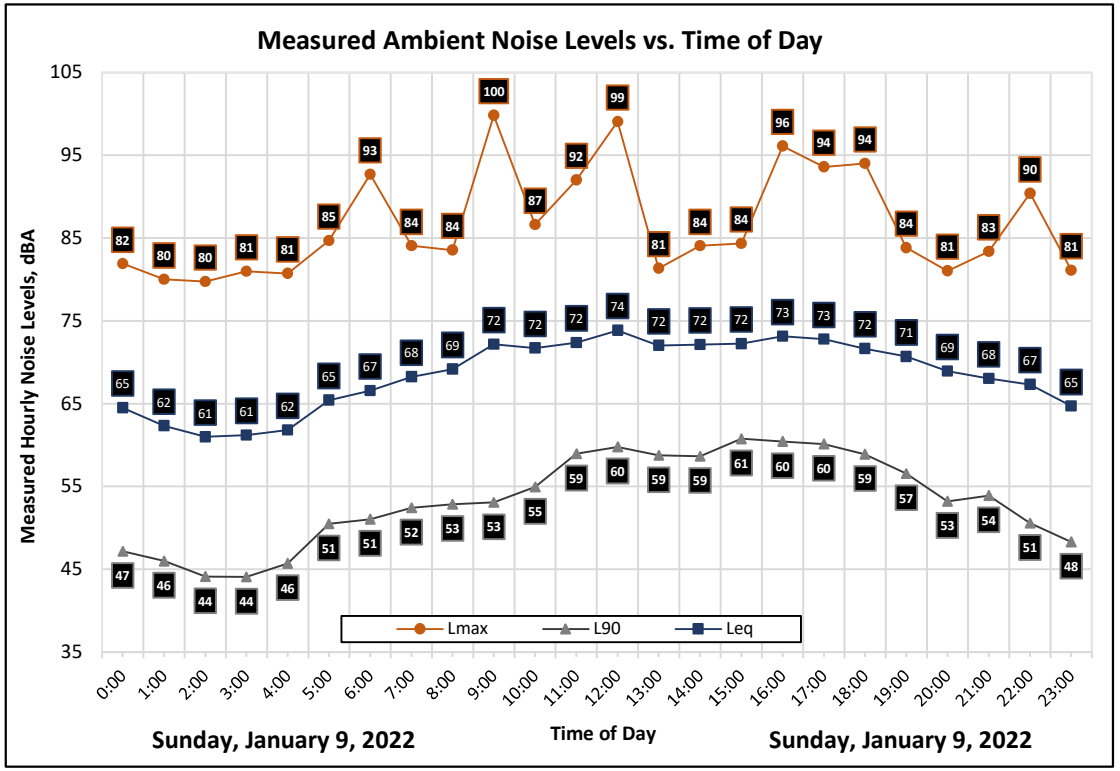


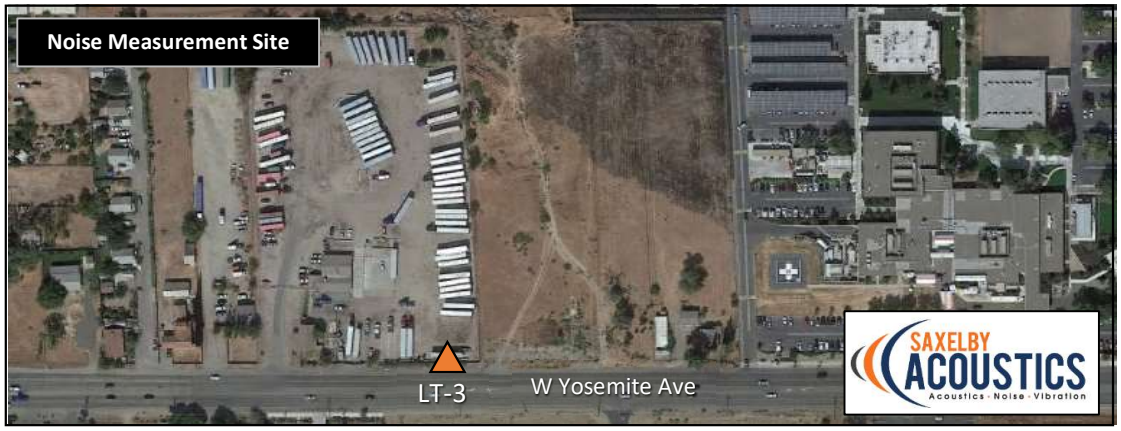
Appendix B3: Continuous Noise Monitoring Results

Site: LT-3 Sunday
Project: W. Yosemite Avenue Apartments
Location: South Along Fence
Coordinates: 37.7974613°, -121.2489890°
Meter: LDL 820-2
Calibrator: CAL200

Date	Time	Measured Level, dBA			
		L_{eq}	L_{max}	L_{50}	L_{90}
Sunday, January 9, 2022	0:00	65	82	54	47
Sunday, January 9, 2022	1:00	62	80	50	46
Sunday, January 9, 2022	2:00	61	80	49	44
Sunday, January 9, 2022	3:00	61	81	49	44
Sunday, January 9, 2022	4:00	62	81	50	46
Sunday, January 9, 2022	5:00	65	85	55	51
Sunday, January 9, 2022	6:00	67	93	56	51
Sunday, January 9, 2022	7:00	68	84	61	52
Sunday, January 9, 2022	8:00	69	84	63	53
Sunday, January 9, 2022	9:00	72	100	67	53
Sunday, January 9, 2022	10:00	72	87	69	55
Sunday, January 9, 2022	11:00	72	92	70	59
Sunday, January 9, 2022	12:00	74	99	71	60
Sunday, January 9, 2022	13:00	72	81	70	59
Sunday, January 9, 2022	14:00	72	84	70	59
Sunday, January 9, 2022	15:00	72	84	70	61
Sunday, January 9, 2022	16:00	73	96	70	60
Sunday, January 9, 2022	17:00	73	94	70	60
Sunday, January 9, 2022	18:00	72	94	69	59
Sunday, January 9, 2022	19:00	71	84	67	57
Sunday, January 9, 2022	20:00	69	81	64	53
Sunday, January 9, 2022	21:00	68	83	62	54
Sunday, January 9, 2022	22:00	67	90	58	51
Sunday, January 9, 2022	23:00	65	81	55	48

Statistics	Leq	Lmax	L50	L90
Day Average	72	88	68	57
Night Average	64	84	53	48
Day Low	68	81	61	52
Day High	74	100	71	61
Night Low	61	80	49	44
Night High	67	93	58	51
Ldn	72	Day %		92
CNEL	73	Night %		8



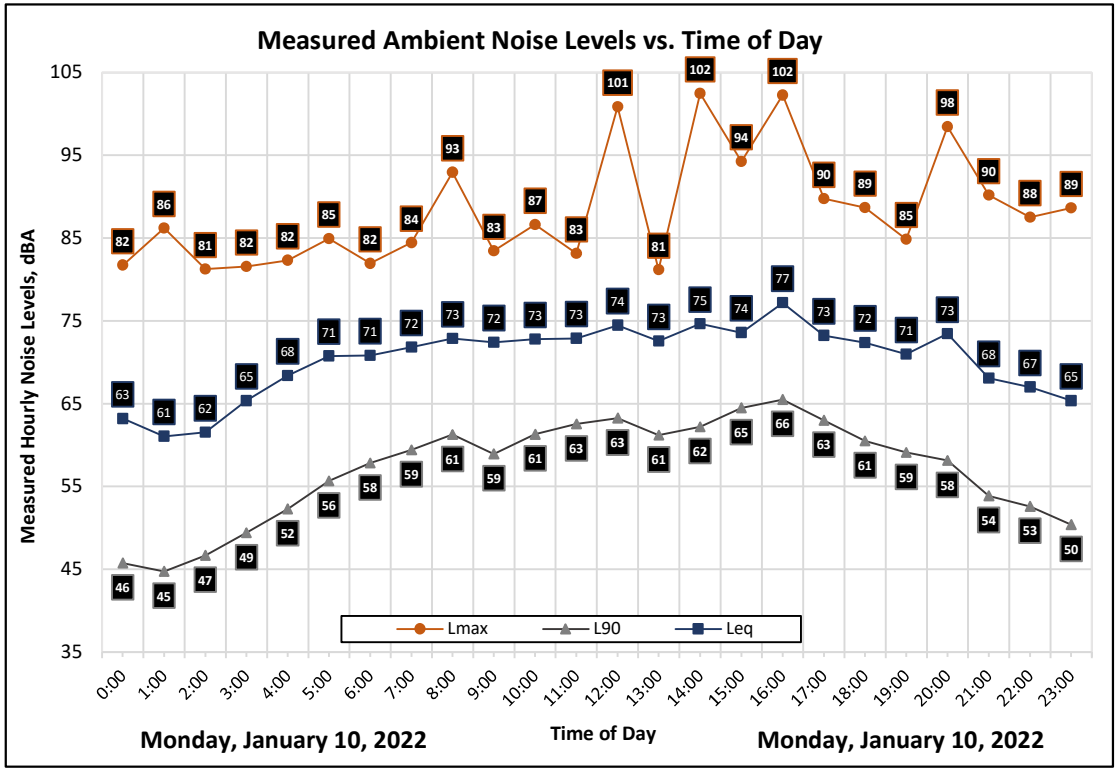


Appendix B3: Continuous Noise Monitoring Results

Site: LT-3 Monday
Project: W. Yosemite Avenue Apartments
Location: South Along Fence
Coordinates: 37.7974613°, -121.2489890°
Meter: LDL 820-2
Calibrator: CAL200

Date	Time	Measured Level, dBA			
		L_{eq}	L_{max}	L_{50}	L_{90}
Monday, January 10, 2022	0:00	63	82	51	46
Monday, January 10, 2022	1:00	61	86	48	45
Monday, January 10, 2022	2:00	62	81	51	47
Monday, January 10, 2022	3:00	65	82	54	49
Monday, January 10, 2022	4:00	68	82	59	52
Monday, January 10, 2022	5:00	71	85	65	56
Monday, January 10, 2022	6:00	71	82	67	58
Monday, January 10, 2022	7:00	72	84	69	59
Monday, January 10, 2022	8:00	73	93	71	61
Monday, January 10, 2022	9:00	72	83	71	59
Monday, January 10, 2022	10:00	73	87	71	61
Monday, January 10, 2022	11:00	73	83	72	63
Monday, January 10, 2022	12:00	74	101	72	63
Monday, January 10, 2022	13:00	73	81	71	61
Monday, January 10, 2022	14:00	75	102	72	62
Monday, January 10, 2022	15:00	74	94	72	65
Monday, January 10, 2022	16:00	77	102	73	66
Monday, January 10, 2022	17:00	73	90	72	63
Monday, January 10, 2022	18:00	72	89	71	61
Monday, January 10, 2022	19:00	71	85	68	59
Monday, January 10, 2022	20:00	73	98	67	58
Monday, January 10, 2022	21:00	68	90	62	54
Monday, January 10, 2022	22:00	67	88	60	53
Monday, January 10, 2022	23:00	65	89	57	50

Statistics	Leq	Lmax	L50	L90
Day Average	73	91	70	61
Night Average	67	84	57	51
Day Low	68	81	62	54
Day High	77	102	73	66
Night Low	61	81	48	45
Night High	71	89	67	58
Ldn	75	Day %		88
CNEL	75	Night %		12

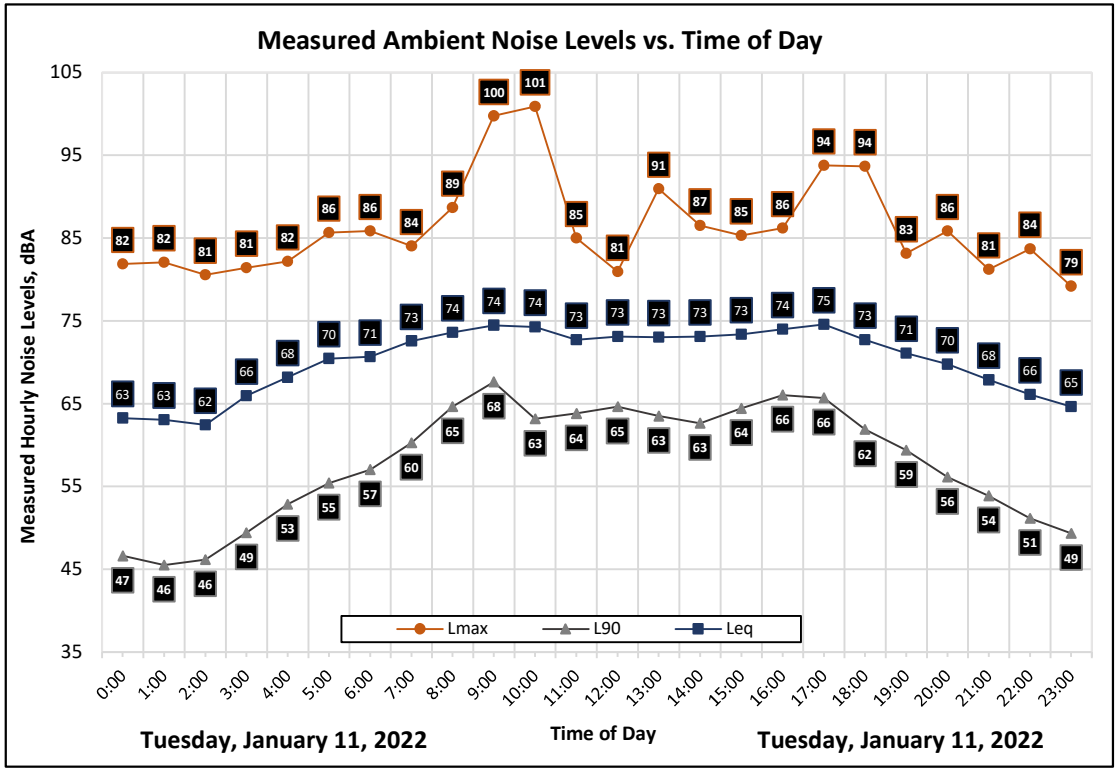


Appendix B3: Continuous Noise Monitoring Results

Site: LT-3 Tuesday
Project: W. Yosemite Avenue Apartments
Location: South Along Fence
Coordinates: 37.7974613°, -121.2489890°
Meter: LDL 820-2
Calibrator: CAL200

Date	Time	Measured Level, dBA			
		L_{eq}	L_{max}	L_{50}	L_{90}
Tuesday, January 11, 2022	0:00	63	82	53	47
Tuesday, January 11, 2022	1:00	63	82	51	46
Tuesday, January 11, 2022	2:00	62	81	51	46
Tuesday, January 11, 2022	3:00	66	81	55	49
Tuesday, January 11, 2022	4:00	68	82	59	53
Tuesday, January 11, 2022	5:00	70	86	65	55
Tuesday, January 11, 2022	6:00	71	86	66	57
Tuesday, January 11, 2022	7:00	73	84	70	60
Tuesday, January 11, 2022	8:00	74	89	72	65
Tuesday, January 11, 2022	9:00	74	100	73	68
Tuesday, January 11, 2022	10:00	74	101	71	63
Tuesday, January 11, 2022	11:00	73	85	71	64
Tuesday, January 11, 2022	12:00	73	81	72	65
Tuesday, January 11, 2022	13:00	73	91	71	63
Tuesday, January 11, 2022	14:00	73	87	72	63
Tuesday, January 11, 2022	15:00	73	85	72	64
Tuesday, January 11, 2022	16:00	74	86	73	66
Tuesday, January 11, 2022	17:00	75	94	73	66
Tuesday, January 11, 2022	18:00	73	94	70	62
Tuesday, January 11, 2022	19:00	71	83	69	59
Tuesday, January 11, 2022	20:00	70	86	66	56
Tuesday, January 11, 2022	21:00	68	81	62	54
Tuesday, January 11, 2022	22:00	66	84	58	51
Tuesday, January 11, 2022	23:00	65	79	55	49

Statistics	Leq	Lmax	L50	L90
Day Average	73	88	71	63
Night Average	67	83	57	50
Day Low	68	81	62	54
Day High	75	101	73	68
Night Low	62	79	51	46
Night High	71	86	66	57
Ldn	75	Day %		88
CNEL	75	Night %		12

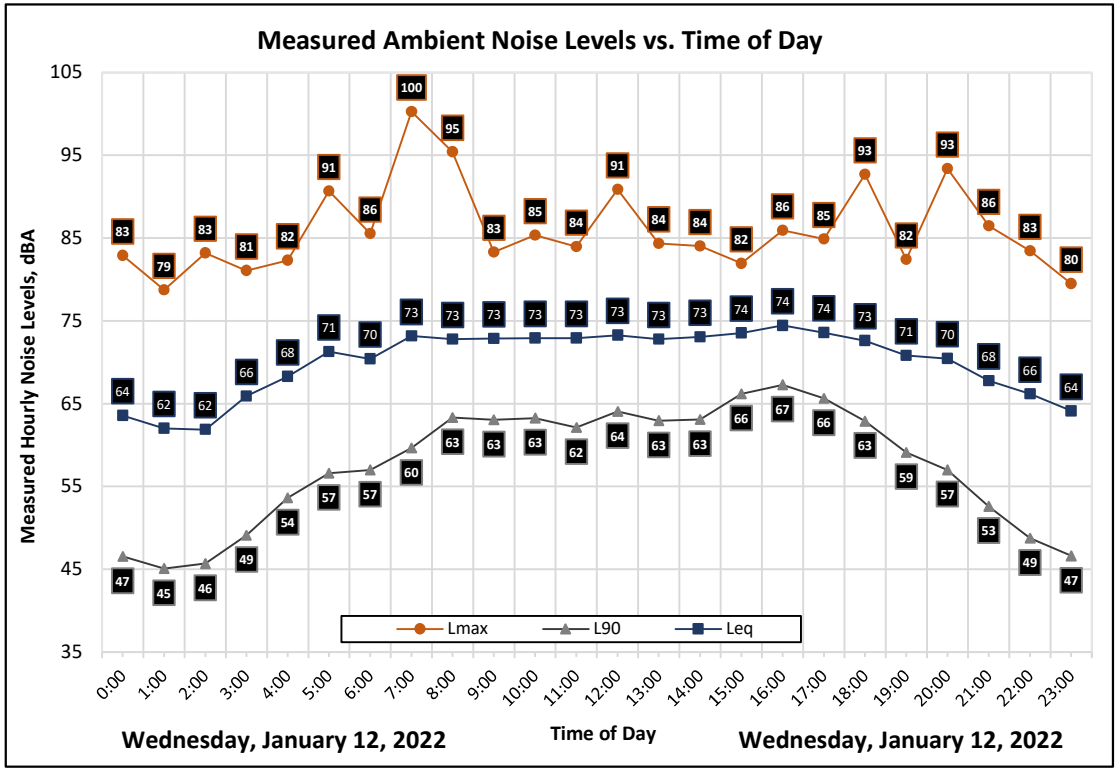


Appendix B3: Continuous Noise Monitoring Results

Site: LT-3 Wednesday
Project: W. Yosemite Avenue Apartments
Location: South Along Fence
Coordinates: 37.7974613°, -121.2489890°
Meter: LDL 820-2
Calibrator: CAL200

Date	Time	Measured Level, dBA			
		L_{eq}	L_{max}	L_{50}	L_{90}
Wednesday, January 12, 2022	0:00	64	83	53	47
Wednesday, January 12, 2022	1:00	62	79	52	45
Wednesday, January 12, 2022	2:00	62	83	49	46
Wednesday, January 12, 2022	3:00	66	81	55	49
Wednesday, January 12, 2022	4:00	68	82	61	54
Wednesday, January 12, 2022	5:00	71	91	65	57
Wednesday, January 12, 2022	6:00	70	86	66	57
Wednesday, January 12, 2022	7:00	73	100	69	60
Wednesday, January 12, 2022	8:00	73	95	71	63
Wednesday, January 12, 2022	9:00	73	83	71	63
Wednesday, January 12, 2022	10:00	73	85	72	63
Wednesday, January 12, 2022	11:00	73	84	72	62
Wednesday, January 12, 2022	12:00	73	91	72	64
Wednesday, January 12, 2022	13:00	73	84	71	63
Wednesday, January 12, 2022	14:00	73	84	72	63
Wednesday, January 12, 2022	15:00	74	82	73	66
Wednesday, January 12, 2022	16:00	74	86	74	67
Wednesday, January 12, 2022	17:00	74	85	73	66
Wednesday, January 12, 2022	18:00	73	93	71	63
Wednesday, January 12, 2022	19:00	71	82	68	59
Wednesday, January 12, 2022	20:00	70	93	66	57
Wednesday, January 12, 2022	21:00	68	86	62	53
Wednesday, January 12, 2022	22:00	66	83	58	49
Wednesday, January 12, 2022	23:00	64	80	54	47

Statistics	Leq	Lmax	L50	L90
Day Average	73	88	70	62
Night Average	67	83	57	50
Day Low	68	82	62	53
Day High	74	100	74	67
Night Low	62	79	49	45
Night High	71	91	66	57
Ldn	75	Day %		87
CNEL	75	Night %		13



Appendix C: Interior Noise Level Reduction Calculations

Appendix C1: Interior Noise Calculation Sheet

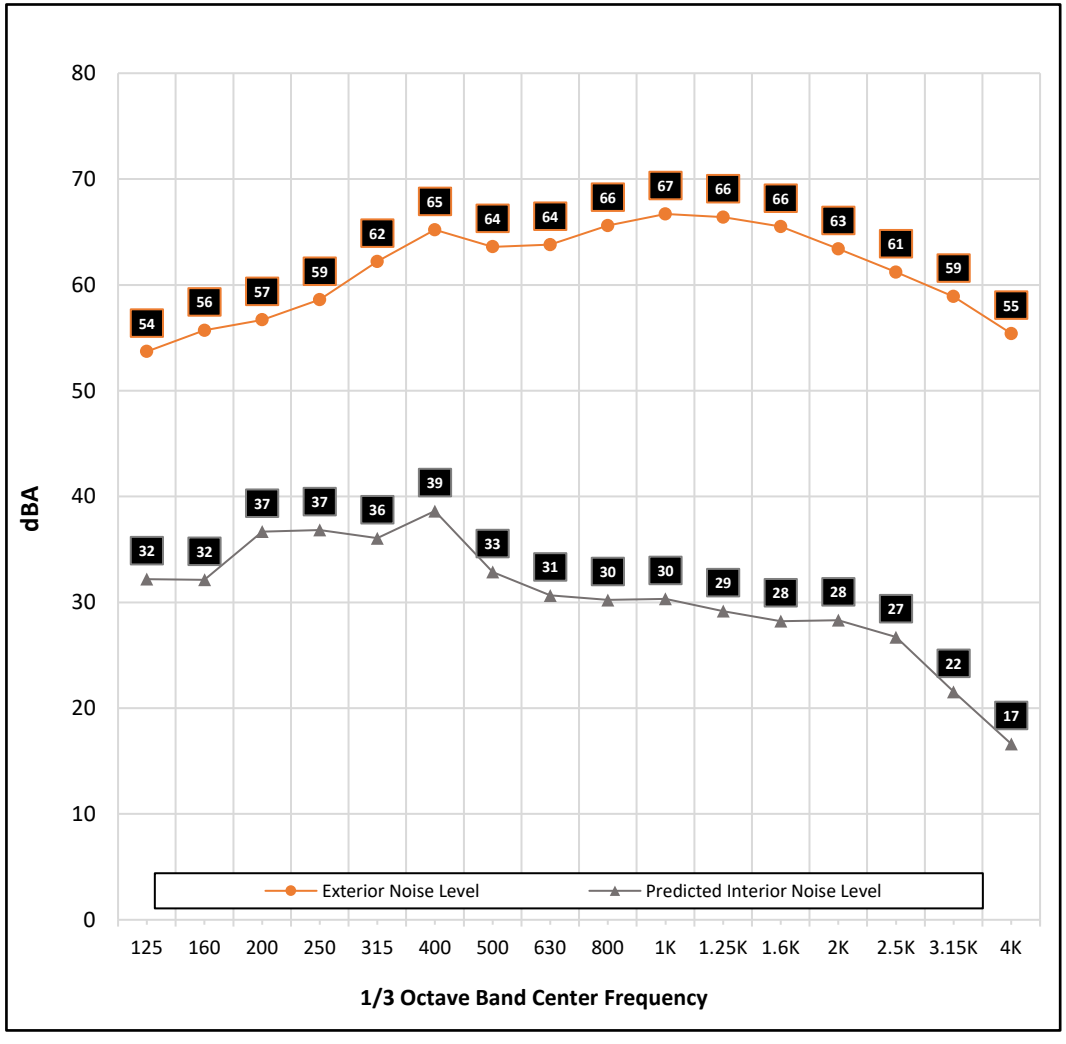
Project: West Yosemite Avenue Apartments

Room Description: Bedroom

Inputs		
Parallel Exterior level, dBA:	75.0	Ldn
Correction Factor, dBA:	5.0	
Noise Source:	Arterial Traffic	
Room Perimeter, ft:	40.0	
Room Area, ft:	100.0	
Room Height, ft:	9.0	
Transmitting Panel Length, ft:	20.0	
Glazing Area, ft:	24.0	
Ceiling Finish:	Gyp Board	
Ceiling, sf:	100	
Wall Finish 1:	Gyp Board	
Wall Finish 1, sf:	336	
Wall Finish 2:	Glass	
Wall Finish 2, sf:	24	
Floor:	Vinyl Plank	
Floor, sf:	100	
Misc. Finish:	Soft Furnishings	
Misc. Finish, sf:	25	
Transmitting Element 1:	Wall - 1-Coat Stucco, RC 5/8" gyp INSUL	
Element 1, sf:	156	
Transmitting Element 2:	Glazing - STC 36	
Element 2, sf:	24	
Transmitting Element 3:		
Element 3, sf:		
Transmitting Element 4:		
Element 4, sf:		

Predicted Interior Noise Level, dBA: 45

Noise Reduction, dBA: -30



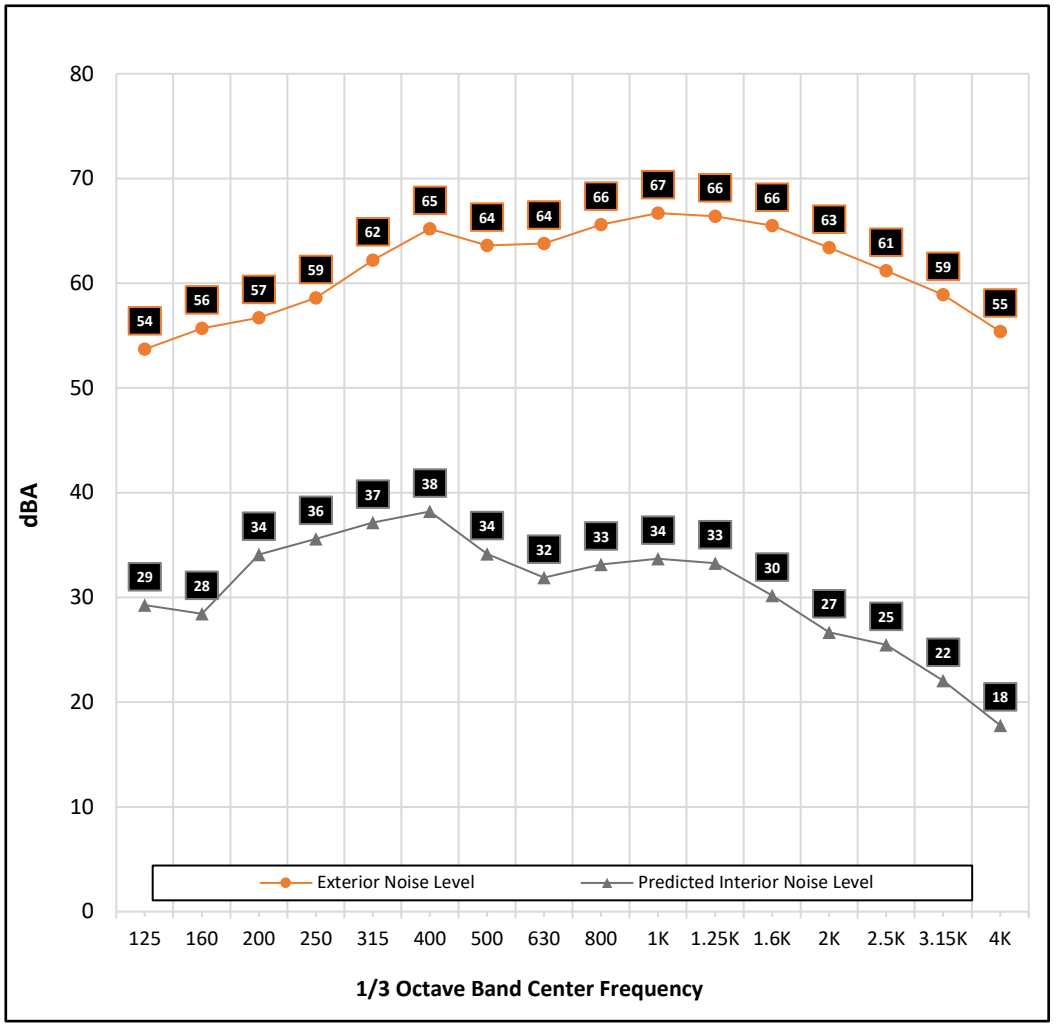
SAXELBY ACOUSTICS
Acoustics · Noise · Vibration

Appendix C2: Interior Noise Calculation Sheet

Project: West Yosemite Avenue Apartments
Room Description: Living Room

Inputs		
Parallel Exterior level, dBA:	75.0	Ldn
Correction Factor, dBA:	5.0	
Noise Source:	Arterial Traffic	
Room Perimeter, ft:	64.0	
Room Area, ft:	240.0	
Room Height, ft:	9.0	
Transmitting Panel Length, ft:	20.0	
Glazing Area, ft:	24.0	
Ceiling Finish:	Gyp Board	
Ceiling, sf:	240	
Wall Finish 1:	Gyp Board	
Wall Finish 1, sf:	552	
Wall Finish 2:	Glass	
Wall Finish 2, sf:	24	
Floor:	Vinyl Plank	
Floor, sf:	240	
Misc. Finish:	Soft Furnishings	
Misc. Finish, sf:	25	
Transmitting Element 1:	Wall - 1-Coat Stucco, RC 5/8" gyp INSUL	
Element 1, sf:	156	
Transmitting Element 2:	Glazing - STC 33	
Element 2, sf:	24	
Transmitting Element 3:		
Element 3, sf:		
Transmitting Element 4:		
Element 4, sf:		

Predicted Interior Noise Level, dBA: 45
Noise Reduction, dBA: -30



SAXELBY ACOUSTICS
Acoustics · Noise · Vibration