

PUBLIC REVIEW DRAFT
INITIAL STUDY/
MITIGATED NEGATIVE DECLARATION

FOR THE

BETHANY HOME - THE TERRACES SENIOR
RESIDENTIAL PROJECT

Ripon, CA

June 2022

Prepared for:

City of Ripon
9259 N. Wilma Avenue
Ripon, CA 95366

Prepared by:

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



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City of Ripon
259 N. Wilma Avenue
Ripon, CA 95366

NOTICE OF INTENT TO ADOPT MITIGATED NEGATIVE DECLARATION

Notice is hereby given that the City of Ripon has prepared an Initial Study (IS) of environmental effects and intends to adopt a Mitigated Negative Declaration (MND) and Mitigation Monitoring/Reporting Plan (MMRP) for the Bethany Home – The Terraces Senior Residential project. The City of Ripon is the Lead Agency for this project under the California Environmental Quality Act (CEQA).

The project proposes to construct a 106,894 square foot, three-story residential care facility on two adjacent parcels (APN #25918016 and 25918017) totaling approximately 2.73 acres. The project proposes 82 residential units with indoor and outdoor amenities. Indoor amenities include lobby, dining and café/bistro, library, fitness/wellness center, multipurpose rooms, salon, and support centers. Outdoor amenities include dining areas, open courtyards, gardens, and pet area. The project includes 46 standard parking stalls and 36 compact stalls.

The IS/MND analyzes the potential environmental effects of the project in the environmental issue areas specified in the State CEQA Guidelines. Based on this analysis, the Public Review Draft IS/MND finds that the project will not involve any significant environmental effects, provided that the mitigation measures described in the IS/MND are implemented. The project proponent has agreed to the mitigation measures, and these measures are included in a MMRP to be adopted by the City of Ripon in conjunction with the IS/MND and approval of the project. There are no sites identified under Section 65962.5 of the Government Code located on or near the project site.

Copies of the IS/MND are available for public review at the City of Ripon at the address shown above, and at the City's website:

https://www.cityofripon.org/city_hall/departments/planning

The City will accept public and agency comments on the IS/MND during a 20-day review period that will begin on June 25, 2022 and end on July 14, 2022. Comments may be submitted by mail or e-mail to the City at the address shown below or during the City of Ripon Planning Commission meeting Monday, July 18, 2022 at 6:00 PM.

City of Ripon
Attn: Ken Zuidervaart
259 N. Wilma Avenue
Ripon, Ca. 95366 kzuidervaart@cityofripon.org

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LIST OF ACRONYMS AND ABBREVIATIONS USED IN THIS DOCUMENT

| | |
|-------------------|---|
| AB | Assembly Bill |
| APN | Assessor's Parcel Number |
| ARB | California Air Resources Board |
| BMP | Best Management Practice |
| CalEEMod | California Emissions Estimator Model |
| CalEPA | California Environmental Protection Agency |
| Cal Fire | California Department of Forestry and Fire Protection |
| CALGreen | California Green Building Standards Code |
| Caltrans | California Department of Transportation |
| CDFW | California Department of Fish and Wildlife |
| CEQA | California Environmental Quality Act |
| CESA | California Endangered Species Act |
| CNDDB | California Natural Diversity Data Base |
| CNEL | Community Noise Equivalent Level |
| CO | carbon monoxide |
| CO ₂ e | carbon dioxide equivalent |
| dB | decibel |
| DTSC | California Department of Toxic Substances Control |
| EIR | Environmental Impact Report |
| EPA | U. S. Environmental Protection Agency |
| ESA | Endangered Species Act (federal) |
| FEMA | Federal Emergency Management Agency |
| GAMAQI | Guide for Assessing and Mitigating Air Quality Impacts |
| GHG | greenhouse gas |
| gpm | gallons per minute |
| IS/MND | Initial Study/Mitigated Negative Declaration |
| L _{dn} | Day-Night Average Sound Level |
| LID | Low Impact Development |
| LOS | Level of Service |
| mgd | million gallons per day |
| MS4 | Municipal Separate Storm Sewer System |
| NESHAP | National Emissions Standards for Hazardous Air Pollutants |
| NO _x | nitrogen oxides |
| NPDES | National Pollutant Discharge Elimination System |
| OPR | Governor's Office of Planning and Research |
| PM ₁₀ | particulate matter 10 micrometers or less in diameter |
| PM _{2.5} | particulate matter 2.5 micrometers or less in diameter |
| ROG | reactive organic gases |
| RTP | Regional Transportation Plan |
| RWQCB | Regional Water Quality Control Board |
| SB | Senate Bill |

| | |
|---------|---|
| SJCOG | San Joaquin Council of Governments |
| SJMSCP | San Joaquin County Multi-Species Open Space and Habitat Conservation Plan |
| SJVAPCD | San Joaquin Valley Air Pollution Control District |
| SR | State Route |
| SSJID | South San Joaquin Irrigation District |
| SWMP | Storm Water Management Program |
| 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: | Bethany Home, The Terraces |
| Lead Agency Name and Address: | City of Ripon 259 N. Wilma Avenue Ripon, CA 95366 |
| Contact Person and Phone Number: | Ken Zuidervaart, Director, Planning, Building and Economic Development 209-599-0222 |
| Project Location: | 816 W Main Street and 200 Vera Avenue, Ripon, CA 95366, APN 25918017 and 25918016 |
| Project Sponsor Name and Address: | Bethany Home Society of San Joaquin County, Inc. 930 West Main Street, Ripon, CA 95366 |
| General Plan Designation: | Urban Core |
| Zoning: | C1 - Neighborhood Commercial |
| Project Description: | The project proposes to construct a 106,894 square foot, three-story residential care facility on two adjacent parcels (APN #25918016 and 25918017) totaling approximately 2.73 acres. The project proposes 82 residential units with indoor and outdoor amenities. Indoor amenities include lobby, dining and café/bistro, library, fitness/wellness center, multipurpose rooms, salon, and support centers. Outdoor amenities include dining areas, open courtyards, gardens, and pet area. The project includes 46 standard parking stalls and 36 compact stalls. The project requires City of Ripon approval of a Conditional Use Permit (UP 21-70) and a Planned Unit Development (PUD 21-79). |

Surrounding Land Uses and Setting: The project site is located on the southeast corner of Main Street and Vera Avenue in a developed area of central Ripon. Single-family residences and duplexes are located west and south of the project site. A church is located on the adjacent lot east of the site. The Ripon Christian Preschool and a single-family residence is located north directly across Main Street.

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? Project notification has been provided to the tribes requesting consultation concurrent with the public review of this document. No tribal responses have been received to date.

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.

- X 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 RIPON



Ken Zuidervaart
Director of Planning, Building and Economic Development

6-24-22
Date

1.0 INTRODUCTION

1.1 Project Brief

This document is an Initial Study/Mitigated Negative Declaration (IS/MND) for the Bethany Home – The Terraces Senior Residential Care Project (project) in Ripon, California. The 2.73-acre project site is located at the southeast corner of the intersection of Main Street and Vera Avenue in central Ripon (Figures 1-1 to 1-5). The project applicant is Bethany Home Society of San Joaquin County, Incorporated. 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 Ripon (City) is the Lead Agency for the project.

The project proposes to construct an 82-residential unit, three-story building on two adjacent parcels totaling 2.73 acres (Figures 2-1 through 2-4, Chapter 2.0). The project also proposes indoor and outdoor amenities available to residents. Indoor amenities will include dining, fitness center, multipurpose room, salon, and support spaces. Outdoor amenities will include dining areas, pet area, open courtyard, and gardens. Access to the project would be from Vera Avenue, and onsite parking spaces would be provided. Water, sewer and storm drainage services would be provided by the City of Ripon. The project would require approvals of a Conditional Use Permit, Planned Unit Development site plan review and design review by the City.

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 purpose of an Initial Study is to determine whether the project would involve "significant" environmental effects as defined by CEQA and to describe 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 The City has determined it is not exempt from CEQA. The City has determined that the project 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 concludes that the project would have significant environmental effects, but that recommended mitigation measures would reduce all these effects to a level that would be less than significant. 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 is shown just inside the cover of this document. As of the distribution of the IS/MND for public review, the applicant has accepted all the recommended mitigation measures. The time available for comment on the IS/MND is shown in the Notice of Intent prepared for the project.

1.3 Project Background

The project site is in a developed area of central Ripon. The site, located along Main Street, currently contains three existing buildings in various uses. The southernmost parcel is occupied by single-story office/medical units, including the Bethany Home In-Home Care services unit.

The predominant land use in the area is residential and commercial – single-family residences and duplexes predominate south of Main Street while commercial uses are predominant along Main Street. The Ripon Grace Church is located on the parcel immediately east of the project site. North of the project site, across Main Street, is Ripon Christian Preschool.

The Ripon General Plan 2040 Housing Element, an element of the Ripon General Plan 2040, was adopted in 2006 and amended most recently in 2017 to reflect the rising growth cap. The project site is zoned Urban Core (UC) in the Vera Planning District of Ripon.

The Ripon Housing Element 2015-2023 notes that the City of Ripon has shown an increase in the 65+ age group, suggesting a need for additional retirement and adult senior residential facilities. (Ripon Housing Element, 2022)

Bethany Home has been an important staple in the Ripon senior community since 1963. Beginning as a 74-bed convalescent hospital, it has now expanded to several specialty care and multi-level care facilities. Bethany home offers skilled nursing, assisted living, in-home care, memory care, adult day services and independent living care to the growing senior population in several locations throughout the City of Ripon. The project would add 82 new residential units to the over 400 seniors currently being served by Bethany Home and expand the services and amenities offered to the senior community.

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.

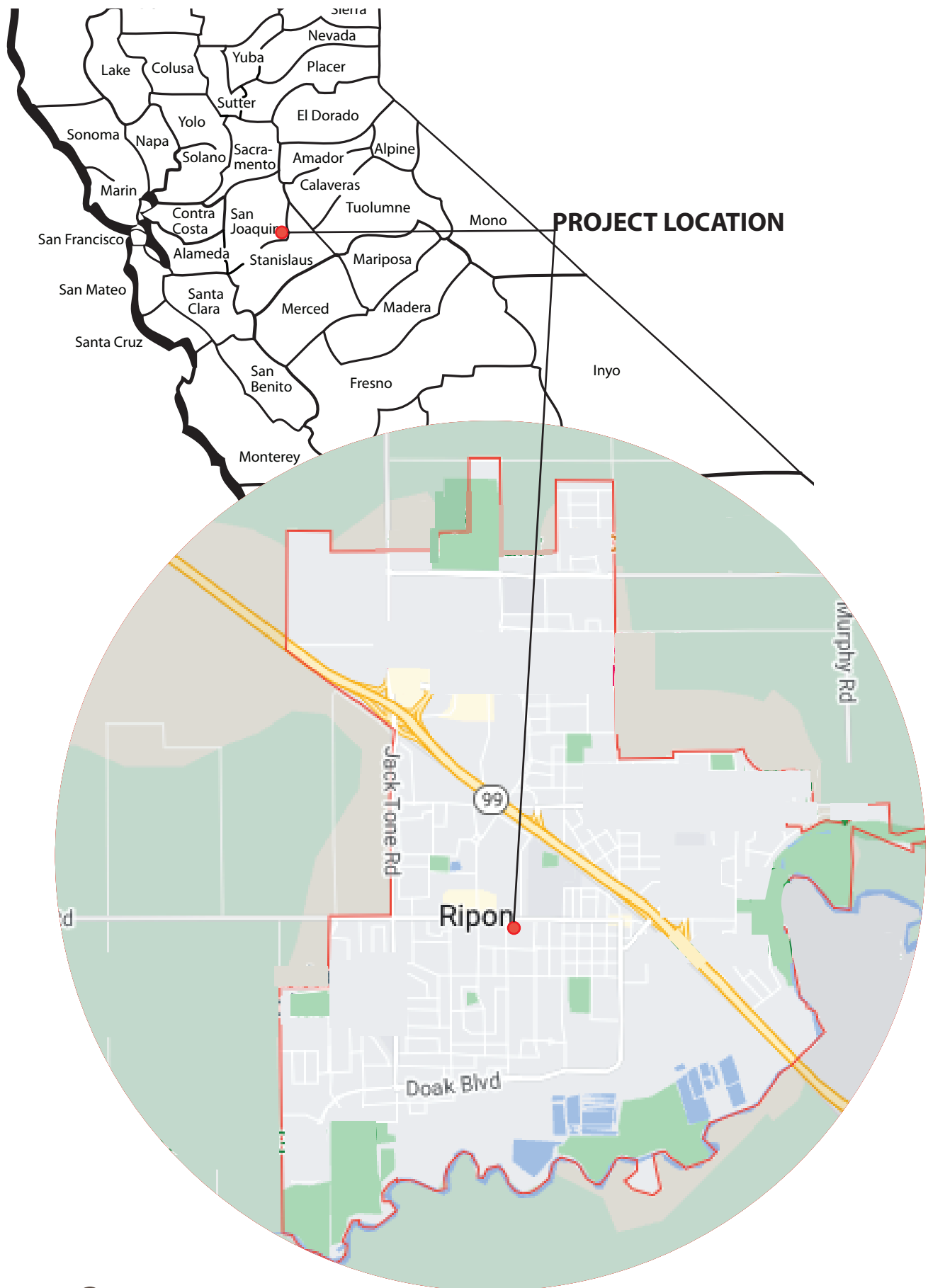
A determination of No Impact is self-explanatory.

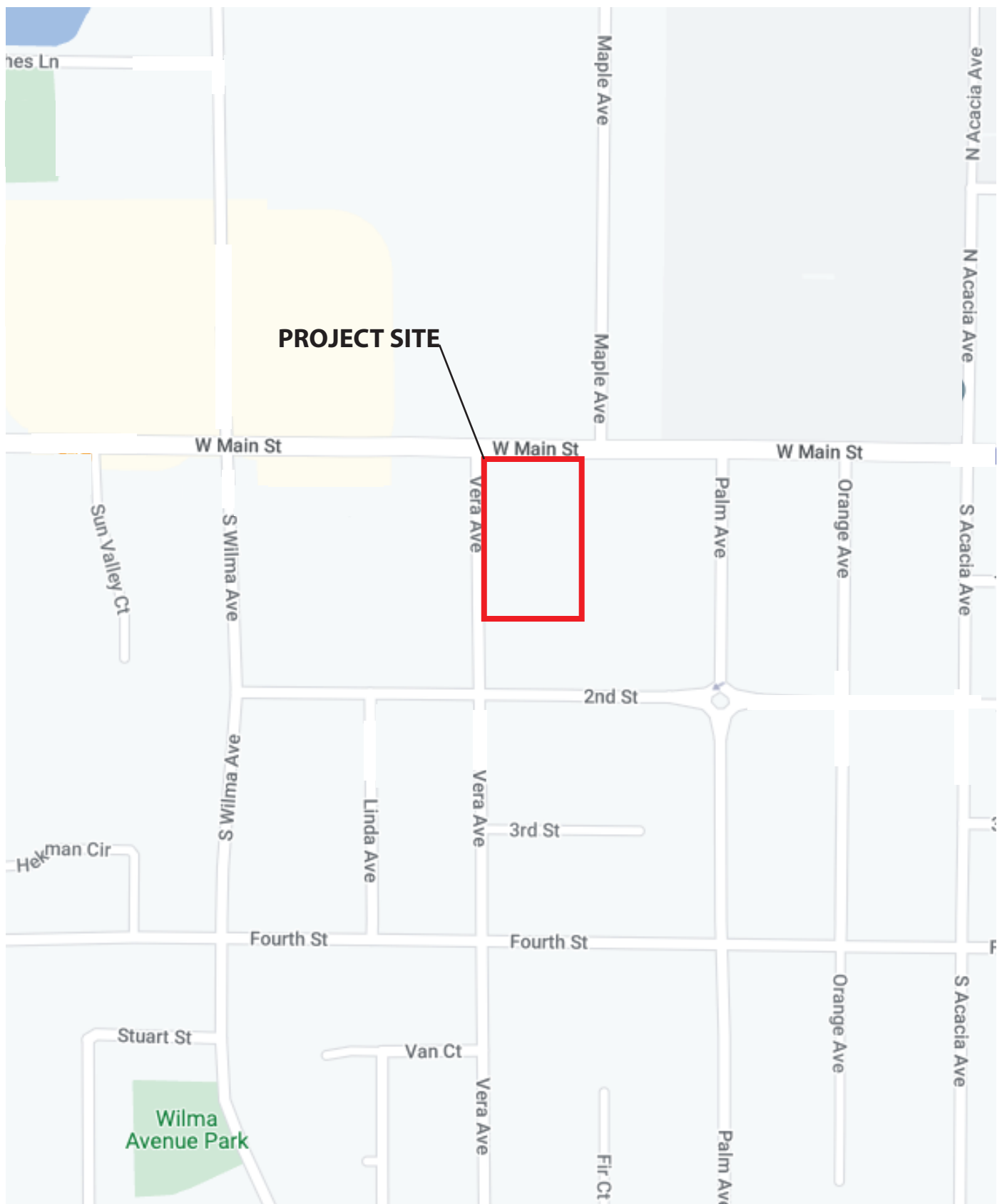
Some existing regulatory requirements that have been established by the City and other agencies with jurisdiction, and which are routinely implemented in conjunction with new development, function as measures that would tend to reduce or avoid the potential environmental impacts of a project. These requirements are described in this IS/MND as a part of the existing regulatory setting. If these requirements are not considered adequate to

reduce or avoid an environmental impact, this IS/MND identifies additional mitigation measures needed to address the impact. These mitigation measures are described in the appropriate technical section of Chapter 3.0 and are summarized in Table 1-1. All mitigation measures described in this IS/MND are considered feasible and would reduce potentially significant environmental effects of the project to a level that would be less than significant. As of the publication of the Notice of Intent, these mitigation measures have been accepted by the project applicant.

1.4 Summary of Environmental Effects and Mitigation Measures

The pages following Figures 1-1 through 1-5 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 shown 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 minimize the significant or potentially 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.

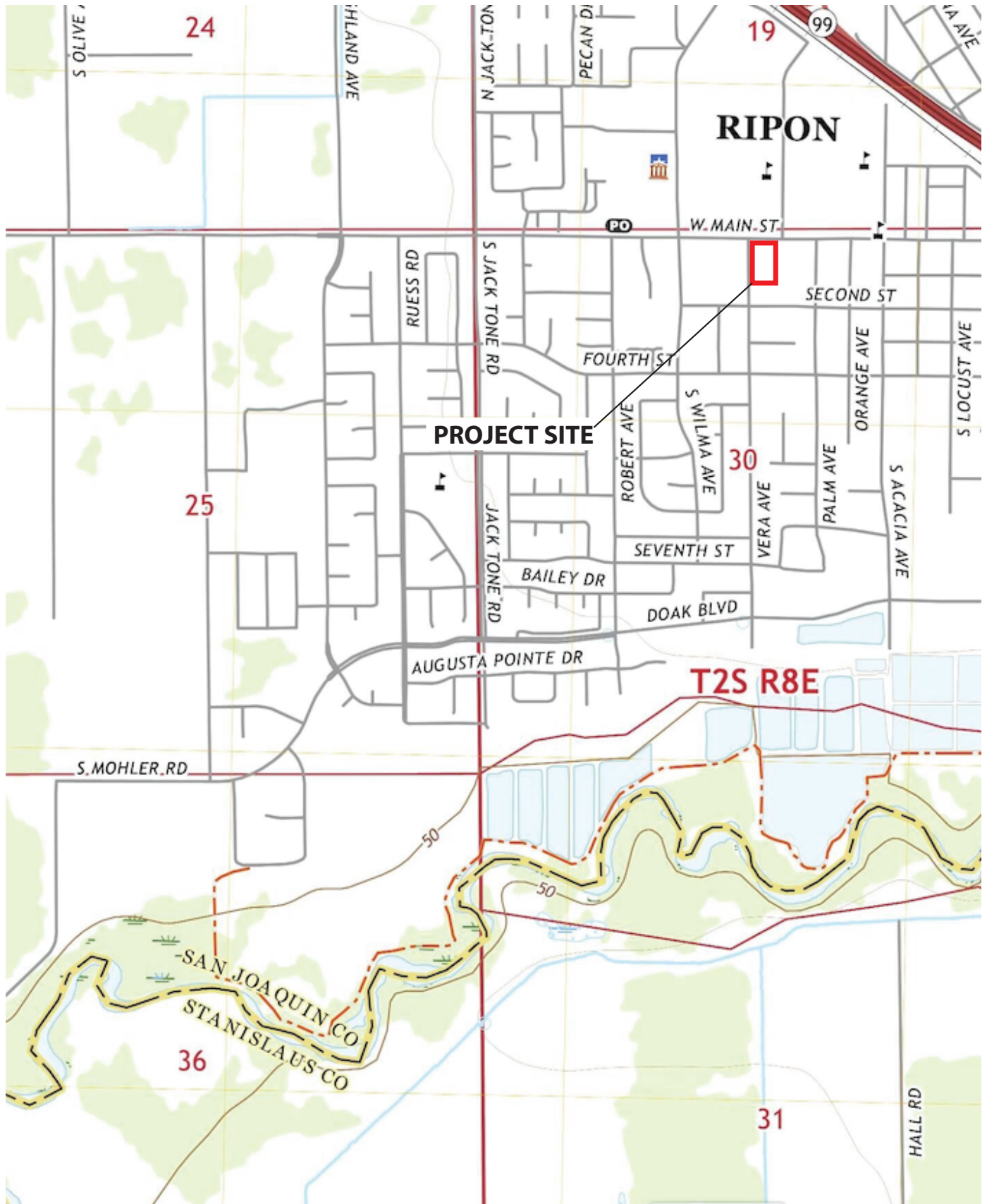




SOURCE: Google Maps



Figure 1-2
STREET MAP



SOURCE: USGS Quadrangle Map, Ripon CA 2021



SOURCE: Google Earth

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 | LS | 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 | NI | None required | - |
| 3.4 BIOLOGICAL RESOURCES | | | |
| a) Special-Status Species | NI | None required | - |
| b) Riparian and Other Sensitive Habitats | NI | None required | - |
| c) State and Federal Jurisdictional Wetlands | NI | None required | - |

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 | NI | None required | - |
| e) Local Biological Requirements | NI | None required | - |
| f) Conflict with Habitat Conservation Plans | NI | None required | - |
| 3.5 CULTURAL RESOURCES | | | |
| a) Historical Resources | LS | None required | - |
| b) Archaeological Resources | PS | CULT-1: If any subsurface cultural resources are encountered during project construction, all construction activities within 50 feet of the encounter shall be halted until a qualified archaeologist can examine these materials, determine their significance, and, if significant, recommend mitigation measures that would reduce potential effects to a level that is less than significant. Recommended measures could include, but are not limited to, 1) preservation in place, or 2) excavation, recovery, and curation by qualified professionals. The City of Escalon Community Development Department and the HACSJ shall be notified, and 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 and the HACSJ, consistent with the requirements of the CEQA Guidelines. If burial resources or tribal cultural resources are discovered, the City shall notify the appropriate tribal representative, who may examine the materials with the archaeologist and advise the City as to their significance and disposition. | LS |
| c) Human Burials | LS | None required | - |

TABLE 1-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

| Potential Impact | Significance Before Mitigation Measures | Mitigation Measures | Significance After Mitigation Measures |
|--|---|---|--|
| 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 | NI | 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 with the State Water Resources Control Board (SWRCB) in compliance with the Construction General Permit and City of Ripon 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. | LS |
| c) Geologic Instability | LS | None required | - |
| d) Expansive Soils | NI | None required | - |
| e) Adequacy of Soils for Wastewater Disposal | NI | None required | - |

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, all construction activities within 50 feet of the encounter shall be halted until a qualified paleontologist can examine these materials, determine their significance and, if significant, recommend further mitigation measures that would reduce potential effects 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 City of Ripon Planning, Building and Economic Development Department and the HACSJ shall be notified, and 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 Planning, Building and Economic Development Department and the HACSJ, 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 | LS | None required | - |
| e) Public Airport Operations | NI | None required | - |

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 Ripon Police Department and the Ripon Consolidated Fire District 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, iii) Drainage Patterns and Runoff | LS | None required | - |
| c-iv) Flood Flows | NI | 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 | - |
| b) Conflicts with Plans, Policies and Regulations Mitigating Environmental Effects | LS | None required | - |

TABLE 1-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

| Potential Impact | Significance Before Mitigation Measures | Mitigation Measures | Significance After Mitigation Measures |
|--|---|--|--|
| 3.12 MINERAL RESOURCES | | | |
| a, b) Availability of Mineral Resources | NI | None required | - |
| 3.13 NOISE | | | |
| a) Exposure to Noise Exceeding Local Standards | PS | NOISE-1: All equipment used on the construction site during all project phases shall be fitted with mufflers in accordance with manufacturers' specifications. Mufflers shall be installed on the equipment at all times on the construction site. | LS |
| 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 | - |

TABLE 1-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

| Potential Impact | Significance Before Mitigation Measures | Mitigation Measures | Significance After Mitigation Measures |
|--|---|---|--|
| 3.16 RECREATION | | | |
| a, b) Recreational Facilities | LS | None required | - |
| 3.17 TRANSPORTATION | | | |
| a) Conflict with Transportation Plans, Ordinances and Policies | LS | None required | - |
| b) Conflict with CEQA Guidelines Section 15064.3(b) | LS | None required | - |
| c) Traffic Hazards | PS | <p>TRANS-1: The City shall install a stop bar across northbound Vera Avenue about five feet outside of the existing crosswalk across Vera Avenue. The City Engineer shall prepare plans for the installation, in accordance with applicable City standards and specifications. The project applicant shall reimburse the City for the costs of installing the stop bar, as determined by the City Engineer.</p> <p>TRANS-2: The City shall establish a No Parking zone along the east side of Vera Avenue on both sides of the project access. The distance of the No Parking zone, along with the installation of No Parking signs and/or other features, shall be determined by the City Engineer, in accordance with applicable City standards and specifications.</p> | LS |
| 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 | - |

TABLE 1-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

| Potential Impact | Significance Before Mitigation Measures | Mitigation Measures | Significance After Mitigation Measures |
|---|---|--|--|
| 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 | PS | Mitigation Measure HAZ-1. | LS |
| 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 | - |

2.0 PROJECT DESCRIPTION

2.1 Project Location

The project site is located on the southeast corner of 816 W. Main Street and 200 Vera Avenue in central Ripon (see Figures 1-1 to 1-5). The project site would occupy two parcels identified as Assessor's Parcel Numbers (APN) 259-180-17 and APN 259-180-16. The site is shown on the U.S. Geological Survey Ripon, California, 7.5-minute quadrangle map as being within Section 30, Township 2 South, Range 8 East, Mt. Diablo Base and Meridian. The approximate latitude and longitude of the project site is 37° 44' 20.48" North and 121° 07' 57.43" West, respectively.

2.2 Project Details

The project proposes to construct one three-story residential care facility with indoor and outdoor amenities on two adjacent parcels totaling approximately 2.73 acres (Figure 2-1). Residential units will consist of a total of 82 studio, one-bedroom, and two-bedroom units available to seniors aged 62 and older. Total floor area of the building would be 106,894 square feet.

Indoor amenities of the project will include a large lobby and centralized living room area, multiple large dining areas, library/lounge, café/bistro, fitness and wellness centers, multipurpose rooms, salon, studio, and support spaces. Outdoor amenities will include open courtyards, landscape and walkways connecting common areas, outdoor dining and lounge areas, fitness and wellness courts, community gardens, and an off-leash pet area.

The main access to the project site would be from Vera Avenue, with secondary access off Main Street. The project would provide 82 parking spaces for residents and visitors which will include 46 standard stalls and 36 compact stalls. Water, sewer, and storm drainage services would be provided by the City of Ripon, and the project would connect to existing utility lines in the vicinity.

The project would require development of existing structures on the site, which consist of older buildings, currently used as a donation center for the Ripon Interfaith Ministries and a medical/office building housing the Bethany Home In-Home Care Services. Demolition would occur under a Demolition Permit issued by the City.

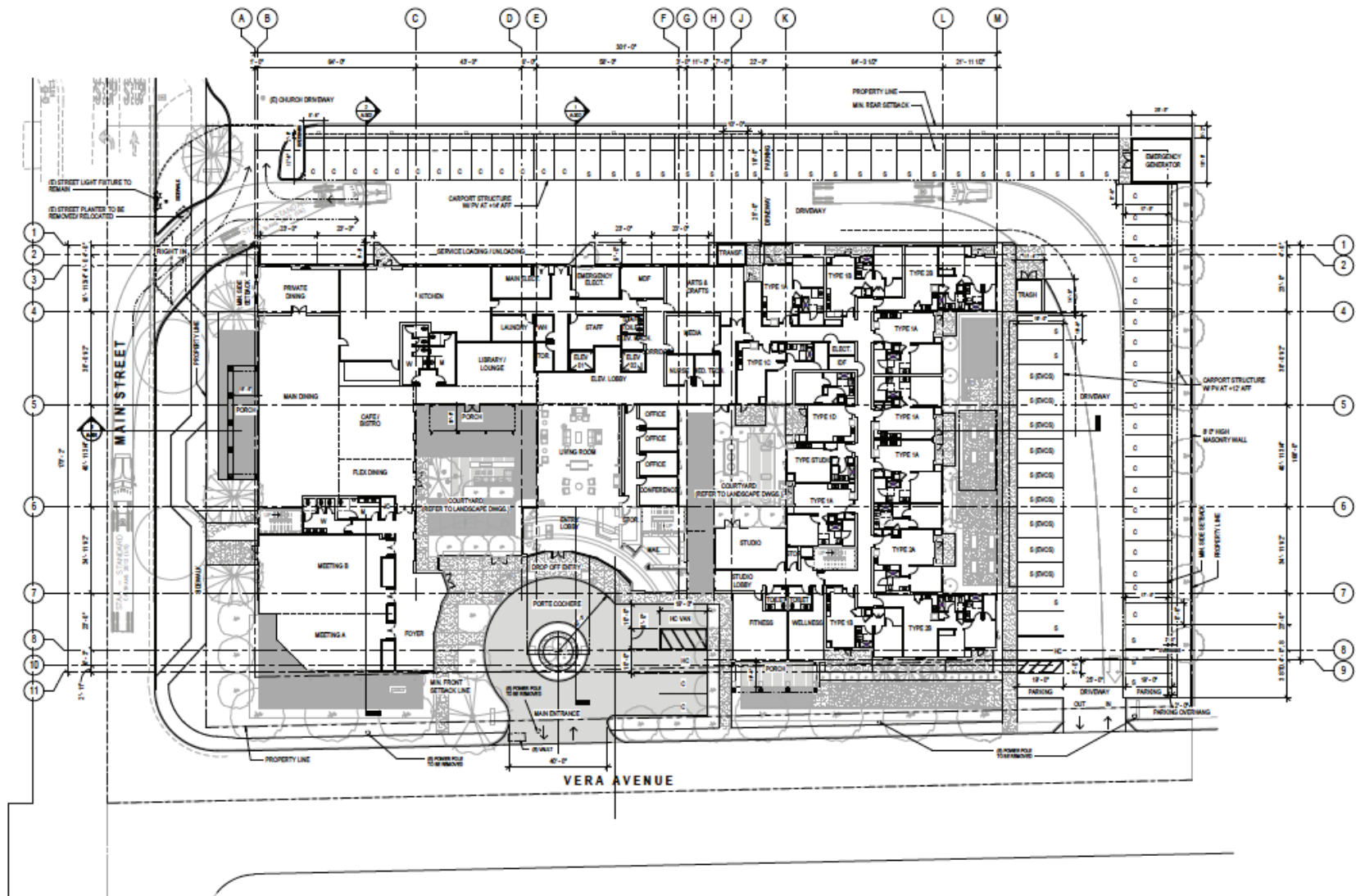
2.3 Permits and Approvals

The proposed residential development is consistent with the current General Plan designation of Urban Core, and it is allowable with a Conditional Use Permit under the current zoning of C-1, Neighborhood Commercial. The project would also require approval of a Planned Unit Development permit and Site Plan/Design Review approval by the City. Should the project be approved, building permits would be required, along with an

encroachment permit for work in City streets. Landscape plans indicating plant species, location, and method of irrigation will need to be submitted to the City Planner for approval prior to issuance of any permit.



Figure 2-1
SITE PLAN



← North

SOURCE: CallisonRTKL Inc.





VIEW AT MAIN ENTRY ON VERA STREET



VIEW AT CORNER OF MAIN STREET AND VERA STREET

SOURCE: CallisonRTKL Inc.



Figure 2-4
PROJECT SITE PERSPECTIVES

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 site is located in a developed area of central Ripon, with residential and commercial development surrounding the site. The parcel fronting on Main Street consists of older buildings, currently used for storage and as a donation center for the Ripon Interfaith Ministries. Although these structures are of historic age, as discussed in Section 3.5, they have been evaluated by a qualified architectural historian and found not to be of historical significance. The remainder of the parcel consists mostly of overgrown grasses and weeds.

The southern parcel along Vera Avenue consists of a medical office building housing the Bethany Home In-Home Care Services. Both buildings are one story with updated landscaping consisting of garden beds, curbing, grass and small trees. The southeast portion of this parcel is a parking lot with access from Vera Avenue at the southernmost border of the site. Existing development of the project site is consistent with other mixed residential and commercial development in the project vicinity but does not include any buildings or other features of architectural or substantial aesthetic interest.

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 involves residential uses and may be considered an infill project, the project provides senior residential uses, which involve limited transportation impacts, and it is not in a transit priority area. Therefore, Public Resources Code Section 21099 does not apply.

Environmental Impacts and Mitigation Measures

a) Scenic Vistas.

Scenic vistas have been defined as vantage points with a broad and expansive view of a significant landscape feature, such as a mountain range or coastline. The project site and adjacent lands are surrounded by other urban development and does not access to scenic vistas or distance views. The project involves the construction of a three-story high-density senior residential development with amenities and parking. The proposed structure may partially obstruct whatever views are available from adjacent parcels, but these existing views are not considered important scenic vistas. Project impacts on scenic vistas would be less than significant.

b) Scenic Resources.

The project site is currently developed, but as discussed in the previous section does not contain scenic resources. Existing development of the project will be replaced by the project's modern architecturally-designed facility. This facility would be consistent with other new development in the Ripon community and would not involve an adverse effect on any existing scenic resources.

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, and Interstate 580 from Interstate 5 to the Alameda County Line (Caltrans 2018). The project site is not on or near either of these State Scenic Highways. Project impacts on scenic resources would be less than significant.

c) Visual Character and Quality.

As viewed from public streets and highways near the project site (Main Street and Vera Avenue), the current aesthetic quality of the project site is unimportant. Existing land uses are consistent in appearance with other older developed portions of Ripon but inconsistent with more recent development, redevelopment and streetscape improvements to the Main Street corridor. As noted in b) above, there are no scenic resources of value on the project site.

The project would remove the existing buildings and landscaping, to be replaced by the proposed new residential building, site improvements and landscaping. Proposed development of the site is architect-designed and would, further, be subject to City site plan and design review in accordance with City planning and design standards.

The overall result may be considered a visual improvement from the nearby streets and adjacent properties.

The project would also require a Conditional Use Permit and a Planned Unit Development Permit and would be subject to any conditions placed on those approvals.

d) Light and Glare.

The project would add architectural, security and parking area lighting to a site that currently has minimal on-site lighting. The project site is currently illuminated by existing street lighting along both Main Street and Vera Avenue. Proposed lighting would be consistent with the proposed residential use as well as surrounding residential uses. Proposed lighting would be subject to City review for consistency with City standards as provided in Section ____ of the Ripon Zoning Code. As a result, project lighting would not result in substantial changes in night lighting in the vicinity of the project site. 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

There is no evidence of existing or recent agricultural use of the project site in the last approximate two decades. The project site is surrounded by urban development, and there is no agricultural use in the project vicinity.

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 Important Farmland map available, the project site is designated as Urban and Built-Up Land (FMMP 2018).

Environmental Impacts and Mitigation Measures

a) Farmland Conversion.

As noted, the project site is designated Urban and Built-Up Land by the Important Farmland Map. It is not designated as Farmland as defined by CEQA Guidelines Appendix G definition of Farmland; neither the project site nor any of the surrounding lands are in agricultural use. Therefore, the project would not convert Farmland to non-agricultural use.

b) Agricultural Zoning and Williamson Act.

As noted, the project area is designated and zoned for commercial and residential 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 Conversion and Zoning.

The project is in a developed urban area; there are no forest lands on the project site or in the vicinity. No land in the project vicinity is zoned as forest land or timberland. The project would have no impact on forest lands.

e) Indirect Conversion of Farmland and Forest Land.

The project site is surrounded by urban development. The project would use existing infrastructure in the vicinity; no new infrastructure would be installed. As previously noted, there are no forest lands in the vicinity. The project would have no impact on 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 Ripon, 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 State of California and the federal government 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

| Criteria Pollutant | Designation/Classification | |
|-------------------------------------|-------------------------------|-------------------------|
| | 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 2020.

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. 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 (PM₁₀) as well as 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 PM₁₀ Maintenance Plan to maintain the Air Basin’s

attainment status for federal PM₁₀ 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, sometimes referred to as “hot spots,” which are ordinarily associated with areas of highly congested traffic.

In addition to the criteria pollutants, the California Air Resources Board (ARB) has identified other air pollutants as toxic air contaminants (TACs) - pollutants that may cause acute serious, long-term effects, such as cancer, 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 carbon monoxide 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 PM₁₀ 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.

SJVAPCD also has Rule 9510, known as the Indirect Source Rule, which requires specific percentage reductions in estimated on-site construction and operation emissions of NO_x and PM₁₀ from new development in the SJVAPCD, or payment of off-site mitigation fees if onsite reductions cannot be met. Rule 9510 applies to residential development projects of at least 50 units; as a result, 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 (GAMAQI). GAMAQI 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.

TABLE 3-2
SJVAPCD SIGNIFICANCE THRESHOLDS AND
PROJECT AIR POLLUTANT EMISSIONS

| | ROG | NO _x | CO | SO _x | PM ₁₀ | PM _{2.5} |
|--|-----------|-----------------|------------|-----------------|------------------|-------------------|
| Significance Thresholds¹ | 10 | 10 | 100 | 27 | 15 | 15 |
| Construction Emissions ² | 0.40 | 1.24 | 1.32 | <0.01 | 0.13 | 0.07 |
| <i>Exceeds Threshold?</i> | <i>No</i> | <i>No</i> | <i>No</i> | <i>No</i> | <i>No</i> | <i>No</i> |
| Operational Emissions ³ | 0.57 | 0.20 | 1.58 | <0.01 | 0.25 | 0.07 |
| <i>Exceeds Threshold?</i> | <i>No</i> | <i>No</i> | <i>No</i> | <i>No</i> | <i>No</i> | <i>No</i> |

¹ Applies to both construction and operational emissions. Figures in tons per year.

² Maximum emissions in a calendar year.

³ Annual emissions.

Sources: CalEEMod Version 2016.3.2, SJVAPCD 2015.

a) Air Quality Plan Consistency.

The California Emissions Estimator Model (CalEEMod) was used to estimate both construction and operational emissions associated with the proposed project. The CalEEMod results are shown in Appendix A of this document, and Table 3-2 shows the maximum project construction emissions in a calendar year and the annual unmitigated operational emissions based on the CalEEMod run. As indicated in Table 3-2, project construction and operational emissions would not exceed the applicable SJVAPCD significance thresholds, including those for NO_x, particulate matter, and CO. Because of this, project impacts related to air quality plans would be less than significant.

While project construction 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. Application of these requirements would further reduce project impacts related to air quality plans that are already less than significant.

b) Cumulative Emissions

As described above, the project would not generate operational emissions above SJVAPCD significance thresholds. The significance thresholds are applied to evaluate regional impacts of project-specific emissions of air pollutants. Regional impacts of a project can be characterized in terms of total annual emissions of criteria pollutants and their impact on SJVAPCD's ability to reach attainment of criteria pollutant standards. On that basis, the proposed project would not result in a considerable contribution to a significant cumulative air quality impact in the Air Basin. Project impacts related to cumulative emissions would be less than significant.

c) Exposure of Sensitive Receptors to Pollutants.

As defined in GAMAQI, sensitive receptors include residences, schools, parks and playgrounds, day care centers, nursing homes, and hospitals (SJVAPCD 2015). The project site is adjacent to residential areas to the east, south, and west. As noted, project construction and operational emissions would be below SJVAPCD significance thresholds for criteria pollutants. Implementation of applicable SJVAPCD rules and regulations, especially Regulation VIII, would further reduce emissions, making them less likely to reach these sensitive land uses.

A CO hotspot is an area of localized CO pollution that is caused by severe vehicle congestion on major roadways, typically near intersections. CO hotspots have the potential to expose receptors to emissions that violate state and/or federal CO standard even if the broader Basin is in attainment for federal and state levels. The GAMAQI 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).

As noted in Section 3.17, Transportation, the project would not generate a significant volume of traffic; therefore, intersections that may be affected by the project would not experience reductions in LOS to levels of E or F. Therefore, the project would have no adverse impact related to CO emissions.

Overall, the pollutant emissions estimated to be generated by the project are unlikely to reach nearby sensitive receptors at levels that would have an adverse impact. The potential exposure of sensitive receptors to pollutant emissions would be less than significant.

d) Odors and Other Emissions.

Residential development does not generate substantial odors that would affect nearby land uses, nor would it generate other significant emissions such as TACs such as diesel particulate matter. The project would have no impact related to odors or other emissions.

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

The project site is currently developed with commercial structures and related site improvements. The predominant vegetation on the undeveloped portions of the site is overgrown grasses and weeds. There are no streams, ponds, or other waters on or adjacent

to the project site. One large maple tree is located near the center of the northern parcel. No blue elderberry shrubs were observed on the project site.

The project site is surrounded by existing urban development with high levels of activity and nearby roads with moderate vehicle traffic. Wildlife and plant habitat values of the site are correspondingly low. No mammal use and no burrows potentially used by mammals, such as California ground squirrel, were observed on the site. No substantial bird use was noted during BaseCamp Environmental visits to the site, although the existing trees are potential nesting sites.

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 (ESA), the California Endangered Species Act (CESA), or other regulations.
- Designated rare, threatened, or endangered and candidate species for listing by the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW).
- 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.

A search was conducted of the USFWS' IPaC database and the California Natural Diversity Database maintained by the California Department of Fish and Wildlife to determine the potential presence of special-status species in the vicinity of the project site. The results of these searches are described below.

Environmental Impacts and Mitigation Measures

a) Special-Status Species.

The IPaC search indicated the presence of seven species listed under ESA in the project vicinity. Appendix C contains the IPaC search results. The seven species and their likelihood of occurring on the project site are described below:

- Riparian Brush Rabbit (Endangered) – Unlikely: project site and surrounding areas are urbanized and unsuitable for habitation.

- Giant garter snake (Threatened) – Unlikely: requires aquatic habitat and adjacent upland area, neither of which are available on the project site.
- California red-legged frog (Threatened) – Unlikely: requires aquatic habitat and adjacent upland area, neither of which are available on the project site.
- California tiger salamander (Threatened) – Unlikely: habitat is grasslands and low foothills with pools or ponds, which are not available on the project site.
- Delta smelt (Threatened) – Unlikely: found in channels and sloughs of the Sacramento-San Joaquin Delta. The project site is not on or near any channels or sloughs.
- Valley elderberry longhorn beetle (Threatened) – Unlikely: requires elderberry shrubs, which are not found on the project site.
- Vernal pool fairy shrimp (Threatened) – Unlikely: requires vernal pools, which are not found on the project site.
- Vernal pool tadpole shrimp (Endangered) – Unlikely: requires vernal pools, which are not found on the project site.

A search of the California Natural Diversity Database (CNDDDB) identified 45 special-status species as potentially occurring in the Ripon USGS topographical map quadrangle. Appendix C contains the CNDDDB search results. All but three of these species were also identified in the IPaC database and were considered unlikely to occur (giant garter snake, California red-legged frog, and Delta smelt were not listed in the CNDDDB).

The species listed in the CNDDDB results generally require habitat that is aquatic or has substantial open spaces or natural vegetation. The project site, being a developed area within a city, has none of these habitats. The CNDDDB indicates the potential presence of two special-status species known to occur in the project vicinity: burrowing owl and Swainson's hawk. Burrowing owl, a State Species of Special Concern, typically requires burrows made by ground squirrels for nesting. No ground squirrels or burrows were observed on the project site. Swainson's hawk, a bird species listed as Threatened under CESA, requires suitable foraging habitats such as grasslands or alfalfa fields supporting rodents, along with trees suitable for nesting. The project site does not contain either of these features.

In summary, since the project site contains no habitats for special-status species that may occur in the area, it is unlikely that the project would affect special-status species or their habitat. Project impacts on special-status species would be less than significant.

b) Riparian and Other Sensitive Habitats.

As noted, there are no streams and no riparian habitat. No potential vernal pools or other sensitive habitats were observed on the site. The project would have no impact on riparian and other sensitive habitats.

c) State and Federal Jurisdictional 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. “Waters of the State”, subject to oversight by the State Water Resources Control Board (SWRCB) and by the Regional Water Quality Control Board (RWQCB) with jurisdiction over the affected water, include isolated wetlands not covered by federal regulations.

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 large trees on or near the site, and potential raptor foraging habitat (i.e., open fields) available. Development of the project would not result in any substantial loss of nesting or foraging habitat for protected migratory birds. This potential would be less than significant.

e) Local Biological Requirements.

No local biological requirements have been enacted by the City. The project would have no impact on local biological requirements.

f) Conflict with Habitat Conservation Plans.

The San Joaquin County Multi-Species Open Space and Habitat Conservation Plan (SJMSCP) is a comprehensive plan for assessing and mitigating the biological impacts of converting open space or biologically sensitive lands to urban development in San Joaquin County and its incorporated cities. 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 Incidental Take Minimization Measures - protection measures that avoid direct impacts of development on special-status species - with which projects are required to comply (SJCOG 2000). The San Joaquin Council of Governments (SJCOG) implements the SJMSCP on a project-by-project basis.

The City participates in the SJMSCP and requires that new development will comply with applicable provisions and measures of the SJMSCP. 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

Information for this section is provided primarily from a Historical Resource Evaluation (HRE) of the project site prepared by Evans and DeShazo, shown in Appendix C of this document. The report evaluated the potential of existing buildings on the project as significant historical resources. Background research was conducted through the Central California Information Center of the California Historical Resources Information System, along with additional archival research. Evans and DeShazo also conducted a field survey of the project site in conjunction with the HRE.

Environmental Setting

Prehistoric populations in the San Joaquin Valley were concentrated along river channels such as the Stanislaus River, as these were the areas with the richest available natural resources. The project site lies in the ethnographic territory of the Northern Valley Yokuts. Due to the location of the project site in urbanized Ripon and the developed condition of the site, archaeological research on the prehistory of the Ripon area was limited to a review of the CHRIS archaeological data base.

A detailed historical description of Ripon and the surrounding region is provided in Appendix C, which details the early settlement patterns of the area, including the history of public schools and Christian schools in Ripon. Christian school development in Ripon began in November of 1924, when a group of mainly Dutch citizens, led by Reverend John DeJong (Rev. DeJong), “recognized the necessity of Christian education for their children and founded the Society for Christian Instruction.” The Christian Reformed Church sponsored the organization with Rev. DeJong as the president until 1928. The organization operated as a non-profit and relied on donations and gifts from members and had no state aid or tax funds. In 1928, five acres were purchased, and within four months, the school was constructed and opened on the project site with 71 pupils in Grades 1 through 6.

The portion of the project site fronting on Main Street contains the Ripon Christian School buildings constructed in 1928, which consist of the main school building, auxiliary building and the associated landscape. These buildings will need to be demolished in conjunction

with the project. Due to their age, the buildings and surroundings were evaluated in conjunction with the preparation of this Initial Study for their historical significance as documented in the Evans and DeShazo HRE, shown in Appendix C.

The HRE included a review of a CHRIS record search to obtain primary records associated with the property and any previous cultural resource inventories. Evans and DeShazo also conducted online research, including at the San Joaquin County Assessor/Recorder Office, the San Joaquin Historical Museum, and the Ripon Historical Society. Evans and DeShazo reviewed digital documents, such as historical maps, historical aerial photographs, and other primary source documents. The purpose of the research was to understand the history of the site and the surrounding area to assist in developing a historical context for evaluation of the historical significance of the buildings on the site. Principal Architectural Historian Stacey DeShazo, M.A. completed an architectural survey in April 2022 to identify the age, architectural style or form, character-defining features, materials, and alterations of the buildings and associated landscape.

A detailed description of architectural features and other elements of the site are discussed in detail in Appendix C. The architectural style of the buildings is described in the HRE as a “modest” example of Mission Revival architecture. The buildings on the project site were compared to other representative examples of Mission Revival architecture in the general vicinity. Although the Ripon Christian School buildings contain elements of Mission Revival design, such as its general form, the curvilinear parapet, and arched window and door openings, there is nothing distinguishing about this example, and it was not designed by an architect or designer known for their work in Mission Revival design. Moreover, the 1928 Ripon Christian School was constructed outside the accepted period (1890 to 1920) for Mission Revival architecture, and, in the professional opinion of Evans and DeShazo, would have to be exceptional in design and construction to be considered significant outside the accepted period of the style. Finally, besides the three representative examples considered in the HRE, there are other representative Mission Revival buildings within San Joaquin County that are more closely associated with the Mission Revival design style.

On the basis of this analysis, Evans and DeShazo concluded that the 1920 Ripon Christian School building, 1928 auxiliary building, and associated landscape are not individually eligible for listing on the California Register of Historic Resources and are therefore not considered “historical resources” as defined by CEQA (Guidelines Section 15064.5).

Environmental Impacts and Mitigation Measures

a) Historical Resources.

As noted, a records search conducted by the Central California Information Center found no documented historic resources on the project site. The Historic Resources Evaluation (HRE) prepared by Evans and DeShazo considered the potential historic value of buildings and improvements on the project site but concluded that they are not individually eligible for listing on the California Register of Historic Resources and are therefore not considered “historical resources” as defined by CEQA. As a consequence, the demolition and removal

of these structures would not adversely affect a historical resource. The project would have a less than significant impact on historical resources.

b) Archaeological Resources.

A records search conducted at the Central California Information Center found no documented archaeological resources on the project site. Given past urbanization and other disturbance of the project site, it is unlikely that any archaeological resources would be found intact.

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 project construction, all construction activities within 50 feet of the encounter shall be halted until a qualified archaeologist can examine these materials, determine their significance, and, if significant, recommend mitigation measures that would reduce potential effects to a level that is less than significant. Recommended measures could include, but are not limited to, 1) preservation in place, or 2) excavation, recovery, and curation by qualified professionals. The City of Ripon Community Development Department shall be notified, and 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. If burial resources or tribal cultural resources are discovered, the City shall notify the County Coroner and the appropriate tribal representatives, who may examine the materials with the archaeologist and advise the City as to their significance and disposition.

Significance after Mitigation: Less than significant

c) Human Burials.

As with other cultural resources, it is not expected that any human burials would be uncovered by construction on the project site. 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, in accordance with California Health and Safety Code Section 7050.5. 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 the provisions of 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:

- 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?

| Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--------------------------------|--|------------------------------|-----------|
| | | ✓ | |
| | | ✓ | |

NARRATIVE DISCUSSION

Environmental Setting

Electricity is a major energy source 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 vehicle miles traveled (VMT) was 17,868,785 miles in 2015, which led to the consumption of approximately 511 million gallons of gasoline and diesel fuel (SJCOG 2018b).

The State of California has adopted comprehensive energy efficiency standards as part of its Building Standards Code, California Code of Regulations, Title 24. The State has also

adopted the California Green Building Standards Code, also known as CALGreen. CALGreen sets forth mandatory measures, applicable to new residential and nonresidential structures as well as additions and alterations, on water efficiency and conservation, building material conservation, and interior environmental quality. It also mentions energy efficiency, although CALGreen defers to Title 24 for actions. The City has adopted the 2019 version of CALGreen.

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 project would be required to comply with applicable provisions of Title 24 and the adopted 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 renewable energy or energy efficiency plans but has adopted the 2019 version of CALGreen, which contain provisions that promote energy efficiency. The project would be required to comply with the applicable requirements of CALGreen and Title 24, 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:

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?

| Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--------------------------------|--|------------------------------|-----------|
| | | | ✓ |
| | | ✓ | |
| | | ✓ | |
| | | | ✓ |
| | ✓ | | |
| | | ✓ | |
| | | | ✓ |
| | | | ✓ |
| | ✓ | | |

NARRATIVE DISCUSSION

Environmental Setting

Topography and Geology

The project site lies in the San Joaquin Valley in central California. The San Joaquin Valley is the southern portion of the Great Valley Geomorphic Province, which is a topographically flat, northwest-trending, structural trough about 50 miles wide and 450 miles long. The San Joaquin Valley is filled with thick sedimentary rock sequences that were deposited as much as 130 million years ago. The Geologic Map of the San Francisco

– San Jose Quadrangle (Wagner et al. 1991) designates the underlying geology of the project site as the Modesto Formation, consisting of geologically recent sediments.

Project Site Soils

Most of the soils in the San Joaquin Valley consist of sand, silt, loamy clay alluvium, peat, and other organic sediments. These soils are the result of long-term natural soil deposition and the decomposition of marshland vegetation. According to a custom soil survey obtained for the project site, there are two soil types on the project site (SCS 1992, NRCS 2022):

- Delhi loamy sand, 0 to 2 percent slopes. This is a deep, excessively drained soil type. Permeability is very rapid in this soil, which has very low water-holding capacity and produces little to no runoff. The wind erosion hazard is severe, and water erosion is evident where irrigation water has been applied too rapidly. The shrink-swell potential of this soil is low. The risk of corrosion is high for uncoated steel and low for concrete. This is the predominant soil type on the project site.
- Honker-Vallecito-Gonzaga complex, 30 to 50 percent slopes. This is a well-drained soil. It formed in Residuum weathered from sandstone. The permeability of Honker-Vallecito-Gonzaga soil is slow, and runoff is high. Water erosion and wind erosion hazard is slight. The expansive potential of this soil is low.

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.

Seismic and Geologic Hazards

No faults have been mapped in or near the City of Ripon. The nearest faults are the smaller Tracy-Stockton fault and a small fault extending from Banta to Stanislaus County (Ripon General Plan 2040, 2022). Outside the County are several faults that are known to be active. The San Andreas system is the most widely known. This system comprises several individually named fault zones in the San Francisco Bay area, the principal ones being the San Andreas, Hayward, and Calaveras. Information indicates that ground shaking along these faults can produce damage within the County that reaches varying intensities. East of San Joaquin County, the Melones Fault and the Bear Mountain Fault have been identified. These are not judged to pose a seismic threat to the County (USGS 2022).

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 San Joaquin County General Plan states that the City is not within any areas identified by the California Geological Survey as having a high liquefaction potential (SJC General Plan, 2016).

Paleontological Resources

Paleontological resources are fossils or groups of fossils that are unique, unusual, rare, uncommon, or important, and that add to an existing body of knowledge in specific areas. Surface examination of a study or project area often does not reveal whether paleontological resources are present. A record search of the Museum of Paleontology at the University of California in Berkeley indicated that 97 paleontological finds have been made in the County (UCMP 2020). Most specimens from the County have been found in rock formations in the foothills of the Diablo Mountain Range. However, remains of extinct animals, such as mammoth, may be found in the predominant Modesto Formation but may also be found virtually anywhere in the County, especially along watercourses such as the San Joaquin River and its tributaries (San Joaquin County 2016).

Environmental Impacts and Mitigation Measures

a-i) Fault Rupture Hazards.

No faults, including active or potentially active faults, have been mapped in the Ripon area. The project site is not in an area designated as an Alquist-Priolo Earthquake Fault Zone (California Geological Survey 2018). The closest designated active fault is the Vernalis fault, approximately 29 miles to the west of the project site. The project would have no impact related to a fault rupture hazard.

a-ii, iii) Seismic Hazards.

As noted above, the project site is potentially subject to ground shaking from nearby fault systems, which represent a hazard to buildings and infrastructure. All new buildings in Ripon are required to be built in accordance with the most recent version of the California Building Code adopted by the City. The California Building Code includes provisions related to seismic safety, compliance with which requires buildings, based on occupancy type, to be constructed to withstand anticipated ground shaking. Liquefaction is unlikely to occur, given the depth to the groundwater table at the project site. Project impacts related to seismic hazards are considered less than significant.

a-iv) Landslides.

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

b) Soil Erosion.

As noted above, both soil types on the project site have a low potential for water erosion and a moderate potential for wind erosion.

The project would be required to obtain a Construction General Permit from the SWRCB and to comply with its provisions, 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 Ripon 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) Geologic Instability.

Ground failure induced by seismic activity is a factor in making some lands unsuitable for development. None of the area within the Ripon General Plan area, which includes the project site, is composed of geological formations susceptible to such failure. As noted, all new development must comply with the California Building Code adopted at the time of project approval. The code contains provisions that would minimize soil stability hazards. Project impacts related to geologic instability would be less than significant.

d) Expansive Soils.

As noted, soils on the project site have a low expansivity potential. As such the soils are not expected to adversely affect buildings or infrastructure installed on the project site. The project would have no impact related to expansive soils.

e) Adequacy of Soils for Sewage Disposal.

The project would be connected to the City's sewer system. It would not use, and does not propose to install, any septic systems or alternative disposal systems. 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. The project site is underlain by the Modesto Formation, which has been a source of

paleontological finds. Given past agricultural activities on the project site, it is unlikely that any intact paleontological resources would be encountered during shallow excavation work. Currently unknown resources may be uncovered during deeper excavation associated with the project. Procedures to address paleontological discoveries if they should occur are set forth in the mitigation measure below. Implementation of this mitigation would reduce potential paleontological 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, all construction activities within 50 feet of the encounter shall be halted until a qualified paleontologist can examine these materials, determine their significance and, if significant, recommend further mitigation measures that would reduce potential effects 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 City of Ripon Planning, Building and Economic Development Department shall be notified, and 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 Planning, Building and Economic 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. Increased atmospheric concentrations of GHGs are considered a primary contributor to global climate change, which is a subject of concern for the State of California. 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).

GHG emissions in California in 2018, the most recent year for which data are available, were estimated at approximately 425 million metric tons carbon dioxide equivalent (CO₂e) – a decrease of approximately 13% from the peak level in 2004. Transportation was the largest contributor to GHG emissions in California, with approximately 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 15% of total emissions (ARB 2020).

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 Emission Reduction Plans

The State of California has implemented GHG emission reduction strategies and legislation in recent years. Most recently, in 2016, Senate Bill (SB) 32 was enacted. SB 32 mandates statewide reductions in GHG emissions to levels that are 40% below 1990 levels by the year 2030. The State adopted a Scoping Plan in 2017 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). The 2017 Scoping Plan is currently in the process of being updated.

Cities and counties throughout California have prepared Climate Action Plans that outline how the local government will reduce GHG emissions, which are typically related to the 2020 emission reduction target set in the State's Climate Change Scoping Plan. The City

currently has no adopted Climate Action Plan or other GHG reduction plan, and the 2020 target date has passed.

Environmental Impacts and Mitigation Measures

a, b) 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 3-3 presents the results of the CalEEMod run.

TABLE 3-3
GHG EMISSIONS FROM PROJECT

| GHG Emission Type | Unmitigated Emissions (metric tons CO ₂ e) | Mitigated Emissions (metric tons CO ₂ e) |
|---------------------------|--|--|
| Construction ¹ | 224 | 224 |
| Operational ² | 338 | 204 |

¹ Total emissions for construction period.

² Annual emissions.

Sources: California Emissions Estimator Model v. 2020.4.0.

“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.
- Increase in the diversity of land uses in the area.
- The project site has a transit stop on the west side along Vera Street.
- The project site is approximately 0.2 miles from Downtown Ripon.
- The project would add sidewalks to the site that would connect to the existing network in the vicinity.
- SB X7-7 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 40% less than under business-as-usual (unmitigated) conditions.

The project would be consistent with the reduction targets of the State's 2017 Scoping Plan, which proposes various measures to achieve the 2030 target set under SB 32. Most of these are State measures, such as use of the cap-and-trade program, the Short-Lived Climate Pollutant Plan, and achievement of the 50% renewable sources of electricity in the Renewables Portfolio Standard. Based on estimates in the 2017 Scoping Plan, State actions would account for 89.8% of GHG reductions needed by 2030, with local actions responsible for approximately 9.3% of reductions to meet the 2030 target. A project that can show GHG reductions greater than 9.3% from business-as-usual conditions can be said to be consistent with the reduction goals of SB 32. The 24.9% reduction associated with the project would exceed this local share.

As noted above, the project includes features that would reduce GHG emissions. These features would be consistent with the policies and implementation strategies of the Ripon General Plan described above. Overall, impacts related to GHG emissions and GHG 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 (DTSC). Both GeoTracker and EnviroStor provide the names and addresses of documented hazardous material sites, along with their cleanup status. A search of GeoTracker identified one open case regarding the detection of tetrachloroethene in water samples. The case is open and under investigation as of July 12, 2021. (SWRCB 2022) EnviroStor databases indicated no record of any active hazardous material site on or within one-half mile of the project site (DTSC 2022). 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 at the project site or vicinity (CalEPA 2016a). Likewise, a list by SWRCB containing sites under Cease and Desist Orders and Cleanup and Abatement Orders showed no locations (CalEPA 2016b).

There are no public airports in the Ripon area. The nearest public airports are Modesto City-County Airport approximately 14 miles to the southeast and Mapes Ranch Airport approximately 12 miles to the west.

Wildland fires, resulting from both man-made and natural causes, can occur in brush or grasslands, primarily in sparsely developed or existing open space lands. Structures and urban development may be threatened or destroyed in areas prone to wildland fires, but such an event is unlikely in the developed are of Central Ripon.

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 in relatively low quantities. Quantities would likely be below amounts that would require the preparation of a Hazardous Material Business Plan to be submitted to the County

Environmental Health Department. Such a plan must be prepared by any facility that handles a hazardous material or mixture containing a hazardous material that has 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 anticipated hazardous materials to be used by the project would 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.

As noted in a) above, project implementation would not involve the transport, use, or storage of hazardous materials in substantial quantities. These materials are not expected to be used or stored in quantities large enough to pose a threat to human health and/or the environment if released.

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 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.

County Assessor records indicate that the current building on the north parcel of the project site was constructed in 1928. The age of this building may indicate the presence of asbestos-containing materials and lead-based paints. Demolition could release these substances into the local environment.

Prior to any demolition work, a demolition permit must be obtained, one of the requirements of which is approval from the SJVAPCD. The City must receive a Demolition Permit Release Form from the SJVAPCD prior to issuing the demolition permit. The form certifies that the demolition complies with the requirements of the National Emissions Standards for Hazardous Air Pollutants (NESHAP), which govern asbestos removal. SJVAPCD Rule 4002 follows the NESHAP standards. Therefore, demolition work associated with the projects would be required to comply with NESHAP and Rule 4002, which would minimize releases of asbestos into the environment.

Lead-based paint removal is governed by the California Code of Regulations, Title 17, Division 1, Chapter 8, Sections 35001-36100. This requires that work on any structure built before January 1, 1978 must use lead-safe work practices, including containment and cleaning the work area after the project is completed. The regulations also cover accreditation of training providers and certification of individuals to perform lead abatement, and they set work practice standards for lead hazard evaluations and the abatement of lead hazards.

Compliance with these rules and regulations would minimize the potential impact of release of hazardous materials, specifically asbestos and lead-based paints, into the environment. Overall, impacts related to releases of hazardous materials would be less than significant.

c) Hazardous Materials Releases near Schools.

The nearest public school to the project site is Harvest High School, a Ripon Unified District continuation school, approximately 200 feet northeast across Main Street. Directly east of the school is Ripon Elementary School, approximately 600 feet. However, as noted in b) 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 use of small quantities of hazardous materials during project construction would be limited to the project site and would not occur near any schools. 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 and other listings did not identify any active hazardous material sites on or near the project site. ‘

e) Public Airport Operations.

As noted, there are no airports in Ripon or in its vicinity. The project would have no impact related to potential airport hazards.

f) Emergency Response and Evacuations.

The project would not obstruct adjacent streets once construction work is completed. Project construction work would mostly occur on the project site. However, the adjacent segments of Main Street and Vera Avenue would be improved, and connections to utility lines beneath these streets would be made. While construction work would be temporary and would cease once work is completed, it could have the potential of restricting lanes such that emergency response or emergency evacuation could be affected. Mitigation presented below would ensure that access would be maintained during construction activities within adjacent streets, thereby reducing 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 Ripon Police Department and the Ripon Consolidated Fire District if construction will require road closures or lane restrictions.

Significance After Mitigation: Less than significant

g) Wildland Fire Hazards.

The project site is not in an area susceptible to wildland fires; land is either agricultural or developed. The project site, in its current mostly undeveloped condition, presents the greatest wildland fire risk. The project would eliminate the existing wildland fire hazard by replacing the grasses and weeds with a paved and developed area. The project would have no impact related to wildland fire hazards. 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

Surface Waters

There are no natural streams on or near the project site. Surface water quality in the Ripon area is maintained through the City's Storm Water Management Program (SWMP), developed in compliance with the federal National Pollutant Discharge Elimination System (NPDES) program and with the SWRCB's Municipal Separate Storm Sewer Systems (MS4) General Permit. The program includes control measures and defines BMPs designed to protect surface water quality associated with land development during both construction and post-construction periods.

Groundwater

The project site is within the Eastern San Joaquin County Groundwater Subbasin of the San Joaquin Valley Groundwater Basin. According to the most recent information available, and as noted in Section 3.7, Geology and Soils, groundwater at the project site is more than 50 feet below ground surface (San Joaquin County FCWCD 2018). The City obtains its drinking water from groundwater wells. Natural recharge of local aquifers in the Ripon area appears to be by percolation of river flow, rainfall and unused irrigation water, with some minor infiltration from streams (City of Escalon 2004).

In 2014, the State enacted the Sustainable Groundwater Management Act. This act requires the formation of local groundwater sustainability agencies that must assess conditions in their local water basins and adopt locally based Groundwater Sustainability Plans for sustainable use of groundwater and avoidance of overdraft. Plans for "critically overdrafted" basins must be completed and adopted by January 31, 2020, while plans for high- and medium-priority basins have an adoption deadline of January 31, 2022.

The City is a member of the South San Joaquin Groundwater Sustainability Agency together with the City of Escalon and SSJID. This agency, in collaboration with other agencies, prepared a Groundwater Sustainability Plan for the Subbasin and submitted it to the Department of Water Resources on January 29, 2020. To achieve sustainability in the Subbasin, projects and management actions were identified. These include 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.

Flooding Hazard

A Flood Insurance Rate Map prepared by the Federal Emergency Management Agency (FEMA) indicates that the project area is designated Zone X. Zone X is considered an area of minimal flood hazard. It is outside a delineated 100-year floodplain – the floodplain commonly used to assess potential flooding impacts and considered a Special Flood Hazard Area (FEMA 2009). The project

site is within the potential dam failure inundation area for the New Melones Dam along the Stanislaus River (San Joaquin County 2016).

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. Preliminary maps drafted by the California Department of Water Resources do not show the project site within a 200-year floodplain.

Environmental Impacts and Mitigation Measures

a) Surface Water Quality.

The project would not directly affect surface waters, as there are none on or near the project site. As noted in Section 3.7, Geology and Soils, construction activities would disturb soils and soil materials, which could be transported off site by runoff and could eventually enter surface waters. Project development and operation would lead to contamination of storm run-off with fuels, oils, metals, and other substances associated with motor vehicles. These discharges could eventually enter surface waters. This is considered a potentially significant impact.

The Phase II MS4 Permit and the City of Ripon require project proponents to incorporate post-construction measures that reduce the volume of runoff and mitigate pollutants in runoff into its design and completed development. The project proponent is required to select design measures that are appropriate for the project and will adequately meet the goals of the City’s Storm Water Development Standards.

Compliance with the requirements of the City’s Standards would minimize water quality impacts of the project after construction work is completed. In addition, implementation of Mitigation Measure GEO-1, described in Section 3.7, Geology and Soils, would minimize water quality impacts from construction activities. Project impacts on surface waters and their quality would be less than significant.

b) Groundwater Supplies and Recharge.

As noted, the City relies on groundwater for its primary source of water. The project would not draw directly from the underlying aquifer, but it would be connected to the City’s water system that draws upon groundwater supplies. Adequate water supply exists to accommodate this demand.

The project would replace an existing vacant parcel of grasses and weeds with urban development and pavement. This would substantially reduce the amount of precipitation that would percolate into the ground, thereby reducing groundwater recharge. Given the relatively small acreage of the project site and the extent of other lands available for recharge surrounding the City, the project is not expected to interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. Project impacts on groundwater are considered less than significant.

c-i, ii, iii) Drainage Patterns and Runoff.

The project would alter existing storm drainage patterns, due to site grading and the installation of pavement and storm drainage facilities. In addition, proposed improvements on the project site would result in the generation of additional runoff due to the introduction of impervious surfaces.

The project would connect to the City's storm drainage system, designing its onsite facilities in accordance with City standards and specifications and with the design criteria in the City's Storm Drain Master Plan. The storm drainage system is expected to have adequate capacity to accommodate onsite runoff.

Runoff would be likely to collect pollutants, mainly deposits from motor vehicles. However, as noted, the project would be required to adhere to post-construction measures to be agreed upon between the project applicant and the City. These measures are expected to minimize the amount of polluted runoff that would enter the City's storm drainage system. Drainage plans would be submitted for City approval prior to construction. Project impacts on drainage and runoff are considered less than significant.

c-iv) Flood Flows.

As noted, the project area is in a minimal flood hazard area. It is not within a 100-year floodplain as indicated by the FEMA map for the area, nor is it within a 200-year floodplain as indicated by the California Department of Water Resources. Because of this, the project would be unlikely to impede or redirect any flood flows. The project would have no impact related to flood flows.

d) Other Flooding Hazards.

As noted, the project site is within the potential inundation zone of New Melones Dam were it to fail. Dams are evaluated regularly by the California Division of Safety of Dams to verify their structural integrity, including their resistance to stresses that could result from local or regional earthquakes. Adherence to Division requirements, which can include seismic upgrades in cases where seismic vulnerability is identified, minimizes the potential for catastrophic failure (San Joaquin County 2016).

There are no levees in the Ripon area. The project area is in a topographically flat region away from the coast, with no large bodies of water in the vicinity. Therefore, the project would not be affected by seiche, or tsunamis. Project impacts related to other flooding hazards would be less than significant.

e) Conflict with Water Quality or Groundwater Plans.

As described above, the project would be required to comply with the requirements of the City's Post-Construction Standards Plan, which is designed to maintain local water quality. The Groundwater Sustainability Plan for the Eastern San Joaquin Subbasin has been adopted. While the provisions of this plan are not directly applicable to the project, the project would not interfere with its implementation. The project would have no impact related to water quality or groundwater 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 two parcels, the northernmost being flat with overgrown brush and one standing building, the southern parcel being developed with office buildings and paved parking. As noted in Chapter 2.0, Project Description, the current City General Plan designation for the project area and zoning is Urban Core.

The project site is in a developed area of central Ripon. Single-family residences have been constructed south, and west of the site. Ripon Grace Church is to the east. Ripon Christian Preschool is north, across Main Street, from the project site. All lands east, south, and west and north of the project site have been developed.

Environmental Impacts and Mitigation Measures

a) Division of Established Communities.

The project site is a part of a planned residential area that would provide additional senior housing units in the City, consistent with the Ripon General Plan. The project would not divide existing residential communities in the area. 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 existing Ripon General Plan and project applicants will obtain a use permit to comply with zoning designations. The General Plan was prepared to balance City growth and development with environmental protection to the extent practical. The zoning ordinance is required to be consistent with the General Plan. Therefore, the project is not expected to conflict with any City plans or ordinances containing provisions designed to avoid or minimize environmental effects.

This IS/MND discusses other potential project impacts that could affect City ordinances and Municipal Code provisions. The project would comply with these ordinances and provisions. Project impacts would be less than significant.

3.12 MINERAL RESOURCES

Would the project:

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

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?

| Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--------------------------------|--|------------------------------|-----------|
| | | | ✓ |
| | | | ✓ |

NARRATIVE DISCUSSION

Environmental Setting

San Joaquin County has several mineral resources including natural gas, borates, sand and gravel, limestone, clay, building stone, and pumice. However, Ripon has no significant mineral resources or mining operations. Ripon has no oil or natural fields (DOGGR 2022).

Environmental Impacts and Mitigation Measures

a, b) Availability of Mineral Resources.

There are no identified mineral resources areas on the project site or in Ripon. The project would have no effect on the availability of or access to locally designated or known mineral resources. The project would have no impact on mineral resources.

3.13 NOISE

Would the project result in:

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

| Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--------------------------------|--|------------------------------|-----------|
| | ✓ | | |
| | | ✓ | |
| | | | ✓ |

public use airport, would the project expose people residing or working in the project area to excessive noise levels?

| | | | |
|--|--|--|--|
| | | | |
|--|--|--|--|

NARRATIVE DISCUSSION

Environmental Setting

Ambient Noise

Assessment of noise impacts focuses on the “ambient” noise level, which is the general noise level in a project area. Primary noise sources in Ripon come from motor vehicle. This is also true for the project site, as the main noise sources in the vicinity are motor vehicle traffic associated with Main Street and Vera Avenue. Lesser noise sources near the project vicinity may include time-specific traffic associated with the Ripon Grace Church and Ripon Christian Preschool. These sources are more sporadic and do not contribute as much to the ambient noise environment.

City standards and policies established in the Noise Element of the Ripon General Plan are designed to protect community residents from noise impacts and establishes criteria to mitigate noise-generating land uses and development. Noise standards are based on the Day-Night Average Level (L_{dn}) and the Community Noise Equivalent Level (CNEL). The L_{dn} is based upon the average hourly L_{eq} over a 24-hour day, with a 10-decibel (dB) weighting applied to noise during the hours between 10:00 p.m. and 7:00 a.m. to account for greater sensitivity during that period. The CNEL is the same as the L_{dn} , with an additional 5-dB weighting applied to noise during the hours from 7:00 p.m. to 10:00 p.m. According to the City’s Noise Element, areas shall be recognized as noise-impacted if existing or projected future noise levels at the exterior of buildings exceed 70 dB L_{dn} or CNEL. However, exceedance of 70 dB L_{dn} would be conditionally acceptable if mitigation is provided that would ensure interior noise levels do not exceed 60 dB CNEL.

Groundborne Vibration

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.

Caltrans has prescribed a methodology for evaluating groundborne vibration impacts from construction related to potential damage to structures, based on transient sources (e.g., blasting, drop balls) or continuous/frequent intermittent sources such as impact and vibratory pile drivers, vibratory compaction equipment (Caltrans 2013). Measurements of groundborne vibrations are presented in peak particle velocity, with the unit of measure being inches per second. Table 3-4 presents thresholds for impacts related to groundborne vibration, based on the Caltrans methodology.

Environmental Impacts and Mitigation Measures

a) Generation of Noise Exceeding Local Standards.

The project would result in a permanent increase in ambient noise levels over existing conditions, as the site is currently vacant. Noise would be generated mainly by activities within and traffic to and from the residential facility. As discussed in Section 3.17, Transportation, traffic expected to be generated by the project would be less than traffic generated by typical residential projects, as the occupants would be senior citizens who are expected to use motor vehicles less frequently than the population at large. Therefore, noise generated by anticipated project traffic would likewise be less.

Project construction would involve temporary increases in ambient noise levels, due to the use of construction equipment and vehicle traffic to and from the construction site. Table 3-5 shows noise levels that could be generated by construction equipment. Although project construction noise would cease once construction work is completed, this is considered a potentially significant short-term impact, as the project site is adjacent to existing residential development to the east, which would likely be exposed to exterior noise levels that exceed standards set in the City's Noise Element.

TABLE 3-4
GROUNDBORNE VIBRATION THRESHOLDS

| Guidelines for: | Maximum Peak Particle Velocity (in/sec) | |
|--|---|--|
| | Transient Sources | Continuous/Frequent Intermittent Sources |
| <i>Structure and Condition</i> | | |
| Older residential structures | 0.5 | 0.3 |
| New residential structures | 1.0 | 0.5 |
| Modern industrial/commercial buildings | 2.0 | 0.5 |
| <i>Human Response</i> | | |
| Barely perceptible | 0.04 | 0.01 |
| Distinctly perceptible | 0.25 | 0.04 |
| Strongly perceptible | 0.9 | 0.1 |
| Severe | 2.0 | 0.4 |

Source: Caltrans 2013.

TABLE 3-5
CONSTRUCTION EQUIPMENT NOISE

| <u>Type of Equipment</u> | <u>Maximum Level, dB at 50 feet</u> |
|--------------------------|-------------------------------------|
| Backhoe | 78 |
| Compactor | 83 |
| Compressor (air) | 78 |
| Concrete Saw | 90 |
| Dozer | 82 |
| Dump Truck | 76 |
| Excavator | 81 |
| Generator | 81 |
| Jackhammer | 89 |
| Pneumatic Tools | 85 |

Source: FHWA 2006.

Temporary noise impacts resulting from project construction shall be minimized by implementation of mitigation, described below, that would require the use of mufflers on construction equipment. Also, as noted, the Noise Ordinance limits construction to specific hours, which would avoid noise during nighttime hours when people would be most sensitive to noise. Implementation of the mitigation measure and Noise Ordinance provisions would reduce construction noise impacts to a level that would be less than significant.

Level of Significance: Potentially significant

Mitigation Measures:

NOISE-1: All equipment used on the construction site during all project phases shall be fitted with mufflers in accordance with manufacturers' specifications. Mufflers shall be installed on the equipment at all times on the construction site.

Significance After Mitigation: Less than significant

b) Generation of Groundborne Vibration or Noise.

Project operations would not generate any groundborne vibrations. The only potential source of groundborne vibrations from the project would be from equipment used in construction activities. Using the methodology prescribed by Caltrans, the ground vibration produced by a large bulldozer - the most likely construction equipment listed in Table 3-5 that would be used - would be a peak particle velocity of approximately 0.089 inches per second at the residences. The predicted peak particle velocity is above the "Barely Perceptible" threshold peak particle velocity of 0.04 inches per second, but it is below the "Distinctly Perceptible" threshold of 0.25 inches per second (see Table 3-4). It is also

below the threshold of potential damage to older residential structures, which is 0.5 inches per second. Potential vibration impacts would be intermittent and short-term. On this basis, project impacts related to groundborne vibration would be less than significant.

c) Public Airport and Private Airstrip Noise.

As discussed in Section 3.9, Hazards and Hazardous Materials, there are no public airports in the vicinity of Ripon. There are also no private airstrips in the project vicinity. The project would have no impact associated with noise from airport or airstrip operations.

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

As of April 1, 2020, the population of Ripon was estimated at 16,013 an increase from its 2010 U.S. Census population of 14,297.

Environmental Impacts and Mitigation Measures

a) Unplanned Population Growth.

The project would involve a senior care and residential development on a 2.73-acre site, creating 82 new residential units with associated care facilities and recreation. The units would be designated for seniors needing assistance with daily life and special senior care.

The proposed development would be consistent with the Ripon General Plan. The increase in residents resulting from the project would be consistent with the population growth anticipated by the Ripon General Plan.

The project would provide employment opportunities in Ripon during its construction, which sometimes may bring people into the Ripon area. However, these opportunities would be limited in number and can be expected to be met from the existing population in nearby areas of San Joaquin and Stanislaus Counties. No additional population is expected

to be generated by project employment, which would cease when construction work is completed. Project impacts on unplanned population growth would be less than significant.

b) Displacement of Housing or People.

The project site is vacant of residential properties. Project impact on displacement of people or housing would be less than significant.

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:

i) Fire protection?

ii) Police protection?

iii) Schools?

iv) Parks?

v) Other public facilities?

| Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--------------------------------------|--|------------------------------------|-----------|
| | | ✓ | |
| | | ✓ | |
| | | ✓ | |
| | | ✓ | |
| | | ✓ | |

NARRATIVE DISCUSSION

Environmental Setting

The project site is within the service boundary of the Ripon Consolidated Fire District, which covers approximately 55 square miles in the southern portion of San Joaquin County centered around Ripon. The District provides fire protection, emergency medical, and other services. It currently employs 15 full-time staff and 6 reserve firefighters. The nearest fire station to the project site is Station 1, located at 142 S. Stockton Avenue, one half mile from the project site. Station 2 is located at 18800 Murphy Road, north of the project site. Station 3 is located at 1705 N. Ripon Road.

Law enforcement services are provided by the Ripon Police Department. The Department is stationed at 259 N Wilma Avenue, approximately 0.8 miles northwest of the project site. As of the year 2000, Ripon Police Department had 13 full-time sworn, along with support staff and volunteers.

The project site is within the boundaries of the Ripon Unified School District, which has an enrollment of 4,728 students from kindergarten to 12th grade in the 2020-21 school year (EdData 2022). The closest public school to the project site is Harvest High School, located

approximately 440 feet northeast of the project site. Ripon Christian Preschool is located directly across Main Street to the north.

Environmental Impacts and Mitigation Measures

a-i) Fire Protection.

The project would add 82 residential units in the proposed three-story structure, which would incrementally increase demand for fire protection. Future development is required by ordinance to pay Fire Facility Fees for future construction of Fire Department facilities and equipment acquisition that may be required. The Fire Facility Fees plus additional tax revenue from development would provide funding for additional personnel, equipment, and facilities (San Joaquin LAFCo 2011).

In addition, all new development must comply with the provisions of the California Fire Code, the 2019 version of which has been adopted by the City. Among other issues, the California Fire Code addresses fire protection systems, fire-resistant materials, and fire flow requirements. Compliance with the California Fire Code, along with payment of development fees, would reduce project impacts on fire protection services to a level that would be less than significant.

a-ii) Police Protection.

The project is expected to generate a demand for police protection services, as the project site is currently vacant. Inquiries with the Ripon Police Department as to whether new or expanded police protection facilities would be needed to serve the project were unanswered. However, the project would be required to pay development fees to the City for future construction of Police Department facilities, as needed. The City will be able to pay for the additional law enforcement operational needs through the expanded tax base generated by new development and the development fees (San Joaquin LAFCo 2011). Therefore, project impacts related to police protection services are considered less than significant.

a-iii) Schools.

A typical residential project is expected to generate students that would need to be accommodated by the local school district or districts within whose boundaries the project is located. However, the proposed project is for senior households, which would not include school-age children. As such, the project would not place a new demand for school services on the Ripon Unified School District such that new or expanded facilities would be required. Project impacts on school services would be less than significant.

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

The project is not expected to result in additional demands on parks as outdoor activities for residents of the project would be provided on-site. As discussed in Section 3.14, Population and Housing, the population increase resulting from the project is neither unplanned nor substantial. Therefore, any additional demands on parks and other public facilities such as libraries are expected to be incremental, and no new or expanded facilities

would be required. While new facilities would not likely be required as a result of the project, the project would be required to pay development fees to the City for future construction of park and library facilities, as needed. Project impacts would be less than significant.

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

The City of Ripon Parks and Recreation Department manages 23 community parks, offering a variety of recreational opportunities. The closest parks to the project site are Wilma Park and Acacia Park, both located approximately 0.3 miles from the site.

Environmental Impacts and Mitigation Measures

a, b) Recreational Facilities.

As noted in Section 3.14, Population and Housing, the project would generate senior residents who would generate minimal demand on park and 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 in Section 3.15, Public Services, the project would be required to pay development fees to the City for future construction of park facilities, as needed.

The project proposes to construct onsite community facilities for project residents. This would alleviate the impact on off-site facilities that would otherwise be caused by the increase in local population. 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

Information for this section comes primarily from a Traffic Operational Analysis conducted for the project by KD Anderson and Associates. Appendix F contains the analysis. The overall approach to this analysis describes the trip generation and travel characteristics of the project, based on rates developed nationally for similar facilities. Current morning and afternoon peak hour traffic conditions in the project area, which reflect peak commute activity and travel to the adjoining schools were collected and assessed. Traffic patterns at the project access and at adjoining intersections were assessed with the project.

Environmental Setting

Streets and Intersections

The Traffic Operational Analysis evaluated conditions on three City streets:

Main Street is an east-west arterial street that runs easterly from an intersection with West Ripon Road at Jack Tone Road past the project site to an interchange on SR 99. The configuration of the street varies along its length. Just west of its intersection with Vera Avenue, Main Street is a four-lane commercial street with a continuous two-way left-turn lane and traffic signals at major intersections. The posted speed limit is 35 mph in this area. At the entrance to the Historic Ripon district, Main Street narrows to a three-lane facility with one travel lane in each direction and two-way left-turn lane. This 40-foot cross section continues through the Vera Avenue intersection to Maple Avenue. On-street parking is prohibited in

this area, and the speed limit is 25 mph. The two-way left-turn lane ends beyond Maple Avenue, and W. Main Street has a through travel lane in each direction to Acacia Avenue. On-street parking is permitted on the north side along Ripon Elementary School.

Vera Avenue is a north-south local street that extends southerly from Main Street to Doak Boulevard at the community's southern boundary. Vera Avenue is 40 feet wide (curb to curb), and it accommodates on-street parking as well as residential and commercial driveways. The speed limit on Vera Avenue is 25 mph.

Maple Avenue is a local street that extends north from Main Street towards SR 99 before turning to the west along the freeway at Garrison Way to Wilma Avenue. Maple Avenue is 40 feet wide (curb to curb) and accommodates on-street parking and residential driveways. Maple Avenue also provides access to Ripon Christian School's Elementary, Middle and High Schools. The speed limit on Maple Avenue is 25 mph.

Two intersections were included in the analysis:

The ***Main Street/Vera Avenue*** intersection is a "tee" controlled by a stop sign on the northbound Vera Avenue approach. A right-turn-only exit from Ripon Christian School's Pre-school is on the north side of the intersection. Vera Avenue has a single approach lane, but Main Street has a two-way left-turn lane through the intersection to accommodate westbound left turns.

The ***Main Street/Maple Avenue*** intersection is a "tee" controlled by an all-way stop. On-street parking has been eliminated at the intersection to provide auxiliary right-turn lanes on southbound Maple Avenue and on westbound Main Street, and a left-turn lane is provided for eastbound traffic. A right-turn-in-only entrance to Ripon Grace Church exists about 40 feet west of the intersection, and a full access church driveway exists 150 feet east of the intersection.

Existing conditions at the two intersections were determined by calculating Level of Service (LOS). LOS is a qualitative measure of traffic operating conditions whereby a letter grade of A through F, corresponding to progressively worsening operating conditions, is assigned to an intersection or roadway segment. The City of Ripon's minimum standard is LOS D. Under existing conditions, LOS at both intersections during the morning and evening peak hour is C, which meets the City's LOS standard.

Non-Motor Vehicle Facilities

Public transit services in Ripon are provided by the City of Ripon Blossom Express. Blossom Express, which operates on Tuesdays and Thursdays, provided a fixed-route service to stops in Ripon and in Modesto to Vintage Faire Mall and the Target Center. Deviations within $\frac{3}{4}$ mile of the bus stop are available upon request. A bus route passes by the project site, and bus stops are located at Vera Avenue and Second Street and Main Street and Maple Avenue.

The San Joaquin Regional Transit District provides bus services to Ripon with the County Hopper, a fixed-route service connecting Ripon with other San Joaquin County cities. County Hopper Route 91 connects Ripon with Manteca and Stockton. Connections to Escalon, Modesto, and Stanislaus County bus lines are also available.

Sidewalks exist along all the streets in the study area. On the south side of West Main Street, the sidewalk is separated from the through travel lane within the Historic Ripon district. Marked crosswalks exist across Vera Avenue at the West Main Street intersection and on all three legs of the Maple Avenue intersection. Both intersections have depressed curbs at the corners that are ADA-accessible. West of Vera Avenue, the next marked crossing on West Main Street occurs at the Wilma Avenue traffic signal about 650 feet away. An overhead flashing beacon is installed at the Main Street/Maple Avenue intersection.

The Traffic Operational Analysis included pedestrian counts at one of the intersections where the traffic counts were conducted. During the peak morning hour, a total of 45 pedestrian crossings in all directions occurred at the Main Street/Vera Avenue intersection. In the evening, that total was 11 crossings. Similar pedestrian count data had been collected in 2017 for the Ripon Christian School's Pre-School Relocation Project traffic analysis. The data indicated that in the morning hour, a total of 38 crossings occurred at the Main Street/Maple Avenue intersection, with 22 across the north leg of the intersection. In the mid-afternoon when the school day ended, 82 crossings were counted, with 33 across Maple Avenue and 47 across the western leg of Main Street and 2 across the eastern leg (KD Anderson 2022).

Transportation Plans and Guidelines

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 (RTP). The most recent RTP was adopted in 2018. It 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. Among the Ripon projects identified in the RTP are a two-lane extension of Garrison Road from Maple Avenue to 500 feet east of Acacia Avenue, improvements to local bus services, and construction of a multimodal station (SJCOG 2018a).

The Circulation Element of the Ripon General Plan sets forth policies and implementation strategies related to transportation and circulation including streets and highways, transportation corridors, public transit, railroads, bicycle and pedestrian facilities, and commercial, general, and military airports (City of Ripon 2010). The Circulation Element states that the City shall maintain Level of Service (LOS) D or better on the City's street system, as previously noted. However, LOS is no longer used to determine the environmental impacts of projects, as explained in the following paragraph.

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.

Environmental Impacts and Mitigation Measures

a) Conflict with Transportation Plans, Ordinances and Policies.

The Traffic Operational Analysis evaluated conditions at the two intersections with the addition of project traffic, estimated based on trip generation rates for multifamily senior housing and anticipated trip distribution on local streets (see Appendix F). The analysis concluded that the LOS at the Main Street/Vera Avenue intersection during morning and evening peak hours would remain at C. At the project access from Vera Avenue, the LOS would be A. Both LOS meet the City's LOS standards. Therefore, the project would not conflict with the LOS policy established in the Ripon General Plan.

The project could result in an increase in demand for public transit service. The frequency 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 Blossom Express can accommodate the additional passengers the project would generate, as well as the San Joaquin Regional Transit District. This would be consistent with the goals of the RTP, which encourage further use of public transit. Moreover, as noted, the RTP includes improvements to bus services in Ripon in its project list. Project impacts related to conflicts with transportation plans, ordinances, and policies would be 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. The Governor's Office of Planning and Research (OPR) has issued a Technical Advisory on evaluating transportation impacts using VMT. The Technical Advisory emphasizes reductions in VMT as a means of reducing GHG emissions generated by development projects (OPR 2018).

The Traffic Operational Analysis calculated potential trips generated by the project and compared that figure to trips generated by current land uses on the project site. The analysis estimated that current land uses generate 490 daily vehicle trips, while the proposed project would generate 266 daily vehicle trips – a decrease of approximately 46 percent. Assuming vehicle miles per trip remain constant, this would result in a VMT decrease of approximately 46 percent. Moreover, the project would house seniors. It is expected that seniors would travel less by motor vehicle; therefore, they would generate less VMT than

the general population. Given this, the project is not expected to conflict with the provisions of CEQA Guidelines Section 15064.3(b). Project impacts would be less than significant.

c) Traffic Hazards.

The project is expected to generate additional pedestrian traffic in the area. With more pedestrians, a greater chance of accidents involving pedestrians may occur, particularly at street crossings. The Traffic Operational Analysis estimated that the project would generate 200 daily and 21 hourly pedestrian trips, mostly by project residents who are seniors. As a group, seniors tend to walk more slowly and may be less aware of their surroundings than other pedestrians.

The project would add pedestrians to the exiting Vera Avenue crossing at Main Street and to the crossings at the Main Street/Wilma Avenue intersection. A marked crosswalk already exists across Vera Avenue, but the Traffic Operational Analysis notes that measures to improve visibility are possible. For example, No Parking limits could be installed on the east side of Vera Avenue south of the intersection to preserve the line of sight at the corner for both pedestrians and approaching vehicles. However, a more practical option would be to install a stop bar across northbound Vera Avenue about five feet outside of the crosswalk. This limit would require motorists to first to stop outside the crosswalk before moving into the crosswalk to turn right. This recommended has been incorporated as a mitigation measure described below.

Because the project generates relatively little automobile traffic and background traffic volumes on Vera Avenue are low, the project access will operate satisfactorily, and capacity improvements are not needed. However, because senior drivers may use the access, the Traffic Operational Analysis noted that it will be important to maintain adequate sight distance looking north and south from the new driveway. The City should consider the need for No Parking limitations in that area. A mitigation measure described below would establish a No Parking zone near the project access. Implementation of these mitigation measures would increase safety for senior pedestrians and drivers, thereby reducing potential impacts to a level that would be less than significant.

Level of Significance: Potentially significant

Mitigation Measures:

TRANS-1: The City shall install a stop bar across northbound Vera Avenue about five feet outside of the existing crosswalk across Vera Avenue. The City Engineer shall prepare plans for the installation, in accordance with applicable City standards and specifications. The project applicant shall reimburse the City for the costs of installing the stop bar, as determined by the City Engineer.

TRANS-2: The City shall establish a No Parking zone along the east side of Vera Avenue on both sides of the project access. The distance of the No Parking zone, along with the installation of No Parking signs and/or other features, shall be determined by the City Engineer, in accordance with applicable City standards and specifications.

Significance after Mitigation: Less than significant

d) Emergency Access.

As described in Chapter 2.0, Project Description, the project would have a main driveway off Vera Avenue and a right-in entrance off Main Street. This would provide two access points to the project site for emergency, which is generally the minimum number of access points desired. 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:

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.

| Potentially Significant Impact | Potentially Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--------------------------------------|--|------------------------------------|-----------|
| | | ✓ | |
| | | ✓ | |

NARRATIVE DISCUSSION

Information for this section is provided from a Cultural Resources Inventory and Evaluation Report prepared for the project by Solano Archaeological Services LLC, available in Appendix C of this document. Solano Archaeological Services contacted the Native American Heritage Commission and several representatives of local tribes, documentation of which is provided in the report.

Environmental Setting

As noted, in Section 3.5, Cultural Resources, the project site lies within the traditional territory of the Northern Valley Yokuts, whose lands extended from the San Joaquin River near Mendota north to the confluence of the San Joaquin and Calaveras Rivers. Yokut groups lived in small seasonal camps or in larger settlements on perennial water sources such as the San Joaquin River. Dwellings in the larger villages consisted of circular tule covered structures and more elaborate semi-subterranean pit houses. Ceremonial sweat houses and assembly chambers were often constructed

within the more substantial villages. These larger settlements might include approximately 200 inhabitants constituting a small sub-tribe of the Yokut. A headman, while not necessarily possessing absolute powers, served as an advisor to these self-contained communities. There is little historical documentation about the Yokuts, which can be attributed to the rapid reduction of its population as a result of disease, missionization, and the sudden influx of Euro-American miners and entrepreneurs during the Gold Rush (Solano Archaeological Services 2021).

In 2014, the California Legislature enacted AB 52, which focuses on consultation with Native American tribes on land use issues 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.

As part of the preparation of its cultural resource report, Solano Archaeological Services sought comments on the projects from nine representatives of four tribes: Northern Valley Yokuts, Tule River Indian Tribe, Wilton Rancheria, and Wukachee Indian Tribe/Eshom Valley Band. The Northern Valley Yokuts did not have any information or specific issues with the project site, and the Wilton Rancheria did not express any concerns regarding the project. No other tribes responded. Since no tribe has explicitly requested consultation on the project, AB 52 requirements are considered fulfilled.

Environmental Impacts and Mitigation Measures

a, b) Tribal Cultural Resources.

As noted in Section 3.5, Cultural Resources, no archaeological resources have been recorded on the project site. Solano Archaeological Services requested the Native American Heritage Commission to conduct a search of its Sacred Lands File for records of potential tribal sacred land on the project site. The Commission reported a negative result, indicating no sacred lands have been recorded on the project site.

However, as noted in Section 3.5, project construction could potentially uncover previously unknown archaeological resources, which could include those of Native American origin. Mitigation Measure CULT-1 would require construction work to stop at an uncovered resource site under an archaeologist can evaluate the resource and give recommendations for its disposition. If potential tribal cultural resources or burials are encountered, the appropriate tribal representative would be contacted to evaluate the find and make recommendations on its disposition. Implementation of Mitigation Measure CULT-1 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

Domestic water service is currently provided within the City limits by the City of Ripon from existing groundwater wells and a system of distribution pipelines. Existing lines are located in adjoining Main Street and Vera Avenue.

The City of Ripon provides wastewater treatment and collection services to residential, commercial, and industrial land uses within the City limits. The City's treatment facility is located south of the City near the Stanislaus River. Wastewater collection lines are located throughout the City, including Main Street and Vera Avenue near the project.

The City maintains a network of storm drains and detention basins that collect storm water runoff from existing urbanized areas, including development along Main Street and Vera Avenue. Most of the collected storm drainage is discharged to retention basins and the Stanislaus River.

As noted in Section 3.10, Hydrology and Water Quality, the City operates under the MS4 General Permit, in accordance with which the City has adopted its Storm Water Development Standards document that provides guidance to developers in meeting the SWRCB's requirements for mitigating water quality impacts associated with storm drainage.

Solid waste collection services in Ripon are provided by Gilton Solid Waste Management, which operates under a City franchise. Solid waste from the City is taken to the McClure Transfer Station in Modesto, which in turn is sent to the Fink Road Sanitary Landfill in southwestern Stanislaus County. The Fink Road Landfill has a maximum permitted capacity of 14,640,000 cubic yards. As of March 1, 2017, the landfill had a remaining capacity of 7,184,701 cubic yards (CalRecycle 2021).

Electricity is provided to Ripon by PG&E and the Modesto Irrigation District; the City is within a “joint electric distribution service area” where both utilities may compete for customers. Existing overhead electrical lines are along Irwin Avenue and California Street. Natural gas services are provided by PG&E. Local telephone service is provided by AT&T, and Comcast provides cable television services.

Environmental Impacts and Mitigation Measures

a) Relocation or Construction of New Facilities.

The project would connect to existing water, sewer, storm drainage, and electrical lines in the immediate project vicinity. No new lines or other facilities would need to be constructed by the project. Project impacts related to relocation or construction of new facilities would be less than significant.

b) Water Systems and Supply.

The project would place additional demand on the City’s water supplies. The City’s Urban Water Master Plan indicates that supplies are sufficient to meet demands during normal, dry and multiple dry year conditions.

In addition, the City, in association with the South San Joaquin Irrigation District (SSJID) and other cities in southern San Joaquin County, has contracted for additional water supply as a part of the South County Surface Water Project. Under this project, water could in the future be provided from SSJID’s Woodward Reservoir and adjacent treatment facility.

In summary, the City would have adequate capacity to accommodate the water demands of the project without the need for new or expanded entitlements. It also should be noted that the project would be required to comply with the City’s Model Water Efficient Landscape Ordinance, which would make landscape irrigation more water-efficient. Project impacts on water supplies would be less than significant.

c) Wastewater Treatment Capacity.

The project would place additional demand on the City’s wastewater collection and treatment system. As indicated above, the City’s wastewater treatment plant would have adequate capacity to accommodate wastewater generated by the project. The project would pay sewer connection fees, which would be used for future expansion of the City’s wastewater system as needed. Project impacts on wastewater services would be less than significant.

d, e) Solid Waste Services.

The project would generate solid waste materials consistent with proposed residential land uses. The project is not anticipated to create unusual amounts of solid waste. All solid waste generated during construction and operations would be removed in accordance with federal, state, and local regulations. These include the 2019 CALGreen, which requires construction projects to divert 65%

of all construction and demolition debris excluding inert and organic material and 90% of inert and organic materials from landfills through reuse and recycling. As of 2017, the Fink Road Landfill had approximately half of its maximum capacity available; as such, the landfill should have adequate capacity to accommodate project-generated solid waste. Project impacts would be less than significant.

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

The Environmental Checklist in CEQA Guidelines Appendix G has been revised to include a section addressing the potential impacts of a project as it relates to wildfire. As noted in Section 3.9, Hazards and Hazardous Materials, the project site is not in an area susceptible to wildland fires; the site and surrounding lands are developed with urban uses.

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 for such areas (Cal Fire 2007a). Both the project site and surrounding area are in a Local Responsibility Area, where primary firefighting responsibility is by a local fire district or department, in this case the Ripon Consolidated Fire Protection District.

Neither are in any designated fire hazard severity zones for Local Responsibility Areas (Cal Fire 2007b).

Environmental Impacts and Mitigation Measures

a) Emergency Response Plans and Emergency Evacuation Plans.

As discussed in Section 3.9, Hazards and Hazardous Materials, project construction is not expected to substantially obstruct emergency vehicles or any evacuations that may occur in the area with implementation of Mitigation Measure HAZ-1. The project would not obstruct any roadways once construction work is completed. Project impacts related to wildfire emergency response plans or emergency evacuation plans would be less than significant with mitigation.

Level of Significance: Potentially significant

Mitigation Measures: Implementation of Mitigation Measure HAZ-1.

Significance after Mitigation: Less than significant

b) Exposure of Project Occupants to Wildfire Hazards.

The project site is not part of a State Responsibility Area, and Cal Fire maps indicate the site is not designated within a Very High Fire Hazard Severity Zone or a zone of higher severity for either State or Local Responsibility Areas. The project site is in a predominantly residential area, which is not prone to wildfires. The project would reduce the existing fire hazard on the project site by replacing existing grasses and weeds with developed area and landscaping. 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 construction of new urban residential buildings, including site improvements, parking areas, landscaping and 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 entirely developed for urban uses. 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 cultural, and tribal cultural resource impacts were described in Sections 3.5 and 3.18, respectively. Potentially significant environmental effects were identified in these 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 were accounted for in the Ripon General Plan EIR. The EIR evaluated the potential environmental impacts of development under the 2006 General Plan, with which this project is consistent. Significant impacts were identified, but most of these impacts could be mitigated to a level that would be less than significant (City of Ripon 2005).

However, the General Plan EIR identified two impacts that were considered significant and unavoidable: direct and indirect conversion of Farmland, and potential violation of air quality. Project impacts that contribute to these two significant and unavoidable impacts may be cumulatively considerable. As discussed in Section 3.2, Agriculture and Forestry Resources, the project would have no impact on either direct or indirect Farmland conversion. Also, as discussed in Section 3.3, Air Quality, while the project would

contribute air pollutant emissions, the project emissions would be below SJVAPCD significance thresholds, which were developed in part to determine if a project would interfere with the attainment of air quality standards. Therefore, the project would not make a cumulatively considerable contribution to impacts on these two issues.

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. Given this, the potential environmental impacts of the project would not be cumulatively considerable.

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 Ripon. The following persons were involved in preparation of the IS/MND:

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4.3 PERSONS CONSULTED

Ken Zuidervaat. Director of Community Development. City of Ripon.

Tom Terpstra. City Attorney. City of Ripon.

5.0 NOTES RELATED TO EVALUATION OF ENVIRONMENTAL IMPACTS

The following notes are included in the Environmental Information Checklist shown in Appendix G of the State CEQA guidelines. The notes provide guidance as to the proper use of the form.

- 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

CALEEMOD RESULTS

Bethany Home - San Joaquin County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**Bethany Home**
San Joaquin County, Annual**1.0 Project Characteristics****1.1 Land Usage**

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|-----------------------------------|-------|---------------|-------------|--------------------|------------|
| Congregate Care (Assisted Living) | 82.00 | Dwelling Unit | 2.73 | 106,894.00 | 260 |

1.2 Other Project Characteristics

| | | | | | |
|--------------------------------|----------------------------------|--------------------------------|-------|----------------------------------|-------|
| Urbanization | Urban | Wind Speed (m/s) | 2.7 | Precipitation Freq (Days) | 51 |
| Climate Zone | 2 | | | Operational Year | 2025 |
| 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 - Actual lot acreage and project square footage.

Grading - Actual lot acreage.

Demolition -

Architectural Coating - Per SJVAPCD Rule 4601.

Woodstoves - No fireplaces.

Area Coating - Per SJVAPCD Rule 4601.

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Area Mitigation -

Water Mitigation -

Waste Mitigation -

Bethany Home - 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 |
| tblFireplaces | NumberGas | 45.10 | 0.00 |
| tblFireplaces | NumberNoFireplace | 36.90 | 82.00 |
| tblGrading | AcresOfGrading | 6.00 | 2.70 |
| tblGrading | AcresOfGrading | 4.50 | 2.70 |
| tblLandUse | LandUseSquareFeet | 82,000.00 | 106,894.00 |
| tblLandUse | LotAcreage | 5.13 | 2.73 |

2.0 Emissions Summary

Bethany Home - San Joaquin County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**2.1 Overall Construction****Unmitigated Construction**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|----------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|--------------------|-----------------|
| Year | tons/yr | | | | | | | | | | MT/yr | | | | | |
| 2023 | 0.1595 | 1.2402 | 1.3235 | 2.6000e-003 | 0.0723 | 0.0546 | 0.1269 | 0.0227 | 0.0520 | 0.0747 | 0.0000 | 222.0647 | 222.0647 | 0.0377 | 2.7200e-003 | 223.8183 |
| 2024 | 0.4052 | 0.5397 | 0.6423 | 1.2500e-003 | 0.0207 | 0.0224 | 0.0430 | 5.5400e-003 | 0.0214 | 0.0269 | 0.0000 | 106.2100 | 106.2100 | 0.0173 | 1.3400e-003 | 107.0406 |
| Maximum | 0.4052 | 1.2402 | 1.3235 | 2.6000e-003 | 0.0723 | 0.0546 | 0.1269 | 0.0227 | 0.0520 | 0.0747 | 0.0000 | 222.0647 | 222.0647 | 0.0377 | 2.7200e-003 | 223.8183 |

Mitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|----------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|--------------------|-----------------|
| Year | tons/yr | | | | | | | | | | MT/yr | | | | | |
| 2023 | 0.1595 | 1.2402 | 1.3235 | 2.6000e-003 | 0.0546 | 0.0546 | 0.1091 | 0.0161 | 0.0520 | 0.0681 | 0.0000 | 222.0645 | 222.0645 | 0.0377 | 2.7200e-003 | 223.8181 |
| 2024 | 0.4052 | 0.5397 | 0.6423 | 1.2500e-003 | 0.0207 | 0.0224 | 0.0430 | 5.5400e-003 | 0.0214 | 0.0269 | 0.0000 | 106.2099 | 106.2099 | 0.0173 | 1.3400e-003 | 107.0404 |
| Maximum | 0.4052 | 1.2402 | 1.3235 | 2.6000e-003 | 0.0546 | 0.0546 | 0.1091 | 0.0161 | 0.0520 | 0.0681 | 0.0000 | 222.0645 | 222.0645 | 0.0377 | 2.7200e-003 | 223.8181 |

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

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------|------|------|------|------|---------------|--------------|------------|----------------|---------------|-------------|----------|----------|-----------|------|------|------|
| Percent Reduction | 0.00 | 0.00 | 0.00 | 0.00 | 19.11 | 0.00 | 10.46 | 23.30 | 0.00 | 6.48 | 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 | 5-1-2023 | 7-31-2023 | 0.5237 | 0.5237 |
| 2 | 8-1-2023 | 10-31-2023 | 0.5269 | 0.5269 |
| 3 | 11-1-2023 | 1-31-2024 | 0.5172 | 0.5172 |
| 4 | 2-1-2024 | 4-30-2024 | 0.5502 | 0.5502 |
| 5 | 5-1-2024 | 7-31-2024 | 0.2197 | 0.2197 |
| | | Highest | 0.5502 | 0.5502 |

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 | 0.4692 | 7.0100e-003 | 0.6083 | 3.0000e-005 | | 3.3800e-003 | 3.3800e-003 | | 3.3800e-003 | 3.3800e-003 | 0.0000 | 0.9946 | 0.9946 | 9.5000e-004 | 0.0000 | 1.0184 |
| Energy | 4.1600e-003 | 0.0356 | 0.0151 | 2.3000e-004 | | 2.8800e-003 | 2.8800e-003 | | 2.8800e-003 | 2.8800e-003 | 0.0000 | 70.7453 | 70.7453 | 5.5700e-003 | 1.3300e-003 | 71.2823 |
| Mobile | 0.0996 | 0.1584 | 0.9576 | 2.3000e-003 | 0.2414 | 1.8700e-003 | 0.2433 | 0.0646 | 1.7500e-003 | 0.0663 | 0.0000 | 212.9548 | 212.9548 | 0.0113 | 0.0111 | 216.5303 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 15.1898 | 0.0000 | 15.1898 | 0.8977 | 0.0000 | 37.6321 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 1.6950 | 3.7655 | 5.4605 | 0.1747 | 4.1800e-003 | 11.0749 |
| Total | 0.5729 | 0.2010 | 1.5810 | 2.5600e-003 | 0.2414 | 8.1300e-003 | 0.2496 | 0.0646 | 8.0100e-003 | 0.0726 | 16.8848 | 288.4602 | 305.3450 | 1.0902 | 0.0166 | 337.5380 |

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**2.2 Overall Operational****Mitigated Operational**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|---------------|-----------------|-----------------|---------------|---------------|-----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Area | 0.4692 | 7.0100e-003 | 0.6083 | 3.0000e-005 | | 3.3800e-003 | 3.3800e-003 | | 3.3800e-003 | 3.3800e-003 | 0.0000 | 0.9946 | 0.9946 | 9.5000e-004 | 0.0000 | 1.0184 |
| Energy | 4.1600e-003 | 0.0356 | 0.0151 | 2.3000e-004 | | 2.8800e-003 | 2.8800e-003 | | 2.8800e-003 | 2.8800e-003 | 0.0000 | 70.7453 | 70.7453 | 5.5700e-003 | 1.3300e-003 | 71.2823 |
| Mobile | 0.0779 | 0.0974 | 0.5969 | 1.2100e-003 | 0.1229 | 1.0300e-003 | 0.1240 | 0.0329 | 9.6000e-004 | 0.0338 | 0.0000 | 111.4572 | 111.4572 | 7.9400e-003 | 6.7500e-003 | 113.6670 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 3.7975 | 0.0000 | 3.7975 | 0.2244 | 0.0000 | 9.4080 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 1.3560 | 3.0124 | 4.3684 | 0.1398 | 3.3500e-003 | 8.8599 |
| Total | 0.5512 | 0.1400 | 1.2203 | 1.4700e-003 | 0.1229 | 7.2900e-003 | 0.1302 | 0.0329 | 7.2200e-003 | 0.0401 | 5.1534 | 186.2095 | 191.3629 | 0.3786 | 0.0114 | 204.2356 |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------------------|-------------|--------------|--------------|--------------|---------------|--------------|--------------|----------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Percent Reduction | 3.79 | 30.35 | 22.81 | 42.58 | 49.08 | 10.33 | 47.82 | 49.08 | 9.86 | 44.75 | 69.48 | 35.45 | 37.33 | 65.27 | 30.98 | 39.49 |

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 | 5/1/2023 | 5/26/2023 | 5 | 20 | |
| 2 | Site Preparation | Site Preparation | 5/27/2023 | 5/31/2023 | 5 | 3 | |
| 3 | Grading | Grading | 6/1/2023 | 6/8/2023 | 5 | 6 | |

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

| | | | | | | |
|---|-----------------------|-----------------------|-----------|-----------|---|-----|
| 4 | Building Construction | Building Construction | 6/9/2023 | 4/11/2024 | 5 | 220 |
| 5 | Paving | Paving | 4/12/2024 | 4/25/2024 | 5 | 10 |
| 6 | Architectural Coating | Architectural Coating | 4/26/2024 | 5/9/2024 | 5 | 10 |

Acres of Grading (Site Preparation Phase): 2.7**Acres of Grading (Grading Phase): 2.7****Acres of Paving: 0****Residential Indoor: 216,460; Residential Outdoor: 72,153; 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 |

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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 | 59.00 | 9.00 | | 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 | 12.00 | 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

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.2 Demolition - 2023****Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|--------------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.0114 | 0.0000 | 0.0114 | 1.7200e-003 | 0.0000 | 1.7200e-003 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0147 | 0.1432 | 0.1346 | 2.4000e-004 | | 6.7700e-003 | 6.7700e-003 | | 6.3300e-003 | 6.3300e-003 | 0.0000 | 21.0866 | 21.0866 | 5.3500e-003 | 0.0000 | 21.2202 |
| Total | 0.0147 | 0.1432 | 0.1346 | 2.4000e-004 | 0.0114 | 6.7700e-003 | 0.0181 | 1.7200e-003 | 6.3300e-003 | 8.0500e-003 | 0.0000 | 21.0866 | 21.0866 | 5.3500e-003 | 0.0000 | 21.2202 |

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|--------------------|---------------|---------------|---------------|--------------------|--------------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 3.8000e-004 | 2.5000e-004 | 2.9600e-003 | 1.0000e-005 | 1.0400e-003 | 1.0000e-005 | 1.0400e-003 | 2.8000e-004 | 0.0000 | 2.8000e-004 | 0.0000 | 0.8137 | 0.8137 | 2.0000e-005 | 2.0000e-005 | 0.8213 |
| Total | 3.8000e-004 | 2.5000e-004 | 2.9600e-003 | 1.0000e-005 | 1.0400e-003 | 1.0000e-005 | 1.0400e-003 | 2.8000e-004 | 0.0000 | 2.8000e-004 | 0.0000 | 0.8137 | 0.8137 | 2.0000e-005 | 2.0000e-005 | 0.8213 |

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.2 Demolition - 2023****Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|---------------|---------------|--------------------|--------------------|--------------------|---------------|--------------------|--------------------|--------------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 5.1200e-003 | 0.0000 | 5.1200e-003 | 7.7000e-004 | 0.0000 | 7.7000e-004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0147 | 0.1432 | 0.1346 | 2.4000e-004 | | 6.7700e-003 | 6.7700e-003 | | 6.3300e-003 | 6.3300e-003 | 0.0000 | 21.0865 | 21.0865 | 5.3500e-003 | 0.0000 | 21.2202 |
| Total | 0.0147 | 0.1432 | 0.1346 | 2.4000e-004 | 5.1200e-003 | 6.7700e-003 | 0.0119 | 7.7000e-004 | 6.3300e-003 | 7.1000e-003 | 0.0000 | 21.0865 | 21.0865 | 5.3500e-003 | 0.0000 | 21.2202 |

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|--------------------|---------------|---------------|---------------|--------------------|--------------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 3.8000e-004 | 2.5000e-004 | 2.9600e-003 | 1.0000e-005 | 1.0400e-003 | 1.0000e-005 | 1.0400e-003 | 2.8000e-004 | 0.0000 | 2.8000e-004 | 0.0000 | 0.8137 | 0.8137 | 2.0000e-005 | 2.0000e-005 | 0.8213 |
| Total | 3.8000e-004 | 2.5000e-004 | 2.9600e-003 | 1.0000e-005 | 1.0400e-003 | 1.0000e-005 | 1.0400e-003 | 2.8000e-004 | 0.0000 | 2.8000e-004 | 0.0000 | 0.8137 | 0.8137 | 2.0000e-005 | 2.0000e-005 | 0.8213 |

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.3 Site Preparation - 2023****Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|--------------------|---------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 1.4300e-003 | 0.0000 | 1.4300e-003 | 1.5000e-004 | 0.0000 | 1.5000e-004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 1.9500e-003 | 0.0214 | 0.0147 | 4.0000e-005 | | 8.1000e-004 | 8.1000e-004 | | 7.5000e-004 | 7.5000e-004 | 0.0000 | 3.2317 | 3.2317 | 1.0500e-003 | 0.0000 | 3.2578 |
| Total | 1.9500e-003 | 0.0214 | 0.0147 | 4.0000e-005 | 1.4300e-003 | 8.1000e-004 | 2.2400e-003 | 1.5000e-004 | 7.5000e-004 | 9.0000e-004 | 0.0000 | 3.2317 | 3.2317 | 1.0500e-003 | 0.0000 | 3.2578 |

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|---------------|--------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 3.0000e-005 | 2.0000e-005 | 2.7000e-004 | 0.0000 | 1.0000e-004 | 0.0000 | 1.0000e-004 | 3.0000e-005 | 0.0000 | 3.0000e-005 | 0.0000 | 0.0751 | 0.0751 | 0.0000 | 0.0000 | 0.0758 |
| Total | 3.0000e-005 | 2.0000e-005 | 2.7000e-004 | 0.0000 | 1.0000e-004 | 0.0000 | 1.0000e-004 | 3.0000e-005 | 0.0000 | 3.0000e-005 | 0.0000 | 0.0751 | 0.0751 | 0.0000 | 0.0000 | 0.0758 |

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.3 Site Preparation - 2023****Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|--------------------|---------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 6.4000e-004 | 0.0000 | 6.4000e-004 | 7.0000e-005 | 0.0000 | 7.0000e-005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 1.9500e-003 | 0.0214 | 0.0147 | 4.0000e-005 | | 8.1000e-004 | 8.1000e-004 | | 7.5000e-004 | 7.5000e-004 | 0.0000 | 3.2317 | 3.2317 | 1.0500e-003 | 0.0000 | 3.2578 |
| Total | 1.9500e-003 | 0.0214 | 0.0147 | 4.0000e-005 | 6.4000e-004 | 8.1000e-004 | 1.4500e-003 | 7.0000e-005 | 7.5000e-004 | 8.2000e-004 | 0.0000 | 3.2317 | 3.2317 | 1.0500e-003 | 0.0000 | 3.2578 |

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|---------------|--------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 3.0000e-005 | 2.0000e-005 | 2.7000e-004 | 0.0000 | 1.0000e-004 | 0.0000 | 1.0000e-004 | 3.0000e-005 | 0.0000 | 3.0000e-005 | 0.0000 | 0.0751 | 0.0751 | 0.0000 | 0.0000 | 0.0758 |
| Total | 3.0000e-005 | 2.0000e-005 | 2.7000e-004 | 0.0000 | 1.0000e-004 | 0.0000 | 1.0000e-004 | 3.0000e-005 | 0.0000 | 3.0000e-005 | 0.0000 | 0.0751 | 0.0751 | 0.0000 | 0.0000 | 0.0758 |

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.4 Grading - 2023****Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|--------------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.0195 | 0.0000 | 0.0195 | 0.0101 | 0.0000 | 0.0101 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 4.0000e-003 | 0.0434 | 0.0261 | 6.0000e-005 | | 1.8100e-003 | 1.8100e-003 | | 1.6700e-003 | 1.6700e-003 | 0.0000 | 5.4312 | 5.4312 | 1.7600e-003 | 0.0000 | 5.4751 |
| Total | 4.0000e-003 | 0.0434 | 0.0261 | 6.0000e-005 | 0.0195 | 1.8100e-003 | 0.0213 | 0.0101 | 1.6700e-003 | 0.0118 | 0.0000 | 5.4312 | 5.4312 | 1.7600e-003 | 0.0000 | 5.4751 |

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 | 6.0000e-005 | 6.8000e-004 | 0.0000 | 2.4000e-004 | 0.0000 | 2.4000e-004 | 6.0000e-005 | 0.0000 | 6.0000e-005 | 0.0000 | 0.1878 | 0.1878 | 1.0000e-005 | 1.0000e-005 | 0.1895 |
| Total | 9.0000e-005 | 6.0000e-005 | 6.8000e-004 | 0.0000 | 2.4000e-004 | 0.0000 | 2.4000e-004 | 6.0000e-005 | 0.0000 | 6.0000e-005 | 0.0000 | 0.1878 | 0.1878 | 1.0000e-005 | 1.0000e-005 | 0.1895 |

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.4 Grading - 2023****Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|--------------------|---------------|---------------|--------------------|--------------------|--------------------|---------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 8.7700e-003 | 0.0000 | 8.7700e-003 | 4.5400e-003 | 0.0000 | 4.5400e-003 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 4.0000e-003 | 0.0434 | 0.0261 | 6.0000e-005 | | 1.8100e-003 | 1.8100e-003 | | 1.6700e-003 | 1.6700e-003 | 0.0000 | 5.4312 | 5.4312 | 1.7600e-003 | 0.0000 | 5.4751 |
| Total | 4.0000e-003 | 0.0434 | 0.0261 | 6.0000e-005 | 8.7700e-003 | 1.8100e-003 | 0.0106 | 4.5400e-003 | 1.6700e-003 | 6.2100e-003 | 0.0000 | 5.4312 | 5.4312 | 1.7600e-003 | 0.0000 | 5.4751 |

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 | 6.0000e-005 | 6.8000e-004 | 0.0000 | 2.4000e-004 | 0.0000 | 2.4000e-004 | 6.0000e-005 | 0.0000 | 6.0000e-005 | 0.0000 | 0.1878 | 0.1878 | 1.0000e-005 | 1.0000e-005 | 0.1895 |
| Total | 9.0000e-005 | 6.0000e-005 | 6.8000e-004 | 0.0000 | 2.4000e-004 | 0.0000 | 2.4000e-004 | 6.0000e-005 | 0.0000 | 6.0000e-005 | 0.0000 | 0.1878 | 0.1878 | 1.0000e-005 | 1.0000e-005 | 0.1895 |

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.5 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 | 0.1251 | 0.9946 | 1.0377 | 1.8300e-003 | | 0.0448 | 0.0448 | | 0.0429 | 0.0429 | 0.0000 | 151.6225 | 151.6225 | 0.0287 | 0.0000 | 152.3394 |
| Total | 0.1251 | 0.9946 | 1.0377 | 1.8300e-003 | | 0.0448 | 0.0448 | | 0.0429 | 0.0429 | 0.0000 | 151.6225 | 151.6225 | 0.0287 | 0.0000 | 152.3394 |

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|---------------|----------------|----------------|--------------------|--------------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 6.9000e-004 | 0.0291 | 8.5500e-003 | 1.3000e-004 | 4.3400e-003 | 1.9000e-004 | 4.5300e-003 | 1.2500e-003 | 1.8000e-004 | 1.4300e-003 | 0.0000 | 12.6584 | 12.6584 | 6.0000e-005 | 1.9100e-003 | 13.2302 |
| Worker | 0.0125 | 8.2800e-003 | 0.0980 | 2.9000e-004 | 0.0343 | 1.7000e-004 | 0.0345 | 9.1200e-003 | 1.6000e-004 | 9.2800e-003 | 0.0000 | 26.9579 | 26.9579 | 8.2000e-004 | 7.7000e-004 | 27.2090 |
| Total | 0.0132 | 0.0374 | 0.1065 | 4.2000e-004 | 0.0387 | 3.6000e-004 | 0.0390 | 0.0104 | 3.4000e-004 | 0.0107 | 0.0000 | 39.6163 | 39.6163 | 8.8000e-004 | 2.6800e-003 | 40.4393 |

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.5 Building Construction - 2023****Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.1251 | 0.9946 | 1.0377 | 1.8300e-003 | | 0.0448 | 0.0448 | | 0.0429 | 0.0429 | 0.0000 | 151.6223 | 151.6223 | 0.0287 | 0.0000 | 152.3392 |
| Total | 0.1251 | 0.9946 | 1.0377 | 1.8300e-003 | | 0.0448 | 0.0448 | | 0.0429 | 0.0429 | 0.0000 | 151.6223 | 151.6223 | 0.0287 | 0.0000 | 152.3392 |

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|---------------|----------------|----------------|--------------------|--------------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 6.9000e-004 | 0.0291 | 8.5500e-003 | 1.3000e-004 | 4.3400e-003 | 1.9000e-004 | 4.5300e-003 | 1.2500e-003 | 1.8000e-004 | 1.4300e-003 | 0.0000 | 12.6584 | 12.6584 | 6.0000e-005 | 1.9100e-003 | 13.2302 |
| Worker | 0.0125 | 8.2800e-003 | 0.0980 | 2.9000e-004 | 0.0343 | 1.7000e-004 | 0.0345 | 9.1200e-003 | 1.6000e-004 | 9.2800e-003 | 0.0000 | 26.9579 | 26.9579 | 8.2000e-004 | 7.7000e-004 | 27.2090 |
| Total | 0.0132 | 0.0374 | 0.1065 | 4.2000e-004 | 0.0387 | 3.6000e-004 | 0.0390 | 0.0104 | 3.4000e-004 | 0.0107 | 0.0000 | 39.6163 | 39.6163 | 8.8000e-004 | 2.6800e-003 | 40.4393 |

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.5 Building Construction - 2024****Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.0591 | 0.4745 | 0.5217 | 9.3000e-004 | | 0.0199 | 0.0199 | | 0.0191 | 0.0191 | 0.0000 | 76.8542 | 76.8542 | 0.0143 | 0.0000 | 77.2120 |
| Total | 0.0591 | 0.4745 | 0.5217 | 9.3000e-004 | | 0.0199 | 0.0199 | | 0.0191 | 0.0191 | 0.0000 | 76.8542 | 76.8542 | 0.0143 | 0.0000 | 77.2120 |

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 | 3.4000e-004 | 0.0147 | 4.2500e-003 | 7.0000e-005 | 2.2000e-003 | 1.0000e-004 | 2.3000e-003 | 6.4000e-004 | 9.0000e-005 | 7.3000e-004 | 0.0000 | 6.3162 | 6.3162 | 3.0000e-005 | 9.5000e-004 | 6.6012 |
| Worker | 5.8500e-003 | 3.6800e-003 | 0.0459 | 1.4000e-004 | 0.0174 | 8.0000e-005 | 0.0175 | 4.6200e-003 | 7.0000e-005 | 4.7000e-003 | 0.0000 | 13.1899 | 13.1899 | 3.7000e-004 | 3.6000e-004 | 13.3072 |
| Total | 6.1900e-003 | 0.0184 | 0.0502 | 2.1000e-004 | 0.0196 | 1.8000e-004 | 0.0198 | 5.2600e-003 | 1.6000e-004 | 5.4300e-003 | 0.0000 | 19.5062 | 19.5062 | 4.0000e-004 | 1.3100e-003 | 19.9084 |

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.5 Building Construction - 2024****Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.0591 | 0.4745 | 0.5217 | 9.3000e-004 | | 0.0199 | 0.0199 | | 0.0191 | 0.0191 | 0.0000 | 76.8541 | 76.8541 | 0.0143 | 0.0000 | 77.2119 |
| Total | 0.0591 | 0.4745 | 0.5217 | 9.3000e-004 | | 0.0199 | 0.0199 | | 0.0191 | 0.0191 | 0.0000 | 76.8541 | 76.8541 | 0.0143 | 0.0000 | 77.2119 |

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 | 3.4000e-004 | 0.0147 | 4.2500e-003 | 7.0000e-005 | 2.2000e-003 | 1.0000e-004 | 2.3000e-003 | 6.4000e-004 | 9.0000e-005 | 7.3000e-004 | 0.0000 | 6.3162 | 6.3162 | 3.0000e-005 | 9.5000e-004 | 6.6012 |
| Worker | 5.8500e-003 | 3.6800e-003 | 0.0459 | 1.4000e-004 | 0.0174 | 8.0000e-005 | 0.0175 | 4.6200e-003 | 7.0000e-005 | 4.7000e-003 | 0.0000 | 13.1899 | 13.1899 | 3.7000e-004 | 3.6000e-004 | 13.3072 |
| Total | 6.1900e-003 | 0.0184 | 0.0502 | 2.1000e-004 | 0.0196 | 1.8000e-004 | 0.0198 | 5.2600e-003 | 1.6000e-004 | 5.4300e-003 | 0.0000 | 19.5062 | 19.5062 | 4.0000e-004 | 1.3100e-003 | 19.9084 |

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.6 Paving - 2024****Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 4.2100e-003 | 0.0405 | 0.0585 | 9.0000e-005 | | 1.9800e-003 | 1.9800e-003 | | 1.8300e-003 | 1.8300e-003 | 0.0000 | 7.7574 | 7.7574 | 2.4600e-003 | 0.0000 | 7.8188 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 4.2100e-003 | 0.0405 | 0.0585 | 9.0000e-005 | | 1.9800e-003 | 1.9800e-003 | | 1.8300e-003 | 1.8300e-003 | 0.0000 | 7.7574 | 7.7574 | 2.4600e-003 | 0.0000 | 7.8188 |

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 | 2.0000e-004 | 1.3000e-004 | 1.5800e-003 | 0.0000 | 6.0000e-004 | 0.0000 | 6.0000e-004 | 1.6000e-004 | 0.0000 | 1.6000e-004 | 0.0000 | 0.4532 | 0.4532 | 1.0000e-005 | 1.0000e-005 | 0.4572 |
| Total | 2.0000e-004 | 1.3000e-004 | 1.5800e-003 | 0.0000 | 6.0000e-004 | 0.0000 | 6.0000e-004 | 1.6000e-004 | 0.0000 | 1.6000e-004 | 0.0000 | 0.4532 | 0.4532 | 1.0000e-005 | 1.0000e-005 | 0.4572 |

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.6 Paving - 2024****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 | 4.2100e-003 | 0.0405 | 0.0585 | 9.0000e-005 | | 1.9800e-003 | 1.9800e-003 | | 1.8300e-003 | 1.8300e-003 | 0.0000 | 7.7573 | 7.7573 | 2.4600e-003 | 0.0000 | 7.8188 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 4.2100e-003 | 0.0405 | 0.0585 | 9.0000e-005 | | 1.9800e-003 | 1.9800e-003 | | 1.8300e-003 | 1.8300e-003 | 0.0000 | 7.7573 | 7.7573 | 2.4600e-003 | 0.0000 | 7.8188 |

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 | 2.0000e-004 | 1.3000e-004 | 1.5800e-003 | 0.0000 | 6.0000e-004 | 0.0000 | 6.0000e-004 | 1.6000e-004 | 0.0000 | 1.6000e-004 | 0.0000 | 0.4532 | 0.4532 | 1.0000e-005 | 1.0000e-005 | 0.4572 |
| Total | 2.0000e-004 | 1.3000e-004 | 1.5800e-003 | 0.0000 | 6.0000e-004 | 0.0000 | 6.0000e-004 | 1.6000e-004 | 0.0000 | 1.6000e-004 | 0.0000 | 0.4532 | 0.4532 | 1.0000e-005 | 1.0000e-005 | 0.4572 |

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.7 Architectural Coating - 2024****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 | 0.3344 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 9.0000e-004 | 6.0900e-003 | 9.0500e-003 | 1.0000e-005 | | 3.0000e-004 | 3.0000e-004 | | 3.0000e-004 | 3.0000e-004 | 0.0000 | 1.2766 | 1.2766 | 7.0000e-005 | 0.0000 | 1.2784 |
| Total | 0.3353 | 6.0900e-003 | 9.0500e-003 | 1.0000e-005 | | 3.0000e-004 | 3.0000e-004 | | 3.0000e-004 | 3.0000e-004 | 0.0000 | 1.2766 | 1.2766 | 7.0000e-005 | 0.0000 | 1.2784 |

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|---------------|--------------------|---------------|---------------|---------------|--------------------|--------------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.6000e-004 | 1.0000e-004 | 1.2600e-003 | 0.0000 | 4.8000e-004 | 0.0000 | 4.8000e-004 | 1.3000e-004 | 0.0000 | 1.3000e-004 | 0.0000 | 0.3625 | 0.3625 | 1.0000e-005 | 1.0000e-005 | 0.3658 |
| Total | 1.6000e-004 | 1.0000e-004 | 1.2600e-003 | 0.0000 | 4.8000e-004 | 0.0000 | 4.8000e-004 | 1.3000e-004 | 0.0000 | 1.3000e-004 | 0.0000 | 0.3625 | 0.3625 | 1.0000e-005 | 1.0000e-005 | 0.3658 |

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.7 Architectural Coating - 2024****Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.3344 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 9.0000e-004 | 6.0900e-003 | 9.0500e-003 | 1.0000e-005 | | 3.0000e-004 | 3.0000e-004 | | 3.0000e-004 | 3.0000e-004 | 0.0000 | 1.2766 | 1.2766 | 7.0000e-005 | 0.0000 | 1.2784 |
| Total | 0.3353 | 6.0900e-003 | 9.0500e-003 | 1.0000e-005 | | 3.0000e-004 | 3.0000e-004 | | 3.0000e-004 | 3.0000e-004 | 0.0000 | 1.2766 | 1.2766 | 7.0000e-005 | 0.0000 | 1.2784 |

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|---------------|--------------------|---------------|---------------|---------------|--------------------|--------------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.6000e-004 | 1.0000e-004 | 1.2600e-003 | 0.0000 | 4.8000e-004 | 0.0000 | 4.8000e-004 | 1.3000e-004 | 0.0000 | 1.3000e-004 | 0.0000 | 0.3625 | 0.3625 | 1.0000e-005 | 1.0000e-005 | 0.3658 |
| Total | 1.6000e-004 | 1.0000e-004 | 1.2600e-003 | 0.0000 | 4.8000e-004 | 0.0000 | 4.8000e-004 | 1.3000e-004 | 0.0000 | 1.3000e-004 | 0.0000 | 0.3625 | 0.3625 | 1.0000e-005 | 1.0000e-005 | 0.3658 |

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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

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.0779 | 0.0974 | 0.5969 | 1.2100e-003 | 0.1229 | 1.0300e-003 | 0.1240 | 0.0329 | 9.6000e-004 | 0.0338 | 0.0000 | 111.4572 | 111.4572 | 7.9400e-003 | 6.7500e-003 | 113.6670 |
| Unmitigated | 0.0996 | 0.1584 | 0.9576 | 2.3000e-003 | 0.2414 | 1.8700e-003 | 0.2433 | 0.0646 | 1.7500e-003 | 0.0663 | 0.0000 | 212.9548 | 212.9548 | 0.0113 | 0.0111 | 216.5303 |

4.2 Trip Summary Information

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|-----------------------------------|-------------------------|----------|--------|-------------|------------|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Congregate Care (Assisted Living) | 213.20 | 240.26 | 258.30 | 647,687 | 329,788 |
| Total | 213.20 | 240.26 | 258.30 | 647,687 | 329,788 |

4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---------------------------|------------|------------|-------------|------------|------------|-------------|----------------|----------|---------|
| Land Use | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| Congregate Care (Assisted | 10.80 | 7.30 | 7.50 | 45.60 | 19.00 | 35.40 | 86 | 11 | 3 |

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**4.4 Fleet Mix**

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|-----------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Congregate Care (Assisted Living) | 0.541920 | 0.052620 | 0.169871 | 0.146633 | 0.025153 | 0.006100 | 0.012627 | 0.016953 | 0.000467 | 0.000322 | 0.022878 | 0.001103 | 0.003353 |

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 | 29.5415 | 29.5415 | 4.7800e-003 | 5.8000e-004 | 29.8336 |
| Electricity Unmitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 29.5415 | 29.5415 | 4.7800e-003 | 5.8000e-004 | 29.8336 |
| NaturalGas Mitigated | 4.1600e-003 | 0.0356 | 0.0151 | 2.3000e-004 | | 2.8800e-003 | 2.8800e-003 | | 2.8800e-003 | 2.8800e-003 | 0.0000 | 41.2038 | 41.2038 | 7.9000e-004 | 7.6000e-004 | 41.4487 |
| NaturalGas Unmitigated | 4.1600e-003 | 0.0356 | 0.0151 | 2.3000e-004 | | 2.8800e-003 | 2.8800e-003 | | 2.8800e-003 | 2.8800e-003 | 0.0000 | 41.2038 | 41.2038 | 7.9000e-004 | 7.6000e-004 | 41.4487 |

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**5.2 Energy by Land Use - NaturalGas****Unmitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------------------------|----------------|--------------------|---------------|---------------|--------------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|---------------|----------------|----------------|--------------------|--------------------|----------------|
| Land Use | kBTU/yr | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Congregate Care (Assisted Living) | 772131 | 4.1600e-003 | 0.0356 | 0.0151 | 2.3000e-004 | | 2.8800e-003 | 2.8800e-003 | | 2.8800e-003 | 2.8800e-003 | 0.0000 | 41.2038 | 41.2038 | 7.9000e-004 | 7.6000e-004 | 41.4487 |
| Total | | 4.1600e-003 | 0.0356 | 0.0151 | 2.3000e-004 | | 2.8800e-003 | 2.8800e-003 | | 2.8800e-003 | 2.8800e-003 | 0.0000 | 41.2038 | 41.2038 | 7.9000e-004 | 7.6000e-004 | 41.4487 |

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 | | | | | |
| Congregate Care (Assisted Living) | 772131 | 4.1600e-003 | 0.0356 | 0.0151 | 2.3000e-004 | | 2.8800e-003 | 2.8800e-003 | | 2.8800e-003 | 2.8800e-003 | 0.0000 | 41.2038 | 41.2038 | 7.9000e-004 | 7.6000e-004 | 41.4487 |
| Total | | 4.1600e-003 | 0.0356 | 0.0151 | 2.3000e-004 | | 2.8800e-003 | 2.8800e-003 | | 2.8800e-003 | 2.8800e-003 | 0.0000 | 41.2038 | 41.2038 | 7.9000e-004 | 7.6000e-004 | 41.4487 |

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

5.3 Energy by Land Use - Electricity

Unmitigated

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|-----------------------------------|-----------------|-----------|-------------|-------------|---------|
| Land Use | kWh/yr | MT/yr | | | |
| Congregate Care (Assisted Living) | 319285 | 29.5415 | 4.7800e-003 | 5.8000e-004 | 29.8336 |
| Total | | 29.5415 | 4.7800e-003 | 5.8000e-004 | 29.8336 |

Mitigated

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|-----------------------------------|-----------------|-----------|-------------|-------------|---------|
| Land Use | kWh/yr | MT/yr | | | |
| Congregate Care (Assisted Living) | 319285 | 29.5415 | 4.7800e-003 | 5.8000e-004 | 29.8336 |
| Total | | 29.5415 | 4.7800e-003 | 5.8000e-004 | 29.8336 |

6.0 Area Detail

6.1 Mitigation Measures Area

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

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------|---------|-------------|--------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|----------|-----------|-----------|-------------|--------|--------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Mitigated | 0.4692 | 7.0100e-003 | 0.6083 | 3.0000e-005 | | 3.3800e-003 | 3.3800e-003 | | 3.3800e-003 | 3.3800e-003 | 0.0000 | 0.9946 | 0.9946 | 9.5000e-004 | 0.0000 | 1.0184 |
| Unmitigated | 0.4692 | 7.0100e-003 | 0.6083 | 3.0000e-005 | | 3.3800e-003 | 3.3800e-003 | | 3.3800e-003 | 3.3800e-003 | 0.0000 | 0.9946 | 0.9946 | 9.5000e-004 | 0.0000 | 1.0184 |

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 | 0.0334 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 0.4175 | | | | | 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 | 0.0183 | 7.0100e-003 | 0.6083 | 3.0000e-005 | | 3.3800e-003 | 3.3800e-003 | | 3.3800e-003 | 3.3800e-003 | 0.0000 | 0.9946 | 0.9946 | 9.5000e-004 | 0.0000 | 1.0184 |
| Total | 0.4692 | 7.0100e-003 | 0.6083 | 3.0000e-005 | | 3.3800e-003 | 3.3800e-003 | | 3.3800e-003 | 3.3800e-003 | 0.0000 | 0.9946 | 0.9946 | 9.5000e-004 | 0.0000 | 1.0184 |

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**6.2 Area by SubCategory****Mitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| SubCategory | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Architectural Coating | 0.0334 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 0.4175 | | | | | 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 | 0.0183 | 7.0100e-003 | 0.6083 | 3.0000e-005 | | 3.3800e-003 | 3.3800e-003 | | 3.3800e-003 | 3.3800e-003 | 0.0000 | 0.9946 | 0.9946 | 9.5000e-004 | 0.0000 | 1.0184 |
| Total | 0.4692 | 7.0100e-003 | 0.6083 | 3.0000e-005 | | 3.3800e-003 | 3.3800e-003 | | 3.3800e-003 | 3.3800e-003 | 0.0000 | 0.9946 | 0.9946 | 9.5000e-004 | 0.0000 | 1.0184 |

7.0 Water Detail**7.1 Mitigation Measures Water**

Apply Water Conservation Strategy

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

| | Total CO2 | CH4 | N2O | CO2e |
|-------------|-----------|--------|-------------|---------|
| Category | MT/yr | | | |
| Mitigated | 4.3684 | 0.1398 | 3.3500e-003 | 8.8599 |
| Unmitigated | 5.4605 | 0.1747 | 4.1800e-003 | 11.0749 |

7.2 Water by Land Use**Unmitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|-----------------------------------|--------------------|---------------|---------------|--------------------|----------------|
| Land Use | Mgal | MT/yr | | | |
| Congregate Care (Assisted Living) | 5.34263 / 3.36818 | 5.4605 | 0.1747 | 4.1800e-003 | 11.0749 |
| Total | | 5.4605 | 0.1747 | 4.1800e-003 | 11.0749 |

Bethany Home - San Joaquin County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**7.2 Water by Land Use****Mitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|-----------------------------------|--------------------|---------------|---------------|--------------------|---------------|
| Land Use | Mgal | MT/yr | | | |
| Congregate Care (Assisted Living) | 4.2741 / 2.69454 | 4.3684 | 0.1398 | 3.3500e-003 | 8.8599 |
| Total | | 4.3684 | 0.1398 | 3.3500e-003 | 8.8599 |

8.0 Waste Detail**8.1 Mitigation Measures Waste**

Institute Recycling and Composting Services

Category/Year

| | Total CO2 | CH4 | N2O | CO2e |
|-------------|-----------|--------|--------|---------|
| | MT/yr | | | |
| Mitigated | 3.7975 | 0.2244 | 0.0000 | 9.4080 |
| Unmitigated | 15.1898 | 0.8977 | 0.0000 | 37.6321 |

Bethany Home - San Joaquin County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**8.2 Waste by Land Use****Unmitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|-----------------------------------|----------------|----------------|---------------|---------------|----------------|
| Land Use | tons | MT/yr | | | |
| Congregate Care (Assisted Living) | 74.83 | 15.1898 | 0.8977 | 0.0000 | 37.6321 |
| Total | | 15.1898 | 0.8977 | 0.0000 | 37.6321 |

Mitigated

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|-----------------------------------|----------------|---------------|---------------|---------------|---------------|
| Land Use | tons | MT/yr | | | |
| Congregate Care (Assisted Living) | 18.7075 | 3.7975 | 0.2244 | 0.0000 | 9.4080 |
| Total | | 3.7975 | 0.2244 | 0.0000 | 9.4080 |

9.0 Operational Offroad

| Equipment Type | Number | Hours/Day | Days/Year | Horse Power | Load Factor | Fuel Type |
|----------------|--------|-----------|-----------|-------------|-------------|-----------|
|----------------|--------|-----------|-----------|-------------|-------------|-----------|

Bethany Home - San Joaquin County, Annual

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

| | | | | | | |
|----------------|--------|-----------|------------|-------------|-------------|-----------|
| Equipment Type | Number | Hours/Day | Hours/Year | Horse Power | Load Factor | Fuel Type |
|----------------|--------|-----------|------------|-------------|-------------|-----------|

Boilers

| | | | | | |
|----------------|--------|----------------|-----------------|---------------|-----------|
| Equipment Type | Number | Heat Input/Day | Heat Input/Year | Boiler Rating | Fuel Type |
|----------------|--------|----------------|-----------------|---------------|-----------|

User Defined Equipment

| | |
|----------------|--------|
| Equipment Type | Number |
|----------------|--------|

11.0 Vegetation

APPENDIX B

BIOLOGICAL DATABASE MATERIAL

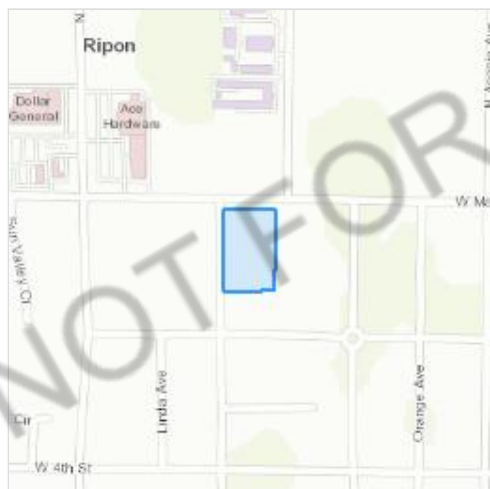
IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

San Joaquin County, California



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

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 species¹ 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 Fisheries²).

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:

Mammals

| NAME | STATUS |
|---|------------|
| <p>Riparian Brush Rabbit <i>Sylvilagus bachmani riparius</i></p> <p>Wherever found</p> <p>No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6189</p> | Endangered |
| <p>Riparian Woodrat (=san Joaquin Valley) <i>Neotoma fuscipes riparia</i></p> <p>Wherever found</p> <p>No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6191</p> | Endangered |

Birds

| NAME | STATUS |
|--|------------|
| <p>Least Bell's Vireo <i>Vireo bellii pusillus</i></p> <p>Wherever found</p> <p>There is final critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/5945</p> | Endangered |
| <p>Yellow-billed Cuckoo <i>Coccyzus americanus</i></p> <p>There is final critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/3911</p> | Threatened |

Reptiles

| NAME | STATUS |
|---|------------|
| <p>Giant Garter Snake <i>Thamnophis gigas</i></p> <p>Wherever found</p> <p>No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4482</p> | Threatened |

Amphibians

| NAME | STATUS |
|---|------------|
| <p>California Red-legged Frog <i>Rana draytonii</i></p> <p>Wherever found</p> <p>There is final critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/2891</p> | Threatened |

California Tiger Salamander *Ambystoma californiense*

Threatened

There is **final** critical habitat for this species. The location of the critical habitat is not available.

<https://ecos.fws.gov/ecp/species/2076>

Fishes

NAME

STATUS

Delta Smelt *Hypomesus transpacificus*

Threatened

Wherever found

There is **final** critical habitat for this species. The location of the critical habitat is not available.

<https://ecos.fws.gov/ecp/species/321>

Insects

NAME

STATUS

Monarch Butterfly *Danaus plexippus*

Candidate

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/9743>

Valley Elderberry Longhorn Beetle *Desmocerus californicus dimorphus*

Threatened

Wherever found

There is **final** critical habitat for this species. The location of the critical habitat is not available.

<https://ecos.fws.gov/ecp/species/7850>

Crustaceans

NAME

STATUS

Conservancy Fairy Shrimp *Branchinecta conservatio*

Endangered

Wherever found

There is **final** critical habitat for this species. The location of the critical habitat is not available.

<https://ecos.fws.gov/ecp/species/8246>

Vernal Pool Fairy Shrimp *Branchinecta lynchi*

Threatened

Wherever found

There is **final** critical habitat for this species. The location of the critical habitat is not available.

<https://ecos.fws.gov/ecp/species/498>

Wherever found

There is **final** critical habitat for this species. The location of the critical habitat is not available.

<https://ecos.fws.gov/ecp/species/2246>

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

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.

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.)

California Thrasher *Toxostoma redivivum*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds Jan 1 to Jul 31

Common Yellowthroat *Geothlypis trichas sinuosa*

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/2084>

Breeds May 20 to Jul 31

Lawrence's Goldfinch *Carduelis lawrencei*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9464>

Breeds Mar 20 to Sep 20

Nuttall's Woodpecker *Picoides nuttallii*

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/9410>

Breeds Apr 1 to Jul 20

Oak Titmouse *Baeolophus inornatus*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9656>

Breeds Mar 15 to Jul 15

Olive-sided Flycatcher *Contopus cooperi*

Breeds May 20 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3914>

Short-billed Dowitcher *Limnodromus griseus*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9480>

Tricolored Blackbird *Agelaius tricolor*

Breeds Mar 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3910>

Wrentit *Chamaea fasciata*

Breeds Mar 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Yellow-billed Magpie *Pica nuttalli*

Breeds Apr 1 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9726>

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

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

Breeding Season (■)

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

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

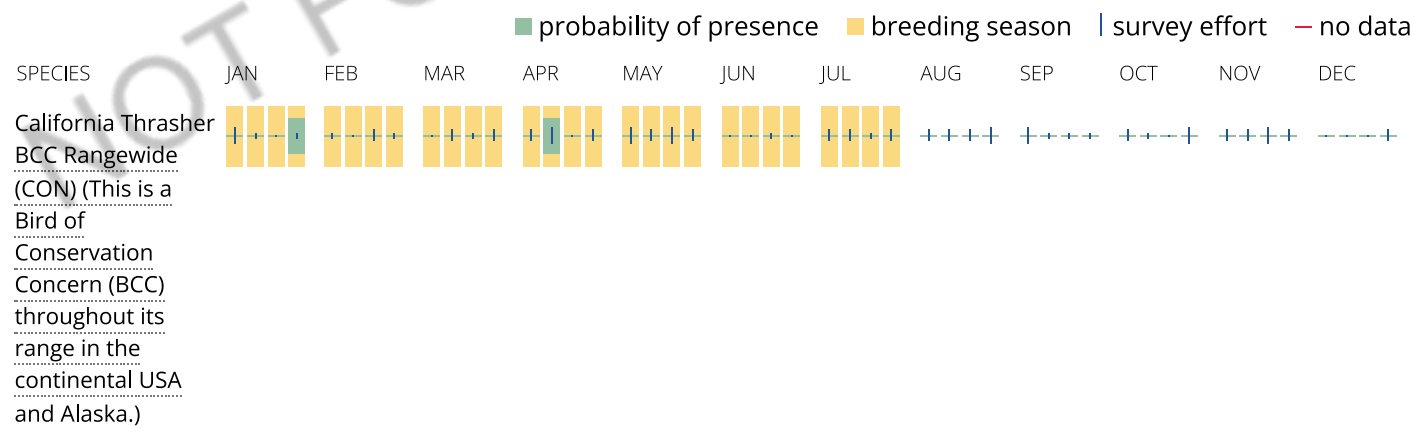
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

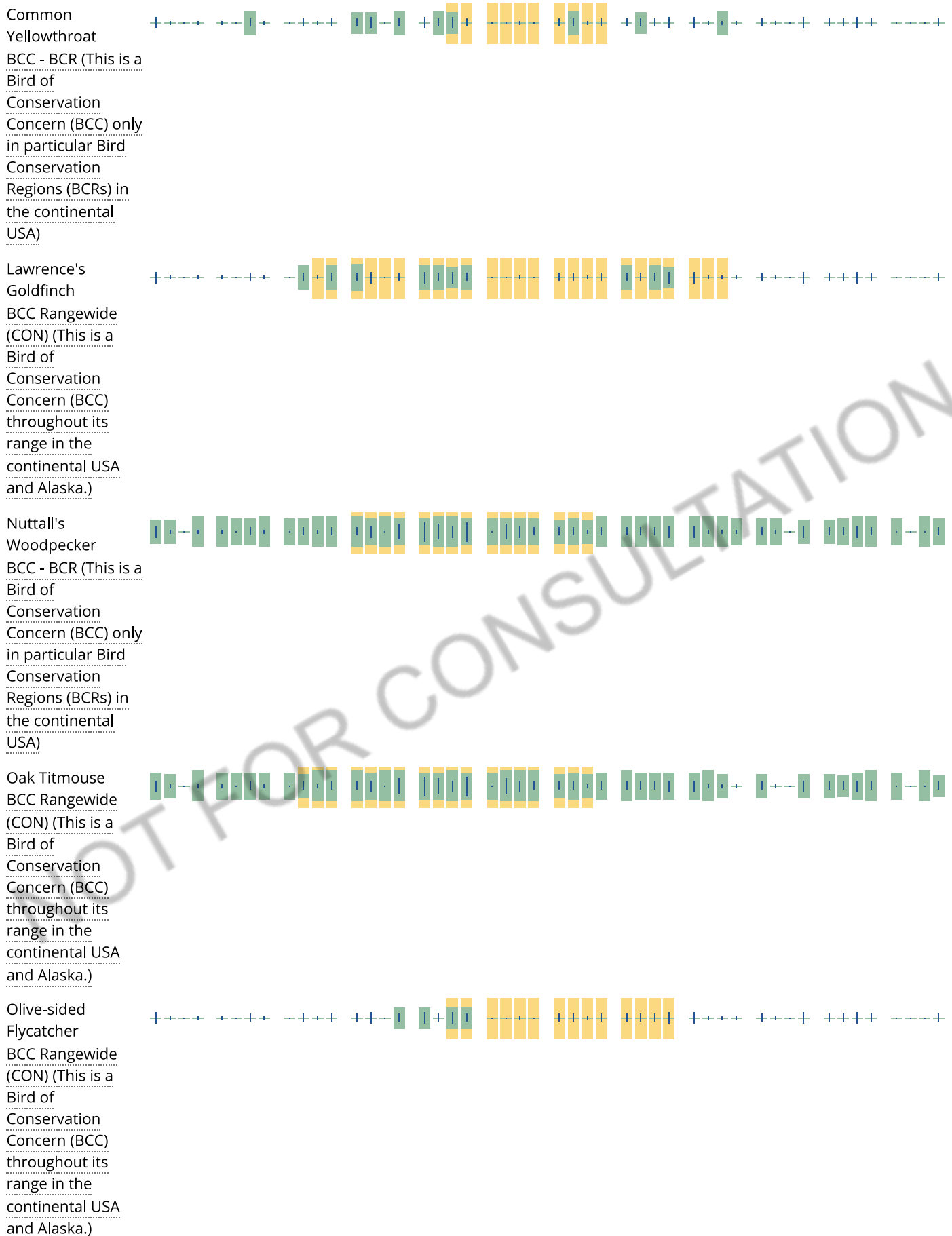
No Data (—)

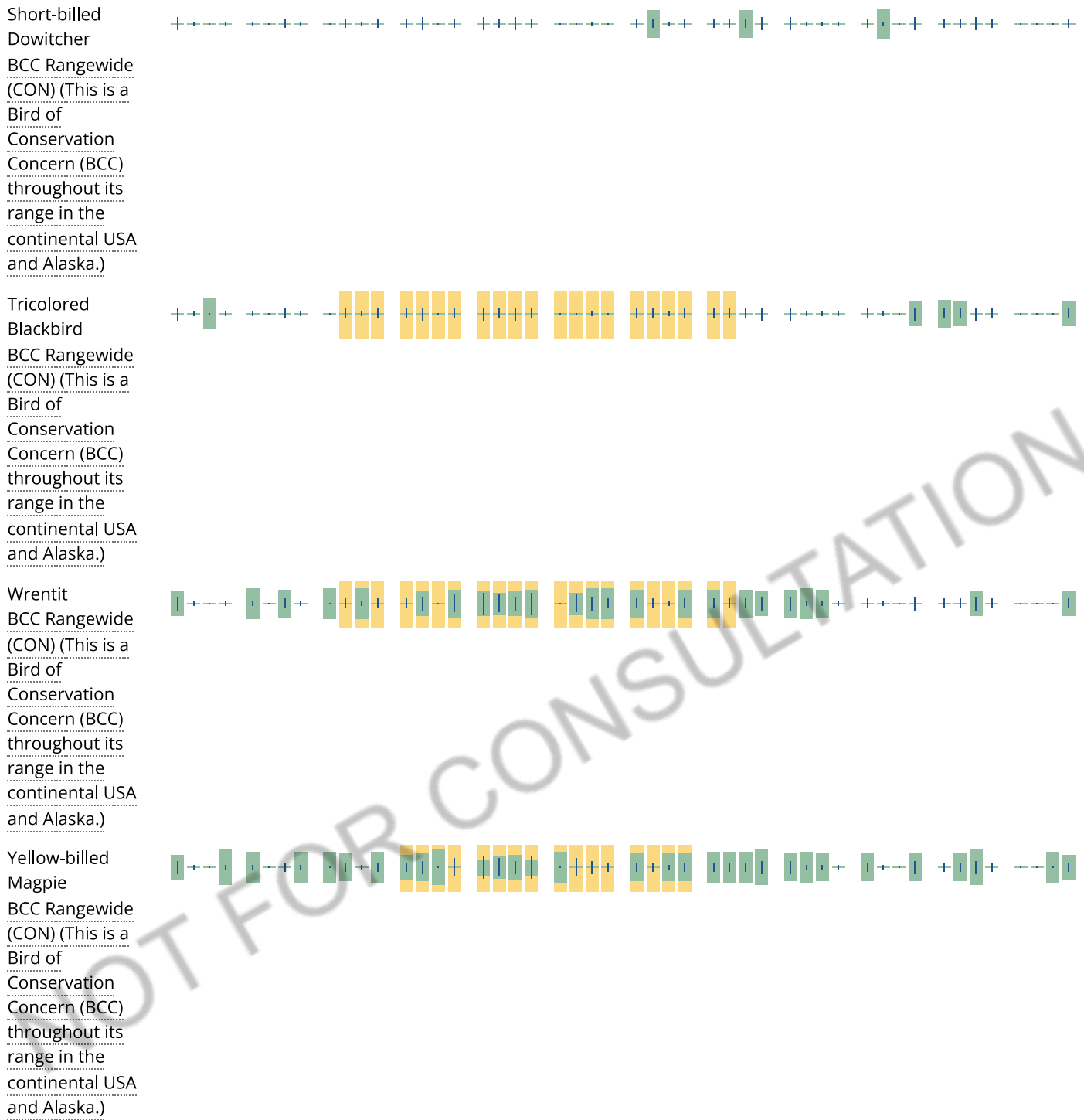
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.







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 to 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?

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

Wildlife refuges and fish hatcheries

REFUGE AND FISH HATCHERY INFORMATION IS NOT AVAILABLE AT THIS TIME

Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

WETLAND INFORMATION IS NOT AVAILABLE AT THIS TIME

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the [NWI map](#) to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

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 tubercid 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.

CNDDDB Quad Species List 49 records.

| Element Type | Scientific Name | Common Name | Element Code | Federal Status | State Status | CDFW Status | CA Rare Plant Rank | Quad Code | Quad Name | Data Status | Taxonomic Sort |
|-----------------------|----------------------------------|--|--------------|----------------|--------------|-------------|--------------------|-----------|-----------|------------------------|--|
| Animals - Amphibians | Ambystoma californiense pop. 1 | California tiger salamander - central California DPS | AAAAA01181 | Threatened | Threatened | WL | - | 3712162 | RIPON | Mapped and Unprocessed | Animals - Amphibians - Ambystomatidae - Ambystoma californiense pop. 1 |
| Animals - Amphibians | Spea hammondi | western spadefoot | AAABF02020 | None | None | SSC | - | 3712162 | RIPON | Mapped and Unprocessed | Animals - Amphibians - Scaphiopodidae - Spea hammondi |
| Animals - Birds | Accipiter cooperii | Cooper's hawk | ABNKC12040 | None | None | WL | - | 3712162 | RIPON | Unprocessed | Animals - Birds - Accipitridae - Accipiter cooperii |
| Animals - Birds | Buteo swainsoni | Swainson's hawk | ABNKC19070 | None | Threatened | - | - | 3712162 | RIPON | Mapped | Animals - Birds - Accipitridae - Buteo swainsoni |
| Animals - Birds | Elanus leucurus | white-tailed kite | ABNKC06010 | None | None | FP | - | 3712162 | RIPON | Unprocessed | Animals - Birds - Accipitridae - Elanus leucurus |
| Animals - Birds | Branta hutchinsii leucopareia | cackling (=Aleutian Canada) goose | ABNJB05035 | Delisted | None | WL | - | 3712162 | RIPON | Mapped and Unprocessed | Animals - Birds - Anatidae - Branta hutchinsii leucopareia |
| Animals - Birds | Ardea alba | great egret | ABNGA04040 | None | None | - | - | 3712162 | RIPON | Unprocessed | Animals - Birds - Ardeidae - Ardea alba |
| Animals - Birds | Ardea herodias | great blue heron | ABNGA04010 | None | None | - | - | 3712162 | RIPON | Unprocessed | Animals - Birds - Ardeidae - Ardea herodias |
| Animals - Birds | Nycticorax nycticorax | black-crowned night heron | ABNGA11010 | None | None | - | - | 3712162 | RIPON | Unprocessed | Animals - Birds - Ardeidae - Nycticorax nycticorax |
| Animals - Birds | Coccyzus americanus occidentalis | western yellow-billed cuckoo | ABNRB02022 | Threatened | Endangered | - | - | 3712162 | RIPON | Mapped | Animals - Birds - Cuculidae - Coccyzus americanus occidentalis |
| Animals - Birds | Falco columbarius | merlin | ABNKD06030 | None | None | WL | - | 3712162 | RIPON | Mapped | Animals - Birds - Falconidae - Falco columbarius |
| Animals - Birds | Spinus lawrencei | Lawrence's goldfinch | ABPBY06100 | None | None | - | - | 3712162 | RIPON | Unprocessed | Animals - Birds - Fringillidae - Spinus lawrencei |
| Animals - Birds | Agelaius tricolor | tricolored blackbird | ABPBXB0020 | None | Threatened | SSC | - | 3712162 | RIPON | Mapped | Animals - Birds - Icteridae - Agelaius tricolor |
| Animals - Birds | Lanius ludovicianus | loggerhead shrike | ABPBR01030 | None | None | SSC | - | 3712162 | RIPON | Unprocessed | Animals - Birds - Laniidae - Lanius ludovicianus |
| Animals - Birds | Setophaga petechia | yellow warbler | ABPBX03010 | None | None | SSC | - | 3712162 | RIPON | Unprocessed | Animals - Birds - Parulidae - Setophaga petechia |
| Animals - Birds | Athene cunicularia | burrowing owl | ABNSB10010 | None | None | SSC | - | 3712162 | RIPON | Unprocessed | Animals - Birds - Strigidae - Athene cunicularia |
| Animals - Crustaceans | Branchinecta conservatio | Conservancy fairy shrimp | ICBRA03010 | Endangered | None | - | - | 3712162 | RIPON | Mapped | Animals - Crustaceans - Branchinectidae - Branchinecta conservatio |

| | | | | | | | | | | | |
|-----------------------|-------------------------------------|--|------------|------------|------------|-----|---|---------|-------|------------------------|--|
| Animals - Crustaceans | Branchinecta lynchi | vernal pool fairy shrimp | ICBRA03030 | Threatened | None | - | - | 3712162 | RIPON | Mapped | Animals - Crustaceans - Branchinectidae - Branchinecta lynchi |
| Animals - Crustaceans | Linderiella occidentalis | California linderiella | ICBRA06010 | None | None | - | - | 3712162 | RIPON | Mapped | Animals - Crustaceans - Chirocephalidae - Linderiella occidentalis |
| Animals - Crustaceans | Lepidurus packardi | vernal pool tadpole shrimp | ICBRA10010 | Endangered | None | - | - | 3712162 | RIPON | Mapped | Animals - Crustaceans - Triopsidae - Lepidurus packardi |
| Animals - Fish | Acipenser medirostris pop. 1 | green sturgeon - southern DPS | AFCAA01031 | Threatened | None | - | - | 3712162 | RIPON | Mapped and Unprocessed | Animals - Fish - Acipenseridae - Acipenser medirostris pop. 1 |
| Animals - Fish | Acipenser transmontanus | white sturgeon | AFCAA01050 | None | None | SSC | - | 3712162 | RIPON | Unprocessed | Animals - Fish - Acipenseridae - Acipenser transmontanus |
| Animals - Fish | Archoplites interruptus | Sacramento perch | AFCQB07010 | None | None | SSC | - | 3712162 | RIPON | Unprocessed | Animals - Fish - Centrarchidae - Archoplites interruptus |
| Animals - Fish | Cottus gulosus | rifle sculpin | AFC4E02140 | None | None | SSC | - | 3712162 | RIPON | Unprocessed | Animals - Fish - Cottidae - Cottus gulosus |
| Animals - Fish | Lavinia exilicauda exilicauda | Sacramento hitch | AFCJB19012 | None | None | SSC | - | 3712162 | RIPON | Unprocessed | Animals - Fish - Cyprinidae - Lavinia exilicauda exilicauda |
| Animals - Fish | Mylopharodon conocephalus | hardhead | AFCJB25010 | None | None | SSC | - | 3712162 | RIPON | Mapped and Unprocessed | Animals - Fish - Cyprinidae - Mylopharodon conocephalus |
| Animals - Fish | Pogonichthys macrolepidotus | Sacramento splittail | AFCJB34020 | None | None | SSC | - | 3712162 | RIPON | Unprocessed | Animals - Fish - Cyprinidae - Pogonichthys macrolepidotus |
| Animals - Fish | Hysterocarpus traskii traskii | Sacramento-San Joaquin tule perch | AFCQK02012 | None | None | - | - | 3712162 | RIPON | Unprocessed | Animals - Fish - Embiotocidae - Hysterocarpus traskii traskii |
| Animals - Fish | Entosphenus tridentatus | Pacific lamprey | AFBAA02100 | None | None | SSC | - | 3712162 | RIPON | Unprocessed | Animals - Fish - Petromyzontidae - Entosphenus tridentatus |
| Animals - Fish | Oncorhynchus keta | chum salmon | AFCHA02020 | None | None | - | - | 3712162 | RIPON | Unprocessed | Animals - Fish - Salmonidae - Oncorhynchus keta |
| Animals - Fish | Oncorhynchus mykiss irideus pop. 11 | steelhead - Central Valley DPS | AFCHA0209K | Threatened | None | - | - | 3712162 | RIPON | Mapped and Unprocessed | Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus pop. 11 |
| Animals - Fish | Oncorhynchus tshawytscha pop. 11 | chinook salmon - Central Valley spring-run ESU | AFCHA0205L | Threatened | Threatened | - | - | 3712162 | RIPON | Unprocessed | Animals - Fish - Salmonidae - Oncorhynchus tshawytscha pop. 11 |
| Animals - Fish | Oncorhynchus tshawytscha pop. 13 | chinook salmon - Central Valley fall / late fall-run ESU | AFCHA0205N | None | None | SSC | - | 3712162 | RIPON | Unprocessed | Animals - Fish - Salmonidae - Oncorhynchus tshawytscha pop. 13 |
| Animals - Insects | Desmocerus californicus dimorphus | valley elderberry longhorn beetle | IICOL48011 | Threatened | None | - | - | 3712162 | RIPON | Mapped | Animals - Insects - Cerambycidae - Desmocerus californicus dimorphus |
| Animals - Insects | Lytta moesta | moestan blister beetle | IICOL4C020 | None | None | - | - | 3712162 | RIPON | Mapped | Animals - Insects - Meloidae - Lytta moesta |

| | | | | | | | | | | | |
|-------------------------|---|---|------------|------------|------------|-----|------|---------|-------|------------------------|--|
| Animals - Insects | Rhaphiomidas trochilus | Valley mydas fly | IIDIP05010 | None | None | - | - | 3712162 | RIPON | Unprocessed | Animals - Insects - Myridae - Rhaphiomidas trochilus |
| Animals - Mammals | Neotoma fuscipes riparia | riparian (=San Joaquin Valley) woodrat | AMAFF08081 | Endangered | None | SSC | - | 3712162 | RIPON | Mapped | Animals - Mammals - Cricetidae - Neotoma fuscipes riparia |
| Animals - Mammals | Sylvilagus bachmani riparius | riparian brush rabbit | AMAEB01021 | Endangered | Endangered | - | - | 3712162 | RIPON | Mapped and Unprocessed | Animals - Mammals - Leporidae - Sylvilagus bachmani riparius |
| Animals - Reptiles | Emys marmorata | western pond turtle | ARAAD02030 | None | None | SSC | - | 3712162 | RIPON | Unprocessed | Animals - Reptiles - Emydidae - Emys marmorata |
| Animals - Reptiles | Phrynosoma blainvillii | coast horned lizard | ARACF12100 | None | None | SSC | - | 3712162 | RIPON | Unprocessed | Animals - Reptiles - Phrynosomatidae - Phrynosoma blainvillii |
| Community - Terrestrial | Elderberry Savanna | Elderberry Savanna | CTT63440CA | None | None | - | - | 3712162 | RIPON | Mapped | Community - Terrestrial - Elderberry Savanna |
| Community - Terrestrial | Great Valley Cottonwood Riparian Forest | Great Valley Cottonwood Riparian Forest | CTT61410CA | None | None | - | - | 3712162 | RIPON | Mapped | Community - Terrestrial - Great Valley Cottonwood Riparian Forest |
| Community - Terrestrial | Great Valley Mixed Riparian Forest | Great Valley Mixed Riparian Forest | CTT61420CA | None | None | - | - | 3712162 | RIPON | Mapped | Community - Terrestrial - Great Valley Mixed Riparian Forest |
| Community - Terrestrial | Great Valley Valley Oak Riparian Forest | Great Valley Valley Oak Riparian Forest | CTT61430CA | None | None | - | - | 3712162 | RIPON | Mapped | Community - Terrestrial - Great Valley Valley Oak Riparian Forest |
| Plants - Vascular | Eryngium racemosum | Delta button-celery | PDAPI0Z0S0 | None | Endangered | - | 1B.1 | 3712162 | RIPON | Mapped | Plants - Vascular - Apiaceae - Eryngium racemosum |
| Plants - Vascular | Lasthenia chrysanth | alkali-sink goldfields | PDAST5L030 | None | None | - | 1B.1 | 3712162 | RIPON | Mapped | Plants - Vascular - Asteraceae - Lasthenia chrysanth |
| Plants - Vascular | Atriplex coronata var. coronata | crownscale | PDCHE040C3 | None | None | - | 4.2 | 3712162 | RIPON | Unprocessed | Plants - Vascular - Chenopodiaceae - Atriplex coronata var. coronata |
| Plants - Vascular | Atriplex minuscula | lesser saltscale | PDCHE042M0 | None | None | - | 1B.1 | 3712162 | RIPON | Mapped | Plants - Vascular - Chenopodiaceae - Atriplex minuscula |
| Plants - Vascular | Puccinellia simplex | California alkali grass | PMPOA53110 | None | None | - | 1B.2 | 3712162 | RIPON | Mapped | Plants - Vascular - Poaceae - Puccinellia simplex |

APPENDIX C
HISTORIC RESOURCE EVALUATION



EVANS & DE SHAZO

ARCHAEOLOGY HISTORIC PRESERVATION

A HISTORIC RESOURCE EVALUATION OF THE PROPERTY AT 816 W. MAIN STREET, RIPON, SAN JOAQUIN COUNTY, CALIFORNIA

SUBMITTED TO:

Charlie Simpson
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SUBMITTED BY:

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Principal Architectural Historian
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Nicole LaRochelle M.S., and Bee Thao, M.A.

Updated June 9, 2022

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INTRODUCTION

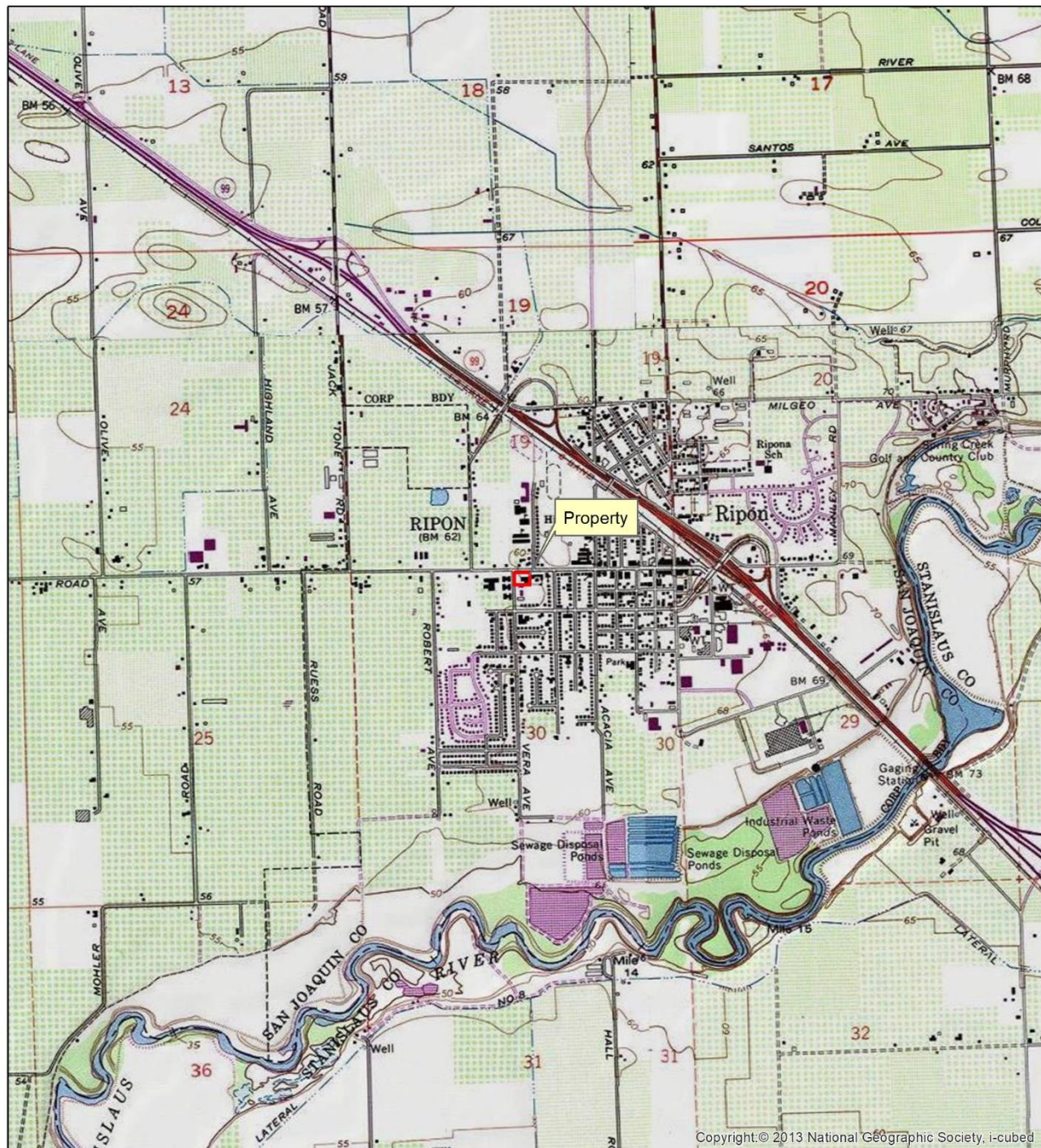
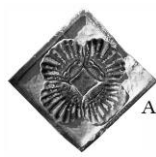
Evans & De Shazo, Inc. (EDS) completed a Historic Resource Evaluation (HRE) of a property at 816 W. Main Street, Ripon, San Joaquin County, California within Assessor Parcel Number (APN) 259-18-017 (Property). The Property includes the 1928 Ripon Christian School building, 1928 auxiliary building, and associated landscape. Although currently in the development phase, the project consists of the proposed demolition of the 1928 Ripon Christian School building, ca. 1928 auxiliary building, and associated landscape. The Property is not currently listed on the City of Ripon Historic Resources Inventory (2006), the Office of Historic Preservation (OHP) Built Environment Resource Directory (BERD) for San Joaquin County and is not listed on any other federal, state, or local historic resource list. In addition, the Property does not appear to have been previously evaluated for listing on the California Register of Historical Resources (CRHR). As such, in accordance with the California Environmental Quality Act (CEQA), an HRE of the 1928 Ripon Christian School building, 1928 auxiliary building, and associated landscape is required to determine if any built environment resources within the Property are eligible for the listing on the CRHR and provide recommendations as warranted.

The HRE is based on specific guidelines and evaluation criteria of the CRHR (14 CCR §15064.5 and PRC § 21084.1). The following HRE was completed by EDS Principal Architectural Historian Stacey De Shazo, M.A., who exceeds the Secretary of the Interior's qualification standards in Architectural History and History, and Bee Thao, M.A., and Nicole LaRochelle, M.S., who assisted with the research.

The results of the HRE are presented herein.

PROPERTY LOCATION

The Property is located at 816 W. Main Street, Ripon, San Joaquin County, California. The Property is situated on the southeast corner of W. Main Street and Vera Avenue within the city of Ripon, approximately 0.5 miles south of Highway 99 and about 1.5 miles north of the Stanislaus River. The Property includes the 1928 Ripon Christian School building, 1928 auxiliary building, and associated landscape.



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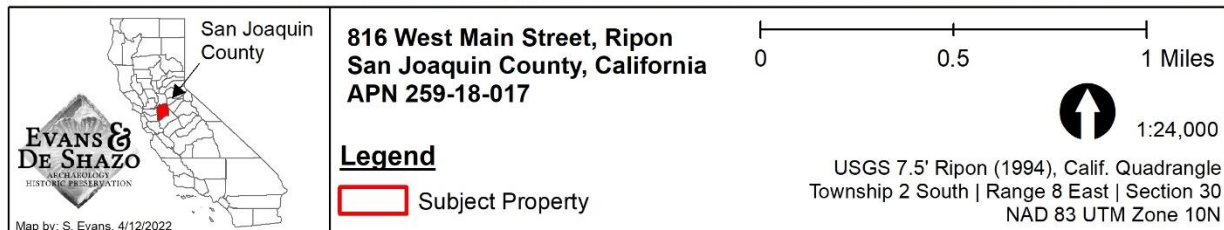


Figure 1 Property location map.

REGULATORY SETTING

The CEQA regulations, as they pertain to cultural resources, are outlined below.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

CEQA and the Guidelines for Implementing CEQA (State CEQA Guidelines CCR § 15064.5) give direction and guidance for evaluating properties, and the preparation of Initial Studies, Categorical Exemptions, Negative Declarations, and Environmental Impact Reports. Pursuant to California State law, the city of Ripon is legally responsible and accountable for determining the environmental impact of any land use proposal it approves. Cultural resources are aspects of the environment that require identification and assessment for potential significance under CEQA (14 CCR § 15064.5 and PRC § 21084.1).

There are five classes of cultural resources defined by the State OHP. These are:

- **Building:** A structure created principally to shelter or assist in carrying out any form of human activity. A “building” may also be used to refer to a historically and functionally related unit, such as a courthouse and jail or a house and barn.
- **Structure:** A construction made for a functional purpose rather than creating human shelter. Examples include mines, bridges, and tunnels.
- **Object:** Construction primarily artistic in nature or relatively small in scale and simply constructed. It may be movable by nature or design or made for a specific setting or environment. Objects should be in a setting appropriate to their significant historic use or character. Examples include fountains, monuments, maritime resources, sculptures, and boundary markers.
- **Site:** The location of a significant event. A prehistoric or historic occupation or activity, or a building or structure, whether standing, ruined, or vanished, where the location itself possesses historic, cultural, or archaeological value regardless of the value of any existing building, structure, or object. A site need not be marked by physical remains if it is the location of a prehistoric or historic event and if no buildings, structures, or objects marked it at that time. Examples include trails, designed landscapes, battlefields, habitation sites, Native American ceremonial areas, petroglyphs, and pictographs.
- **Historic District:** Unified geographic entities which contain a concentration of historic buildings, structures, or sites united historically, culturally, or architecturally.

According to CCR § 15064.5, cultural resources are historically significant if they are:

- (1) A resource listed in or determined to be eligible by the State Historical Resources Commission for listing in the California Register of Historical Resources (PRC § 5024.1, 14 CCR § 4850 et seq.).
- (2) A resource included in a local register of historical resources, as defined in PRC § 5020.1(k) or identified as significant in a historical resource survey meeting the requirements PRC § 5024.1(g), shall be presumed to be historically or culturally significant. Public agencies must treat any such

resource as significant unless the preponderance of the evidence demonstrates that it is not historically or culturally significant.

- (3) Any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources (PRC § 5024.1, 14 CCR § 4852), including the following:
 - (A) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
 - (B) Is associated with the lives of persons important in our past;
 - (C) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
 - (D) Has yielded, or may be likely to yield, information important in prehistory or history.
- (4) The fact that a resource is not listed in or determined to be eligible for listing in the CRHR, not included in a local register of historical resources pursuant to PRC § 5020.1(k) or identified in a historical resources survey meeting the criteria in PRC § 5024.1(g) does not preclude a lead agency from determining that the resource may be a historical resource as defined in PRC § 5020.1(j) or § 5024.1.

METHODS

The methods used to complete the HRE included a review of a record search conducted by the Central California Information Center (CCIC) of the California Historical Resource Information Systems (CHRIS) (CCIC File #12159L) to obtain primary records associated with the Property and the cultural resource inventories listed below. EDS also conducted extensive online research, including at the San Joaquin County Assessor/Recorder Office, the San Joaquin Historical Museum, and the Ripon Historical Society. EDS also reviewed digital documents, on file, with EDS, such as historical maps, historical aerial photographs, and other primary source documents. The purpose of the research was to understand the history of the Property and the surrounding area to assist in developing a historical context to evaluate the historical significance of the built environment resources within the Property. EDS Principal Architectural Historian Stacey De Shazo, M.A. also completed an architectural survey to identify the age, any known architectural style or form, character-defining features, materials, and alterations of the 1928 Ripon Christian School building, 1928 auxiliary building, and associated landscape within the Property. Department of Parks and Recreation (DPR) 523 forms were also completed for the Property (Appendix A).

Cultural Resource Inventories

As part of the record search, the following inventories were reviewed:

- National Register of Historic Places (NRHP)
- California Register of Historical Resources (CRHR)
- California Historical Landmarks (CHL)
- California Points of Historical Interest (CPHI)
- California BERD for San Joaquin County (OHP 2020)

Online Research

Online research utilized the following sources:

- www.newspapers.com
- www.ancestry.com
- www.calisphere.com (University of California)
- <http://www.library.ca.gov/> (California State Library)
- <https://cdnc.ucr.edu/> California Digital Newspaper Collection
- <http://pcad.lib.washington.edu/> (Pacific Coast Architecture Database [PCAD])
- <https://aiahistoricaldirectory.atlassian.net> (AIA Historical Directory of American Architects)

Repositories

- San Joaquin Assessor's and Recorder's Office
 - The current owner completed a title search.
- CCAIC Record Search
 - April 18, 2022, the CCIC completed a database search (NWIC File #12159L) of the Property. The record search results of "no findings" of documented built environment resources within the Property.
- Ripon Historical Society
 - On April 18, 2022, EDS reached out via email to the Ripon Historical Society for Property research.
 - As of May 7, 2022, EDS has not received a reply.
- San Joaquin Historical Society
 - EDS reached out on April 18, 2022, via email for Property research.
 - As of May 7, 2022, EDS has not received a reply.

The results of the research are incorporated within the Historic Setting section of this report.



HISTORICAL SETTING

The following historical setting provides a brief history of the city of Ripon and a specific historical context associated with the Property, including the 1928 Ripon Christian School building, 1928 auxiliary building, and associated landscape. The historical setting serves as the basis for evaluating the historical significance of the built environment resources within the Property.

MEXICAN PERIOD (1821 – 1848)

In 1821, Mexico declared its independence from Spain and took possession of “Alta California”,¹ marking the end of the Spanish period (1769 – 1821) and the beginning of the Mexican period, also referred to as the “rancho” period in Alta California. In 1833, the missions in California were secularized by the Mexican government, and mission-owned land was dissolved. During this time, extraordinary changes occurred throughout California, as the Mexican government lacked the strong oversight and military rule previously imposed by the Spanish, and as such, there were new opportunities for trade when foreign ships that had previously been held off by Spanish guarded military ports could dock and provide a variety of provisions to local settlers throughout California. These new provisions, including tea, coffee, sugars, spices, spirits, and a variety of manufactured goods, made their way into the region, and the taxes on these imported goods became the main source of revenue for the Mexican government in California. Likewise, products produced in Alta California were exported, which bolstered the hide and tallow trade that became the primary business activity in California during this time. During this time, the Mexican colonial authorities encouraged the settlement of Alta California by providing large land grants called ranchos to politically prominent persons that were loyal to the Mexican Government and permitting foreigners to settle the land. As a result, the 20 or so ranchos that had existed in Alta California during the Spanish period increased to roughly 800 ranchos that varied from 10,000 to 20,000 acres during the Mexican period. During the Mexican period, the Property was situated within unclaimed lands of the Mexican government.

In 1846, during the Mexican Period, a colony of twenty Mormon pioneers led by Samuel Brannan settled near present-day Ripon. According to the *Latter-day Saints Millennial Star* newspaper,² a group of Mormon’s believed “Northern California - not the basin of the Great Salt Lake - was the location of the new Mormon mecca and the place where the Saints could practice their controversial religion and polygamous lifestyle in peace.” The settlement, known as New Hope (CHL 436),³ and later Stanislaus City,⁴ was located at the junction of the San Joaquin and Stanislaus rivers. According to the *Latter-day Saints Millennial Star* newspaper, in 1847,

¹ Alta California was a polity of New Spain founded in 1769 and became a territory of Mexico after the Mexican War of Independence in 1822.

² *Millennial Star*, 1 January 1847, 9:307. <https://contentdm.lib.byu.edu/digital/collection/MStar/id/849/>, accessed April 13, 2022.

³ State Registered Landmark No. 436 “New Hope”, Dedicated October 22, 1949.

⁴ Office of Historic Preservation, Historical Landmark “New Hope”, <https://ohp.parks.ca.gov/ListedResources/Detail/436>, accessed April 10, 2022.



"Wheat at this time was selling for the extravagant price of one dollar per bushel and it would have been a very profitable activity for the brethren to engage in...As soon as the dwellings were begun, about eighty acres of land were cleared and plowed. While some of the brethren were sowing wheat, others were building a fence. Oak trees were cut up and put end to end and were then covered with branches. By the middle of January 1847, the whole field was planted and enclosed".

The new settlers irrigated by the pole and bucket method, constructed a sawmill, and started a ferry across the Stanislaus River.

EARLY AMERICAN PERIOD (1848 – 1855)

The beginning of the American Period in California is marked by the end of the Mexican-American War (1846 - 1848) in 1848, when the U.S. took possession of the territories including California, New Mexico, Texas, and Arizona in the signing of the Treaty of Guadalupe Hidalgo on February 2, 1848. The Treaty of Guadalupe Hidalgo provided the resident Mexicans their American citizenship and guaranteed title to ranchos granted in the Mexican period. However, less than two weeks prior to the treaty's signing, on January 24, 1848, James Marshall discovered gold at Sutter's Mill, which marked the start of California's Gold Rush (1848 to 1855). Soon the excitement of the Gold Rush and the promise of fertile and abundant land brought between 150,000 and 200,000 new settlers to California from all over the U.S., as well as Scotland, Ireland, England, Germany, and France.^{5 6} In an effort to quickly resolve Mexican rancho land disputes, the U.S. Congress passed the California Land Act of 1851, which established a three-member Public Land Commission (Commission) to determine the validity of prior Spanish and Mexican land grants.⁷ The act required landowners who claimed title under the Mexican government to file a claim with the Commission within two years. Although the Commission eventually confirmed most of the original Mexican land grants, the burden was on landowners to prove their title and many Mexican land-grant owners were forced to sell off some or all their land and cattle to newly arriving settlers or the lawyers they hired to define their land claims in court.⁸

During this time, the Property was not located within a land grant. However, it was considered public land surveyed under the Public Land Survey System (PLSS) in the early 1850s and made available to new settlers.

HISTORY OF RIPON

The first European American settler in Ripon was William Hiller Hughes, who in 1857 claimed 160 acres of

⁵ Karen Clay, *Property Rights and Institutions: Congress and the California Land Act 1851*, The Journal of Economic History, Cambridge University Press, 59(01):122-142, March 1999.

⁶ Commodore Stockton was also responsible for driving the Mexican forces out of California during the Mexican-American War.

⁷ The Spanish government-controlled California land from approximately 1770 to 1821 and the Mexican government-controlled California land from 1821 to 1846.

⁸ Nancy Olmsted. *Vanished Waters: A History of San Francisco's Mission Bay*, Mission Creek Conservancy, San Francisco, 1986.



public land near the Stanislaus River within the Dent Township within San Joaquin County.⁹ William was born in Greene County, Pennsylvania in 1821, where he worked on his father's farm until he was 24. In 1845, he married Margaret Hill, born in Caton, Ohio. William and Margaret had one son, George F., born in 1845. During the late 1840s, they rented a farm near Jefferson, Greene County, Pennsylvania, and in 1849, they moved to Missouri, where William again took up farming. Margaret died in 1850. In 1851, William married Eliza Jane Dye, born in Ohio in 1831. In 1853, they migrated to California and first settled in Sonora, where William began mining within Shaw's Flats (CHL No. 395), the location of a large gold strike in 1848, and later an active mining community. After some success in mining at Shaw's Flats, William and Eliza bought 160 acres of timberland near the town of Sonora, which they cleared and planted grain. In 1857, William, Eliza, and George moved to San Joaquin County, where William bought 160 acres of land near Ripon, where he grew wheat and barley.¹⁰ In 1860, William purchased approximately 320 acres of adjoining land and later added another 160 acres of adjacent land to his holdings. Around 1870, he purchased 281 acres of land within present-day Ripon, selling the first lots for the town's development. By 1875, William had amassed approximately 2,300 acres of land within and around Ripon.

Another earlier settler of Ripon was Perry Yapple, who was born in New York in 1825. In 1852, he migrated to California, where he first settled in the city of Stockton, where he opened a barley grinding mill. In 1861, he sold his mill and moved to Ripon to raise bees and produce honey; however, a bee epidemic in 1868 wiped out nearly all his beehives. By 1869, he turned to grain farming within his property in the present-day city of Ripon.

In 1870, William Hughes provided land for the Southern Pacific railroad right of way that ran through his property and donated land for a train depot. The depot, first named "Stanislaus Station", was the terminus of the Visalia branch of the Southern Pacific being built to Fresno. In 1874, Amplias B. (A.B.) Crooks, a native of Ripon, Wisconsin, arrived at Stanislaus Station and opened the first mercantile store in Ripon. This same year, Crooks applied to the government for the establishment of a post office and on December 21, 1874, Crooks was named the first postmaster of the town that he named Ripon. During this time, Ripon consisted of large farms, mainly planted in grain.

In the 1870s, early settler Frank Hutchinson described Ripon in the following way,

"At this time the present site of Ripon was the end of the railroad. A crew of men were building the bridge across the Stanislaus River, one mile southeast of the switch. Benjamin and Clara Frederick rigged up a cookhouse out of brush and served meals to the workers. They were the only inhabitants except a population of ground squirrels, jack rabbits, and a few of the badger family in the fall and winter. Wild geese and ducks came down from the north by the millions and garnered the grain left by the farmers during the harvest. The land was all farmed to wheat and barley at that time by Perry Yapple, Isaac Koch, and Hughes, all pioneers of the locality, each one owning land that is now in the so called city limits of Ripon,

⁹ Natalie W. Gardner, "History of Ripon", (originally published in the San Joaquin Historian, 1957), http://www.cityofripon.org/residents/around_ripon/history, accessed April 22, 2022.

¹⁰ "An Illustrated History of San Joaquin County, California", Lewis Pub. Co. Chicago, Illinois 1890, 642-644.

*consisting of one square mile."*¹¹

In 1875, Crooks' store burned down, and a few years later, a new building was constructed by Henry Bowman, who then sold the building and the business to Perry Yapple. Perry Yapple then deeded the building to his son B.F. Yapple,¹² who opened a general merchandising store within the building. In 1886, Perry Yapple had the two-story International Order of the Odd Fellow's (IOOF) hall (extant) constructed along Main Street in Ripon. During this time, E. C. Dickerson (third Postmaster of Ripon) and J. H. Little also erected a new building on Main Street, which housed a mercantile store.

By 1884, the town had grown and included a hotel and saloon, several schools, several merchandise stores, a blacksmith shop, several churches, two large warehouses, and approximately 14 houses. During this time, B.F. Yapple's store occupied the lower floor and IOOF building, and the upstairs meeting hall was where the Odd Fellows Lodge No. 58 held its meetings.¹³ Lodge No. 58 was originally associated with an IOOF building in Sonora, but gradually lost its membership as gold mining waned. So, when former Sonora member Ivm. E. Garatt moved to Ripon, he had the IOOF charter moved to Ripon.¹⁴ The first IOOF meeting at its new location opened to 12 members. During the 1880s and 1890s, the IOOF hall was the hub of all activity in the town, and the second-floor hall was also used as a Sunday school and church, and dances, as well as other social gatherings. By this time, there was also a saloon within a section of the first floor. During this time, both the Catholic and Methodist faiths had established a presence in Ripon. In 1899, the Ripon Cemetery Association was established as a non-profit association, electing officers who represented the pioneer families of Ripon, including F. H. Kincaid, President; H. H. Clendenin, Vice-President; Mrs. Maggie Hughes, Treasurer; Frank Hutchinson, Secretary and member, Perry Yapple and through their efforts, this same year, the Ripon Cemetery was established on land donated by J. S. Moulton.

During this time, agricultural land in Ripon was primarily utilized for dry farming – growing crops that were drought resistant such as grain, and for cattle grazing. In 1895, H.W. Cowell and N.S. Harrold formed the Stanislaus and San Joaquin Water Company. The company had a system of ditches along the Stanislaus River from Knights Ferry to Manteca, called the "Tulloch System," which spanned 47 miles and distributed water to 3,000 acres of land in Manteca and Oakdale, allowing for the growing of fruit and nut crops. In 1909, South San Joaquin Irrigation District arrived in Ripon, and large landholdings of early settlers, including Hughes and Yapple, were reduced to 10 to 30-acre farms and sold to small farmers. Soon, dry farming gave way to row crops, such as melons and almond trees began to appear and dairies, creating new business in support of the agricultural industry (Figure 2). During this time, the success of the dairy farms in Ripon was directly related to the influx of Portuguese immigrants who rented land and established the first large dairy farms in the area (Figure 3). In 1906, Ripon's first grapevines were planted by Teresa Carrara, and in 1910, with her husband

¹¹ Natalie W. Gardner, "History of Ripon", (originally published in the San Joaquin Historian, 1957), http://www.cityofripon.org/residents/around_ripon/history, accessed April 22, 2022.

¹² "An Illustrated History of San Joaquin County, California", Lewis Pub. Co. Chicago, Illinois 1890, 325.

¹³ Natalie W. Gardner, "History of Ripon", (originally published in the San Joaquin Historian, 1957), http://www.cityofripon.org/residents/around_ripon/history, accessed April 22, 2022.

¹⁴ Ibid.

Guiseppe Franzia, they established Franzia Brothers.

In the 1910s, Ripon's agricultural economy flourished, and more businesses along Main Street were constructed (Figure 4). Real estate speculators also began to arrive in Ripon. In 1912, real estate ads produced by The Ripon Realty Co. and others advertised "choice town lots" available for development in Ripon.¹⁵ During this time, the first public library opened, which consisted of a 50-volume shelf of books within the "McKee & Reynolds" mercantile building on main street. Over the next four decades, "Reading Rooms" in various private homes provided the public with additional access to books until the Ripon Library was constructed in 1948 (Figure 5).¹⁶ In 1916, Dutch farmers began to arrive in Ripon, attracted by the advertisements of real estate speculators touting the availability of rich farmlands and later by the formation of the Society for Christian Instruction in 1924. During this time, the Dutch were mainly involved in dairying, many owning their own dairy businesses (Figure 6). The Dutch residents also constructed the first Christian Reform Church (no longer extant), where the current City Hall now stands. In 1921, the Ripon Fire District was formed, and this same year, the Meyenberg Bros. company built its first evaporated milk plant, known as the "Meyenberg Bros. Milk Creamery" (aka as Meyenberg Evaporated Milk Company). The Meyenberg Bros. company was drawn to Ripon due to its booming dairy industry, which was an essential part of the future success of the evaporated milk plant. During the 1920s, the plant handled 100,000 pounds of milk per day and produced 7,000 cases of evaporated milk per day. In 1929, the milk plant was purchased by "Pet Milk Company", which in the 1940s became part of the Nestlé, which operated out of the existing plant on Stockton Street. During this time, Highway 99 was constructed, and the town needed signage to direct traffic to its business district (Figure 7), which included several businesses, including the N & S irrigation supply store that supported the growing agricultural community (Figure 8).

By 1941, Ripon's dairy businesses had grown to a 4.7 million dollar industry, mainly supported by Dutch, Portuguese, and later Swiss farmers. In 1944, the Ripon City water district voted to have Ripon operate its own water company, and in 1945, Ripon was incorporated as a city. Hans Madsen was elected the city's first mayor and L. S. Brady served as the first city clerk. In 1953, the city government was changed to a city administrator type of government, with L. S. Brady to hold the position of the first city manager, serving until May 1957. In 1960, the town of Ripon had 1,894 residents. From the 1960s to the 1970s, Ripon saw suburban residential growth that spread in undeveloped areas within the town, and by 1970 Ripon's population had grown to 2,679.

¹⁵ Natalie W. Gardner, "History of Ripon", (originally published in the San Joaquin Historian, 1957), http://www.cityofripon.org/residents/around_ripon/history, accessed April 22, 2022.

¹⁶ Stockton-San Joaquin Public Library, "History", <https://www.ssjcpl.org/locations/county/ripon.html>, accessed April 28, 2022.

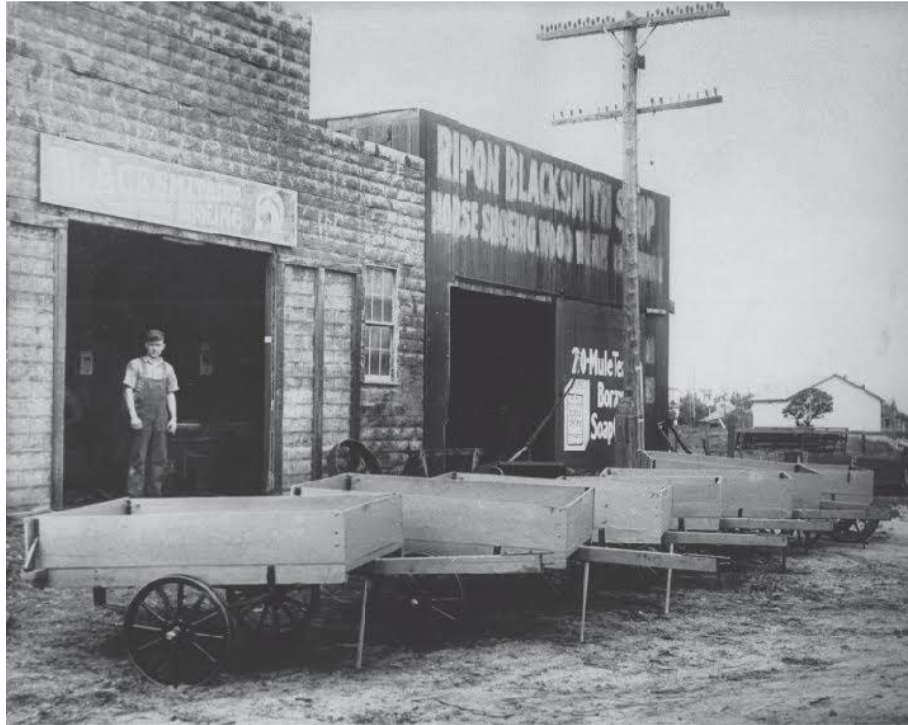
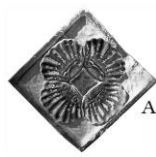


Figure 2. ca. 1920 photograph of Ripon Blacksmith Shop and carts for almond harvesting.



Figure 3. ca. 1920 photograph of Portuguese dairy farmers in Ripon (courtesy of Ripon Historical Society).



Figure 4. 1922 photograph looking east on Main Street, Ripon ((courtesy of Ripon Historical Society).

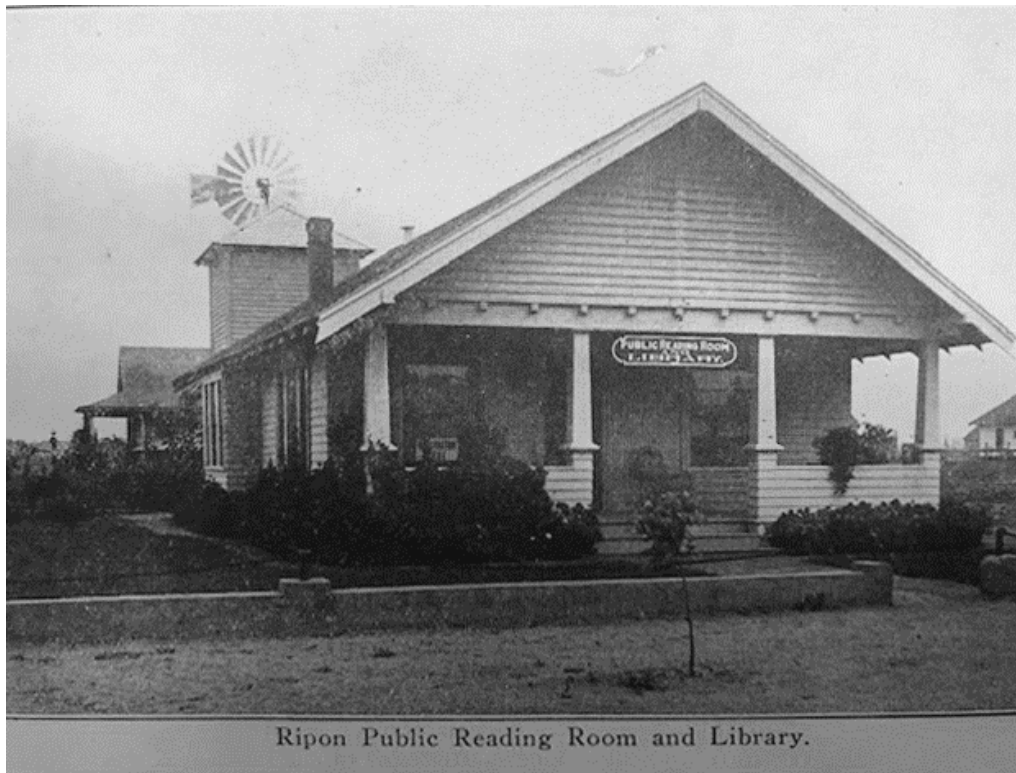


Figure 5. ca. 1948 photograph of the Ripon's first "Public Reading Room and Library (courtesy of Ripon Historical Society).

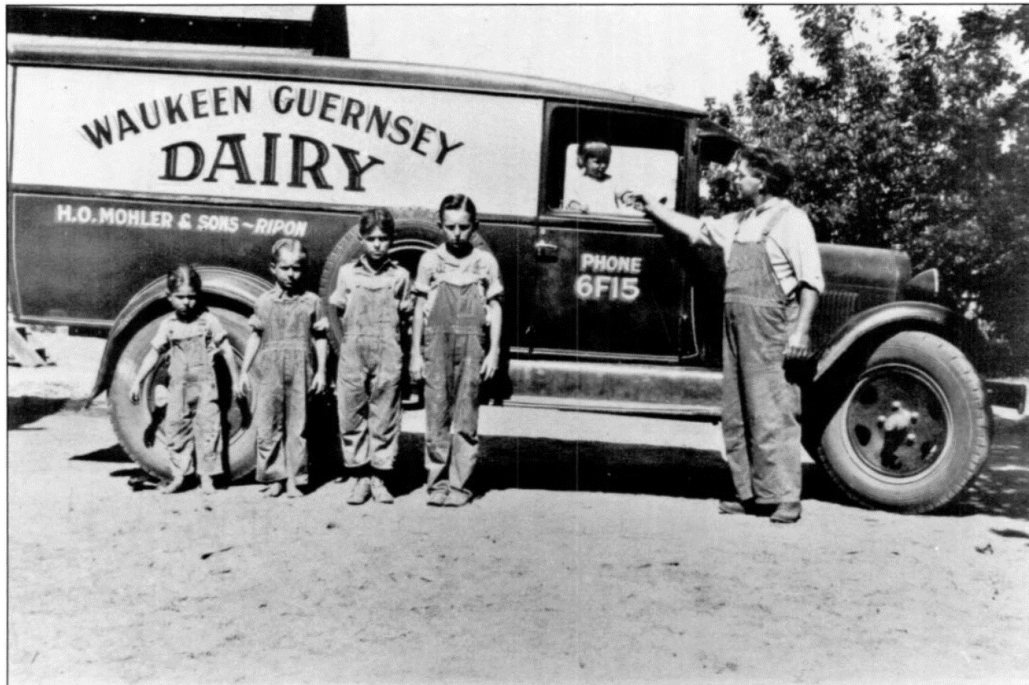


Figure 6. Photograph of Dutch immigrant H.O. Mohler, and his children, owner of “Waukeen Guernesey Dairy” (courtesy of Ripon Historical Society).



Figure 7. ca. 1940 photograph of the “Ripon Business District” sign (no longer extant) that was installed in the late 1920s, located next to the junction of present-day Main Street and Highway 99 (courtesy of Ripon Historical Society).

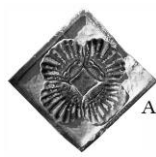


Figure 8. ca. 1950 photograph of the N & S irrigation supply store (extant) on W. Main Street in Ripon (courtesy of Ripon Historical Society).

HISTORY OF RIPON SCHOOLS

The following section is mainly taken from the “History of Ripon”¹⁷ by Natalie W. Gardner,

“Education was a vital ingredient in building a good individual. The citizens of Dent and Castoria Township, which was to become Ripon, demonstrated this early on in the development of the public school districts. Zinc House School was the first step in this process; being formed in 1852. The schools needed to be accessible to students by horse or by foot. This was the reason for a high number of schools in the Ripon area. By 1890 Ripon had 4 schools, with a daily attendance of 108 students: River School 14, Zinc School 33, San Joaquin School 32, and Ripon School 29.

The Zinc School was first created in 1860 and consisted of a brick building, later to be known as “Zinc House” that also doubled as an overnight wagon train stop.¹⁸ In 1916, a new two-room school building was constructed, and the old one-room building was moved half-mile east to the Murphy Brothers property where it was used as a store. In the same year, the

¹⁷ Natalie W. Gardner, “History of Ripon”, (originally published in the San Joaquin Historian, 1957), http://www.cityofripon.org/residents/around_ripon/history, accessed April 29, 2022

¹⁸ Newspaper.com, “History of Atlanta School”, The Ripon Record, February 21, 1979.



Zinc School name was changed to Atlanta School District, named after the city of Atlanta.¹⁹ An auditorium and stage was later added to the Zinc School and then two more classrooms, and restrooms in 1959.²⁰ In 1971, the Atlanta School closed and the sixty-four students were moved to the new Ripon School.

The River School was first established in 1864 and located about a mile west of Ripon "on Stoel Candy land, across the road where Mr. Smith's residence is".²¹ According to a 1917 newspaper article, in the 1870s, a new school building was built at the intersection of Murphy's Ferry Road and River Road before being first moved "one mile and half east on Mr. Strayley's land", and then once more to an acre-property from Eldridge Reynold for \$30."²²

In August of 1910, several citizens of Ripon circulated a petition to hold an election for a High School Board. The election results held 106 in favor to 35 opposed the creation of the school board. The High School Board was organized within one month after the vote. In 1910, the Ripon Union High School District was created,²³ encompassing Ripon, River, San Joaquin, and Zinc House School Districts. This same year the new board voted to build Ripon High School. The new high school first operated in the IOOF hall on Main Street. Then in 1916, a bond election was held and approved \$27,000 to build the new high school.^{24 25}

History of Ripon's Christian Schools

The idea to open a Christian school in Ripon began in November of 1924, when a group of mainly Dutch citizens, led by Reverend John DeJong (Rev. DeJong), "recognized the necessity of Christian education for their children and founded the Society for Christian Instruction".²⁶ The Christian Reformed Church sponsored the organization²⁷ with Rev. DeJong as the president until 1928.²⁸ The organization operated as a non-profit and relied on donations and gifts from members to succeed, and had no state aid or tax funds. In 1928, five acres were purchased, and within four months, the school (1928 Ripon Christian School) opened with 71 pupils in grades first through sixth. In 1928, the first school bus was purchased and Ripon Christian School began a long tradition of providing transportation for its students. In 1929, the school added seventh and eighth grades, and in 1939, the first eighth-grade class, consisting of seven students, graduated from the school. Within a

¹⁹ Newspaper.com, "Atlanta School Farewell Party Set For This Sunday Afternoon", The Ripon Record, December 1, 1971.

²⁰ Newspaper.com, "History of Atlanta School", The Ripon Record, February 21, 1979.

²¹ Newspaper.com, "A History of The River District School", The Ripon Record, March 2, 1917.

²² Natalie W. Gardner, "History of Ripon", (originally published in the San Joaquin Historian, 1957), http://www.cityofripon.org/residents/around_ripon/history, accessed April 29, 2022

²³ Newspaper.com, "Ripon to Have a High School", The Evening Mail, August 9, 1910.

²⁴ Newspaper.com, "A History of The River District School", The Ripon Record, March 2, 1917.

²⁵ Newspaper.com, "Ripon High School Opens on Wednesday", The Evening Mail, September 3, 1910.

²⁶ Newspaper.com, "History of Ripon Christian Schools", The Ripon Record, February 2, 1978.

²⁷ Newspaper.com, "Another School for Ripon Students", The Ripon Record, March 9, 1928.

²⁸ Newspaper.com, "Christian School Society Runs Two School Plant", The Ripon Record, September 28, 1961.

few years, ninth grade was also added to the school, increasing the school student population to 116.

In 1946, as the community wanted Christian education to extend beyond the ninth grade, the Society for Christian Instruction raised funds to construct the Ripon Christian High School, which focused on Christ-centered, liberal arts education for children from Christian families. By 1947, the high school was completed, and in 1951, four additional school buses were added, which brought students from as far away as Modesto and Escalon.²⁹ In 1962, Ripon Christian Middle School was constructed, and by 1964, over 500 students were registered at Ripon Christian schools.^{30 31} In 1971, the Western Association of Schools and Colleges (WASC) fully accredited the Ripon Christian schools.

PROPERTY HISTORY

In 1862, prior to the construction of the 1928 Ripon Christian School building, 1928 auxiliary building, and associated landscape, the Property was located within land owned by Peter Kennedy (Figure 9). By 1876, the Property resided with 1,109-acre property belonging to William Hiller Hughes, an earlier settler and pioneer of Ripon (Figure 10). During the time Hughes owned the property, it appears that it was planted in grain. Hughes retained ownership of the land until his death in 1897 (Figure 11).³² The land was then passed to his son, Thomas Clarence Hughes, and by 1913, the larger parcel was subdivided, and the Property was within a 15-acre lot that remained in the ownership of Thomas Clarence Hughes (Figure 12). Thomas was born in 1875 in Ripon to William and Eliza Hughes. He married Martha (Mattie) Hughes in 1897.³³ On the 1910 U.S. Federal Census record, Thomas and Martha are shown as living in Dent Township, where Thomas operated a 900-acre ranch.^{34 35} During this time, it appears that Thomas and Mattie's house was located on the Christian Grammar School property, though not within the current boundaries of the subject Property (Figure 13).^{36 37} By 1914, Thomas and Mattie were living in Oakland, but Thomas appears to have still operated his grain business in Ripon.³⁸ In 1917, Thomas retired, and in 1920, he sold the now 13-acre property, including the subject Property, to Dr. Ned Burke Gould.

In 1913, Dr. Ned Gould and his family moved to Ripon where Dr. Gould established a medical clinic at the northwest corner of South Stockton and First streets.³⁹ Dr. Ned Gould was born on May 8, 1880.⁴⁰ He married

²⁹ Newspaper.com, "Society of Christian Instruction", The Ripon Record, August 21, 1958.

³⁰ Newspaper.com, "Ripon Christian to Celebrate 60 years of Heritage", The Ripon Record, March 2, 1988.

³¹ Newspaper.com, "A Condense History of Ripon Christian Schools", The Ripon Record, April 5, 1978.

³² Find A Grave.com, William Hiller Hughes, <https://www.findagrave.com/memorial/46334975/william-hiller-hughes>.

³³ Ancestry.com. *1900 United States Federal Census*.

³⁴ Newspaper.com, "Thomas C. Hughes Funeral Tomorrow", Oakland Tribune, May 1, 1945.

³⁵ Ancestry.com. *1910 United States Federal Census*.

³⁶ Newspaper.com, "The First Hospital In Ripon", The Ripon Record, February 22, 1935.

³⁷ Newspaper.com, "A Tribute to Dr. Ned G. Gould", The Ripon Record, October 4, 1978.

³⁸ Ancestry.com. *U.S., World War I Draft Registration Cards, 1917-1918*.

³⁹ Newspaper.com, "A Tribute to Dr. Ned G. Gould", The Ripon Record, October 4, 1978.

⁴⁰ Ancestry.com. *U.S., World War I Draft Registration Cards, 1917-1918*.

Agnes Safely in 1910, while she was the head of the surgery department at Mt. Zion Hospital in San Francisco.⁴¹ ⁴² Dr. Gould and Agnes had two children, Jeanette and Anna.⁴³ In 1920, Dr. Gould and Agnes purchased the 13-acre property from Thomas Hughes and remodeled the old Hughes home.⁴⁴ Dr. Gould appears to have constructed Ripon's first hospital, known as "Gould Medical Group" within the property utilizing the remaining land to grow fruits and vegetables and raise cows and poultry. In 1926, the hospital burned down. Dr. Gould moved his practice to Modesto, re-opening his clinic in McPheeters Hospital; this same year, Dr. Gould sold the property to Society for Christian Instruction.⁴⁵



Figure 9. 1862 Handy Map showing the location of the Property within Peter Kennedy's property.

⁴¹ Newspaper.com, "A Tribute to Dr. Ned G. Gould", The Ripon Record, October 4, 1978.

⁴² Newspaper.com, "Popular Calistoga Girl Becomes Bride of Young Physician", The Napa Weekly Journal, January 14, 1910.

⁴³ Newspaper.com, "Dr. Ned. B. Gould Passes Saturday; Formerly Was Physician in Ripon", The Ripon Record, March 8, 1956.

⁴⁴ Newspaper.com, "The First Hospital in Ripon", The Ripon Record, February 22, 1935.

⁴⁵ Newspaper.com, "Dr. N. B. Gould, Modesto Doctor, Cattleman, Dies", The Modesto Bee and News-Herald, March 3, 1956.

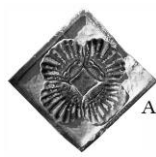


Figure 10. 1876 Thompson and West Plat Book with the location of the Property shown within William Hughes' 1,109-acre property.

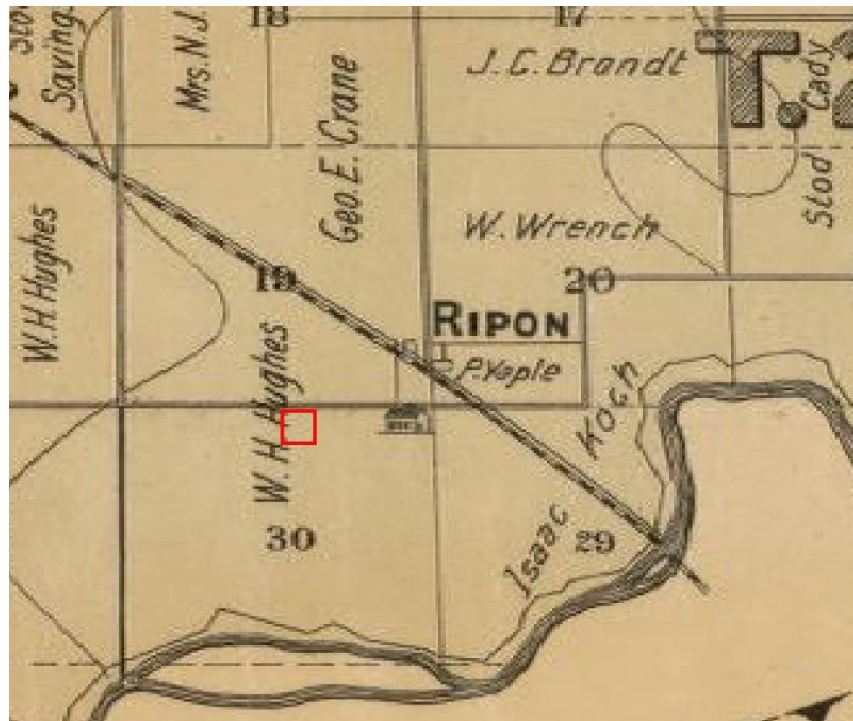


Figure 11. 1895 Britton & Rey Official Map of San Joaquin County showing the location of the Property within William H. Hughes' property.

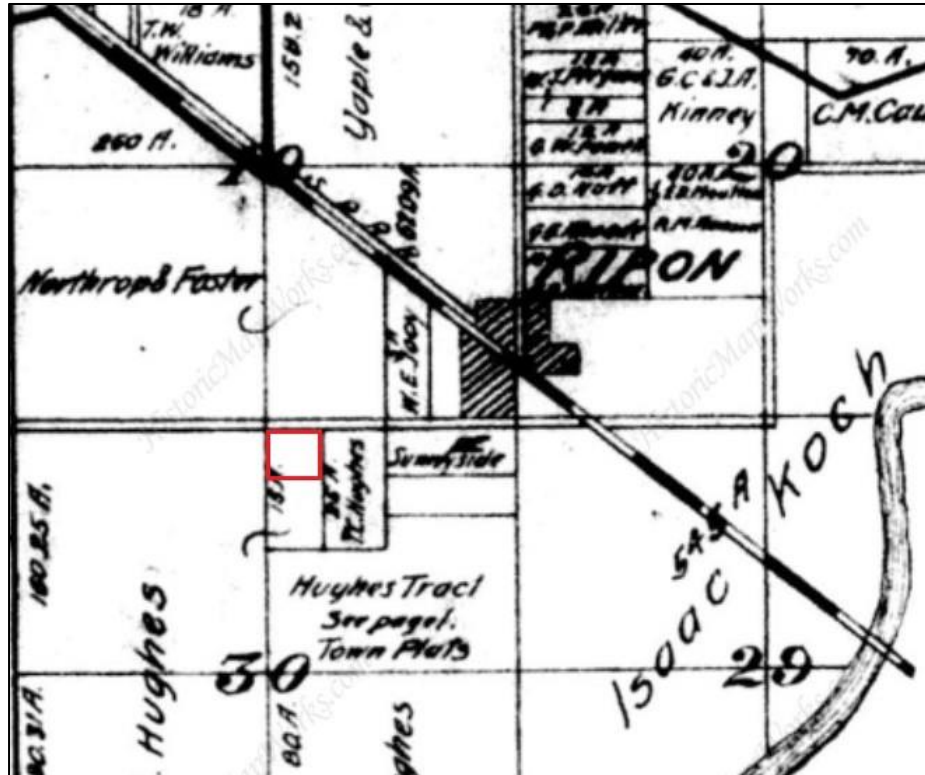


Figure 12. 1911 Chase Young Map showing the Property within Thomas Clarence Hughes's 15-acre property.

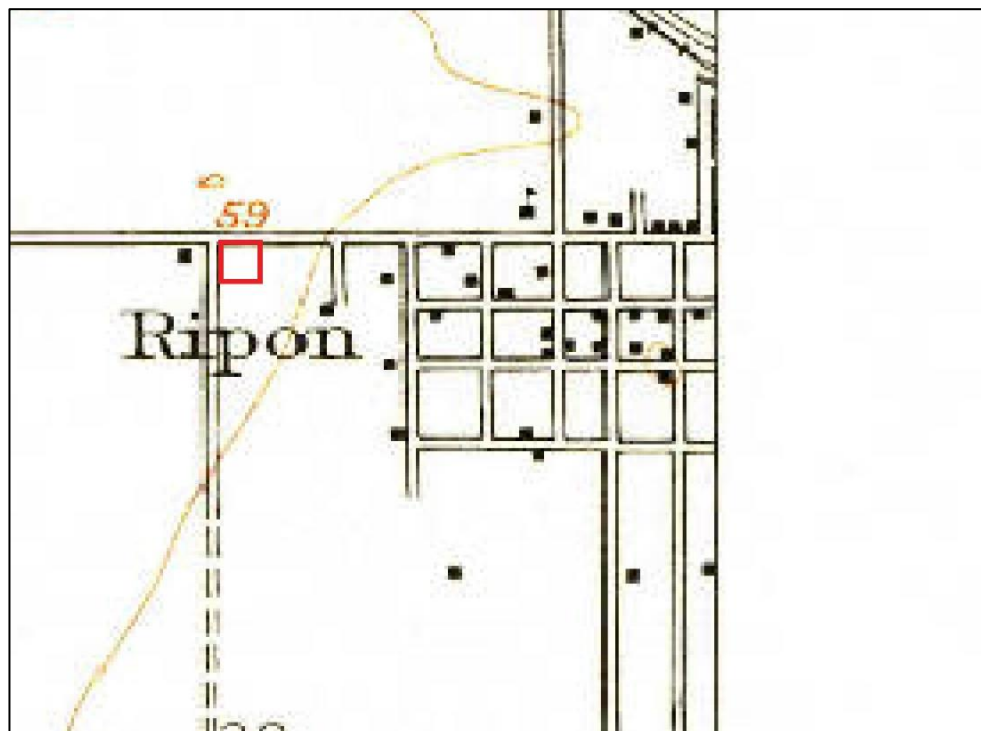


Figure 13. 1915 USGS Map showing the location of the Property.

Property History (1928 – Present)

In 1928, the Christian Reformed Church sponsored the Society for Christian Instruction, under the direction of Rev. DeJong,⁴⁶ to purchase a 5-acre portion of the 13-acre property owned by Dr. Gould for \$1,900.⁴⁷ The money was provided by the Christian Reformed Church, which received donations for the purchase of the land to construct a Christian school.⁴⁸ The Society for Christian Instruction then hired builder Lambert Ubels, who was a local contractor, to construct the school with a budget of \$5,155. The school was designed as a three-room schoolhouse with a Mission Revival design. Ubels started construction on May 4, 1928, and within four months, on August 29, 1928, the school was complete (Figure 14). The 1928 Ripon Christian School opened with 71 students enrolled from grades first through sixth.

Since the construction of the 1928 Ripon Christian School, the property has not changed; however, the area around the school has grown to include new housing, churches, and public schools (Figure 15, Figure 16, Figure 17, and Figure 18).



Figure 14. ca. 1928 photograph of the 1928 Ripon Christian School building (courtesy of Ripon Historical Society).

⁴⁶ Newspaper.com, “Christian School Society Runs Two School Plant”, The Ripon Record, September 28, 1961.

⁴⁷ Newspaper.com, “History of Ripon Christian Schools”, The Ripon Record, February 21, 1979.

⁴⁸ Newspaper.com, “Another School for Ripon Students”, The Ripon Record, March 9, 1928.



Figure 15. A 1941 aerial photograph showing the Property and the 1928 building (courtesy of the University of Santa Barbara Library).



Figure 16. 1957 aerial photograph showing the 1928 building in the Property (courtesy of University of Santa Barbara Library).

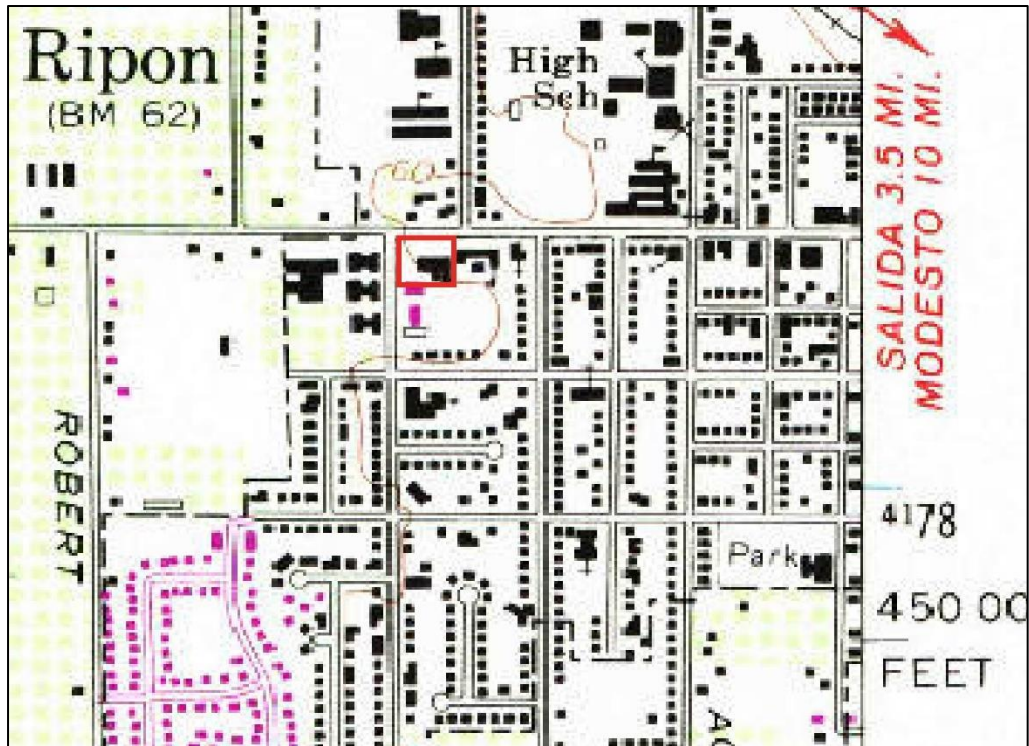


Figure 17. 1969 USGS Map showing the 1928 building within the Property.



Figure 18. 1980 Aerial photography showing the 1928 building within the Property (courtesy of University of Santa Barbara Library).

BUILDER: LAMBERT UBELS

Lambert was born in 1889 in the Netherlands and immigrated to Ripon in 1915, following the growing trend of local Dutch families moving to the area. Lambert relied on his carpentry skills, established a carpentry business,⁴⁹ and soon established himself as a building contractor.⁵⁰ In 1919, he married Marie DeBoer, and they had three children, Engbert, Johanna, and John. In 1917, he was commissioned to build the first Christian Reform Church, which in 1931 housed the Ripon Women's Improvement Club, and in 1945 the building was converted by the city into the City Hall (extant).^{51 52} By the mid-1920s, Lambert was a known building contractor in Ripon and in neighboring towns, such as Modesto, where Lambert also built a classroom addition to the Modest High School,⁵³ constructed several buildings for the Hammond Army Hospital,⁵⁴ and worked on the St. Paul Episcopal Church.⁵⁵ In 1928, Lambert was hired by the Society for Christian Instruction to construct the 1928 Ripon Christian School building. It does not appear that he was a licensed architect or involved in the design of the building. In 1934, Lambert was appointed chair of the Ripon Chamber of Commerce. Lambert died in 1943 in Ripon.^{56 57}

ARCHITECTURAL STYLE

The 1928 Ripon Christian School building is associated with Mission Revival architecture, briefly described in the section below.

MISSION REVIVAL (1890 – 1920)

By the late 19th century, several California architects had made a monumental shift in the direction of their architectural inspiration. Rather than continuing to adopt imported East Coast architectural styles, these architects recognized the value of their own historic surroundings. They rediscovered the early Spanish Franciscan mission churches of the Southwestern United States, which were initially built in the mid to late 1700s. Their most prominent feature is the curvilinear parapet, often punctured by deep window and door openings. The Mission Revival style, as it was called, gained acceptance as early as 1885. However, it did not become popular until 1893, when the style was first used for the California Building at the Columbian Exposition in Chicago. Several exposition buildings followed at various fairs across the county, bringing the new style to the masses. While architects such as A. Page Brown, Bernard Maybeck, and Irving Gill popularized the style in California, architect Lester S. Moore is generally given credit for first seeing and appreciating the

⁴⁹ Newspaper.com, "Dutch families rooted in Ripon", The Ripon Record, February 20, 1991.

⁵⁰ Ancestry.com. *U.S., World War I Draft Registration Cards, 1917-1918*.

⁵¹ Newspaper.com, "Museum: Officials say demolition would have cost \$2d5,000", The Modesto Bee, January 3, 2006.

⁵² Newspaper.com, "Preserve old city hall?", The Ripon Record, October 12, 1988.

⁵³ Newspaper.com, "Ripon Contractor Lands Modesto Job", The Ripon Record, June 12, 1931.

⁵⁴ Newspaper.com, "Students remember hospital, mental unit", The Modesto Bee, July 25, 1996.

⁵⁵ Newspaper.com, "Ripon Contractors Wins Church Work", The Ripon Record, February 9, 1940.

⁵⁶ Newspaper.com, "Ripon Mourns Death of Lambert Ubels", The Ripon Record, September 10, 1943.

⁵⁷ Newspaper.com, "Marriage Licenses", The Stockton Daily Evening Record, December 5, 1919.

possibilities of the Mission Revival style. The style quickly became popular nationally and was used in various building types, from churches to train stations and social clubs to single-family homes.

Early on Mission Revival architecture was associated with the Arts and Crafts Movement, whose primary emphasis was to be simple in form, without superfluous or excessive decoration, highlighting the quality of materials as many such examples show a blending of these two design motifs. During the late 1890s, and early 1900s, building magazines and architectural portfolios of the southwest fueled the styles' popularity across the U.S. and although the period established for Mission Revival architecture is typically from 1890 to 1920, with its greatest popularity between 1905 and 1915, some representative examples can be found as late as 1930.

Character-defining features of Mission Revival Architecture often includes:

- Mission-shaped or curvilinear roof parapet
- Wide, overhanging eaves with decorative brackets
- Red clay roof tiles
- Towers with round or segmented domes
- Arched doorways
- Deep window openings without any framing, except the sill.
- Quatrefoil windows with cement plaster or cast surrounds
- Arcades with classical style round wood columns with Doric, Ionic, or Corinthian capitals and bases
- Recessed balconies and verandas
- Decorative buttresses, windows, and door details

HISTORIC ARCHITECTURAL SURVEY

On April 5, 2022, EDS Principal Architectural Historian Stacey De Shazo, M.A., completed a historic architectural survey of the Property, including the 1928 Ripon Christian School building, 1928 auxiliary building, and associated landscape. The following section documents the results of the survey.

1928 RIPON CHRISTIAN SCHOOL BUILDING

The 1928 Ripon Christian School building is associated with Mission Revival architecture. The building is a single-story, u-shaped, symmetrical form with a central side gable and two hipped front gable forms extending to the south and projecting slightly in front of the primary façade wall. The building has a low pitch roof and moderate eave overhang with exposed rafter tails and projecting wood posts (aka vigas). Centered within the central side-gable form is a decorative Mission-style curvilinear parapet, where the main entrance to the school is located, and arched window and door openings. The exterior is clad in narrow wood clapboard with corner boards. The roof is clad in asphalt shingles, and there is a brick chimney located at the center

gable. The building rests on a concrete perimeter foundation.

North Elevation (primary façade)

The north elevation consists of symmetrical fenestration patterns, including two front-facing gables on both the west and east end and a decorative Mission-style curvilinear parapet centered along the eaves of the elevation (Figure 19). There is an arched window between two square windows (Figure 20). Beneath the parapet is a wood and glass door with an arched fanlight and arched sidelights, accessed via concrete steps with a temporary accessibility ramp (Figure 21). An arched vent is directly over the door, with a metal bell. Between the gables and the center entryway are two groups of five, one-over-one, double-hung, wood windows with lugs (aka horns stiles) (Figure 22). Above each window are four-light, wooden hopper windows. The gables have wood lattice vents at each peak.



Figure 19. 1928 Ripon Christian School building, facing south.

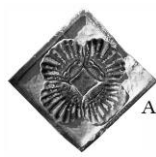


Figure 20. East gable of north elevation, with an arched window between two square windows.



Figure 21. Arched front entry with double divided light doors, and side lights, facing south.



Figure 22. Photograph showing a group of five windows on either side of the center arched front entrances.

West Elevation

The west elevation consists of a single, wood-paneled door, accessed via a wood stoop (Figure 23). To the north of this door is a group of five one-over-one, single-hung, wood windows with lugs. Above these windows are four-light, wooden hopper windows covered with wooden boards. A narrow, one-over-one, single-hung, wood window with lugs is at the northernmost corner.



Figure 23. West elevation, facing east.

South Elevation

The south elevation consists of three south-facing gables with several doors and windows (Figure 24). Neither the west nor east gables have fenestration, though they each have wood lattice vents at each gable peak. The center gable has a narrow door centered beneath the gable (Figure 25). Between the west and center gables are two one-over-one, double-hung, wood windows to the west of the wood-paneled double-door, which has a one-over-one, double-hung, wood window to the east of the doors. The west wall of the center gable has a one-over-over, double-hung, wood window to the north of a single wood-paneled door; between the center and east gables is a double, wood-paneled door east of a boarded window (Figure 26). The east wall of the center gable has a pair of one-over-one, double-hung wood windows. The west wall of the east gable consists of two one-over-one, single-hung, wood windows to the north of a single wood-paneled door located to the north of a shed extension. The shed extension has a boarded window and a single wood-paneled door to the south of the shed extension (Figure 27).



Figure 24. South elevation, facing east.



Figure 25. Center gable on south elevation, facing north.



Figure 26. Double-door on south elevation between the east gables, facing north.



Figure 27. West gable of the south elevation, facing northeast.

East Elevation

The east elevation consists of three single metal doors and fifteen one-over-one, single-hung windows, with four-light, wooden hopper windows set above each upper window sash (Figure 28). The windows are in groups of five; the fixed windows over two southern groups of windows are boarded up with wood panels (Figure 29). The red metal door is located between two groups of windows and is accessed via both a stair and an accessibility ramp. A metal awning is not original to the building, supported by metal arms attached to the wood siding (Figure 30). The remaining two windows are located between the two northern groups of windows and are accessed via wide concrete steps.



Figure 28. East elevation, facing northwest.

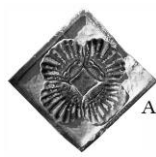


Figure 29. Unaltered windows on the east elevation, with horn stiles on double-hung windows.



Figure 30. East entrance, accessed via both a ramp and stairs.

1928 AUXILIARY BUILDING

The 1928 auxiliary building is not associated with any architectural style. The building is a front gable rectangular form constructed with a wood frame. The gables have exposed rafters with a wood lattice vent at the peak (Figure 31). The building is clad in wood siding and a corrugated metal roof. The eaves have a moderate overhang and exposed rafters. The north elevation has a wooden door (barn door) set on a central sliding metal track, situated between two windows (Figure 32). The easternmost window along this elevation is boarded up with plywood, while the westernmost window is a one-over-one, double-hung, wood window (Figure 33). The east elevation consists of a single wood door on the south, with two double-hung, wood windows to its north. The central window is boarded up. Neither the south nor west elevations have any fenestration (Figure 34).



Figure 31. North elevation, facing southeast.



Figure 32. Wood paneled door on track.



Figure 33. North and east elevations, facing southeast.



Figure 34. South and west elevations, facing northwest.

ASSOCIATED LANDSCAPE

The associated landscape consists of a central walkway surrounded by a lawn and two medium trees on either side of the main door (Figure 35). A large tree is located on the northwest corner of the building. The remaining landscape consists of shrubberies and grass surrounding the auxiliary building. The majority of the Property is void of landscaping.



Figure 35. Photograph showing the front lawn and central walkway that leads to the front entrance to the school, flanked by two trees, facing south.

COMPARATIVE ANALYSIS

EDS completed a comparative analysis of the 1928 Ripon Christian School building - designed in the Mission Revival architectural style - to illustrate the difference between a representative example of this design from 1890 to 1920, in comparison to the “modest” example exhibited in the 1928 building within the Property.

San Joaquin County has numerous representative examples of Mission Revival architecture, ranging from modest to excellent. For this comparative analysis, EDS chose three representative examples within the county, one within the city of Ripon, one within the nearby town of Lodi, and one within the nearby city of Stockton, presented in the section below.

The three representative comparative examples include:

- Comparative 1: 1919 River School at 20700 E River Road, Ripon, relocated in 1972 from Main and Acacia Street to its current location.
- Comparative 2: 1907 Lodi Arch (aka Mission Arch) (NR #80000848) located on Pine Street, Lodi.
- Comparative 3: 1910 Hotel Stockton (NR #81000174) at 133 E. Weber Avenue, Stockton.

Comparative 1

The 1919 River School (Figure 36), located at 20700 E River Road in Ripon, is designed in the Mission Revival architectural style within the accepted design period from 1890 to 1920. It is unknown who designed the Mission Revival building, but the Ripon School District likely constructed it. The building is a side gable form with Mission-shaped curvilinear gable parapets; and on either side of the building, is a centered Mission-shaped curvilinear roof parapet flanked by Mission-style bell towers with segmented domes, red clay roof tiles, arched elements, and a quatrefoil window with cement plaster or cast surrounds.

EDS Analysis: The 1919 River School is a representative example of Mission Revival Architecture within the accepted period for the style (1890 to 1920).



Figure 36. Photograph of the 1919 Ripon School within its current location at 20700 E River Road, Ripon (Google maps).

Comparative 2

The 1907 Lodi Arch (aka Mission Arch; Figure 37), located on Pine Street in downtown Lodi within San Joaquin County, is designed in the Mission Revival style within the accepted design period from 1890 to 1920. It was designed in 1907 by architect Edgar (E. B.) Brown, who is known for Mission Revival and Craftsman architecture within San Joaquin County. He was the principal of “E.B. Brown Architecture” in Stockton from ca. 1900 to ca. 1920 and the vice-president of the San Joaquin Valley Association of Architects in 1917.

According to the NR nomination form (NR #80000848),⁵⁸

“Lodi’s Mission Revival Ceremonial Arch, or the Lodi Arch, has many of the stylistic elements of early California mission architecture. The arch is constructed of an iron frame, cement, masonry, with a stucco coating. The dimensions of the structure are 80 ½ x 10 x 42 feet. Incorporated into the structure are the following features: broad, massive undecorated

⁵⁸ National Register of Historic Places Inventory-Nomination Form, “Lodi Arch” (NR #80000848), City of Lodi.

walls, low-pitched, red-tiled porches, and a main arch spanning Pine Street. Within the massive arch wall are niches where three mission bells are hung. This central arch illustrates the characteristics of mission revival design in the massing, decoration, and overall visual appearance.”

EDS Analysis: The 1907 Lodi Arch is one of the few remaining Mission Revival ceremonial structures within the state of California and is a representative example of Mission Revival Architecture within the accepted period for the style (1890 to 1920), and is listed on the NRHP.



Figure 37. Photograph of the 1917 Lodi Arch, designed in the Mission Revival style (courtesy of the City of Lodi)

Comparative 3

The 1910 Stockton Hotel (Figure 38), located at 133 E. Weber Avenue in Stockton within San Joaquin County, is designed in the Mission Revival design within the accepted design period from 1890 to 1920. It was designed in 1907 by architect Edgar (E. B.) Brown, who is known for Mission Revival and Craftsman architecture within San Joaquin County. He was the principal of “E.B. Brown Architecture” in Stockton from ca. 1900 to ca. 1920 and the vice-president of the San Joaquin Valley Association of Architects in 1917.

According to the NR nomination form (NR #81000174),⁵⁹

“The Hotel Stockton is significant as a well-executed, large-scale application of the Mission Revival Style.”

“This large (252 rooms, over 200,000 square feet) edifice occupies the entire “mini-block” bounded by El Dorado Street on the west, Hunter Street on the east, Bridge Street on the north, and Weber Avenue on the south. It is presently the northwest boundary of Hunter

⁵⁹ National Register of Historic Places Inventory-Nomination Form, “Lodi Arch” (NR #81000174), Lawson-Ttaya-Espalin, AIA.

Plaza, site of the principal public buildings in San Joaquin County and focal point of the central business core of downtown Stockton. The forms and masses, in conjunction with the irregular hipped and dormered roofline which is articulated in sheet metal roofing formed to simulate red mission "tile", gives the Hotel Stockton a Striking and highly visible presence, reinforcing its preeminent position as "flagship" of the Delta and landmark of old downtown Stockton. The structure, executed in a steel reinforced concrete frame (first known use of such a structural system in the San Joaquin Valley) and supported on 1777 wooden piles over what was once a part of the Stockton Channel, is basically a five-story (with basement) building with a cement plaster envelope. The ground story is of mezzanine height; the succeeding four stories are capped "by a raised central block. The elements of the building are composed in a complex but symmetrical arrangement of hipped towers, dormers, and verandas."

EDS Analysis: The 1910 Hotel Stockton is a representative example of Mission Revival Architecture within the accepted period for the style (1890 to 1920) and is listed on the NRHP.



Figure 38. 1910 Hotel Stockton, courtesy of Google maps.

ANALYSIS

All three comparative Mission Revival built environment resources are excellent examples of Mission Revival architecture, in contrast to the "modest" example of the 1928 Ripon Christian School within the subject Property. Although the 1928 Ripon Christian School does consist of elements of the Mission Revival design, such as its form, the curvilinear parapet, and arched window and door openings, there is nothing distinguishing about this example, and it was not designed by an architect or designer known for their work in Mission Revival design. Moreover, the 1928 Ripon Christian School was constructed outside the accepted period (1890 to 1920) for Mission Revival architecture, and, in the professional opinion of EDS, would have to be exceptional to be considered outside the accepted period of the style. Finally, besides the three representative examples, there are other representative Mission Revival buildings within San Joaquin Valley

that are more closely associated with the Mission Revival design.

EVALUATION FOR HISTORICAL SIGNIFICANCE

The Property, including the 1928 Ripon Christian School building, 1928 auxiliary building, and associated landscape was evaluated to determine individual eligibility for listing on the CRHR. The 1928 Ripon Christian School building was evaluated for its association with Mission Revival architecture with a period of significance of 1928, which is the year the school was constructed. The 1928 auxiliary building and associated landscape are not associated with any architectural style or landscape design.

CALIFORNIA REGISTER OF HISTORICAL RESOURCES

The CRHR is an inventory of significant architectural, archaeological, and historical resources in the State of California. Resources can be listed in the CRHR through several methods. State Historical Landmarks and NRHP listed properties are automatically listed in the CRHR. Properties can also be nominated to the CRHR by local governments, private organizations, or citizens. The CRHR follows *similar* guidelines to those used for the NRHP. One difference is that the CRHR identifies the Criteria for Evaluation numerically instead of alphabetically. Another difference, according to the OHP is that “It is possible that historical resources may not retain sufficient integrity to meet the criteria for listing in the NRHP, but they may still be eligible for listing in the California Register. A resource that has lost its historic character or appearance may still have sufficient integrity for the California Register if it maintains the potential to yield significant scientific or historical information or specific data”.⁶⁰

To qualify for listing in the CRHR a property must possess significance under one of the four criteria and have historical integrity. The process of determining integrity consists of evaluating seven variables or aspects that include location, design, setting, materials, workmanship, feeling and association. According to the *National Register Bulletin: How to Apply the National Register Criteria for Evaluation*, these seven characteristics are defined as follows:

- **Location** is the place where the historic property was constructed.
- **Design** is the combination of elements that create the form, plans, space, structure, and style of the property.
- **Setting** addresses the physical environment of the historic property inclusive of the landscape and spatial relationships of the building(s).
- **Materials** refer to the physical elements that were combined or deposited during a particular period of time and in a particular pattern of configuration to form the historic property.
- **Workmanship** is the physical evidence of the crafts of a particular culture or people during any given period in history.

⁶⁰ California Office of Historic Preservation Technical Assistance Series #6 California Register and National Register: A Comparison (for purposes of determining eligibility for the California Register).



- **Feeling** is the property's expression of the aesthetic or historic sense of a particular period of time.
- **Association** is the direct link between an important historic event or person and a historic property.

The following section examines the individual eligibility of the Property containing the 1928 Ripon Christian School building, 1928 auxiliary building, and associated landscape for listing on the CRHR.

CRHR EVALUATION

1. **(Event): Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.**

The Property containing the 1928 Ripon Christian School building, 1928 auxiliary building, and associated landscape is associated with early Christian education in Ripon. Although this event may be locally significant, it is not an event that significantly contributed to the broad patterns of California's history and cultural heritage.

Therefore, the Property, including the 1928 Ripon Christian School building, 1928 auxiliary building, and associated landscape was not found to be eligible for listing on the CRHR under Criterion 2

2. **(Person): Is associated with the lives of persons important in our past.**

The ownership and occupancy history of the Property was thoroughly researched, and it does not appear that the resource is associated with a person important to California history.

Therefore, the Property, including the 1928 Ripon Christian School building, 1928 auxiliary building, and associated landscape was not found to be eligible for listing on the CRHR under Criterion 2.

3. **(Construction/Architecture): Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.**

Mission Revival

The 1928 Ripon Christian School building is associated with Mission Revival architectural style. The building consists of character-defining features of this design, including symmetrical architectural elements, a low pitch roof, decorative curvilinear parapet, and arched double-hung windows and arched door openings. Although the building consists of elements of the Mission Revival architectural style, the construction date is outside the design's accepted period from 1890 to 1920, noting that some representative Mission Revival designs are found as late as 1930. As such, EDS completed a comparative analysis to determine if there are representative examples of the Mission Revival style within the city of Ripon or the surrounding area within the accepted period for this style or if the building is an exceptional or representative example of Mission Revival design that could be considered eligible from 1920 to 1930, the design's transitional period.

Based on the results of the comparative analysis, it does not appear that the 1928 Ripon Christian School building is representative of the Mission Revival design from the accepted period for the style

(1890 to 1920) and is also not considered exceptional or representative within the timeframe of 1920 to 1930, when the design was less popular. As such, it is recommended that the 1928 building is not eligible for listing on the CRHR for its association with Mission Revival architecture.

The 1928 auxiliary building and associated landscape are not associated with any architectural style, form, or landscape architecture.

Builder

The builder of the 1928 Ripon Christian School was Lambert Ubels. Lambert was a skilled carpenter and builder who was a known building contractor in Ripon and in the neighboring towns, where Lambert also constructed buildings. However, it does not appear that he was a licensed architect and there is no evidence to suggest that Lambert was a master builder or craftsman. He is not listed within any known publications for noted builders and is not associated with any buildings that are listed on the Pacific Coast Architecture Database (PCAD) and is not a builder known for the construction of Mission Revival designed building. As such, the 1928 Ripon Christian School is not eligible for its association with Lambert Ubels.

In summary, the 1928 Ripon Christian School building was not found to be eligible for listing on the CRHR under Criterion 3 for association with Mission Revival architecture.

4. (Information potential): Has yielded, or may be likely to yield, information important in prehistory or history

Criterion D most commonly applies to resources that contain or are likely to contain information bearing on an important archaeological research question. While most often applied to archaeological sites, Criterion D can also apply to buildings that contain important information. For a building to be eligible under Criterion D, it must be a principal source of important information, such as exhibiting a local variation on a standard design or construction technique can be eligible if a study can yield important information, such as how local availability of materials or construction expertise affected the evolution of local building development.

The 1928 Ripon Christian School is associated with Mission Revival design; however, it does not appear to be the principal source of information for design techniques that can yield important information. Therefore, the 1928 Ripon Christian School building, 1928 auxiliary building, and associated landscape was not found to be eligible for listing on the NRHP under Criterion D.

The Property was not evaluated for archaeology.

INTEGRITY

A Property must possess significance under one or more of the above-listed criteria and have historic integrity to qualify for listing in the CRHR. There are seven variables, or aspects, used to judge historic integrity,

including location, design, setting, materials, workmanship, feeling, and association.⁶¹ A resource must possess the aspects of integrity that relate to the historical theme(s) and period of significance identified for the built-environment resources. National Register Bulletin 15 explains, “only after significance is fully established can you proceed to the issue of integrity.”

CONCLUSIONS

In accordance with CEQA regulations and guidelines, EDS completed an HRE for the Property at 816 W. Main Street, Ripon, San Joaquin County, California, within APN 259-18-017 (Property) consisting of the 1928 Ripon Christian School building, 1928 auxiliary building, and associated landscape. The purpose of the HRE was to determine if the Property or any of the built environment resources within the Property are eligible for listing on the CRHR. The methods used to complete the HRE included research and an intensive level historic architectural survey conducted by EDS Principal Architectural Historian Stacey De Shazo, M.A., who exceeds the Secretary of the Interior’s qualification standards in Architectural History and History, as well as Nicole LaRochelle, M.S. and Bee Thao, M.A.

The HRE determined that the 1928 Ripon Christian School building is associated with Mission Revival architecture, but based on a comparative analysis, it does not appear individually eligible for listing on the CRHR under Criterion C for its association with Mission Revival architecture with a period of significance of 1928. The building is also outside the acceptable period for this style and is not considered exceptional or representative of this style from 1920 to 1930, when the design was less popular. As such, it is recommended that the 1928 building is not eligible for listing on the CRHR for its association with Mission Revival architecture.

Therefore, the Property does not meet the definition of a historical resource under CEQA. As such, any future proposed Project will not impact built environment historical resources within the Property.

⁶¹ National Park Service, *National Register Bulletin: How to Apply the National Register Criteria for Evaluation* (Washington, D.C.: United States Department of the Interior, 1997).

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Appendix A:

DPR Forms

State of California The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code _____

Other Listings
Review Code _____

Reviewer _____

Date _____

Page 1 of 17 *Resource Name or #: Ripon Christian School

P1. Other Identifier: _____

*P2. Location: ☐ Not for Publication ☒ Unrestricted

*a. County San Joaquin

and

*b. USGS 7.5' Quad Ripon Date 1994 T 2S; R 8E; NW $\frac{1}{4}$ of NE $\frac{1}{4}$ of Sec 30; MD B.M.

c. Address 816 West Main Street City Ripon Zip 95366

d. UTM: Zone 10N, 664539 mE/ 4178499 mN

e. Other Locational Data: The resource is located within the 1.18-acre property - Assessor's Parcel Number (APN) 259-18-017 - at 816 West Main Street, Ripon, San Joaquin County, California. The property is situated on the northwest corner of W. Main Street and Vera Avenue, approximately 0.5 miles south of Highway 99 and about 1.5 miles north of the Stanislaus River.

*P3a. Description: The resource is the 1928 Ripon Christian School building, 1928 auxiliary building, and associated landscape. The 1928 Ripon Christian School building is associated with Mission Revival architecture. The 1928 auxiliary building and associated landscape are not associated with any architectural landscape design style, respectively. The 1928 Ripon Christian School building is a single-story, u-shaped, symmetrical form with a central side gable and two hipped front gable forms extending to the south and projecting slightly in front of the primary façade wall. The building has a low pitch roof and moderate eave overhang with exposed rafter tails and projecting wood posts (aka vigas). (Continued on Page 2, Continuation Sheet).

P5a.



*P3b. Resource Attributes: HP15.

Educational Building; HP4. Ancillary Building

*P4. Resources Present: ☒ Building
☐ Structure ☐ Object ☐ Site ☐ District
☐ Element of District ☐ Other (Isolates, etc.)

P5b. Description of Photo: 1928 Ripon Christian School building, facing south

*P6. Date Constructed/Age and Source: ☒ Historic ☐ Prehistoric
☐ Both 1928 Ripon Christian School building; 1928 auxiliary building; various sources

*P7. Owner and Address: Owner's name withheld

*P8. Recorded by: Stacey De Shazo, M.A., Evans & De Shazo, Inc., 1141 Gravenstein Highway South, Sebastopol, CA 94572

*P9. Date Recorded: 4/5/2022

*P10. Survey Type: Intensive

*P11. Report Citation: Stacey De Shazo (Evans & De Shazo, 2022): A Historic Resource Evaluation of the Property at 816 W. Main Street, Ripon, San Joaquin County, California

*Attachments: ☐ NONE ☒ Location Map ☒ Continuation Sheet ☒ Building, Structure, and Object Record
☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other (List): _____

BUILDING, STRUCTURE, AND OBJECT RECORD

*Resource Name or # Ripon Christian School *NRHP Status Code 35
Page 2 of 17

B1. Historic Name: Ripon Christian School
B2. Common Name: Ripon Christian School
B3. Original Use: school B4. Present Use: meetings/classes
*B5. Architectural Style: Mission Revival
*B6. Construction History: Since the construction of the 1928 Ripon Christian School, the original design and form of the building has not changed. There also do not appear to be any alterations to the resource.

*B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: N/A Original Location: N/A
*B8. Related Features: N/A

B9a. Architect: unknown b. Builder: Lambert Ubels
*B10. Significance: Theme Architecture Area Ripon
Period of Significance 1928 Property Type Educational Applicable Criteria 3

(Continued on Continuation Sheet pages 14-16)

B11. Additional Resource Attributes: N/A

***B12. References:**

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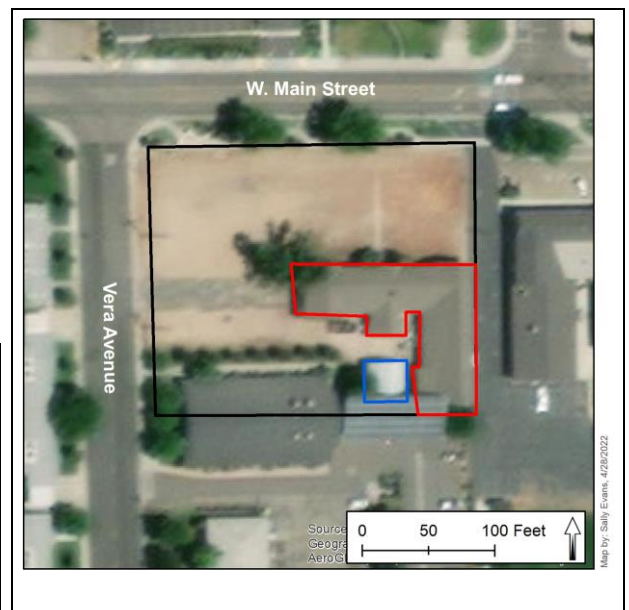
United States Department of the Interior, National Park Service, Cultural Resources Division. National Register Bulletin: How to Apply the National Register Criteria for Evaluation. Washington, D.C.: United States Department of the Interior, 1990, revised 1997.

B13. Remarks:

*B14. Evaluator: Stacey De Shazo, M.A., Principal Architectural Historian

*Date of Evaluation: 4/5/2022

(This space reserved for official comments.)



CONTINUATION SHEET

Property Name: Ripon Christian School

Page 3 of 17

(Continued from Primary Record, Page 1)

Centered within the central side-gable form is a decorative Mission-style curvilinear parapet, where the main entrance to the school is located, and arched window and door openings. The exterior is clad in narrow wood clapboard with corner boards. The roof is clad in asphalt shingles, and there is a brick chimney located at the center gable. The building rests on a concrete perimeter foundation.

North Elevation (primary façade)

The north elevation consists of symmetrical fenestration patterns, including two front-facing gables on both the west and east end and a decorative Mission-style curvilinear parapet centered along the eaves of the elevation (Figure 1). There is an arched window between two square windows (Figure 2). Beneath the parapet is a wood and glass door with an arched fanlight and arched sidelights, accessed via concrete steps with a temporary accessibility ramp (Figure 3). An arched vent is directly over the door, with a metal bell. Between the gables and the center entryway are two groups of five, one-over-one, double-hung, wood windows with lugs (aka horns stiles) (Figure 4). Above each window are four-light, wooden hopper windows. The gables have wood lattice vents at each peak.



Figure 1. 1928 Ripon Christian School building, facing south.

CONTINUATION SHEET

Property Name: Ripon Christian School

Page 4 of 17



Figure 2. East gable of north elevation, with an arched window between two square windows.



Figure 3. Arched front entry with double divided light doors, and side lights, facing south.

CONTINUATION SHEET

Property Name: Ripon Christian School

Page 5 of 17



Figure 4. Photograph shows a group of five windows on either side of the center arched front entrances.

West Elevation

The west elevation consists of a single, wood-paneled door accessed via a wood stoop (Figure 5). To the north of this door is a group of five one-over-one, single-hung, wood windows with lugs. Above these windows are four-light, wooden hopper windows covered with wooden boards. A narrow, one-over-one, single-hung, wood window with lugs is at the northernmost corner.

CONTINUATION SHEET

Property Name: Ripon Christian School

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Figure 5. West elevation, facing east.

South Elevation

The south elevation consists of three south-facing gables with several doors and windows (Figure 6). Neither the west nor east gables have fenestration, though they each have wood lattice vents at each gable peak. The center gable has a narrow door centered beneath the gable (Figure 7). Between the west and center gables are two one-over-one, double-hung, wood windows to the west of the wood-paneled double-door, which has a one-over-one, double-hung, wood window to the east of the doors. The west wall of the center gable has a one-over-over, double-hung, wood window to the north of a single wood-paneled door; between the center and east gables is a double, wood-paneled door east of a boarded window (Figure 8). The east wall of the center gable has a pair of one-over-one, double-hung wood windows. The west wall of the east gable consists of two one-over-one, single-hung, wood windows to the north of a single wood-paneled door located to the north of a shed extension. The shed extension has a boarded window and a single wood-paneled door to the south of the shed extension (Figure 9).

CONTINUATION SHEET

Property Name: Ripon Christian School

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Figure 6. South elevation, facing east.



Figure 7. Center gable on south elevation, facing north.

CONTINUATION SHEET

Property Name: Ripon Christian School

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Figure 8. Double-door on south elevation between the east gables, facing north.



Figure 9. West gable of the south elevation, facing northeast.

CONTINUATION SHEET

Property Name: Ripon Christian School

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East Elevation

The east elevation consists of three single metal doors and fifteen one-over-one, single-hung windows, with four-light, wooden hopper windows set above each upper window sash (Figure 10). The windows are in groups of five; the fixed windows over two southern groups of windows are boarded up with wood panels (Figure 11). The red metal door is located between two groups of windows and is accessed via both a stair and an accessibility ramp. A metal awning is not original to the building, supported by metal arms attached to the wood siding (Figure 12). The remaining two windows are located between the two northern groups of windows and are accessed via wide concrete steps.



Figure 10. East elevation, facing northwest.

CONTINUATION SHEET

Property Name: Ripon Christian School

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Figure 11. Unaltered windows on the east elevation, with horn stiles on double-hung windows.



Figure 12. East entrance, accessed via both a ramp and stairs.

CONTINUATION SHEET

Property Name: Ripon Christian School

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1928 AUXILIARY BUILDING

The 1928 auxiliary building is not associated with any architectural style. The building is a front gable rectangular form constructed with a wood frame. The gables have exposed rafters with a wood lattice vent at the peak (Figure 13). The building is clad in wood siding and a corrugated metal roof. The eaves have a moderate overhang and exposed rafters. The north elevation has a wooden door (barn door) set on a central sliding metal track, situated between two windows (Figure 14). The easternmost window along this elevation is boarded up with plywood, while the westernmost window is a one-over-one, double-hung, wood window (Figure 15). The east elevation consists of a single wood door on the south, with two double-hung, wood windows to its north with a boarded-up central window. Neither the south nor west elevations have any fenestration (Figure 16).



Figure 13. North elevation, facing southeast.

CONTINUATION SHEET

Property Name: Ripon Christian School

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Figure 14. Photograph shows a wood-paneled door on track.



Figure 15. North and east elevations, facing southeast.

CONTINUATION SHEET

Property Name: Ripon Christian School

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Figure 16. South and west elevations, facing northwest.

ASSOCIATED LANDSCAPE

The associated landscape consists of a central walkway surrounded by a lawn and two medium trees on either side of the main door (Figure 17). A large tree is located on the northwest corner of the building. The remaining landscape consists of shrubberies and grass surrounding the auxiliary building. The majority of the property is void of landscaping.

CONTINUATION SHEET

Property Name: Ripon Christian School

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Figure 17. The photograph shows the front lawn and central walkway leading to the school's front entrance, flanked by two trees, facing south.

(Continued from BSO record, Page 2)

CALIFORNIA REGISTER OF HISTORICAL RESOURCES (CRHR) EVALUATION

1. **(Event): Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.**

The property containing the 1928 Ripon Christian School building, 1928 auxiliary building, and associated landscape is associated with early Christian education in Ripon. Although this event may be locally significant, it is not an event that significantly contributed to the broad patterns of California's history and cultural heritage.

Therefore, the property, including the 1928 Ripon Christian School building, 1928 auxiliary building, and associated landscape was not found to be eligible for listing on the CRHR under Criterion 2

2. **(Person): Is associated with the lives of persons important in our past.**

The ownership and occupancy history of the property was thoroughly researched, and it does

CONTINUATION SHEET

Property Name: Ripon Christian School

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not appear that the resource is associated with a person important to California history.

Therefore, the property, including the 1928 Ripon Christian School building, 1928 auxiliary building, and associated landscape was not found to be eligible for listing on the CRHR under Criterion 2.

- 3. (Construction/Architecture): Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.**

Mission Revival

The 1928 Ripon Christian School building is associated with Mission Revival architectural style. The building consists of character-defining features of this design, including symmetrical architectural elements, a low pitch roof with an eave overhang and exposed rafter tails, projecting wood posts (aka vigas), decorative curvilinear parapet, arched window and door openings, and double-hung wood windows. As such, the building appears eligible for listing on the CRHR for its association with Mission Revival architecture.

The 1928 Ripon Christian School building, 1928 auxiliary building, and associated landscape are not associated with any architectural style, form, or landscape architecture.

Builder

The builder of the 1928 Ripon Christian School was Lambert Ubels. Lambert was a skilled carpenter and builder who was a known building contractor in Ripon and neighboring towns, where Lambert also constructed buildings. However, it does not appear that he was a licensed architect and there is no evidence to suggest that Lambert was a master builder or craftsman. He is not listed within any known publications for noted builders and is not associated with any buildings that are listed on the Pacific Coast Architecture Database (PCAD). As such, the 1928 Ripon Christian School is not eligible for its association with Lambert Ubels.

In summary, the 1928 Ripon Christian School building was found to be eligible for listing on the CRHR under Criterion 3 for association with Mission Revival architecture.

- 4. (Information potential): Has yielded, or may be likely to yield, information important in prehistory or history**

Criterion D most commonly applies to resources that contain or are likely to contain information bearing on an important archaeological research question. While most often applied to archaeological sites, Criterion D can also apply to buildings that contain important information. For a building to be eligible under Criterion D, it must be a principal source of important information, such as exhibiting a local variation on a standard design or construction technique

CONTINUATION SHEET

Property Name: Ripon Christian School

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can be eligible if a study can yield important information, such as how local availability of materials or construction expertise affected the evolution of local building development.

The 1928 Ripon Christian School is associated with Mission Revival design; however, it does not appear to be the principal source of information for design techniques that can yield important information. Therefore, the 1928 Ripon Christian School building, 1928 auxiliary building, and associated landscape was not found to be eligible for listing on the NRHP under Criterion D.

The integrity assessment found that the 1928 Ripon Christian School retains all seven aspects of integrity to convey significance under Criterion 3.

State of California Natural Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #
HRI#
Trinomial

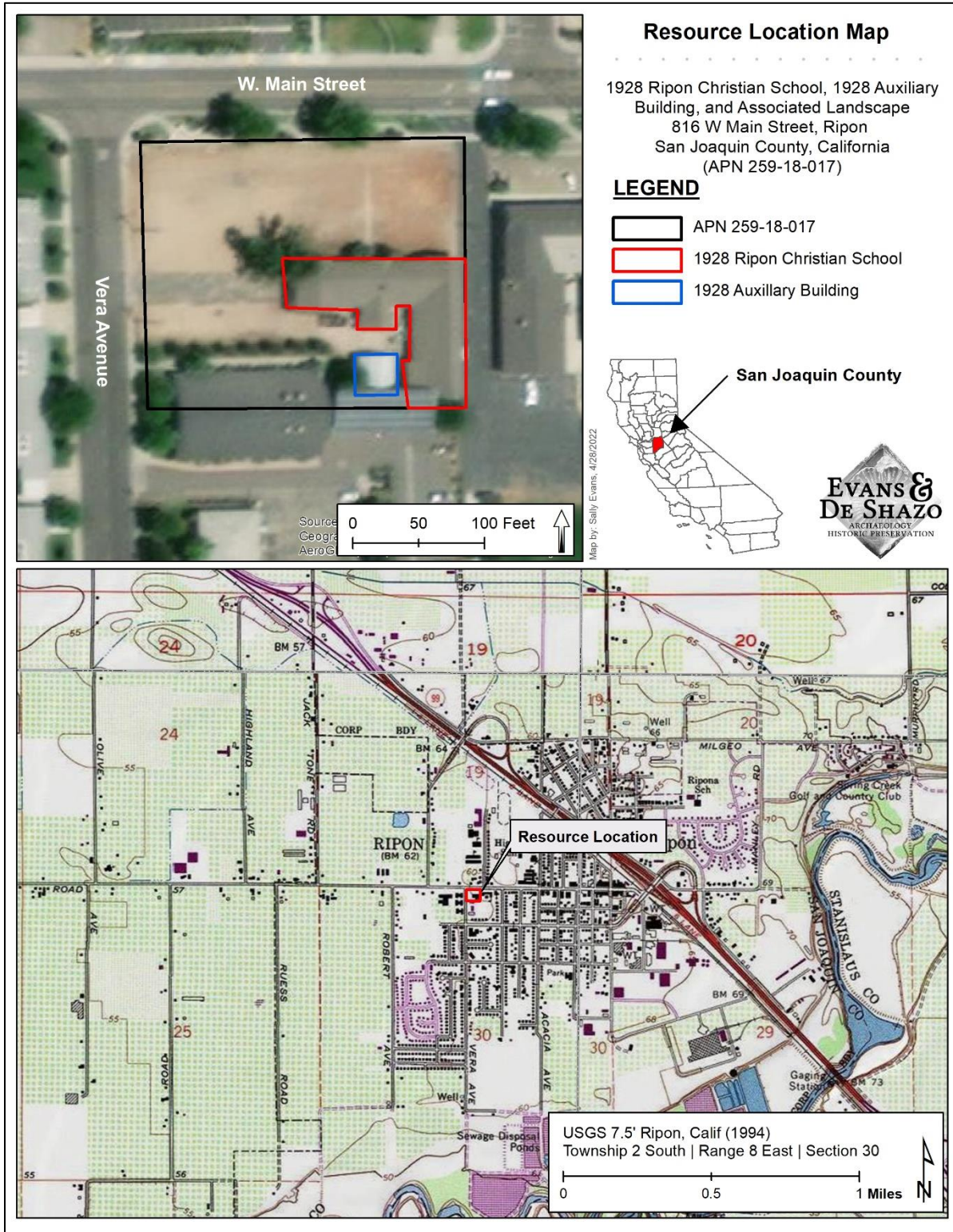
Page 17 of 17

*Resource Name or # Ripon Christian School

*Map Name: USGS 7.5' Ripon Quadrangle

*Scale: 1:24,000

*Date of map: 1994



APPENDIX D
TRAFFIC STUDY

TRAFFIC OPERATIONAL ANALYSIS
FOR THE
BETHANY HOME SENIOR LIVING FACILITY
Ripon, California

Prepared For:

Bethany Home
930 Main Street
Ripon, CA 95366

Prepared By:

KD Anderson & Associates, Inc.
3853 Taylor Road, Suite G
Loomis, CA 95650
(916) 660-1555

April 7, 2022

Job No. 0952-01

Bethany Home Sr Living.rpt

KD Anderson & Associates, Inc.

Transportation Engineers

**TRAFFIC OPERATIONAL ANALYSIS FOR THE
BETHANY HOME SENIOR LIVING FACILITY**
Ripon, California

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April 7, 2022

KDA

**TRAFFIC OPERATIONAL ANALYSIS FOR THE
BETHANY HOME INDEPENDENT SENIOR LIVING FACILITY**
Ripon, California

INTRODUCTION

This report documents **KD Anderson & Associates'** assessment of traffic circulation, pedestrian safety and access associated with the **Bethany Home Independent Senior Living Facility at 816 West Main Street** in the City of Ripon, California. This assessment of traffic operations has been requested by the City of Ripon and addresses both the project's effects at key intersections near the project and the adequacy and safety of project vehicular and pedestrian access.

Project Description

The Bethany Home Independent Senior Living Facility is a three story 107,700 ksf building to be located on a 2¼ acre parcel at the southeast corner of the W. Main Street / Vera Avenue intersection in the Historic Ripon district, as noted in Figure 1. The project site has previously been occupied by two medical office buildings and a small office building last used as meeting space. The site is bordered by Ripon Grace Church on the east and by private residences to the south. The project is one block east of Bethany Home's existing Independent Living, Skilled Nursing and Assisted Living facilities at 930 W. Main Street.

The proposed project will provide 82 independent living units along with ancillary support facilities. As shown in Figure 2, the site will have 84 parking spaces, and vehicular access will occur at a full access driveway on Vera Avenue and via a connection to Ripon Grace Church's existing right-turn-in-only connection to West Main Street near the Maple Avenue intersection. The project is across W. Main Street from Ripon Christian School's pre-school facility.

Analysis Approach

The City of Ripon has asked for a focused traffic study and provided these instructions:

We will be needing the traffic analysis to cover levels of service/congestion in the surrounding area and what this project might add, as well as an analysis of public safety as it relates to both vehicular and pedestrian traffic and circulation. Essentially, are there any modifications or mitigation measures needed to safely move vehicles on and off the site as well as pedestrian traffic between Bethany's main campus and this new facility.

The overall approach to this traffic operational analysis describes the trip generation and travel characteristics of the project based on rates developed nationally for similar facilities. Current morning and afternoon peak hour traffic conditions in the area of the project which reflect peak commute activity and travel to the adjoining schools were collected and assessed. With that information traffic patterns at the access and at adjoining intersections were assessed with the project and operation of the access as proposed was investigated. The need for improvements to satisfy minimum City standards was considered. Current pedestrian activity in the area was identified and pedestrians caused by the project were projected to determine whether conflicts between automobiles and pedestrians are possible and whether safety improvements are needed.



VICINITY MAP

CALLISONRTKL
BETHANY HOME

**816 WEST MAIN STREET
RIPON, CA 95068**

CITRAL PROJECT NO. -546.7805036

OWNER
BETHANY HOME
816 WEST MAIN ST. RIPON, CA 95068
CONTACT: JAMES SCHWABER
PHONE: 209-255-1527

ARCHITECT
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PHONE: 213-653-8500

STRUCTURAL
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CONTACT: TOMY GONZALEZ
PHONE: 323-753-8053

MEP
CLIMAC
15255 FORKMAN AVE., SUITE 100, RIVINGTON, CA 95070
CONTACT: JAMIE REIS
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LANDSCAPE
MILL LANDSCAPE ARCHITECTURE
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CONTACT: KAREN BENTLEY
PHONE: 949-853-8864

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PHONE: 214-725-4077

LIGHTING
KIM ARCHITECTURAL LIGHTING
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KITCHEN
CROSS ASSOCIATES
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CONTACT: DAN PETERSON
PHONE: 610-661-8023

FIRE LIFE SAFETY
CCL
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PHONE: 213-653-5880

CIVIL
MCE ENGINEERING INC.
10000 MARINE DRIVE, SUITE 100, SPRINGFIELD, PA 19084
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Drawn by

Signature & Seal

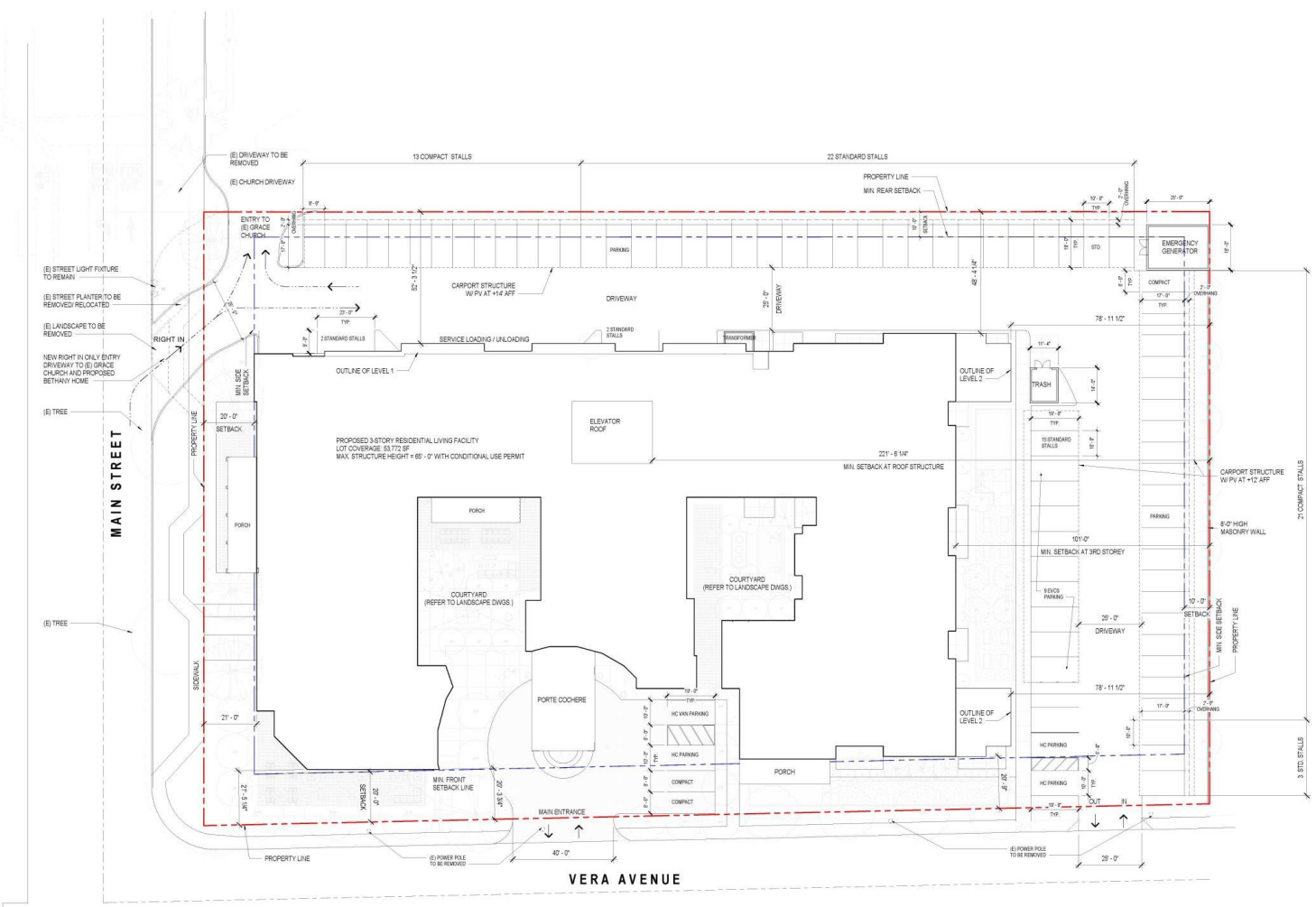
**NOT FOR
CONSTRUCTION**

Issue Drawing Log

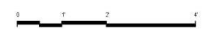
| Revision Number | Description | Date |
|-----------------|------------------------|----------|
| 1 | ISSUE FOR CONSTRUCTION | 10.16.21 |
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Project Status / Issue Reason
ARCHITECTURAL SITE PLAN

A-001



1 ARCHITECTURAL SITE PLAN
SCALE: 1/8" = 1'-0"



EXISTING SETTING

This report section describes the transportation facilities that are available today serving vehicular, pedestrian and bicycle traffic and transit users in this area of Ripon, as well as General Plan policies that guide consideration of traffic operations.

Study Area Circulation System

Regionally, the new Bethany Home Senior Living Facility will be served by major City streets that link the existing Bethany Home operations with state highways and the rest of the community. State Route 99 (SR 99) connects Ripon with the balance of San Joaquin County and with the Stockton and Modesto Metropolitan areas. In the area of the proposed project, access to the state highway occurs at grade separated interchanges on Main Street roughly ½ mile east of the site, on Fulton Avenue about ½ mile to the north and on Jack Tone Road about 1½ miles to the northwest. Community-wide circulation is provided via Main Street and Wilma Avenue.

The limits of the area addressed by this study were identified in consultation with City staff based on their understanding of traffic conditions in this area of Ripon and on consideration of the characteristics of senior living facilities. The text which follows provides additional detail regarding the streets, intersections and pedestrian facilities included in the study area.

Streets. These streets are near the project site.

Main Street is an east-west arterial street that runs easterly from an intersection with West Ripon Road at Jack Tone Road past the project site to an interchange on SR 99. The configuration of the street varies along its length. Just west of the Vera Avenue intersection, Main Street is a four-lane commercial street with continuous Two-Way Left-Turn (TWLT) lane and traffic signals at major intersections. The posted speed limit is 35 mph in this area. At the entrance to the Historic Ripon district Main Street narrows to a three-lane facility with one travel lane in each direction and TWLT lane, and this 40-foot cross section continues through the Vera Avenue intersection to Maple Avenue. On-street parking is prohibited in this area and the speed limit is 25 mph. The TWLT lane ends beyond Maple Avenue and W. Main Street has a through travel lane in each direction to Acacia Avenue. On-street parking is permitted on the north side along Ripon Elementary School.

Maple Avenue is a local street that extends north from Main Street towards SR 99 before turning to the west along the freeway at Garrison Way to Wilma Avenue. Maple Avenue is 40 feet wide (curb to curb) and accommodates on-street parking, as well as residential driveways. Maple Avenue also provides access to Ripon Christian School's Elementary, Middle and High Schools. The speed limit on Maple Avenue is 25 mph.

Vera Avenue is a north-south local street that extends southerly from Main Street to Oak Blvd at the community's southern boundary. Vera Avenue is 40 feet wide (curb to curb) and accommodates on-street parking, as well as residential and commercial driveways. The speed limit on Vera Avenue is 25 mph.

Intersections. The operation of an urban circulation system is typically limited by the capacity of major intersections, and two locations have been included in this analysis.

The **Main Street / Vera Avenue intersection** is a “tee” controlled by a stop sign on the northbound Vera Avenue approach. A right-turn-only exit from Ripon Christian School’s Pre-school is on the north side of the intersection. Vera Avenue has a single approach lane, but Main Street has a TWLT lane through the intersection to accommodate westbound left turns. Sidewalks exist on both sides of the intersection.

The **Main Street / Maple Avenue intersection** is a “tee” controlled by an all-way stop. On-street parking has been eliminated at the intersection in order to provide auxiliary right turn lanes on southbound Maple Avenue and on westbound Main Street, and a left turn lane is provided for eastbound traffic. A right-turn-in-only entrance to Ripon Grace Church exists about 40 feet west of the intersection, and a full access church driveway exists 150 feet east of the intersection.

Pedestrian Facilities. The extent of facilities for pedestrians and of measures taken to ensure their safety has been identified.

Sidewalks exist along all the streets in the study area. On the south side of W. Main Street the sidewalk is separated from the through travel lane within the Historic Ripon district.

Marked crosswalks exist across Vera Avenue at the W. Main Street intersection and on all three legs of the Maple Avenue intersection. Both intersections have depressed curbs at the corners that are ADA accessible. West of Vera Avenue the next marked crossing on W. Main Street occurs at the Wilma Avenue traffic signal about 650 feet away.

An **overhead flashing beacon** exists at the W. Main Street / Maple Avenue intersection.

The Ripon Unified School District provides a **school crossing guard** to direct traffic at the Main Street / Acacia Avenue intersection which adjoins Ripon Elementary School.

Standards of Significance: Levels of Service - Methodology

Levels of Service were calculated at study area intersections in order to assess the quality of existing traffic conditions and to provide a basis for analyzing the effects of developing the Bethany Home Senior Living facility. “Level of Service” is a qualitative measure of traffic operating conditions whereby a letter grade “A” through “F”, corresponding to progressively worsening operating conditions, is assigned to an intersection or roadway segment. The City of Ripon’s minimum standard is LOS D.

Analysis Methodology for Intersections. This analysis evaluates the operation of un-signalized intersections using the methodology described in the *Highway Capacity Manual, 6th Edition* (HCM). HCM techniques base Level of Service on the length of delays experienced by motorists waiting at stop signs or otherwise being required to yield the right of way at an intersection. Delay values can be reported as an average value for the overall operation of the intersection in the case

of all-way stop controls or for each movement where motorists are required to yield the right of way to other traffic, in the case of side-street stops.

Table 1 presents general characteristics associated with each Level of Service grade.

At intersections, Level of Service calculations can reflect average conditions occurring over the breadth of the hour or can be indicative of conditions occurring during the highest volume 15 minute period within that hour. The choice of perspective is made by local agencies as part of their development of standards of significance. This analysis considers the conditions occurring during the highest volume 15 minute period within the peak hour, and because the area provides access to many schools, these peak conditions can be much worse than the average over the entire hour. Table 2 identified the current bell schedule for the schools in this area.

| TABLE 1 LEVEL OF SERVICE DEFINITIONS | | | |
|---|--|---|---|
| Level of Service | Signalized Intersection | Unsignalized Intersection | Roadway (Daily) |
| "A" | Uncongested operations, all queues clear in a single-signal cycle. $V/C < 0.60$ or Ave Delay < 10 sec/veh | Little or no delay. Ave Delay ≤ 10 sec/veh | Completely free flow. |
| "B" | Uncongested operations, all queues clear in a single cycle. $V/C \geq 0.61$ and < 0.70 or Delay > 10 sec/veh and ≤ 20 sec/veh | Short traffic delays. Delay > 10 sec/veh and ≤ 15 sec/veh | Free flow, presence of other vehicles noticeable. |
| "C" | Light congestion, occasional backups on critical approaches. $V/C \geq 0.71$ and < 0.80 or Delay > 20 sec/veh and ≤ 35 sec/veh | Average traffic delays. Delay > 15 sec/veh and ≤ 25 sec/veh | Ability to maneuver and select operating speed affected. |
| "D" | Significant congestions of critical approaches but intersection functional. Cars required to wait through more than one cycle during short peaks. No long queues formed. $V/C \geq 0.81$ and < 0.90 Delay > 35 sec/veh and ≤ 55 sec/veh | Long traffic delays. Delay > 25 sec/veh and ≤ 35 sec/veh | Unstable flow, speeds and ability to maneuver restricted. |
| "E" | Severe congestion with some long standing queues on critical approaches. Blockage of intersection may occur if traffic signal does not provide for protected turning movements. Traffic queue may block nearby intersection(s) upstream of critical approach(es). $V/C \geq 0.91$ and < 1.00 Delay > 55 sec/veh and ≤ 80 sec/veh | Very long traffic delays, failure, extreme congestion. Delay > 35 sec/veh and ≤ 50 sec/veh | At or near capacity, flow quite unstable. |
| "F" | Total breakdown, stop-and-go operation. $V/C \geq 1.01$ Delay > 80 sec/veh | Intersection often blocked by external causes. Delay > 50 sec/veh | Forced flow, breakdown. |
| Sources: <u>Highway Capacity Manual, 6th Edition</u> , and Transportation Research Board (TRB) Special Report 209. | | | |

| TABLE 2 LOCAL SCHOOL SCHEDULES | | | | |
|---|----------------|-----------|------------------|-----------|
| School | Morning | | Afternoon | |
| Ripon HS 301 N. Acacia Avenue | 0 period | 7:15 a.m. | | |
| | 1 period | 8:30 a.m. | Period 7 | 3:40 p.m. |
| Ripon ES 509 W. Main Street | TK-2 | 8:15 a.m. | TK-2 | 2:00 |
| | 3-8 | 8:15 a.m. | 3-8 | 2:50 p.m. |
| Ripon Christian School 435 Maple Avenue | ES | 8:20 a.m. | | 2:55 p.m. |
| | MS | 8:20 a.m. | | 2:58 p.m. |
| | HS | 8:20 a.m. | | 3:00 p.m. |
| Ripon Grace Church 734 W. Main Street | Pre-School | 7:00 a.m. | Pre-School | 6:00 p.m. |

Warrants for Traffic Control Devices. The extent to which an all-way stop of traffic signal may be justified is determined based on many factors. Quantitatively, criteria contained in the *California Manual of Uniform Traffic Control Devices (CMUTCD)* are employed.

All-Way Stop. Multi-way stop control can be useful as a safety measure at intersections if certain traffic conditions exist. Safety concerns associated with multi-way stops include pedestrians, bicyclists, and all road users expecting other road users to stop. Multi-way stop control is used where the volume of traffic on the intersecting roads is approximately equal. The following criteria should be considered for a multi-way STOP sign installation:

- As an “interim” measure where traffic control signals are justified while arrangements are being made for the installation of the traffic control signal.
- Five or more reported crashes in a 12-month period that are susceptible to correction by a multi-way stop installation.
- Minimum volumes of at least 300 entering vehicles per hour for any 8 hours of an average day, and the combined vehicular, pedestrian, and bicycle volume entering the intersection from the minor street approaches (total of both approaches) averages at least 200 units per hour for the same 8 hours, with an average delay to minor-street vehicular traffic of at least 30 seconds per vehicle during the highest hour.
- The need to control left-turn conflicts
- The need to control vehicle/pedestrian conflicts near locations that generate high pedestrian volumes
- Locations where a road user, after stopping, cannot see conflicting traffic and is not able to negotiate the intersection unless conflicting cross traffic is also required to stop

- An intersection of two residential neighborhood collector (through) streets of similar design and operating characteristics where multi-way stop control would improve traffic operational characteristics of the intersection.

Traffic Signal Warrants. For this analysis, Warrant 3 (Peak Hour Traffic Volume), Warrant 4 (Minimum Pedestrian Volume) and Warrant 5 (School Crossing) have been employed. Traffic volume criteria consider traffic on both major and minor street approaches in combination. The pedestrian volume warrant is intended for application where the traffic volume on the major street is so heavy that pedestrians experience excessive delays in crossing the major street. The School Crossing warrant requires a minimum of 20 school age pedestrians crossing the street in any one hour as well as the absence of adequate gaps in traffic to accommodate pedestrians.

Existing Traffic Volumes / Levels of Service

Current traffic operating conditions have been described through methods accepted by the City of Ripon

Traffic Volume Counts. Traffic count data was collected when area schools were in session. New morning (7:00 to 9:00 a.m.) and evening (4:00 to 6:00 p.m.) counts were collected January 25, 2022 to capture the peak traffic of area schools and as well as peak commuter traffic. The highest hourly traffic volume period within each two-hour windows was identified as the peak hour.

Figure 3 illustrates the intersection turning movement count data used for this analysis. This figure also notes the existing geometric layout of each intersection and the location of traffic controls. This data has been used to determine the operating Level of Service at each intersection.

Pedestrian Volume Counts. Pedestrians were counted at the intersection when the traffic counts were conducted. During the peak morning hour a total of 45 pedestrian crossings in all directions occurred at the Main Street / Vera Avenue intersection. In the evening that total was 11 crossings.

Similar pedestrian count data have been collected in 2017 for the Ripon Christian School's Pre-School Relocation Project traffic analysis. The data indicated that in the morning hour a total of 38 crossings occurred at the Main Street / Maple Avenue intersection, with 22 across the north leg of the intersection. In the mid-afternoon when the school day ended, 82 crossings were counted, with 33 across Maple Avenue and 47 across the western leg of Main Street and 2 across the eastern leg.

Intersection Level of Service. Table 3 identifies current intersection Levels of Service at the study location. The City of Ripon's goal is LOS D.

It is important to note that traffic flow conditions around schools can be poor even though a street or intersection has the theoretical capacity to accommodate the traffic volume that is present. Often traffic is slowed or stopped due to on-site conditions at a school as parents wait for a parking space or a spot in a loading zone. These effects are not reflected in Level of Service calculation results.

As shown, the Level of Service at each location meets the City's LOS D minimum standard.

| TABLE 3 EXISTING INTERSECTION LEVEL OF SERVICE | | | | | |
|---|---|-------------------------------------|----------------------------|-------------------------------------|----------------------------|
| Intersection | Control | Time Period | | | |
| | | AM Peak Hour (7:00 to 9:00 a.m.) | | PM Peak Hour (4:00 to 6:00 p.m.) | |
| | | LOS | Average Delay (sec/veh) | LOS | Average Delay (sec/veh) |
| Main Street / Vera Avenue | NB Vera Ave Stop Sign SB driveway exit | | | | |
| Northbound approach | | C | 16.4 | C | 15.4 |
| Southbound approach | | C | 15.2 | C | 19.4 |
| Bold indicates conditions in excess of adopted minimum LOS standard | | | | | |

All-Way Stop Warrants. The results of our traffic volume and pedestrian counts were compared to MUTCD criteria to determine whether an all-way stop might be justified. The volume of traffic on Vera Avenue and the number of pedestrians crossing the street are both too low to reach the level that might justify an all-way stop. Left turn conflicts and sight distance limitations are not present.

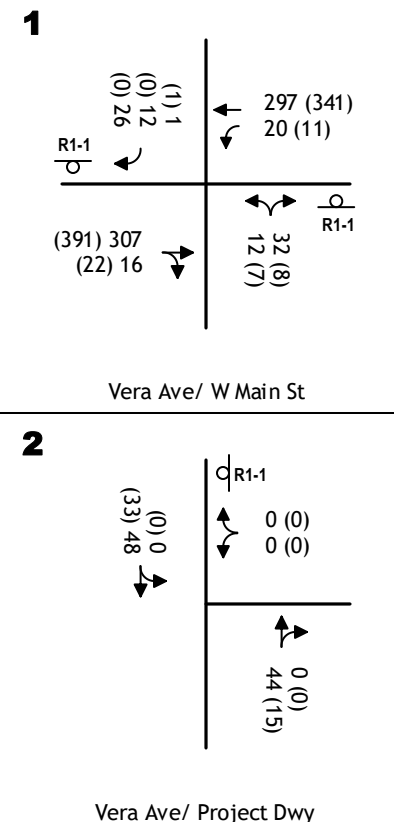
Traffic Signal Warrants. Current a.m. and p.m. peak hour traffic volumes at the intersection were compared to MUTCD warrants for signalization. Current volumes do not reach the level that satisfy signal warrants. Current pedestrian activity does not reach the level that satisfies Warrants 4 or 5.

Traffic Safety. As noted from review of Figure 3 observed morning peak hour traffic exiting at Ripon Christian Pre-School's right-turn-only exit included several vehicles that turned left or turned onto Vera Avenue. All exiting traffic occurred during the 30-minute period from 8:00 to 8:30 a.m. which coincides with the beginning of the school day at Ripon Christian School.

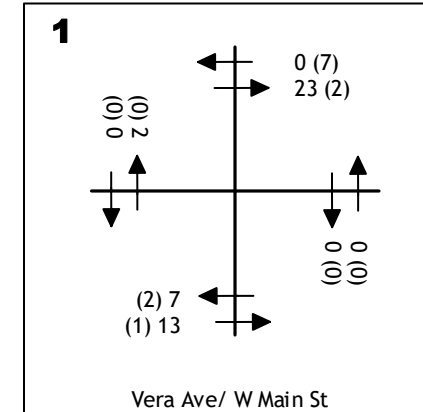
While a right-turn-only driveway was recommended in the Pre-School's traffic study and conditioned by the City, the study also noted that future conditions may permit full access. While not related to the proposed Bethany Home project, the City of Ripon should review the situation and if full access is acceptable, work with Ripon Christian School to modify the current traffic control to be consistent with permitted movements. Alternatively, if outbound left turns are causing a safety issue, the City should follow up with Ripon Christian to identify measures to further limit outbound left turns.



VEHICLE TRAFFIC



PEDESTRIAN TRAFFIC



PROJECT CHARACTERISTICS

Description

The proposed project is an independent living facility catering to Ripon's Senior population. The facility is a three-story 107,700 ksf building to be located on an 2¼ acre parcel at the southeast corner of the W. Main Street / Vera Avenue intersection. The project site has previously been occupied by two medical office buildings and a small office building. The site is bordered by Ripon Grace Church on the east and by private residences to the south. The project is one block east of Bethany Home's existing Independent Living, Skilled Nursing and Assisted Living facilities at 930 W. Main Street.

The proposed project will provide 82 independent living units along with ancillary support recreational and food service facilities. The site will have 84 parking spaces, and vehicular access will occur at a full access driveway on Vera Avenue and via a connection to Ripon Grace Church's existing right-turn-in-only connection to West Main Street near the Maple Avenue intersection. The project is across W. Main Street from Ripon Christian School's pre-school facility.

Project Travel Characteristics

The travel characteristics of the project are described in terms of its *Trip Generation and Trip Distribution*.

Vehicle Trip Generation. The amount of traffic associated with proposed development projects is typically forecast using information developed from recognized national sources. The Institute of Transportation Engineers (ITE) has compiled and published information regarding trip generation associated with various uses, and this source is widely accepted by public agencies, including Caltrans, San Joaquin County and the City of Ripon. Their publication *Trip Generation, 11th Edition* is the most current data and contains rates for various types of senior care / residential projects. Of the land use categories presented by ITE, **Code 252 Sr. Adult Housing Multi-Family** is the most directly comparable to the proposed project. The rates for this use would capture all travel associated with the project, including employee and resident travel, deliveries, etc.

Previous uses on the site that will be replaced by the project would have generated travel that no longer occurs, and the trip generation associated with these uses has also been estimated from ITE rates. ITE **Code 720 Medical Dental Office Building** and **Code 712 Small Office Building** are applicable to these uses.

Table 5 presents the Bethany Home Senior Residential project's trip generation estimates based on ITE land use Code 252. As indicated, over a 24 hour period the project could generate 266 daily one-way trips (i.e., ½ inbound and ½ outbound). During the morning peak hour the project could generate 16 trips, or about one vehicle every four minutes. In the evening the project could generate 21 trips during the peak commute hour. At some point in the afternoon that is not necessarily the peak commute hour the project would be expected to generate highest hour traffic volume, and 25 trips are expected at that time. This would be equivalent to about one vehicle every two minutes.

Trip generation forecasts for the three previous uses on the site are also presented for comparison. As indicated, the uses that will be replaced by the Bethany Home facility would be expected to generate 460 daily trips, or slightly less than twice the daily trips of the proposed project. The difference is more pronounced during peak traffic hours. In the morning the site's previous uses total 45 trips, with 73 trips in the business afternoon hour and 58 trips in the p.m. peak commute hour. Hourly estimates for previous site uses are roughly 2.8 times that of the proposed Bethany Home project.

Based on this comparison it is reasonable to conclude that the effects of the Bethany Home Independent Senior Living facility on regional circulation will be less than those already caused by the previous uses on the site.

Pedestrian Trip Generation. Limited information is available regarding the rates at which residential projects generate pedestrian activity, and none is specific to senior multi-family residences. ITE data indicates that residents of conventional low-rise multi-family suburban development generate pedestrian trips at a rate of 0.03 trips per dwelling unit during both the a.m. and p.m. peak hours. For an 82-unit development, this would be two to three trips per hour.

In this case, walkability is one of the selling points for the proposed project. Retail and medical services and restaurants are available near the W. Main Street / Wilma Avenue intersection and at other locations along W. Main Street. The project could also generate pedestrian travel between the project and the existing Bethany Home independent living facilities across Vera Avenue (i.e., 55 units in Manor Apartments, 39 units in Garden Apartments, and 36 units at Sunset Apartments). Residents may also walk to visit a spouse in Bethany Homes Skilled Nursing and Assisted Living facilities. Pedestrian activity could also occur over the day by staff at the various locations. Some residents are also likely to walk simply to get out of the house, for exercise or to walk pets. Conversely, with on-site food services (formal dining room and café/bistro) and other amenities there is no pressing need for residents to leave the facility on a day-to-day basis.

Based on these factors it was conservatively assumed that residents of the proposed Bethany Homes Independent Living Facility could generate three round trips to and from the site per resident per week. This activity would most likely occur over ten daylight hours. Assuming two residents per unit, this projects to 140 one-way pedestrian trips per day, with 14 in an hour.

There are 130 existing independent living units at Bethany Homes immediately west of the proposed project. Some may use the exercise facilities in the project. It is conservatively assumed that most residents may visit the new project site once every three weeks, but that 10% would be on a regular fitness program and visit three times a week at various times.

Some staff interaction between the current Bethany Home operations and the project may occur. It is assumed ten one-way pedestrian trips will occur each day.

As noted in Table 4, 200 daily and 21 hourly pedestrian trips are projected for the project.

**TABLE 4
PROJECTED PEDESTRIAN ACTIVITY**

| Description | Quantity | Daily | | Hourly | |
|--|---------------|--------------------------|-------|--------------------------|-------|
| | | One-Way Trip Rates | Total | One Way Trip Rates | Total |
| Trips Project Residents | 164 residents | 0.86 ¹ | 140 | 0.09 ² | 14 |
| Staff | - | - | 10 | - | 1 |
| Occasional trips by current Bethany Home Independent Living Residents | 260 | 0.10 ³ | 26 | 0.01 ² | 3 |
| Regular trips by current Bethany Home Independent Living Residents associated with a fitness program | 260 | 0.09 ⁴ | 24 | 0.01 ² | 3 |
| Total | | | 200 | | 21 |
| ¹ two one-way trips per round trip times 3 round trips per week divided by 7 days per week = 0.86 trips per day. ² 10% of daily rate. ³ two one-way trips per round trip time 1 round trip every three weeks = 0.10 trips per day. ⁴ assumes 10% of residents visit three times a week. | | | | | |

**TABLE 5
ITE TRIP GENERATION RATES / FORECASTS**

| ITE Code | Land Use | Unit / Quantity | Trip Generation | | | | | | | | | |
|--|---|--------------------|-----------------|-------------------------------------|----------|-------|-----------------------------------|----------|-------|-------------------------------------|----------|-------|
| | | | Daily | AM Peak Hour (7:00 to 9:00 a.m.) | | | Project Highest Afternoon Hour | | | PM Peak Hour (4:00 to 6:00 p.m.) | | |
| | | | | Inbound | Outbound | Total | Inbound | Outbound | Total | Inbound | Outbound | Total |
| Proposed Bethany Home Independent Living | | | | | | | | | | | | |
| 252 | Senior Adult Housing – Multi-family | Dwelling unit | 3.24 | 34% | 66% | 0.20 | 54% | 46% | 0.30 | 56% | 44% | 0.25 |
| | | 82 | 266 | 5 | 11 | 16 | 13 | 12 | 25 | 11 | 10 | 21 |
| Previous on-Site Uses | | | | | | | | | | | | |
| 720 | Medical Dental Office Building | ksf | 36.0 | 79% | 21% | 3.10 | 40% | 60% | 4.79 | 30% | 70% | 3.93 |
| | Ripon Family Physicians | 7.0 | 252 | 17 | 5 | 22 | 13 | 21 | 34 | 8 | 20 | 28 |
| | Cronin Dentistry | 4.0 | 144 | 9 | 3 | 12 | 8 | 11 | 19 | 5 | 11 | 16 |
| 712 | Small Office | ksf | 14.39 | 82% | 18% | 1.67 | 42% | 58% | 3.15 | 34% | 66% | 2.16 |
| | Ripon Interfaith Ministries | 6.5 | 94 | 9 | 2 | 11 | 8 | 12 | 20 | 5 | 9 | 14 |
| | Total | | 490 | 35 | 10 | 45 | 29 | 44 | 73 | 18 | 40 | 58 |

Source: *Trip Generation Manual, 11th Edition*, Institute of Transportation Engineers (ITE), 2021

Trip Distribution. Having determined the number of vehicle and pedestrian trips that are expected to be generated by the project, it is necessary to identify the directional distribution of project-generated trips.

Vehicle Trips. For Senior Residential development, peak hour employee trips would generally be focused on routes to/from the residences within the City of Ripon / Southern San Joaquin County/ northern Stanislaus County area. Residents are permitted to park their personal vehicle on site, and their automobile trips would likely be oriented to social, medical and shopping destinations that primarily avoid freeway travel to the extent possible. Within that context the trip distribution for the proposed project shown in Table 6 was developed.

Similarly, pedestrian activity would be concentrated to destinations west of the site, but some travel along W. Main Street to the east and south on Vera Avenue is also possible.

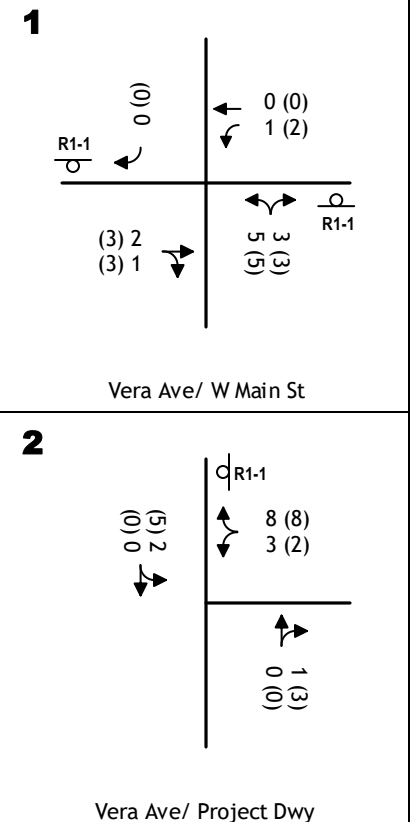
| TABLE 6 TRIP DISTRIBUTION ASSUMPTIONS | | | |
|--|------------------------------------|----------------------|-------------|
| Direction | Route | Share of Total Trips | |
| | | Pedestrians | Automobiles |
| East | W. Main Street beyond Maple Avenue | 20% | 25% |
| West | W. Main Street beyond Vera Avenue | 70% | 50% |
| South | Vera Avenue beyond Main Street | 10% | 25% |
| Total | | | 100% |

Trip Assignment. Project vehicle and pedestrian trips were assigned to the local street system based on the distribution assumptions identified above, the parking lot layout and the routes available through each driveway and pedestrian access. While the right turn only entrance on W. Main Street may limit access, it is possible to leave the site towards W. Main Street through the Ripon Grace Church parking lot. Based on these characteristics the peak hour automobile and pedestrian trip assignment is shown in Figure 4.

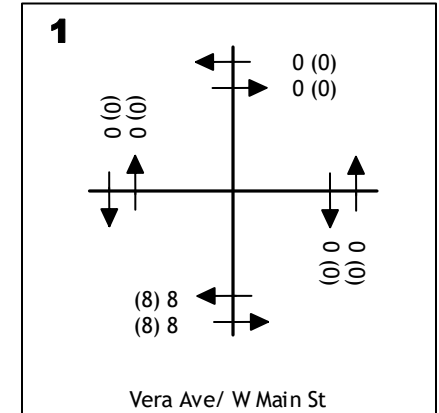
It is important to note that the pedestrian forecast represents “average” hourly volumes. It is reasonable to assume that senior pedestrians may not choose to walk during the peak periods before and after the school day at Ripon’s schools when background traffic is busy.



VEHICLE TRAFFIC



PEDESTRIAN TRAFFIC



PROJECT ONLY TRAFFIC VOLUMES AND LANE CONFIGURATIONS

PROJECT TRAFFIC OPERATIONAL AND SAFETY EFFECTS

Existing Plus Project Traffic Conditions and Levels of Service

Traffic / Pedestrian Volumes. Figure 5 superimposes project vehicle and pedestrian trips onto the current background traffic volumes to create the “Existing Plus Project” condition. Subsequent tables compare the “Existing” and “Existing Plus Project” Levels of Service.

Project Traffic Effects on Level of Service. As shown in Table 7, the addition of project traffic does not change current LOS and does not result in any location operating with a Level of Service that exceeds the City of Ripon’s minimum LOS D standard. The study intersection and main driveway will operate at LOS C or better.

Need for Traffic Control Devices. Existing plus Project traffic and pedestrian volumes were compared to warrants for an all-way stop and signalization. The addition of project pedestrians and automobile trips does not result in volumes which reach the level that satisfy warrants for either device.

Safety

While the standard measures of operation (i.e., Level of Service) indicate that the project does not result in traffic operating conditions that exceed the City of Ripon General Plan standards, other safety factors were considered.

Pedestrian Safety. As noted earlier the Bethany Home Independent Living project may result in additional pedestrians on Ripon’s streets, and most of these pedestrians will be seniors. As a group seniors tend to walk more slowly and may be less aware of their surroundings than regular pedestrians.

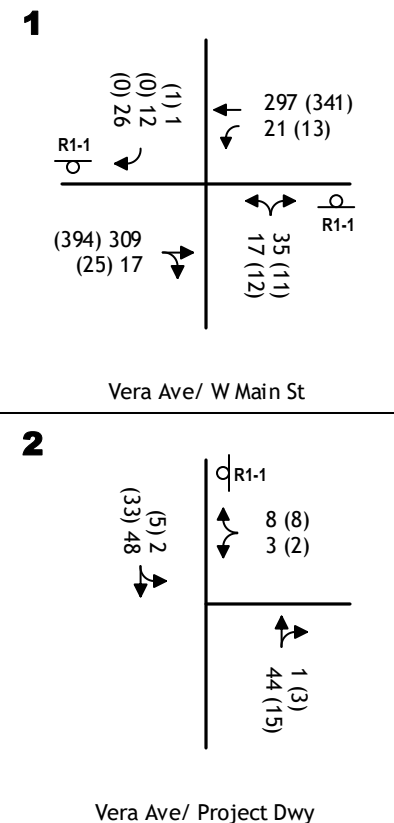
The project would add pedestrians to the exiting Vera Avenue crossing at Main Street and to the crossings at the Main Street / Wilma Avenue intersection. A marked crosswalk already exists across Vera Avenue, but measures to improve visibility are possible. For example, No Parking limits could be installed on the east side of Vera Avenue south of the intersection to preserve the line of sight at the corner for both pedestrians and approaching vehicles. However, a more practical option would be to install a stop bar across northbound Vera Avenue about 5 feet outside of the crosswalk. This limit would require motorists to first to stop outside the crosswalk before moving into the crosswalk to turn right.

At the W. Main Street / Wilma Avenue traffic signal the City of Ripon should continue to monitor the adequacy of pedestrian crossing intervals already incorporated into the signal timing to sure that seniors have adequate time to cross the streets.

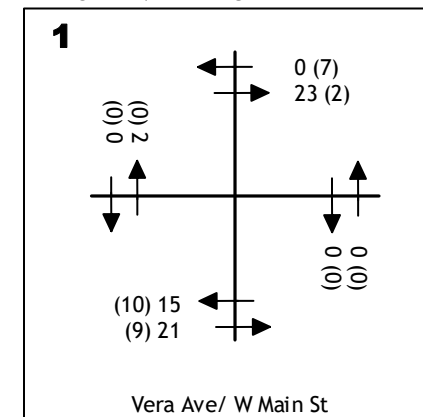
Vehicular Access. Because the project generates relatively little automobile traffic and background traffic volumes on Vera Avenue are low, the project access will operate satisfactorily, and capacity improvements are not needed. However, because senior drivers may use the access, it will be important to maintain adequate sight distance looking north and south from the new driveway. The city should consider the need for No Parking limitations in that area.



VEHICLE TRAFFIC



PEDESTRIAN TRAFFIC



**TABLE 7
EXISTING PLUS PROJECT PEAK HOUR
INTERSECTION LEVELS OF SERVICE**

| Intersection | Control | Time Period | | | | | | | |
|---|--------------|-------------------------------------|----------------------------|-----|----------------------------|-------------------------------------|----------------------------|-----|----------------------------|
| | | AM Peak Hour (7:00 to 9:00 a.m.) | | | | PM Peak Hour (4:00 to 6:00 p.m.) | | | |
| | | LOS | Average Delay (sec/veh) | LOS | Average Delay (sec/veh) | LOS | Average Delay (sec/veh) | LOS | Average Delay (sec/veh) |
| Main Street / Vera Avenue | NB / SB Stop | | | | | | | | |
| Northbound approach | | C | 16.4 | C | 18.5 | C | 15.4 | C | 16.7 |
| Southbound Approach | | C | 15.2 | C | 15.4 | C | 19.4 | C | 19.8 |
| Vera Avenue / Access Westbound approach | WB Stop | - | - | A | 8.7 | - | - | A | 8.5 |
| Bold indicates conditions in excess of adopted minimum LOS D standard | | | | | | | | | |

APPENDIX

Traffic Count

Level of Service Worksheets

KDA

Vera Ave & W Main St

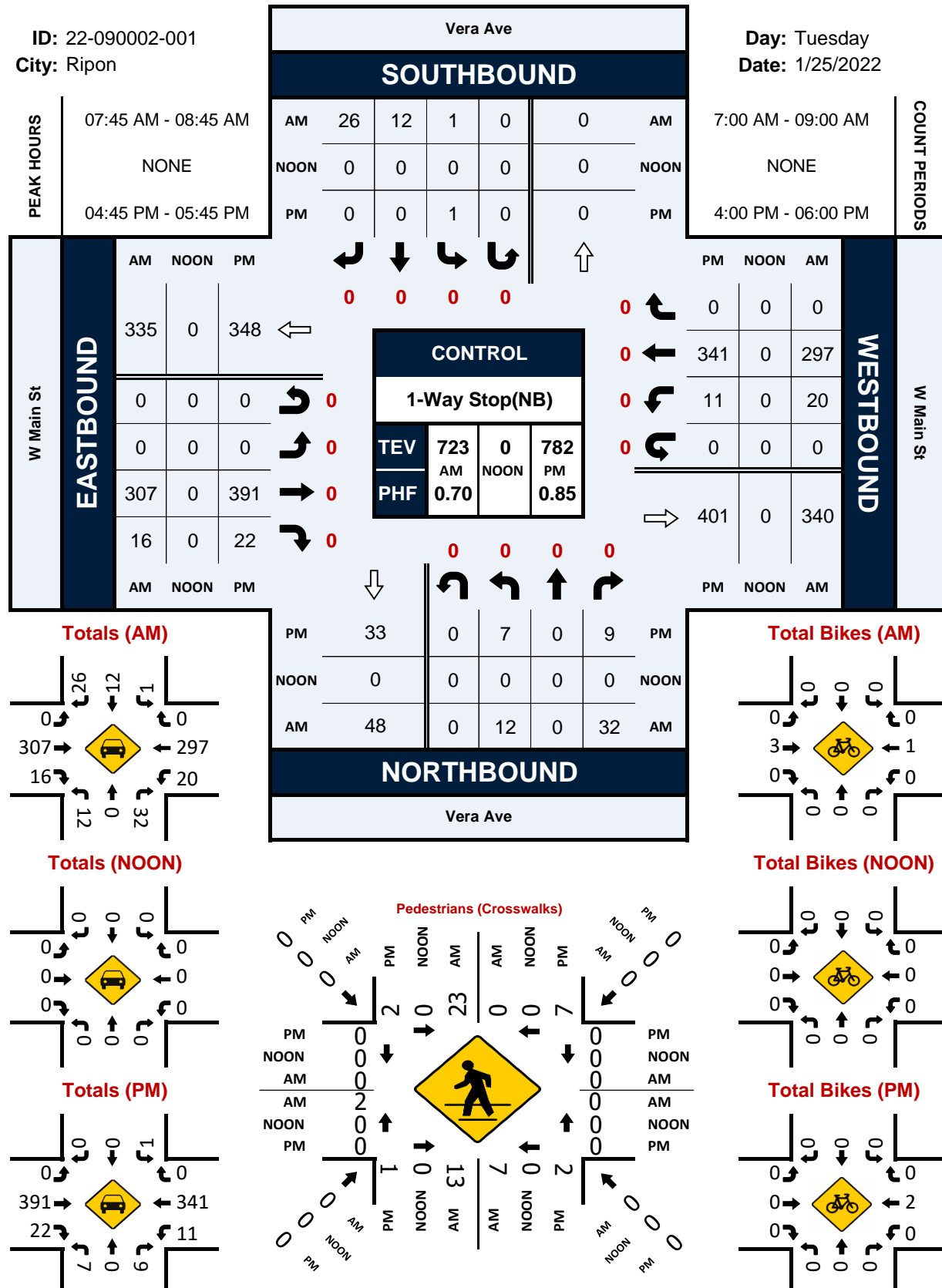
Peak Hour Turning Movement Count

ID: 22-090002-001

City: Ripon

Day: Tuesday

Date: 1/25/2022



National Data & Surveying Services Intersection Turning Movement Count

Location: Vera Ave & W Main St
City: Ripon
Control: 1-Way Stop(NB)

Project ID: 22-090002-001
Date: 1/25/2022

Data - Totals

| NS/EW Streets: | Vera Ave | | | | Vera Ave | | | | W Main St | | | | W Main St | | | | |
|------------------|---------------------|-------|--------|-------|------------|--------|--------|-------|-----------|--------|-------|-------|-----------|--------|-------|-------|-------|
| AM | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | TOTAL |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | |
| 7:00 AM | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 37 | 1 | 0 | 0 | 21 | 0 | 0 | 64 |
| 7:15 AM | 2 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 44 | 4 | 0 | 1 | 31 | 0 | 0 | 89 |
| 7:30 AM | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 40 | 2 | 0 | 2 | 23 | 0 | 0 | 70 |
| 7:45 AM | 6 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 99 | 3 | 0 | 1 | 55 | 0 | 0 | 175 |
| 8:00 AM | 2 | 0 | 19 | 0 | 0 | 7 | 14 | 0 | 0 | 104 | 8 | 0 | 10 | 96 | 0 | 0 | 260 |
| 8:15 AM | 3 | 0 | 1 | 0 | 1 | 5 | 12 | 0 | 0 | 71 | 5 | 0 | 8 | 108 | 0 | 0 | 214 |
| 8:30 AM | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 33 | 0 | 0 | 1 | 38 | 0 | 0 | 74 |
| 8:45 AM | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 2 | 0 | 0 | 34 | 0 | 0 | 62 |
| TOTAL VOLUMES : | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| APPROACH %'s : | 35.82% | 0.00% | 64.18% | 0.00% | 2.56% | 30.77% | 66.67% | 0.00% | 0.00% | 94.71% | 5.29% | 0.00% | 5.36% | 94.64% | 0.00% | 0.00% | 1008 |
| PEAK HR : | 07:45 AM - 08:45 AM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 12 | 0 | 32 | 0 | 1 | 12 | 26 | 0 | 0 | 307 | 16 | 0 | 20 | 297 | 0 | 0 | 723 |
| PEAK HR FACTOR : | 0.500 | 0.000 | 0.421 | 0.000 | 0.250 | 0.429 | 0.464 | 0.000 | 0.000 | 0.738 | 0.500 | 0.000 | 0.500 | 0.688 | 0.000 | 0.000 | 0.695 |
| | 0.524 | | | | 0.464 | | | | 0.721 | | | | 0.683 | | | | |

| PM | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | TOTAL |
|------------------|---------------------|-------|--------|-------|------------|-------|-------|-------|-----------|--------|-------|-------|-----------|--------|-------|-------|-------|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | |
| 4:00 PM | 6 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 70 | 13 | 0 | 2 | 50 | 0 | 0 | 142 |
| 4:15 PM | 8 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 80 | 4 | 0 | 3 | 52 | 0 | 0 | 148 |
| 4:30 PM | 9 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 75 | 12 | 0 | 4 | 62 | 0 | 0 | 164 |
| 4:45 PM | 0 | 0 | 5 | 0 | 1 | 0 | 0 | 0 | 0 | 95 | 3 | 0 | 2 | 66 | 0 | 0 | 172 |
| 5:00 PM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 89 | 8 | 0 | 1 | 81 | 0 | 0 | 180 |
| 5:15 PM | 2 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 110 | 8 | 0 | 3 | 102 | 0 | 0 | 229 |
| 5:30 PM | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 97 | 3 | 0 | 5 | 92 | 0 | 0 | 201 |
| 5:45 PM | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 83 | 4 | 0 | 0 | 46 | 0 | 0 | 136 |
| TOTAL VOLUMES : | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| APPROACH %'s : | 69.57% | 0.00% | 30.43% | 0.00% | 100.00% | 0.00% | 0.00% | 0.00% | 0.00% | 92.71% | 7.29% | 0.00% | 3.50% | 96.50% | 0.00% | 0.00% | 1372 |
| PEAK HR : | 04:45 PM - 05:45 PM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 7 | 0 | 9 | 0 | 1 | 0 | 0 | 0 | 0 | 391 | 22 | 0 | 11 | 341 | 0 | 0 | 782 |
| PEAK HR FACTOR : | 0.438 | 0.000 | 0.450 | 0.000 | 0.250 | 0.000 | 0.000 | 0.000 | 0.000 | 0.889 | 0.688 | 0.000 | 0.550 | 0.836 | 0.000 | 0.000 | 0.854 |
| | 0.667 | | | | 0.250 | | | | 0.875 | | | | 0.838 | | | | |

National Data & Surveying Services Intersection Turning Movement Count

Location: Vera Ave & W Main St
City: Ripon
Control: 1-Way Stop(NB)

Project ID: 22-090002-001
Date: 1/25/2022

Data - Bikes

| NS/EW Streets: | Vera Ave | | | | Vera Ave | | | | W Main St | | | | W Main St | | | | |
|------------------|---------------------|-------|-------|-------|------------|-------|-------|-------|-----------|---------|-------|-------|-----------|---------|-------|-------|-------|
| AM | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | TOTAL |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 3 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL VOLUMES : | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| APPROACH %'s : | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 7 |
| | | | | | | | | | 0.00% | 100.00% | 0.00% | 0.00% | 50.00% | 50.00% | 0.00% | 0.00% | |
| PEAK HR : | 07:45 AM - 08:45 AM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 1 | 0 | 0 | 4 |
| PEAK HR FACTOR : | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.375 | 0.000 | 0.000 | 0.000 | 0.250 | 0.000 | 0.000 | 0.333 |
| | | | | | | | | | | 0.375 | | | | 0.250 | | | |
| PM | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | TOTAL |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 3 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| TOTAL VOLUMES : | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| APPROACH %'s : | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 6 | 0 | 0 | 10 |
| | | | | | | | | | 0.00% | 100.00% | 0.00% | 0.00% | 0.00% | 100.00% | 0.00% | 0.00% | |
| PEAK HR : | 04:45 PM - 05:45 PM | | | | | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| PEAK HR FACTOR : | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.500 | 0.000 | 0.000 | 0.500 |
| | | | | | | | | | | | | | | 0.500 | | | |

National Data & Surveying Services Intersection Turning Movement Count






Location: Vera Ave & W Main St
City: Ripon

Project ID: 22-090002-001
Date: 1/25/2022

Data - Pedestrians (Crosswalks)

| NS/EW Streets: | Vera Ave | | Vera Ave | | W Main St | | W Main St | | |
|-------------------------|---------------------|---------|-----------|---------|-----------|---------|-----------|---------|--------------------|
| AM | NORTH LEG | | SOUTH LEG | | EAST LEG | | WEST LEG | | TOTAL |
| | EB | WB | EB | WB | NB | SB | NB | SB | |
| 7:00 AM | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 |
| 7:15 AM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 7:30 AM | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 7:45 AM | 8 | 0 | 3 | 1 | 0 | 0 | 1 | 0 | 13 |
| 8:00 AM | 9 | 0 | 3 | 4 | 0 | 0 | 0 | 0 | 16 |
| 8:15 AM | 6 | 0 | 7 | 2 | 0 | 0 | 0 | 0 | 15 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 8:45 AM | 3 | 2 | 1 | 0 | 2 | 0 | 0 | 0 | 8 |
| TOTAL VOLUMES : | EB 29 | WB 5 | EB 14 | WB 8 | NB 2 | SB 0 | NB 2 | SB 0 | TOTAL 60 |
| APPROACH %'s : | 85.29% | 14.71% | 63.64% | 36.36% | 100.00% | 0.00% | 100.00% | 0.00% | |
| PEAK HR : | 07:45 AM - 08:45 AM | | | | | | | | TOTAL |
| PEAK HR VOL : | 23 | 0 | 13 | 7 | 0 | 0 | 2 | 0 | 45 |
| PEAK HR FACTOR : | 0.639 | | 0.464 | 0.438 | | | 0.500 | | 0.703 |
| | 0.639 | | 0.556 | | | | 0.500 | | |

| PM | NORTH LEG | | SOUTH LEG | | EAST LEG | | WEST LEG | | TOTAL |
|-------------------------|---------------------|----------|-----------|---------|----------|---------|----------|---------|--------------------|
| | EB | WB | EB | WB | NB | SB | NB | SB | |
| 4:00 PM | 5 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 9 |
| 4:15 PM | 2 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 6 |
| 4:30 PM | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 3 |
| 4:45 PM | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 5:00 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| 5:15 PM | 0 | 5 | 0 | 1 | 0 | 0 | 0 | 0 | 6 |
| 5:30 PM | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 3 |
| 5:45 PM | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| TOTAL VOLUMES : | EB 9 | WB 15 | EB 3 | WB 6 | NB 0 | SB 1 | NB 0 | SB 0 | TOTAL 34 |
| APPROACH %'s : | 37.50% | 62.50% | 33.33% | 66.67% | 0.00% | 100.00% | | | |
| PEAK HR : | 04:45 PM - 05:45 PM | | | | | | | | TOTAL |
| PEAK HR VOL : | 2 | 7 | 1 | 2 | 0 | 0 | 0 | 0 | 12 |
| PEAK HR FACTOR : | 0.250 | 0.350 | 0.250 | 0.500 | | | | | 0.500 |
| | 0.450 | | 0.750 | | | | | | |






| Intersection | | | | | | | | | | | | |
|--------------------------|--------|---|------|---|---|------|--------|---|-------|--------|---|-------|
| Int Delay, s/veh | 2 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | |  |  | | |  | | |  | |
| Traffic Vol, veh/h | 0 | 307 | 16 | 20 | 297 | 0 | 12 | 0 | 32 | 1 | 12 | 26 |
| Future Vol, veh/h | 0 | 307 | 16 | 20 | 297 | 0 | 12 | 0 | 32 | 1 | 12 | 26 |
| Conflicting Peds, #/hr | 0 | 0 | 20 | 20 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | 0 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 439 | 23 | 29 | 424 | 0 | 17 | 0 | 46 | 1 | 17 | 37 |
| | | | | | | | | | | | | |
| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
| Conflicting Flow All | 424 | 0 | 0 | 482 | 0 | 0 | 982 | 953 | 471 | 956 | 964 | 426 |
| Stage 1 | - | - | - | - | - | - | 471 | 471 | - | 482 | 482 | - |
| Stage 2 | - | - | - | - | - | - | 511 | 482 | - | 474 | 482 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1135 | - | - | 1081 | - | - | 228 | 259 | 593 | 238 | 255 | 628 |
| Stage 1 | - | - | - | - | - | - | 573 | 560 | - | 565 | 553 | - |
| Stage 2 | - | - | - | - | - | - | 545 | 553 | - | 571 | 553 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1135 | - | - | 1060 | - | - | 195 | 247 | 582 | 215 | 244 | 627 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 195 | 247 | - | 215 | 244 | - |
| Stage 1 | - | - | - | - | - | - | 562 | 549 | - | 565 | 538 | - |
| Stage 2 | - | - | - | - | - | - | 482 | 538 | - | 526 | 542 | - |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| Approach | EB | | | WB | | | NB | | | SB | | |
| HCM Control Delay, s | 0 | | | 0.5 | | | 16.4 | | | 15.2 | | |
| HCM LOS | | | | | | | C | | | C | | |
| | | | | | | | | | | | | |
| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 | | | | |
| Capacity (veh/h) | 378 | 1135 | - | - | 1060 | - | - | 409 | | | | |
| HCM Lane V/C Ratio | 0.166 | - | - | - | 0.027 | - | - | 0.136 | | | | |
| HCM Control Delay (s) | 16.4 | 0 | - | - | 8.5 | - | - | 15.2 | | | | |
| HCM Lane LOS | C | A | - | - | A | - | - | C | | | | |
| HCM 95th %tile Q(veh) | 0.6 | 0 | - | - | 0.1 | - | - | 0.5 | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.5 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | ↕ | ↕ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 0 | 391 | 22 | 11 | 341 | 0 | 7 | 0 | 8 | 1 | 0 | 0 |
| Future Vol, veh/h | 0 | 391 | 22 | 11 | 341 | 0 | 7 | 0 | 8 | 1 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | 0 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 460 | 26 | 13 | 401 | 0 | 8 | 0 | 9 | 1 | 0 | 0 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 401 | 0 | 0 | 489 | 0 | 0 | 903 | 903 | 476 | 905 | 916 | 401 |
| Stage 1 | - | - | - | - | - | - | 476 | 476 | - | 427 | 427 | - |
| Stage 2 | - | - | - | - | - | - | 427 | 427 | - | 478 | 489 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1158 | - | - | 1074 | - | - | 258 | 277 | 589 | 257 | 272 | 649 |
| Stage 1 | - | - | - | - | - | - | 570 | 557 | - | 606 | 585 | - |
| Stage 2 | - | - | - | - | - | - | 606 | 585 | - | 568 | 549 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1158 | - | - | 1071 | - | - | 255 | 273 | 587 | 251 | 268 | 649 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 255 | 273 | - | 251 | 268 | - |
| Stage 1 | - | - | - | - | - | - | 568 | 555 | - | 606 | 578 | - |
| Stage 2 | - | - | - | - | - | - | 599 | 578 | - | 559 | 547 | - |




| Approach | EB | WB | NB | SB |
|----------------------|----|-----|------|------|
| HCM Control Delay, s | 0 | 0.3 | 15.4 | 19.4 |
| HCM LOS | | | C | C |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|-------|------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h) | 365 | 1158 | - | - | 1071 | - | - | 251 |
| HCM Lane V/C Ratio | 0.048 | - | - | - | 0.012 | - | - | 0.005 |
| HCM Control Delay (s) | 15.4 | 0 | - | - | 8.4 | - | - | 19.4 |
| HCM Lane LOS | C | A | - | - | A | - | - | C |
| HCM 95th %tile Q(veh) | 0.2 | 0 | - | - | 0 | - | - | 0 |

| Intersection | | | | | | | | | | | | |
|--------------------------|--------|---|------|---|---|------|--------|---|-------|--------|---|-------|
| Int Delay, s/veh | 2.4 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | |  |  | | |  | | |  | |
| Traffic Vol, veh/h | 0 | 309 | 17 | 21 | 297 | 0 | 17 | 0 | 35 | 1 | 12 | 26 |
| Future Vol, veh/h | 0 | 309 | 17 | 21 | 297 | 0 | 17 | 0 | 35 | 1 | 12 | 26 |
| Conflicting Peds, #/hr | 0 | 0 | 32 | 32 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | 0 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 441 | 24 | 30 | 424 | 0 | 24 | 0 | 50 | 1 | 17 | 37 |
| | | | | | | | | | | | | |
| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
| Conflicting Flow All | 424 | 0 | 0 | 497 | 0 | 0 | 998 | 969 | 485 | 962 | 981 | 426 |
| Stage 1 | - | - | - | - | - | - | 485 | 485 | - | 484 | 484 | - |
| Stage 2 | - | - | - | - | - | - | 513 | 484 | - | 478 | 497 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1135 | - | - | 1067 | - | - | 223 | 254 | 582 | 235 | 249 | 628 |
| Stage 1 | - | - | - | - | - | - | 563 | 552 | - | 564 | 552 | - |
| Stage 2 | - | - | - | - | - | - | 544 | 552 | - | 568 | 545 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1135 | - | - | 1034 | - | - | 188 | 239 | 564 | 209 | 235 | 627 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 188 | 239 | - | 209 | 235 | - |
| Stage 1 | - | - | - | - | - | - | 546 | 535 | - | 564 | 536 | - |
| Stage 2 | - | - | - | - | - | - | 480 | 536 | - | 518 | 529 | - |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| Approach | EB | | | WB | | | NB | | | SB | | |
| HCM Control Delay, s | 0 | | | 0.6 | | | 18.5 | | | 15.4 | | |
| HCM LOS | | | | | | | C | | | C | | |
| | | | | | | | | | | | | |
| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 | | | | |
| Capacity (veh/h) | 341 | 1135 | - | - | 1034 | - | - | 401 | | | | |
| HCM Lane V/C Ratio | 0.218 | - | - | - | 0.029 | - | - | 0.139 | | | | |
| HCM Control Delay (s) | 18.5 | 0 | - | - | 8.6 | - | - | 15.4 | | | | |
| HCM Lane LOS | C | A | - | - | A | - | - | C | | | | |
| HCM 95th %tile Q(veh) | 0.8 | 0 | - | - | 0.1 | - | - | 0.5 | | | | |

Intersection

Int Delay, s/veh 1

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|--------------------------|---|------|---|------|------|---|
| Lane Configurations |  | |  | | |  |
| Traffic Vol, veh/h | 3 | 8 | 44 | 1 | 2 | 48 |
| Future Vol, veh/h | 3 | 8 | 44 | 1 | 2 | 48 |
| Conflicting Peds, #/hr | 2 | 2 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 3 | 9 | 48 | 1 | 2 | 52 |

| Major/Minor | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 107 | 51 | 0 |
| Stage 1 | 49 | - | - |
| Stage 2 | 58 | - | - |
| Critical Hdwy | 6.42 | 6.22 | - |
| Critical Hdwy Stg 1 | 5.42 | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | - |
| Pot Cap-1 Maneuver | 891 | 1017 | - |
| Stage 1 | 973 | - | - |
| Stage 2 | 965 | - | - |
| Platoon blocked, % | | - | - |
| Mov Cap-1 Maneuver | 888 | 1015 | - |
| Mov Cap-2 Maneuver | 888 | - | - |
| Stage 1 | 973 | - | - |
| Stage 2 | 962 | - | - |

| Approach | WB | NB | SB |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 8.7 | 0 | 0.3 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT |
|-----------------------|-----|----------|-------|-------|
| Capacity (veh/h) | - | - | 977 | 1558 |
| HCM Lane V/C Ratio | - | - | 0.012 | 0.001 |
| HCM Control Delay (s) | - | - | 8.7 | 7.3 |
| HCM Lane LOS | - | - | A | A |
| HCM 95th %tile Q(veh) | - | - | 0 | 0 |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.6 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | ↕ | ↕ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 0 | 394 | 25 | 13 | 341 | 0 | 12 | 0 | 11 | 1 | 0 | 0 |
| Future Vol, veh/h | 0 | 394 | 25 | 13 | 341 | 0 | 12 | 0 | 11 | 1 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 15 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | 0 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 464 | 29 | 15 | 401 | 0 | 14 | 0 | 13 | 1 | 0 | 0 |




| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 401 | 0 | 0 | 508 | 0 | 0 | 925 | 925 | 494 | 916 | 939 | 401 |
| Stage 1 | - | - | - | - | - | - | 494 | 494 | - | 431 | 431 | - |
| Stage 2 | - | - | - | - | - | - | 431 | 431 | - | 485 | 508 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1158 | - | - | 1057 | - | - | 250 | 269 | 575 | 253 | 264 | 649 |
| Stage 1 | - | - | - | - | - | - | 557 | 546 | - | 603 | 583 | - |
| Stage 2 | - | - | - | - | - | - | 603 | 583 | - | 563 | 539 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1158 | - | - | 1042 | - | - | 244 | 261 | 567 | 244 | 257 | 649 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 244 | 261 | - | 244 | 257 | - |
| Stage 1 | - | - | - | - | - | - | 549 | 538 | - | 603 | 575 | - |
| Stage 2 | - | - | - | - | - | - | 594 | 575 | - | 550 | 531 | - |

| Approach | EB | WB | NB | SB |
|----------------------|----|-----|------|------|
| HCM Control Delay, s | 0 | 0.3 | 16.7 | 19.8 |
| HCM LOS | | | C | C |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|-------|------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h) | 335 | 1158 | - | - | 1042 | - | - | 244 |
| HCM Lane V/C Ratio | 0.081 | - | - | - | 0.015 | - | - | 0.005 |
| HCM Control Delay (s) | 16.7 | 0 | - | - | 8.5 | - | - | 19.8 |
| HCM Lane LOS | C | A | - | - | A | - | - | C |
| HCM 95th %tile Q(veh) | 0.3 | 0 | - | - | 0 | - | - | 0 |

Intersection

Int Delay, s/veh 1.9

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|--------------------------|---|------|---|------|------|---|
| Lane Configurations |  | |  | | |  |
| Traffic Vol, veh/h | 2 | 8 | 15 | 3 | 5 | 33 |
| Future Vol, veh/h | 2 | 8 | 15 | 3 | 5 | 33 |
| Conflicting Peds, #/hr | 2 | 2 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 2 | 9 | 16 | 3 | 5 | 36 |

| Major/Minor | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 66 | 20 | 0 |
| Stage 1 | 18 | - | - |
| Stage 2 | 48 | - | - |
| Critical Hdwy | 6.42 | 6.22 | - |
| Critical Hdwy Stg 1 | 5.42 | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | - |
| Pot Cap-1 Maneuver | 939 | 1058 | - |
| Stage 1 | 1005 | - | - |
| Stage 2 | 974 | - | - |
| Platoon blocked, % | | - | - |
| Mov Cap-1 Maneuver | 934 | 1056 | - |
| Mov Cap-2 Maneuver | 934 | - | - |
| Stage 1 | 1005 | - | - |
| Stage 2 | 969 | - | - |

| Approach | WB | NB | SB |
|----------------------|-----|----|----|
| HCM Control Delay, s | 8.5 | 0 | 1 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT |
|-----------------------|-----|----------|-------|-------|
| Capacity (veh/h) | - | - | 1029 | 1597 |
| HCM Lane V/C Ratio | - | - | 0.011 | 0.003 |
| HCM Control Delay (s) | - | - | 8.5 | 7.3 |
| HCM Lane LOS | - | - | A | A |
| HCM 95th %tile Q(veh) | - | - | 0 | 0 |