Environmental Assessment 22-13
For Thiara Estates Subdivision

Initial Study and Mitigated Negative Declaration for Tentative Subdivision Map (TSM) 22-08 and Rezone (RZ) 22-07

Prepared for:

City of Yuba City
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1. Introduction

1.1. Introduction

This Initial Study/Mitigated Negative Declaration (IS/MND) has been prepared to identify any potential environmental impacts in the City of Yuba City, California (City) from the proposed Thiara Estates Tentative Subdivision Map (TSM) 22-08 and Pre-annexation Rezoning (RZ) 22-07 (Project).

TSM 22-08 is a proposed 34 single-family residential lot subdivision located on approximately 8.19 acres. The proposed lot sizes range in size from 6,457 square feet up to 9,834 square feet. The gross density of the project is approximately 4.3 residences per acre. The subdivision will connect to Tuly Parkway on the east and Elmer Avenue on the west, providing a direct linkage between those roadways. An existing single-family residence will be removed as part of the project.

RZ 22-07 is a request to remove the X20 Combining Zone District from the existing R-1 X20 pre-annexation zoning from this same property. The X20 District provides 12 specific development criteria to this and neighboring properties that must be met in order to develop. Nine of the criteria have since been incorporated into City ordinance, practices, or procedures making them un-necessary today. There are three criteria that are not typically applied by the City to projects but would affect the Project if left intact. These include:

- A requirement that a Development Agreement between the developer and the City be approved as part of any project;
- A residential project must provide an affordable housing component (to be negotiated as part of the Development Agreement); and
- The minimum lot size is one-acre (which would otherwise be 5,000 square feet for the R-1 Zone District).

The resulting pre-annexation zoning will be R-1.

The subject property is currently in an unincorporated area of Sutter County. If this proposal is approved by the City, the Project will not be triggered until the annexation into the City is completed. In the future, LAFCo will consider an application to annex this property to the City. As such LAFCo will likely utilize this environmental document for its review.

This subdivision is considered a project under the California Environmental Quality Act (CEQA), as the City has discretionary authority over the Project, with public review and consideration by the City of Yuba City Planning Commission and the City Council.

This IS/MND has been prepared in conformance with CEQA Guidelines Section 15070. The purpose of the IS/MND is to determine the potential significant impacts associated with the tentative subdivision map and provide an environmental assessment for consideration by the Planning Commission. In addition,

this document is intended to provide the basis for input from public agencies, organizations, and interested members of the public.

1.2. Regulatory Information

An Initial Study (IS) is an environmental assessment document prepared by a lead agency to determine if a project may have a significant effect on the environment. In accordance with the California Code of Regulations Title 14 (Chapter 3, §15000 et seq.), commonly referred to as the CEQA Guidelines - Section 15064(a)(1) states an environmental impact report (EIR) must be prepared if there is substantial evidence in light of the whole record that the proposed project under review may have a significant effect on the environment and should be further analyzed to determine mitigation measures or project alternatives that might avoid or reduce project impacts to less than significant. A negative declaration may be prepared instead; if the lead agency finds that there is no substantial evidence, in light of the whole record that the project may have a significant effect on the environment. A negative declaration is a written statement describing the reasons why a proposed project, not exempt from CEQA pursuant to §15300 et seq. of Article 19 of the Guidelines, would not have a significant effect on the environment and, therefore, why it would not require the preparation of an EIR (CEQA Guidelines Section 15371). According to CEQA Guidelines Section 15070, a negative declaration shall be prepared for a project subject to CEQA when either:

A. The IS shows there is no substantial evidence, in light of the whole record before the agency, that the proposed Project may have a significant effect on the environment, or

B. The IS identified potentially significant effects, but:

    a. Revisions in the Project plans or proposals made by or agreed to by the applicant before the proposed negative declaration and initial study is released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur is prepared, and

    b. There is no substantial evidence, in light of the whole record before the agency, that the proposed Project as revised may have a significant effect on the environment. If revisions are adopted by the Lead Agency into the proposed Project in accordance with the CEQA Guidelines Section 15070(b), a Mitigated Negative Declaration (MND) is prepared.

1.3. Document Format

This IS/MND contains four chapters, and one technical appendix. Chapter 1, Introduction, provides an overview of the proposed Project and the CEQA environmental documentation process. Chapter 2, Project Description, provides a detailed description of proposed Project objectives and components. Chapter 3, Impact Analysis, presents the CEQA checklist and environmental analysis for all impact areas, mandatory findings of significance, and feasible measures. If the proposed Project does not have the potential to significantly impact a given issue area, the relevant section provides a brief discussion of the reasons why no impacts are expected. If the proposed Project could have a potentially significant impact on a resource, the issue area discussion provides a description of potential impacts, and appropriate mitigation measures and/or permit requirements that would reduce those impacts to a less than significant level. Chapter 4, List of Preparers, provides a list of key personnel involved in the preparation of the IS/MND.

1.4. Purpose of Document

The proposed subdivision and rezoning will undergo a public review process by the Planning Commission that will make a recommendation to the City Council for a decision. If approved as proposed, the project will result in annexation of the land to Yuba City and construction of 34 single-family residences. The Planning Commission and City Council review is needed to assure that the Project will be compatible with existing or expected neighboring uses and that adequate public facilities are available to serve the Project.

This document has been prepared to satisfy the California Environmental Quality Act (CEQA) (Pub. Res. Code, Section 21000 et seq.) and the State CEQA Guidelines (Title 14 CCR §15000 et seq.). CEQA requires that all state and local government agencies consider the environmental consequences of projects over which they have discretionary authority before acting on those projects.

The initial study is a public document used by the decision-making lead agency to determine whether a project may have a significant effect on the environment. If the lead agency finds substantial evidence that any aspect of the project, either individually or cumulatively, may have a significant effect on the environment, regardless of whether the overall effect of the project is adverse or beneficial, the lead agency is required to use a previously prepared EIR and supplement that EIR, or prepare a subsequent EIR to analyze at hand. If the agency finds no substantial evidence that the project or any of its aspects may cause a significant effect on the environment, a negative declaration shall be prepared. If in the course of the analysis, it is recognized that the project may have a significant impact on the environment, but that with specific recommended mitigation measures incorporated into the project, these impacts shall be reduced to less than significant, a mitigated negative declaration shall be prepared.

In reviewing all of the available information for the above referenced project, the City of Yuba City Planning Division has analyzed the potential environmental impacts created by this Project and a mitigated negative declaration has been prepared for this Project.

1.5. Intended Uses of this Document

In accordance with CEQA, a good-faith effort has been made during preparation of this IS/MND to contact affected public agencies, organizations, and persons who may have an interest in the proposed project. In reviewing the Draft IS/MND, affected and interested parties should focus on the sufficiency of the document in identifying and analyzing the possible impacts on the environment and ways in which the effects of the proposed project would be avoided or mitigated.

The Draft IS/ND and associated appendices will be available for review on the City of Yuba City website at www.yubacity.net/environmental. The Draft IS/MND and associated appendixes also will be available for review during regular business hours at the City of Yuba City Development Services Department (1201 Civic Center Boulevard, Yuba City, California 95993). The 20-day review period will commence on March 2, 2023 and end on March 22, 2023 at the conclusion of the Planning Commission hearing.

Written comments on the Draft IS/MND should be sent to the following address:

City of Yuba City
Development Services Department
1201 Civic Center Boulevard
Yuba City, CA 95993
e-mail: developmentservices@yubacity.net

Phone: 530.822.4700

2. Project Description

2.1. Project Title

Tentative Subdivision Map 22-08: Thiara Estates Subdivision, and Pre-annexation Rezoning 22-07.

2.2. Lead Agency Name and Address

City of Yuba City
Development Services Department, Planning Division
1201 Civic Center Blvd.
Yuba City, CA 95993

2.3. Contact Person and Phone Number

Doug Libby, AICP
Deputy Director of Development Services
(530) 822-3231
developmentservices@yubacity.net

2.4. Project Location

The 8.19-acre property is located on the west side of Tuly Parkway across from Bradley Estates Drive. Assessor's Parcel Numbers 17-066-003, -005, and -021.

2.5 Project Applicant

Sarbjit Thiara Jr.
2599 Reed Road
Yuba City, CA 95993

2.5. Property Owner

Sarbjit Thiara Jr.
2599 Reed Road
Yuba City, CA 95993

2.6. General Plan Designation

The site is designated Low Density Residential (LDR). The LDR designation allows a residential density ranging between 2 and 8 residences per acre. As proposed, the Project will have a density of approximately 4.3 residences per acre.

2.7. Zoning

Existing

One-Family Residential Zone District Combined with an X_{20} Combining Zone District (R-1X_{20}). The requirements of the X_{20} District are:

The pre-annexation zoning of the Property is approved subject to the following conditions. These conditions shall only apply to divisions of land requiring a subdivision map or to any multi-family development of five residences or more.

1. Prior to the approval of any subdivision map for said Property, or prior to any multi-family development of five residences or more of said Property, a Development Agreement must be entered into with the City. At a minimum, the Development Agreement shall address conditions of development and the financing of roads, parks, public facilities, sewer, water, drainage, and surrounding infrastructure as established in the General Plan. The approval of said pre-annexation zoning in no way obligates the City to enter into a Development Agreement. The City shall have complete discretion whether to approve a Development Agreement and in approving the terms and conditions of the Development Agreement.
2. Prior to the City finalizing a Development Agreement, the developer of the Property shall provide written documentation from the affected school district that the developer has satisfied said school district's requirements for school infrastructure. This would generally apply to any developments over 4 residential units. The School District would expect, at a minimum, that all residential developments enter into a Mello Roos District and that depending on the size of development, land dedication and school development may be an alternative, subject to negotiation with the District.
3. Drainage plans shall be provided for all subdivisions of land within the Property and shall comply with the City and County's master drainage plans.
4. All residential subdivisions within the Property shall include an affordable housing component that meets the minimum production standard of affordable housing outlined in the regional compact with SACOG adopted by the City of Yuba City in November 2004. There are a variety of options of how best to meet the affordable housing requirement. These options would be subject to negotiations between the City and developer and shall be part of the Development Agreement.
5. All residential subdivisions within the Property shall meet the minimum standards for residential design as established by the City Council.
6. Sewer and water fees, including connection fees and the installation of major trunk lines from both plants, shall be incorporated into the cost of development and shall be part of the Development Agreement.
7. Development within the Property shall be required to pay its fair share of major roadwork as part of the development and, may require construction of collector and arterial roads that will adequately address infrastructure concurrent with the proposed development. This will be negotiated as part of the Development Agreement.
8. Payment of impact fees, which incorporate the public improvements necessary to implement the General Plan, shall be required and will be part of the Development Agreement. These fees will be

estimates and final payment will be based on a formally adopted impact fee study approved by the City Council. In addition to the park impact fee, the Quimby Act shall also apply.

9. Payment of a fee to address levee improvements and potential flood issues shall be required as part of the Development Agreement.
10. Any development within the Property shall require the Property entering into a Community Facilities District to assist in funding police, fire and park maintenance.
11. Any development within the Property shall address the community design policies in the General Plan including walkable, livable concepts and address the village concept as provided for in the General Plan.
12. The minimum lot size for the lots shown as R-1X20 shall be one acre as shown on Exhibit A.

Proposed

One-Family Residential (R-1) Zone District.

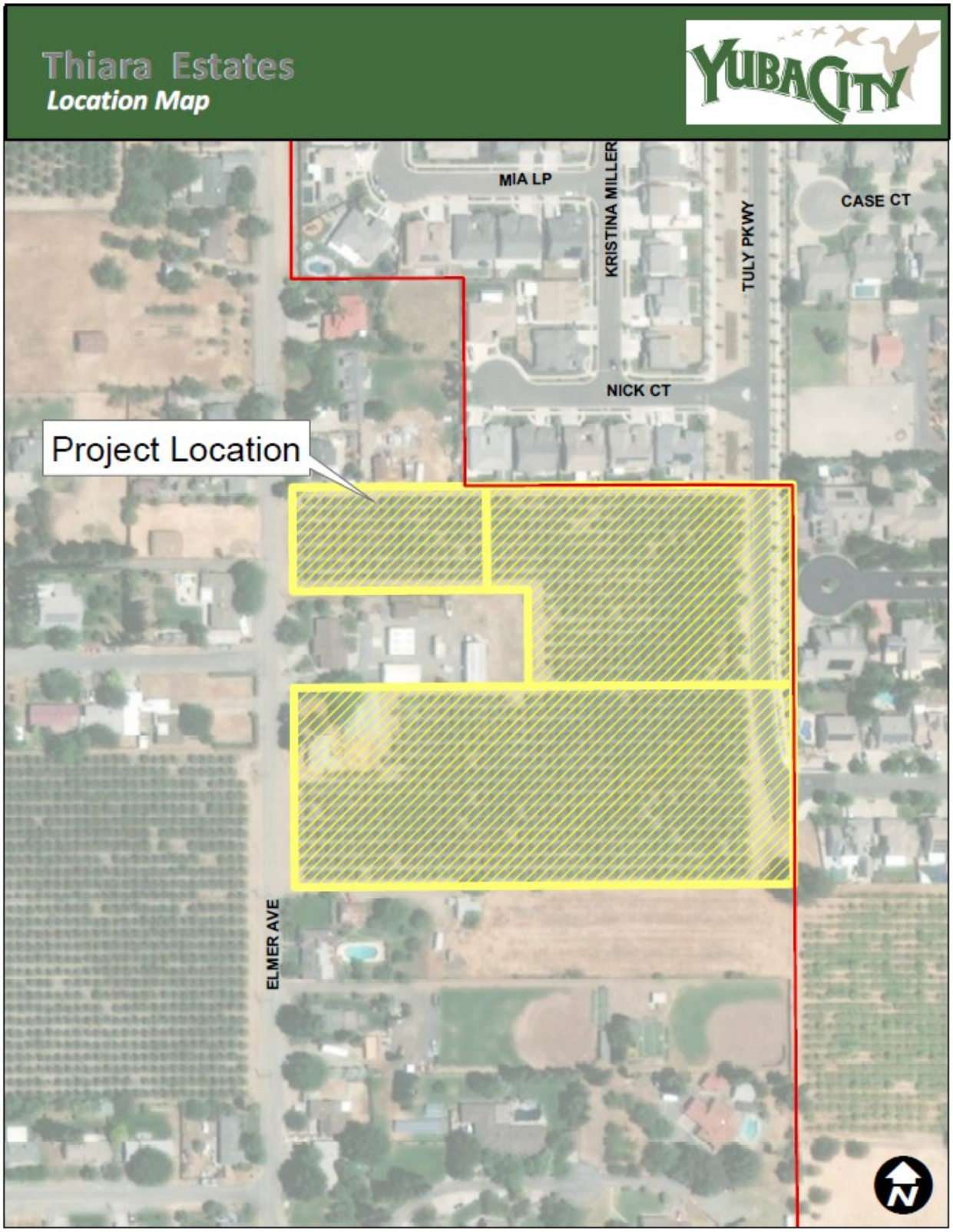

Figure 1: Location Map

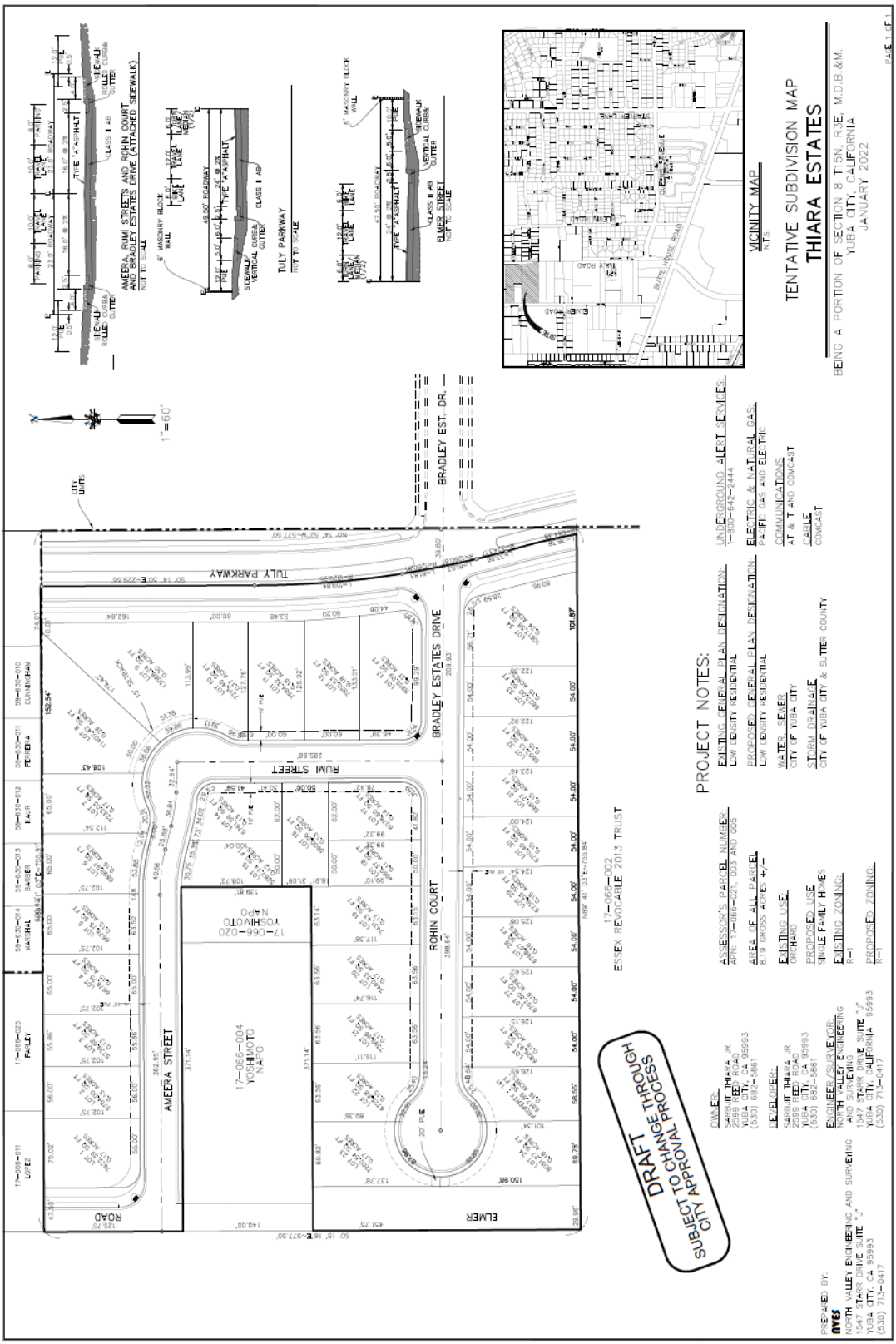

Figure 2: Subdivision Map

2.9 Project Description

This is a request to approve Thiara Estates Tentative Subdivision Map (TSM) 22-08 and Pre-annexation Rezoning (RZ) 22-07 (Project).

TSM 22-08 is a proposed 34 single-family residential lot subdivision located on approximately 8.19 acres. The proposed lot sizes range in size from 6,457 square feet up to 9,834 square feet. The gross density of the project is approximately 4.3 residences per acre. The subdivision will connect to Tuly Parkway on the east and Elmer Avenue on the west. An existing single-family residence will be removed as part of the project.

RZ 22-08 is a request to remove the X20 Combining Zone District from the existing R-1 X20 pre-annexation zoning from this property. The X20 District provides specific development criteria to this and neighboring properties. The X20 provides 12 development related criteria that must be met in order to develop the property (a copy of that criteria is attached to this staff report). Nine of the criteria have since been incorporated into ordinance, practices, or procedures making them un-needed today. There are three criteria that are not practiced today but would affect the project if left intact. These include:

- A requirement that a Development Agreement between the developer and the City be approved as part of any project;
- The project must provide an affordable housing component (to be negotiated as part of the Development Agreement); and
- The minimum lot size is one-acre (vs 5,000 square feet for the R-1 District).

The resulting pre-annexation zoning will be R-1.

The subject property is currently in an unincorporated area of Sutter County. If this proposal is approved by the City, the project will not be triggered until the annexation into the City is also completed by LAFCo. LAFCo has a pending application to consider that item upon approval of this proposal by the City.

2.10 Surrounding Land Uses and Setting

Setting: The site, located in northwest Yuba City, is currently utilized for an orchard. It is located in an area that is generally transitioning from agricultural (orchard) uses to residential subdivisions.

Table 1: Bordering Uses	
North:	Single-family residences.
South:	Estate sized single-family residence.
East:	Tuly Parkway and single-family residences across the parkway.
West:	Estate sized single-family residences and orchard.

2.11 Other Public Agencies Whose Approval May be Required

- Feather River Air Quality Management District, Dust Control Plan, Indirect Source Review.

- Central Valley Regional Water Quality Control Board.

2.12. 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, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

All geographically relevant Native American tribes were timely notified of the Project, and consultation was not requested.

2.13 Environmental Factors Potentially Affected:

The environmental factors checked below would be potentially affected by this project, as indicated by the checklist and subsequent discussion on the following pages.

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

Determination: On the basis of this initial evaluation:

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

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

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

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as

described on the 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.

Doug Libby March 2, 2023

Doug Libby, Deputy Director of Development Services

2.8. Evaluation of Environmental Impacts:

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).

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.

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.

"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 Analysis," as described below, may be cross referenced). A Mitigated Negative Declaration also requires preparation and adoption of a Mitigation Monitoring and Reporting Program (MMRP)

Earlier analysis 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. In this case, a brief discussion should identify the following:

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

Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope 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.

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

Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts. Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

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

3. Environmental Checklist and Impact Evaluation

The following section presents the initial study checklist recommended by the California Environmental Quality Act (CEQA; Appendix G) to determine potential impacts of a project. Explanations of all answers are provided following each question, as necessary.

3.1. Aesthetics

Table 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?			X	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?			X	
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?			X	

3.1.1. Environmental Setting/Affected Environment

Background views are generally considered to be long-range views in excess of 3 to 5 miles from a vantage point. Background views surrounding the project site are limited due to the flat nature of the site and the surrounding urban landscape. Overall, the vast majority of Sutter County is relatively flat, with the Sutter Buttes being the exception. The Sutter Buttes, located several miles northwest of the project site, are visibly prominent throughout Yuba City and Sutter County. The Sutter Buttes comprise the long-range views to the northwest and are visible from the much of the City, except in areas where trees or intervening structures block views of the mountain range.

The City's General Plan, more specifically the Community Design Element "establishes policies to ensure the creation of public and private improvements that will maintain and enhance the image, livability, and aesthetics of Yuba City in the years to come."

The following principles and policies are applicable:

- Maintain the identity of Yuba City as a small-town community, commercial hub, and residential community, surrounded by agricultural land and convey, through land uses and design amenities, Yuba City's character and place in the Sacramento Valley.

- Recognizing the livability and beauty of peer communities with highly designed visual landscapes, commit to a focus on the visual landscape of Yuba City.
- Maintain, develop, and enhance connections between existing and planned neighborhoods.
- Create and build upon a structured open space and parks network, centered on two large urban parks and the Feather River Corridor.
- Strive for lush, landscaped public areas marked by extensive tree plantings.
- Design commercial and industrial centers to be visually appealing, to serve both pedestrians and automobiles, and to integrate into the adjacent urban fabric.

In addition to the City's General Plan, the City provides Design Guidelines. The goal of the City's design guidelines is to ensure the highest quality of building design: designs that are aesthetically pleasing; designs that are compatible with the surroundings in terms of scale, mass, detailing, and building patterns; designs that accommodate the pedestrian, automobile, bicycle, and transit circulation; and designs that consider public safety, public interaction, and historic resources. However, the Design Guidelines do not apply to single-family residences.

3.1.2. Federal Regulatory Setting

Federal regulations relating to aesthetics include: Organic Administration Act (1897), Multiple Use – Sustained Yield Act (1960), Wilderness Act (1964), Federal Lands Policy and Management Act (1976), Wild and Scenic Rivers Act. The proposed Project is not subject to these regulations since there are no federally designated lands or rivers in the vicinity.

3.1.3. State Regulatory Setting

The California State Scenic Highway Program was created by the California Legislature in 1963 to preserve and protect scenic highway corridors from change which would diminish the aesthetic value of lands adjacent to highways. The state laws governing the Scenic Highway Program are found in the Streets and Highways Code, Section 260 et seq. The State Scenic Highway System includes a list of highways that are either eligible for designation as scenic highways or have been so designated. These highways are identified in Section 263 of the Streets and Highways Code.

A highway may be designated scenic depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view. When a city or county nominates an eligible scenic highway for official designation, it must identify and define the scenic corridor of the highway. A scenic corridor is the land generally adjacent to and visible from the highway. A scenic corridor is identified using a motorist's line of vision. A reasonable boundary is selected when the view extends to the distant horizon. The corridor protection program does not preclude development but seeks to encourage quality development that does not degrade the scenic value of the corridor. Jurisdictional boundaries of the nominating agency are also considered. The agency must also adopt ordinances to preserve the scenic quality of the corridor or document such regulations that already exist in various portions of local codes. These ordinances make up the scenic corridor protection program. County roads can also become part of the Scenic Highway System. To receive official designation, the county must follow the same process required for official designation of state scenic highways. There are no designated state scenic highways in the view shed of the Project site.

California Building Code Title 24 Outdoor Lighting Standards: The requirements vary according to which "Lighting Zone" the equipment is in. The Standards contain lighting power allowances for newly installed equipment and specific alterations that are dependent on which Lighting Zone the project is located in. Existing outdoor lighting systems are not required to meet these lighting power allowances. However, alterations that increase the connected load, or replace more than 50 percent of the existing luminaires, for each outdoor lighting application that is regulated by the Standards, must meet the lighting power allowances for newly installed equipment.

An important part of the Standards is to base the lighting power that is allowed on how bright the surrounding conditions are. The eyes adapt to darker surrounding conditions, and less light is needed to properly see; when the surrounding conditions get brighter, more light is needed to see. The least power is allowed in Lighting Zone 1 and increasingly more power is allowed in Lighting Zones 2, 3, and 4. By default, government designated parks, recreation areas and wildlife preserves are Lighting Zone 1; rural areas are Lighting Zone 2; and urban areas are Lighting Zone 3. Lighting Zone 4 is a special use district that may be adopted by a local government. The proposed Project is located in an urban area; thereby, it is in Lighting Zone 3.

3.1.4. Impact Assessment/Environmental Consequences:

a) Have a substantial adverse effect on a scenic vista?

There are no officially designated scenic vistas in Yuba City; the Project would therefore have no adverse effect on an official scenic vista. As the Project is within an existing residential area the subdivision will not interfere with any distant scenic views. The subdivision itself, visible from both Tuly Parkway and Elmer Road will have those frontages lined with a six foot high decorative masonry wall as well at least a 10-foot wide landscaped strip, with trees planted 30 feet on-center. As such, views of the development from those streets will primarily be of landscaping and trees. As such, the scenic impact is considered to be a less than significant impact.

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

The site is unremarkable in that it is flat with no topographic features, rock outcroppings, large heritage type trees. Additionally, there are no state scenic highways in Yuba City or Sutter County. As a result, no impacts are anticipated

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

The subdivision is within the Yuba City urbanized area. The City does not have design standards for single-family residences. Regarding the aesthetics associated with the design of the subdivision the City does have design standards for decorative masonry walls, landscaping, and trees along subdivision perimeter streets. As those standards must be met, the impacts on resulting visual character of the subdivision from nearby streets will be less than significant.

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

The City requires new streets to have streetlights, so there will be new street lighting within and on the perimeter of the Project. However, street lighting does not extend much beyond the immediate vicinity and also street lighting is not typically considered a significant impact unless there are nearby special circumstances, which there is not. The street lighting will also be consistent with the street lighting of neighboring subdivisions. Further, the lighting from the new homes typically does not extend much beyond the property lines. Therefore, since there are no unique circumstances, the impacts from new street and home lighting should be less than significant.

3.2. Agricultural and Forestry Resources

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model prepared (1997) by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland.

Table 3-2: Agricultural 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?			X	
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
c) Conflict with existing zoning for, or cause rezoning of, forestland (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?			X	

3.2.1. Environmental Setting/Affected Environment

Sutter County is located within the northern portion of California's Central Valley in the area known as the Sacramento Valley. It contains some of the richest soils in the State. These soils, combined with abundant surface and subsurface water supplies and a long, warm growing season, make Sutter County's

agricultural resources very productive. Sutter County is one of California's leading agricultural counties, with 83 percent of the County's total land acreage currently being used for agricultural purposes. However, while Sutter County provides rich agricultural opportunities, the subject site is within an urban area and has been designated for urban uses for many years.

3.2.2. Federal Regulatory Setting

Farmland Protection Policy Act: The Natural Resources Conservation Service (NRCS), a federal agency within the U.S. Department of Agriculture (USDA), is the agency primarily responsible for implementation of the Farmland Protection Policy Act (FPPA). The FPPA was enacted after the 1981 Congressional report, Compact Cities: Energy-Saving Strategies for the Eighties indicated that a great deal of urban sprawl was the result of programs funded by the federal government. The purpose of the FPPA is to minimize federal programs' contribution to the conversion of farmland to non-agricultural uses by ensuring that federal programs are administered in a manner that is compatible with state, local, and private programs designed to protect farmland. Federal agencies are required to develop and review their policies and procures to implement the FPPA every two years (USDA-NRCS, 2011).

2014 Farm Bill: The Agricultural Act of 2014 (the Act), also known as the 2014 Farm Bill, was signed by President Obama on Feb. 7, 2014. The Act repeals certain programs, continues some programs with modifications, and authorizes several new programs administered by the Farm Service Agency (FSA). Most of these programs are authorized and funded through 2018.

The Farm Bill builds on historic economic gains in rural America over the past five years, while achieving meaningful reform and billions of dollars in savings for the taxpayer. It allows USDA to continue record accomplishments on behalf of the American people, while providing new opportunity and creating jobs across rural America. Additionally, it enables the USDA to further expand markets for agricultural products at home and abroad, strengthen conservation efforts, create new opportunities for local and regional food systems and grow the bio-based economy. It provides a dependable safety net for America's farmers, ranchers and growers and maintains important agricultural research, and ensure access to safe and nutritious food for all Americans.

Forestry Resources: Federal regulations regarding forestry resources are not relevant to the proposed Project because no forestry resources exist on the project site or in the vicinity.

3.2.3. State Regulatory Setting

California Environmental Quality Act (CEQA) Definition of Agricultural Lands: Public Resources Code Section 21060.1 defines "agricultural land" for the purposes of assessing environmental impacts using the Farmland Mapping & Monitoring Program (FMMP). The FMMP was established in 1982 to assess the location, quality, and quantity of agricultural lands and the conversion of these lands. The FMMP provides analysis of agricultural land use and land use changes throughout California.

California Department of Conservation, Division of Land Resource Protection: The California Department of Conservation (DOC) applies the NRCS soil classifications to identify agricultural lands, and these agricultural designations are used in planning for the present and future of California's agricultural land resources. Pursuant to the DOC's FMMP, these designated agricultural lands are included in the Important Farmland Maps (IFM) used in planning for the present and future of California's agricultural land resources. The FMMP was established in 1982 to assess the location, quality, and quantity of agricultural lands and the conversion of these lands. The FMMP provides analysis of agricultural land use and land use

changes throughout California. The DOC has a minimum mapping unit of 10 acres, with parcels that are smaller than 10 acres being absorbed into the surrounding classifications.

The list below provides a comprehensive description of all the categories mapped by the DOC. Collectively, lands classified as Prime Farmland, Farmland of Statewide Importance, and Unique Farmland is referred to as Farmland.

- *Prime Farmland.* Farmland that has the best combination of physical and chemical features able to sustain long-term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.
- *Farmland of Statewide Importance.* Farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.
- *Unique Farmland.* Farmland of lesser quality soils used for the production of the State's leading agricultural crops. This land is usually irrigated but may include non-irrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date.
- *Farmland of Local Importance.* Land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee.
- *Grazing Land.* Land on which the existing vegetation is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen's Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities. The minimum mapping unit for Grazing Land is 40 acres.
- *Urban and Built-up Land.* Land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. This land is used for residential, industrial, commercial, institutional, public administrative purposes, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.
- *Other Land.* Land not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry, or aquaculture facilities; strip mines and borrow pits; and water bodies smaller than 40 acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.

California Land Conservation Act (Williamson Act): The California Land Conservation Act of 1965, commonly referred to as the Williamson Act, is promulgated in California Government Code Section 51200-51297.4, and therefore is applicable only to specific land parcels within the State of California. The Williamson Act enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space uses in return for reduced property tax assessments. Private land within locally designated agricultural preserve areas is eligible for enrollment under Williamson Act contracts. However, an agricultural preserve must consist of no less than 100 acres. In order to meet this requirement two or more parcels may be combined if they are contiguous, or if they are in common ownership.

The Williamson Act program is administered by the Department of Conservation (DOC), in conjunction with local governments, which administer the individual contract arrangements with landowners. The landowner commits the parcel to a 10-year period, or a 20-year period for property restricted by a Farmland Security Zone Contract, wherein no conversion out of agricultural use is permitted. Each year the contract automatically renews unless a notice of non-renewal or cancellation is filed. In return, the land is taxed at a rate based on the actual use of the land for agricultural purposes, as opposed to its unrestricted market value. An application for immediate cancellation can also be requested by the landowner, provided that the proposed immediate cancellation application is consistent with the cancellation criteria stated in the California Land Conservation Act and those adopted by the affected county or city. Non-renewal or immediate cancellation does not change the zoning of the property. Participation in the Williamson Act program is dependent on county adoption and implementation of the program and is voluntary for landowners.

Farmland Security Zone Act: The Farmland Security Zone Act is similar to the Williamson Act and was passed by the California State Legislature in 1999 to ensure that long-term farmland preservation is part of public policy. Farmland Security Zone Act contracts are sometimes referred to as "Super Williamson Act Contracts." Under the provisions of this act, a landowner already under a Williamson Act contract can apply for Farmland Security Zone status by entering into a contract with the county. Farmland Security Zone classification automatically renews each year for an additional 20 years. In return for a further 35% reduction in the taxable value of land and growing improvements (in addition to Williamson Act tax benefits), the owner of the property promises not to develop the property into nonagricultural uses.

Forestry Resources: State regulations regarding forestry resources are not relevant to the proposed Project because no forestry resources exist on the project site or in the vicinity.

3.2.4. Impact Assessment/Environmental Consequences:

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?

The proposed Project site consists of approximately 8.19 acres of farmland quality soils, and currently has an orchard on it. The 2018 Department of Conservation Important Farmland Map for Sutter County identifies the Project site as "Unique Farmland." But this property, as well as being small for an agricultural use, is also within the Yuba City urban area and has other urban uses around it. As such it has for many years been designated in the Yuba City General Plan for urban uses, for which overriding considerations for agricultural land loses within the City's sphere of influence were made in the General Plan EIR. This is part of the larger scope agreed to by the City and Sutter County to allow urban development within the City's sphere of influence, but that the great majority of the County's agricultural lands would be protected. This property is already designated for single-family residential development by Sutter County today with the ability to develop with the same density as specified by the Yuba City General Plan. As this Project has been designated for urban uses for many years thus within the General Plan's area of anticipated loss of agricultural land and is already designated for suburban development by Sutter County, the impact on agriculture land loss is considered to be less than significant.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

The property, as well as the neighboring properties, are currently zoned for non-agricultural uses by Sutter County and they are not under Williamson Act contracts. Therefore, this Project will not conflict with any agricultural zoned properties. See discussion above under item 3.2.4.a.

c) Conflict with existing zoning for, or cause rezoning of, forestland (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4256), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

The proposed Project is located in the Sacramento Valley in a relatively flat area that was utilized for agriculture but designated years ago for urban use. There are no forests or timberland located on the Project site or within the vicinity of the Project. There will be no impact on existing zoning of forestland and the proposed Project will not cause the rezoning of any forestlands.

d) Result in the loss of forestland or conversion of forest land to non-forest use?

There is no forested land on the Project site or within the vicinity of the Project; therefore, there will be no impact on forest land.

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?

As the area has been designated for urban uses for many years by both Sutter County and Yuba City, the site is within an area already served by City services and developed with residential uses. Further, while this property and a nearby property remain as an orchard, other neighboring properties have been developed with non-agricultural uses. No properties within the area are under the Williamson Act. There are also no forestlands on the Project site or in the vicinity. Therefore, the impacts on agricultural lands and timberlands from this proposal will be less than significant.

3.3. Air Quality

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.

Table 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 plan?			X	
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?			X	
c) Expose sensitive receptors to substantial pollutant concentrations?			X	

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

3.3.1. Environmental Setting/Affected Environment

Yuba City is located within the Sacramento Valley Air Basin (SVAB), which consists of the northern half of the Central Valley and approximates the drainage basin for the Sacramento River and its tributaries. The SVAB is bounded on the west by the Coast Range, on the north by the Cascade Range, on the east by the Sierra Nevada, and on the south by the San Joaquin Valley Air Basin. The intervening terrain is flat, and approximately 70 feet above sea level. The SVAB consists of the counties of Butte, Colusa, Glenn, Sacramento, Shasta, Sutter, Tehama, Yolo, and Yuba and portions of Placer and Solano Counties.

Hot dry summers and mild rainy winters characterize the Mediterranean climate of the Sacramento Valley. The climate of the SVAB is dominated by the strength and position of the semi-permanent high-pressure cell over the Pacific Ocean north of Hawaii. In summer, when the high-pressure cell is strongest and farthest north, temperatures are high and humidity is low, although the incursion of the sea breeze into the Central Valley helps moderate the summer heat. In winter, when the high-pressure cell is weakest and farthest south, conditions are characterized by occasional rainstorms interspersed with stagnant and sometimes foggy weather. Throughout the year, daily temperatures may range from summer highs often exceeding 100 degrees Fahrenheit and winter lows occasionally below freezing. Average annual rainfall is about 20 inches with snowfall being very rare. The prevailing winds are moderate in strength and vary from moist clean breezes from the south to dry land flows from the north.

In addition to prevailing wind patterns that control the rate of dispersion of local pollutant emissions, the region experiences two types of inversions that affect the vertical depth of the atmosphere through which pollutants can be mixed. In the warmer months in the SVAB (May through October), sinking air forms a "lid" over the region. These subsidence inversions contribute to summer photochemical smog problems by confining pollution to a shallow layer near the ground. These warmer months are characterized by stagnant morning air or light winds with the delta sea breeze arriving in the afternoon out of the southwest. Usually, the evening breeze transports the airborne pollutants to the north and out of the SVAB. During about half of the day from July to September, however, a phenomenon called the “Schultz Eddy” prevents this from occurring. Instead of allowing the prevailing wind patterns to move north carrying the pollutants out of the valley, the Schultz Eddy causes the wind pattern to circle back south. This phenomenon exacerbates the pollution levels in the area and increases the likelihood of violating federal or State standards. The Schultz Eddy normally dissipates around noon when the Delta sea breeze begins. In the second type of inversion, the mountains surrounding the SVAB create a barrier to airflow, which can trap air pollutants in the valley. The highest frequency of air stagnation occurs in the autumn and early winter when large high-pressure cells lie over the valley. The air near the ground cools by radiative processes, while the air aloft remains warm. The lack of surface wind during these periods and the reduced vertical flow caused by less surface heating reduces the influx of outside air and allows air pollutants to become concentrated in a stable volume of air. These inversions typically occur during winter nights and can cause localized air pollution "hot spots" near emission sources because of poor dispersion. The surface concentrations of pollutants are highest when these conditions are combined with smoke from agricultural burning or when temperature inversions trap cool air and pollutants near the ground. Although these subsidence and radiative inversions are present throughout much of the year, they are much less dominant during spring and fall, and the air quality during these seasons is generally good.”

Local Climate: The climate of Sutter County is subject to hot dry summers and mild rainy winters, which characterize the Mediterranean climate of the SVAB. Summer temperatures average approximately 90 degrees Fahrenheit during the day and 50 degrees Fahrenheit at night. Winter daytime temperatures average in the low 50s and nighttime temperatures are mainly in the upper 30s. During summer, prevailing winds are from the south. This is primarily because of the north- south orientation of the valley and the location of the Carquinez Straits, a sea-level gap in the coast range that is southwest of Sutter County.

Criteria Air Pollutants: Criteria air pollutants are a group of pollutants for which federal or State regulatory agencies have adopted ambient air quality standards. Criteria air pollutants are classified in each air basin, county, or in some cases, within a specific urbanized area. The classification is determined by comparing actual monitoring data with State and federal standards. If a pollutant concentration is lower than the standard, the area is classified as "attainment" for that pollutant. If an area exceeds the standard, the area is classified as "non-attainment" for that pollutant. If there is not enough data available to determine whether the standard is exceeded in an area, the area is designated "unclassified."

Ambient Air Quality Standards: Both the federal and State government have established ambient air quality standards for outdoor concentrations of various pollutants in order to protect public health. The federal and State ambient air quality standards have been set at levels whose concentrations could be generally harmful to human health and welfare and to protect the most sensitive persons from experiencing health impacts with a margin of safety. Applicable ambient air quality standards are identified later in this section. The air pollutants for which federal and State standards have been promulgated and which are most relevant to air quality planning and regulation in the air basins include ozone, carbon monoxide, nitrogen oxides, suspended particulate matter, sulfur dioxide, and lead. In addition, toxic air contaminants are of concern in Sutter County. Each of these pollutants is briefly described below.

Ozone (O3): is a gas that is formed when reactive organic gases (ROGs) and nitrogen oxides (NOX), both byproducts of internal combustion engine exhaust and other processes undergo slow photochemical reactions in the presence of sunlight. Ozone concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable to the formation of this pollutant.

Carbon Monoxide (CO): is a colorless, odorless gas produced by the incomplete combustion of fuels. CO concentrations tend to be the highest during the winter morning, with little to no wind, when surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines, unlike ozone, motor vehicles operating at slow speeds are the primary source of CO in the SVAB. The highest ambient CO concentrations are generally found near congested transportation corridors and intersections.

Nitrogen Oxides (NOX): is the generic term for a group of highly reactive gases, all of which contain nitrogen and oxygen in varying amounts. Many of the nitrogen oxides are colorless and odorless. However, one common pollutant, nitrogen dioxide (NO2) along with particles in the air can often be seen as a reddish-brown layer over many urban areas. Nitrogen oxides form when fuel is burned at high temperatures, as in a combustion process. The primary manmade sources of NOX are motor vehicles, electric utilities, and other industrial, commercial, and residential sources that burn fuels.

Nitrogen oxides can also be formed naturally.

Respirable Particulate Matter (PM10) and Fine Particulate Matter (PM2.5): consist of extremely small, suspended particles or droplets 10 microns and 2.5 microns or smaller in diameter. Some sources of suspended particulate matter, like pollen and windstorms, occur naturally. However, in populated areas,

most fine suspended particulate matter is caused by road dust, diesel soot, and combustion products, abrasion of tires and brakes, and construction activities.

Sulfur Dioxide (SO2): is a colorless, extremely irritating gas or liquid. It enters the atmosphere as a pollutant mainly as a result of the burning of high sulfur-content fuel oils and coal, and from chemical processes occurring at chemical plants and refineries.

Lead: occurs in the atmosphere as particulate matter. The combustion of leaded gasoline is the primary source of airborne lead. Since the use of leaded gasoline is no longer permitted for on-road motor vehicles, lead is not a pollutant of concern in the SVAB.

Toxic Air Contaminants (TACs): are known to be highly hazardous to health, even in small quantities. TACs are airborne substances capable of causing short-term (acute) and/or long-term (chronic or carcinogenic) adverse human health effects (i.e., injury or illness). TACs can be emitted from a variety of common sources, including gasoline stations, automobiles, dry cleaners, industrial operations, and painting operations.

TAC impacts are assessed using a maximum individual cancer risk (MICR) that estimates the probability of a potential maximally exposed individual (MEI) contracting cancer as a result of sustained exposure to toxic air contaminants over a constant period of 24 hours per day for 70 years for residential receptor locations. The CARB and local air districts have determined that any stationary source posing an incremental cancer risk to the general population (above background risk levels) equal to or greater than 10 people out of 1 million to be excessive. For stationary sources, if the incremental risk of exposure to project-related TAC emissions meets or exceeds the threshold of 10 excess cancer cases per 1 million people, the CARB and local air district require the installation of best available control technology (BACT) or maximum available control technology (MACT) to reduce the risk threshold. To assess risk from ambient air concentrations, the CARB has conducted studies to determine the total cancer inhalation risk to individuals due to outdoor toxic pollutant levels. The CARB has conducted studies to determine the total cancer inhalation risk to individuals due to outdoor toxic pollutant levels. According to the map prepared by the CARB showing the estimated inhalation cancer risk for TACs in the State of California, Sutter County has an existing estimated risk that is between 50 and 500 cancer cases per 1 million people. A significant portion of Sutter County is within the 100 to 250 cancer cases per 1 million people range. There is a higher risk around Yuba City where the cancer risk is as high as 500 cases per 1 million people. There are only very small portions of the County where the cancer risk is between 50 and 100 cases. This represents the lifetime risk that between 50 and 500 people in 1 million may contract cancer from inhalation of toxic compounds at current ambient concentrations under an MEI scenario.

3.3.2. Federal Regulatory Setting

Clean Air Act: The federal Clean Air Act of 1970 (as amended in 1990) required the U.S. Environmental Protection Agency (EPA) to develop standards for pollutants considered harmful to public health or the environment. Two types of National Ambient Air Quality Standards (NAAQS) were established. Primary standards protect public health, while secondary standards protect public welfare, by including protection against decreased visibility, and damage to animals, crops, landscaping and vegetation, or buildings. NAAQS have been established for six “criteria” pollutants: carbon monoxide (CO), nitrogen dioxide (NO2), sulfur dioxide (SO2), ozone (O3), particulate matter (PM10 and PM2.5), and lead (Pb).

3.3.3. State Regulatory Setting

California Air Resources Board: The California Air Resources Board (CARB) is the state agency responsible for implementing the federal and state Clean Air Acts. CARB has established California Ambient Air Quality Standards (CAAQS), which include all criteria pollutants established by the NAAQS, but with additional regulations for Visibility Reducing Particles, sulfates, hydrogen sulfide (H2S), and vinyl chloride. The proposed Project is located within the Sacramento Valley Air Basin, which includes Butte, Colusa, Glenn, Tehama, Shasta, Yolo, Sacramento, Yuba Sutter and portions of Placer, El Dorado and Solano counties. Air basins are classified as attainment, nonattainment, or unclassified. The FRAQMD is comprised Sutter and Yuba Counties. Attainment is achieved when monitored ambient air quality data is in compliance with the standards for a specified pollutant. Non-compliance with an established standard will result in a nonattainment designation and an unclassified designation indicates insufficient data is available to determine compliance for that pollutant.

California Clean Air Act: The CCAA requires that all air districts in the state endeavor to achieve and maintain CAAQS for Ozone, CO, SO2, and NO2 by the earliest practical date. The CCAA specifies that districts focus particular attention on reducing the emissions from transportation and area-wide emission sources, and the act provides districts with authority to regulate indirect sources. Each district plan is required to either (1) achieve a five percent annual reduction, averaged over consecutive 3-year periods, in district-wide emissions of each non-attainment pollutant or its precursors, or (2) to provide for implementation of all feasible measures to reduce emissions. Any planning effort for air quality attainment would thus need to consider both state and federal planning requirements.

CARB Portable Equipment Registration Program: This program was designed to allow owners and operators of portable engines and other common construction or farming equipment to register their equipment under a statewide program so they may operate it statewide without the need to obtain a permit from the local air district.

U.S. EPA/CARB Off-Road Mobile Sources Emission Reduction Program: The California Clean Air Act (CCAA) requires CARB to achieve a maximum degree of emissions reductions from off-road mobile sources to attain State Ambient Air Quality Standards (SAAQS); off- road mobile sources include most construction equipment. Tier 1 standards for large compression-ignition engines used in off-road mobile sources went into effect in California in 1996. These standards, along with ongoing rulemaking, address emissions of nitrogen oxides (NOX) and toxic particulate matter from diesel engines. CARB is currently developing a control measure to reduce diesel PM and NOX emissions from existing off-road diesel equipment throughout the state.

California Global Warming Solutions Act: Established in 2006, Assembly Bill 32 (AB 32) requires that California's GHG emissions be reduced to 1990 levels by the year 2020. This will be implemented through a statewide cap on GHG emissions, which will be phased in beginning in 2012. AB 32 requires CARB to develop regulations and a mandatory reporting system to monitor global warming emissions level.

3.3.4. Regional Regulatory Setting

Feather River Air Quality Management District (FRAQMD): The FRAQMD is a bi-county district formed in 1991 to administer local, state, and federal air quality management programs for Yuba and Sutter Counties within the Sacramento Valley Air Basin. The goal of the FRAQMD is to improve air quality in the region through monitoring, evaluation, education and implementing control measures to reduce emissions from stationary sources, permitting and inspection of pollution sources, enforcement of air quality regulations and by supporting and implementing measures to reduce emissions from motor vehicles.

The FRAQMD adopted its Indirect Source Review guidelines document for assessment and mitigation of air quality impacts under CEQA in 1998. The guide contains criteria and thresholds for determining whether a project may have a significant adverse impact on air quality, and methods available to mitigate impacts on air quality. FRAQMD updated its Indirect Source Review Guidelines to reflect the most recent methods recommended to evaluate air quality impacts and mitigation measures for land use development projects in June 2010. This analysis uses guidance and thresholds of significance from the 2010 FRAQMD Indirect Source Review Guidelines to evaluate the proposed project's air quality impacts.

According to FRAQMD's 2010 Indirect Source Review Guidelines, a project would be considered to have a significant impact on air quality if it would:

- Generate daily construction or operational emissions that would exceed 25 pounds per day for reactive organic gases (ROG), 25 pounds per day for oxides of nitrogen (NOX), or 80 pounds per day for PM10; or generate annual construction or operational emissions of ROG or NOX that exceed 4.5 tons per year.

Northern Sacramento Valley Planning Area 2015 Air Quality Attainment Plan: As specified in the California Clean Air Act of 1988 (CCAA), Chapters 1568-1588, it is the responsibility of each air district in California to attain and maintain the state's ambient air quality standards. The CCAA requires that an Attainment Plan be developed by all nonattainment districts for O3, CO, SOx, and NOx that are either receptors or contributors of transported air pollutants. The purpose of the Northern Sacramento Valley Planning Area 2015 Triennial Air Quality Attainment Plan (TAQAP) is to comply with the requirements of the CCAA as implemented through the California Health and Safety Code. Districts in the NSVPA are required to update the Plan every three years. The TAQAP is formatted to reflect the 1990 baseline emissions year with a planning horizon of 2020. The Health and Safety Code, sections 40910 and 40913, require the Districts to achieve state standards by the earliest practicable date to protect the public health, particularly that of children, the elderly, and people with respiratory illness.

Health and Safety Code Section 41503(b): Requires that control measures for the same emission sources are uniform throughout the planning area to the extent that is feasible. To meet this requirement, the NSVPA has coordinated the development of an Attainment Plan and has set up a specific rule adoption protocol. The protocol was established by the Technical Advisory Committee of the Sacramento Valley Basin-wide Air Pollution Control Council and the Sacramento Valley Air Quality Engineering and Enforcement Professionals, which allow the Districts in the Basin to act and work as a united group with the CARB as well as with industry in the rule adoption process. Section 40912 of the Health and Safety Code states that each District responsible for, or affected by, air pollutant transport shall provide for attainment and maintenance of the state and federal standards in both upwind and downwind Districts. This section also states that each downwind District's Plan shall contain sufficient measures to reduce emissions originating in each District to below levels which violate state ambient air quality standards, assuming the absence of transport contribution

Construction Generated Emissions of Criteria Air Pollutants: The District recommends the following best management practices:

- Implement the Fugitive Dust Control Plan.
- Construction equipment exhaust emissions shall not exceed FRAQMD Regulation III, Rule 3.0,
- Visible Emissions limitations (40 percent opacity or Ringelmann 2.0).
- The contractor shall be responsible to ensure that all construction equipment is properly tuned and maintained prior to and for the duration of onsite operation.

- Limiting idling time to 5 minutes – saves fuel and reduces emissions.
- Utilize existing power sources or clean fuel generators rather than temporary power generators.
- Develop a traffic plan to minimize traffic flow interference from construction activities. The plan may include advance public notice of routing, use of public transportation, and satellite parking areas with a shuttle service. Schedule operations affecting traffic for off-peak hours. Minimize obstruction of through-traffic lanes. Provide a flag person to guide traffic properly and ensure safety at construction sites.
- Portable engines and portable engine-driven equipment units used at the project work site, with the exception of on-road and off-road motor vehicles, may require California Air Resources Board (ARB) Portable Equipment Registration with the State or a local district permit. The owner/operator shall be responsible for arranging appropriate consultations with the ARB or the District to determine registration and permitting requirements prior to equipment operation at the site.

3.3.5. Impact Assessment/Environmental Consequences:

a) Conflict with or obstruct implementation of the applicable air quality plan?

Grading the site and creation of building pads will briefly create equipment exhaust and fugitive dust. Ongoing air quality impacts will be from exhaust generated by vehicle traffic from the new residences. Standards set by FRQAMD, CARB, and Federal agencies apply to this Project. An Indirect Source Review (ISR) application will be filed with the Air District by the developer to address emissions from construction. FRAQMD's 2010 Screening Criteria for Air Quality Operational Impacts indicates the threshold for significant daily emissions for single-family residential projects is 130 dwelling units. The proposed project will allow for the development of 34 new residential lots. The proposed project will not exceed FRAQMD's established threshold for potential significant impacts. As a result, a less than significant impact is anticipated.

Prior to the initiation of construction, a Fugitive Dust Control Plan will be submitted to FRAQMD as a part of standard measures required by the District.

Since the developer must prepare an air quality analysis and incorporate all of the resulting conditions into the Project and that a fugitive dust control plan be submitted prior to beginning work on the subdivision, any potential significant environmental impacts should be reduced to less than significant.

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?

The Project would result in limited generation of criteria pollutants during Project construction and from vehicle traffic generated by the new residents following the construction of the single-family residences. However, the proposed Project is not large and FRAQMD did not comment that the standards would be exceeded by this Project to the extent of being cumulatively significant. Therefore, the cumulative impacts are considered to be less than significant.

c) Expose sensitive receptors to substantial pollutant concentrations?

The FRAQMD defines sensitive receptors as: facilities that house or attract children, the elderly, and people with illnesses, or others who are especially sensitive to the effects of air pollutants. FRAQMD

states that if a project is located within 1,000 feet of a sensitive receptor location, the impact of diesel particulate matter shall be evaluated. According to the FRAQMD's Indirect Source Review Guidelines, "Construction activity can result in emissions of particulate matter from the diesel exhaust (diesel PM) of construction equipment.

Butte Vista School is a sensitive receptor within 1,000 feet of the Project. However, the Best Management Practices (BMPs) that will be used to reduce the impact from off-road diesel equipment include:

- Install diesel particulate filters or implement other ARB-verifies diesel emission control strategies on all construction equipment to further reduce diesel PM emissions beyond the 45% reduction required by the Districts Best Available Mitigation Measure for Construction Phase;
- Use equipment during times when receptors are not present (e.g., when school is not in session or during non-school hours; or when office buildings are unoccupied);
- Establish staging areas for the construction equipment that are as distant as possible from off-site receptors;
- Establish an electricity supply to the construction site and use electric powered equipment instead of diesel-powered equipment or generators, where feasible;
- Use haul trucks with on-road engines instead of off-road engines even for on-site hauling;
- Equip nearby buildings with High Efficiency Particle Arresting (HEPA) filter systems at all mechanical air intake points to the building to reduce the levels of diesel PM that enter the buildings; and/or,
- Temporarily relocate receptors during construction.

With the inclusion of these standards into the construction of the subdivision, the impact on the school will be less than significant.

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

Construction of the single-family residences and the ongoing living conditions typically do not generate objectionable odors. As such, the impact of the Project creating local offensive odors would be less than significant.

3.4. Biological Resources

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

3.4.1. Environmental Setting/Affected Environment

The 8.19-acre level property is within the Yuba City urbanized area with existing single-family residences on all around it. The site has been used and continues to be used as an orchard, with no native habitat remaining. There are no known on-site or nearby riparian or critical habitat areas.

3.4.2. Federal & State Regulatory Setting

Threatened and Endangered Species: State and federal "endangered species" legislation has provided California Department of Fish & Wildlife (CDFW) and United States Fish and Wildlife Service (USFWS) with a mechanism for conserving and protecting plant and animal species of limited distribution and/or low or declining populations. Species listed as threatened or endangered under provisions of the state and federal endangered species acts, candidate species for such listing, state species of special concern, and some plants listed as endangered by the California Native Plant Society are collectively referred to as

"species of special status." Permits may be required from both the CDFW and USFWS if activities associated with a proposed project will result in the "take" of a listed species. "Take" is defined by the state of California as "to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill" (California Fish and Game Code, Section 86). "Take" is more broadly defined by the federal Endangered Species Act to include "harm" (16 USC, Section 1532(19), 50 CFR, Section 17.3). Furthermore, the CDFW and the USFWS are responding agencies under CEQA. Both agencies review CEQA documents in order to determine the adequacy of their treatment of endangered species issues and to make project-specific recommendations for their conservation.

Migratory Birds: State and federal laws also protect most birds. The Federal Migratory Bird Treaty Act (16U.S.C., scc. 703, Supp. I, 1989) prohibits killing, possessing, or trading in migratory birds, except in accordance with regulations prescribed by the Secretary of the Interior. This act encompasses whole birds, parts of birds, and bird nests and eggs.

Birds of Prey: Birds of prey are also protected in California under provisions of the California Fish and Game Code, Section 3503.5, which states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "taking" by the CDFW.

Wetlands and Other Jurisdictional Waters: Natural drainage channels and adjacent wetlands may be considered "Waters of the United States" subject to the jurisdiction of the USACE. The extent of jurisdiction has been defined in the Code of Federal Regulations but has also been subject to interpretation of the federal courts.

Waters of the U.S. generally include:

- All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters, which are subject to the ebb and flow of the tide.
- All interstate waters including interstate wetlands.
- All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation, or destruction of which could affect interstate or foreign commerce.
- All impoundments of waters otherwise defined as waters of the United States under the definition.
- Tributaries of waters identified in the bulleted items above.

As determined by the United States Supreme Court in its 2001 Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers (SWANCC) decision, channels and wetlands isolated from other jurisdictional waters cannot be considered jurisdictional on the basis of their use, hypothetical or observed, by migratory birds. Similarly, in its 2006 consolidated Carabell/Rapanos decision, the U.S. Supreme Court ruled that a significant nexus between a wetland and other navigable waters must exist for the wetland itself to be considered a navigable, and therefore, jurisdictional water.

The USACE regulates the filling or grading of Waters of the U.S. under the authority of Section 404 of the Clean Water Act. The extent of jurisdiction within drainage channels is defined by "ordinary high-water marks" on opposing channel banks. All activities that involve the discharge of dredge or fill material into

Waters of the U.S. are subject to the permit requirements of the USACE. Such permits are typically issued on the condition that the applicant agrees to provide mitigation that result in no net loss of wetland functions or values. No permit can be issued until the Regional Water Quality Control Board (RWQCB) issues a Section 401 Water Quality Certification (or waiver of such certification) verifying that the proposed activity will meet state water quality standards.

CEQA Guidelines Section 15380: Although threatened and endangered species are protected by specific federal and state statutes, CEQA Guidelines section 15380(d) provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if the species can be shown to meet certain specific criteria that define "endangered" and "rare" as specified in CEQA Guidelines section 15380(b).

3.4.3. Local Regulatory Setting

The General Plan provides the following policies for the protection of biological resources within the project area:

8.4-G-1 Protect special status species, in accordance with State regulatory requirements.

8.4-G-2 Protect and enhance the natural habitat features of the Feather River and new open space corridors within and around the urban growth area.

8.4-G-3 Preserve and enhance heritage oaks in the Planning Area.

8.4-G-4 Where appropriate, incorporate natural wildlife habitat features into public landscapes, parks, and other public facilities

8.4-I-1 Require protection of sensitive habitat area and special status species in new development site designs in the following order: 1) avoidance; 2) onsite mitigation; 3) offsite mitigation. Require assessments of biological resources prior to approval of any development within 300 feet of any creeks, sensitive habitat areas, or areas of potential sensitive status species.

8.4-I-2 Require preservation of oak trees and other native trees that are of a significant size, by requiring site designs to incorporate these trees to the maximum extent feasible.

8.4-I-3 Require to the extent feasible, use of drought tolerant plants in landscaping for new development, including private and public projects.

3.4.4. Impact Assessment/Environmental Consequences:

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, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

There has been no special status species identified on the site or within the vicinity. According to the Yuba City General Plan EIR, the only designated special status vegetation species within Yuba City and its Sphere of Influence is the Golden Sunburst, a flowering plant that occurs primarily in the non-native grasslands

and is threatened mostly by the conversion of habitat to urban uses. The habitat area for this species occurs at the extreme eastern boundary of the Planning Area at the confluence of the Feather and Yuba Rivers. As this property does not fall within this area, no adverse impacts to special status species will occur.

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?

No wetlands or federal jurisdictional waters of the U.S. are present within the proposed Project area or general vicinity. There would be no impact on any wetland areas or waterways.

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?

The proposed Project would not disturb any waterways, as the nearest waterway is the Feather River, over a mile to the east. Therefore, migratory fish would not be affected. Nor are there any significant native trees proposed to be removed that could be potential nesting habitat for raptors and migratory birds that may choose to nest in the vicinity of the Project. As such there would be no significant impacts on fish or wildlife habitat.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The site has been previously disturbed over many years for agricultural use, and no native trees or other biological resources that would be protected by local policies or ordinances remain on the Project site. Therefore, there would be no significant impacts on biological resources caused by this Project.

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

There are no adopted Habitat Conservation Plans, Natural Community Conservation Plans, or any other approved local, regional, or state habitat conservation plans in the vicinity of this Project.

3.5. Cultural Resources

Table 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 pursuant to §15064.5.			X	
b) Cause a substantial adverse change in the significance of an archeological resource pursuant to § 15064.5.		X		
c) Disturb any human remains, including those interred outside of formal cemeteries?		X		

3.5.1. Federal Regulatory Setting

National Historic Preservation Act of 1966 (as amended), Section 106: The significance of cultural resources is evaluated under the criteria for inclusion in the National Register of Historic Places (NRHP), authorized under the National Historic Preservation Act of 1966, as amended. The criteria defined in 36 CFR 60.4 are as follows:

The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of state and local importance that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

- That are associated with events that have made a significant contribution to the broad patterns of our history; or
- That are associated with the lives of persons significant in our past; or
- That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- That have yielded, or may be likely to yield, information important to prehistory or history.

Sites listed or eligible for listing on the NRHP are considered to be historic properties. Sites younger than 50 years, unless of exceptional importance, are not eligible for listing in the NRHP.

3.5.2. State Regulatory Setting

CEQA requires consideration of project impacts on archaeological or historical sites deemed to be "historical resources." Under CEQA, a substantial adverse change in the significant qualities of a historical resource is considered a significant effect on the environment. For the purposes of CEQA, a "historical resource" is a resource listed in, or determined to be eligible for listing in, the California Register of Historical Resources (Title 14 CCR §15064.5[a][1]-[3]). Historical resources may include, but are not limited to, "any object, building, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California" (PRC §5020.1[j]).

The eligibility criteria for the California Register are the definitive criteria for assessing the significance of historical resources for the purposes of CEQA (Office of Historic Preservation). Generally, a resource is considered "historically significant" if it meets one or more of the following criteria for listing on the California Register:

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
- Is associated with the lives of persons important in our past.
- 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.
- Has yielded, or may be likely to yield, information important in prehistory or history. (PRC §5024.1[c])

In addition, the resource must retain integrity. Integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association (CCR Title 14, § 4852(c)).

Historical resources may include, but are not limited to, "any object, building, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California" (PRC §5020.1[j]).

California Health and Safety Code Section 7050.5: Health and Safety Code states that in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the remains are discovered has determined whether or not the remains are subject to the coroner's authority. If the human remains are of Native American origin, the coroner must notify the Native American Heritage Commission within 24 hours of this identification. The Native American Heritage Commission will identify a Native American Most Likely Descendant (MLD) to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods.

3.5.3. Native American Consultation

In September of 2014, the California Legislature passed Assembly Bill (AB) 52, which added provisions to the PRC regarding the evaluation of impacts on tribal cultural resources under CEQA, and consultation requirements with California Native American tribes. In particular, AB 52 now requires lead agencies to analyze project impacts on "tribal cultural resources" separately from archaeological resources (PRC § 21074; 21083.09). AB 52 also requires lead agencies to engage in additional consultation procedures with respect to California Native American tribes (PRC § 21080.3.1, 21080.3.2, 21082.3).

In response to AB 52, the City supplied the following Native American tribes with a Project description and map of the proposed Project area and a request for comments:

- United Auburn Indian Community of the Auburn Rancheria
- Yocha Dehe Wintun Nation
- Estom Yomeka Maidu Tribe of the Enterprise Rancheria
- Mechoopda Indian Tribe
- Pakan'yani Maidu of Strawberry Valley

- Mooretown Rancheria of Maidu Indians
- Ione Band of Miwok Indians

3.5.4. Impact Assessment/Environmental Consequences:

a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5.

There is an existing residence on the property that will be removed as part of the development. However, the residence does not appear to be old enough to be of historical significance, nor does the General Plan EIR identify it as historically significant. Therefore, the potential impact on any historical resource is considered a less than significant impact.

b) Cause a substantial adverse change in the significance of an archeological resource pursuant to § 15064.5.

Please see c) below for the response to this item.

c) Disturb any human remains, including those interred outside of formal cemeteries?

The 8.19-acre property has been utilized for many years as an orchard and a single-family residence. No formal cemeteries or other places of human internment are known to exist on the proposed Project site. The United Auburn Indian Community responded to the City's request for comments in an email to the City dated September 6, 2022, stating that the property is not sensitive for tribal cultural resources, so it declined to consult or comment on the project. The Tribe recommended that the "Unanticipated Discoveries" mitigation should be utilized. Since there still remains the potential for previously unknown sub-surface resources to be present, in order to avoid potential impacts to unknown remains, mitigation measures provided in Section 3.18 are provided to ensure impacts are less than significant.

3.6 Energy

Table 3-6: Energy				
Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?			X	
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			X	

3.6.1 State Regulatory Setting

California has implemented numerous energy efficiency and conservation programs that have resulted in substantial energy savings. The State has adopted comprehensive energy efficiency standards as part of its Building Standards Code, California Codes of Regulations, Title 24. In 2009, the California Building Standards Commission adopted a voluntary Green Building Standards Code, also known as CALGreen, which became mandatory in 2011. Both Title 24 and CALGreen are implemented by the City of Yuba City in conjunction with its processing of building permits.

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, interior environmental quality, and energy efficiency. California has adopted a Renewables Portfolio Standard, which requires electricity retailers in the state to generate 33% of electricity they sell from renewable energy sources (i.e., solar, wind, geothermal, hydroelectric from small generators, etc.) by the end of 2020. In 2018, SB 100 was signed into law, which increases the electricity generation requirement from renewable sources to 60% by 2030 and requires all the state's electricity to come from carbon-free resources by 2045.

3.6.2. Impact Assessment/Environmental Consequences

a) Result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?

Project construction will 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 and GHG emissions. This electrical consumption would be consistent with other 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.

The Project is required to comply with CALGreen and with the building energy efficiency standards of California Code of Regulations Title 24, Part 6 in effect at the time of project approval. Compliance with these standards would reduce energy consumption associated with project operations, although reductions from compliance cannot be readily quantified. Overall, Project construction would typically not consume energy resources in a manner considered wasteful, inefficient, or unnecessary.

Following construction of the single-family residences, the main sources of energy consumption would be household operations and vehicle usage. However, since FRAQMD did not respond otherwise, the 34 new residences and their associated operation of vehicles is not a large enough impact on air quality to be considered significant and the project falls under FRAQMD's thresholds of significance.

As a result, Project impacts related to energy consumption are considered less than significant.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

As the project is built-out, new home construction is required to comply with applicable state and local ordinances for energy efficiency. As a result, the Project's impacts are considered to be less than significant.

3.7 Geology and Soils

Table 3.7: Geology and Soils				
Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Directly or indirectly expose people or structures to 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.			X	
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?			X	
iv) Landslides?				X
b) Result in substantial soil erosion or the loss of topsoil?			X	
c) Be located on a geological unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?				X
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?				X
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				X
f) Directly or indirectly destroy a unique paleontological resources or site or unique geologic feature?		X		

3.7.1 Environmental Setting/Affected Environment

Topography and Geology: According to the Sutter County General Plan, Sutter County is located in the flat surface of the Great Valley geomorphic province of California. The Great Valley is an alluvial plain approximately 50 miles wide and 400 miles long in the central portion of California. The Great Valley's northern portion is the Sacramento Valley, drained by the Sacramento River, and its southern portion is the San Joaquin Valley, drained by the San Joaquin River. The geology of the Great Valley is typified by thick sequences of alluvial sediments derived primarily from erosion of the mountains of the Sierra Nevada to the east, and to a lesser extent, erosion of the Klamath Mountains and Cascade Range to the north. These sediments were transported downstream and subsequently laid down as a river channel, floodplain deposits, and alluvial fans.

Seismic Hazards: Earthquakes are due to a sudden slip of plates along a fault. Seismic shaking is typically the greatest cause of losses to structures during earthquakes. Earthquakes can cause structural damage, injury, and loss of life, as well as damage to infrastructure networks such as water, power, gas, communication, and transportation lines. Other damage-causing effects of earthquakes include surface rupture, fissuring, settlement, and permanent horizontal and vertical shifting of the ground. Secondary impacts can include landslides, seiches, liquefaction, and dam failure.

Seismicity: Although all of California is typically regarded as seismically active, the Central Valley region does not commonly experience strong ground shaking resulting from earthquakes along known and previously unknown active faults. Though no active earthquake faults are known to exist in Yuba City, active faults in the region could generate ground motion felt within the County. Numerous earthquakes of magnitude 5.0 or greater on the Richter scale have occurred on regional faults, primarily those within the San Andreas Fault System in the region. There are several potentially active faults underlying the Sutter Buttes, which are associated with deep-seated volcanism.

The faults identified in Sutter County include the Quaternary Faults, located in the northern section of the County within the Sutter Buttes, and the Pre-Quaternary Fault, located in the southeast of the City, just east of where Highway 70 enters into the County. Both Faults are listed as non-active faults but have the potential for seismic activity.

Ground Shaking: As stated in the Sutter County Multi-Hazard Mitigation Plan, although the County has felt ground shaking from earthquakes with epicenters located elsewhere, no major earthquakes or earthquake related damage has been recorded within the County. Based on historic data and known active or potentially active faults in the region, parts of Sutter County have the potential to experience low to moderate ground shaking. The intensity of ground shaking at any specific site depends on the characteristics of the earthquake, the distance from the earthquake fault, and on the local geologic and soils conditions. Fault zone maps are used to identify where such hazards are more likely to occur based on analyses of faults, soils, topography, groundwater, and the potential for earthquake shaking sufficiently strong to trigger landslide and liquefaction.

Liquefaction: Liquefaction, which can occur in earthquakes with strong ground shaking, is mostly found in areas with sandy soil or fill and a high-water table located 50 feet or less below the ground surface. Liquefaction can cause damage to property with the ground below structures liquefying making the structure unstable causing sinking or other major structural damage. Evidence of liquefaction may be observed in "sand boils," which are expulsions of sand and water from below the surface due to increased pressure below the surface.

Liquefaction during an earthquake requires strong shaking and is not likely to occur in the city due to the relatively low occurrence of seismic activity in the area; however, the clean sandy layers paralleling the Sacramento River, Feather River, and Bear River have lower soil densities and high overall water table are potentially a higher risk area if major seismic activity were to occur. Areas of bedrock, including the Sutter

Buttes have high density compacted soils and contain no liquefaction potential, although localized areas of valley fill alluvium can have moderate to high liquefaction potential.

Landslides: Landslides are downward and outward movements of slope forming materials which may be rock, soil, artificial fill, or combinations of such materials. The size of landslides varies from those containing less than a cubic yard of material to massive ones containing millions of cubic yards. Large landslides may move down slope for hundreds of yards or even several miles. A landslide may move rapidly or so slow that a change of position can be noted only over a period of weeks or years. A similar, but much slower movement is called creep. The susceptibility of a given area to landslides depends on a great many variables. With the exception of the Sutter Buttes, Yuba City is located in a landslide-free zone due to the flat topography. The Sutter Buttes are considered to be in a low landslide hazard zone as shown in Bulletin 198 by the California Division of Mines and Geology.

Soil Erosion: Erosion is a two-step process by which soils and rocks are broken down or fragmented and then transported. The breakdown processes include mechanical abrasion, dissolution, and weathering. Erosion occurs naturally in most systems but is often accelerated by human activities that disturb soil and vegetation. The rate at which erosion occurs is largely a function of climate, soil cover, slope conditions, and inherent soil properties such as texture and structure. Water is the dominant agent of erosion and is responsible for most of the breakdown processes as well as most of the transport processes that result in erosion. Wind may also be an important erosion agent. The rate of erosion depends on many variables including the soil or rock texture and composition, soil permeability, slope, extent of vegetative cover, and precipitation amounts and patterns. Erosion increases with increasing slope, increasing precipitation, and decreasing vegetative cover. Erosion can be extremely high in areas where vegetation has been removed by fire, construction, or cultivation. High rates of erosion may have several negative impacts including degradation and loss of agricultural land, degradation of streams and other water habitats, and rapid silting of reservoirs.

Subsidence: Subsidence is the sinking of a large area of ground surface in which the material is displaced vertically downward, with little or no horizontal movement. Subsidence is usually a direct result of groundwater, oil, or gas withdrawal. These activities are common in several areas of California, including parts of the Sacramento Valley and in large areas of the San Joaquin Valley. Subsidence is a greater hazard in areas where subsurface geology includes compressible layers of silt and clay. Subsidence due to groundwater withdrawal generally affects larger areas and presents a more serious hazard than does subsidence due to oil and gas withdrawal. In portions of the San Joaquin Valley, subsidence has exceeded 20 feet over the past 50 years. In the Sacramento Valley, preliminary studies suggest that much smaller levels of subsidence, up to two feet may have occurred. In most of the valley, elevation data are inadequate to determine positively if subsidence has occurred. However, groundwater withdrawal in the Sacramento Valley has been increasing and groundwater levels have declined in some areas. The amount of subsidence caused by groundwater withdrawal depends on several factors, including: (1) the extent of water level decline, (2) the thickness and depth of the water bearing strata tapped, (3) the thickness and compressibility of silt-clay layers within the vertical sections where groundwater withdrawal is occurring, (4) the duration of maintained groundwater level decline, (5) the number and magnitude of water withdrawals in a given area, and (6) the general geology and geologic structure of the groundwater basin. The damaging effects of subsidence include gradient changes in roads, streams, canals, drains, sewers, and dikes. Many such systems are constructed with slight gradients and may be significantly damaged by even small elevation changes. Other effects include damage to water wells resulting from sediment compaction and increased likelihood of flooding of low-lying areas.

Expansive Soils: Expansive soils are prone to change in volume due to the presence of moisture. Soft clay soils have the tendency to increase in volume when moisture is present and shrink when it is dry

(shrink/swell). Swelling soils contain high percentages of certain kinds of clay particles that are capable of absorbing large quantities of water, expanding up to 10 percent or more as the clay becomes wet. The force of expansion is capable of exerting pressure on foundations, slabs, and other confining structures.

Soils: The Natural Resources Conservation Service (NRCS, formerly the Soil Conservation Service) has mapped over 40 individual soil units in the county. The predominant soil series in the county are the Capay, Clear Lake, Conejo, Oswald, and Olashes soils, which account for over 60 percent of the total land area. The remaining soil units each account for smaller percentages the total land area. The Capay and Clear Lake soils are generally present in the western and southern parts of the county. The Conejo soils occur in the eastern part closer to the incorporated areas of the county. Oswald and Olashes soils are located in the central portion of the county extending north to south, with scattered areas along the southeastern edge of the county. Soil descriptions for the principal soil units in the county are provided below. These descriptions, which were developed by the NRCS, are for native, undisturbed soils and are primarily associated with agricultural suitability. Soil characteristics may vary considerably from the mapped locations and descriptions due to development and other uses. Geotechnical studies are required to identify actual engineering properties of soils at specific locations to determine whether there are specific soil characteristics that could affect foundations, drainage, infrastructure, or other structural features.

3.7.2 Federal Regulatory Setting

Historic Sites Act of 1935: This Act became law on August 21, 1935 (49 Stat. 666; 16 U.S.C. 461-467) and has been amended eight times. This Act establishes as a national policy to preserve for public use historic sites, buildings, and objects, including geologic formations.

National Earthquake Hazards Reduction Program: The National Earthquake Hazards Reduction Program (NEHRP), which was first authorized by Congress in 1977, coordinates the earthquake-related activities of the Federal Government. The goal of NEHRP is to mitigate earthquake losses in the United States through basic and directed research and implementation activities in the fields of earthquake science and engineering. Under NEHRP, FEMA is responsible for developing effective earthquake risk reduction tools and promoting their implementation, as well as supporting the development of disaster-resistant building codes and standards. FEMA's NEHRP activities are led by the FEMA Headquarters (HQ), Federal Insurance and Mitigation Administration, Risk Reduction Division, Building Science Branch, in strong partnership with other FEMA HQ Directorates, and in coordination with the FEMA Regions, the States, the earthquake consortia, and other public and private partners.

3.7.3 State Regulatory Setting

California Alquist-Priolo Earthquake Fault Zoning Act: The Alquist-Priolo Earthquake Fault Zoning Act (originally enacted in 1972 and renamed in 1994) is intended to reduce the risk to life and property from surface fault rupture during earthquakes. The statute prohibits the location of mot types of structures intended for human occupancy across the traces of active faults and regulates construction in the corridors along active faults.

California Seismic Hazards Mapping Act: The Seismic Hazards Mapping Act is intended to reduce damage resulting from earthquakes. While the Alquist-Priolo Earthquake Fault Zoning Act addresses surface fault rupture, the Seismic Hazards Mapping Act addresses other earthquake-related hazards, including ground shaking, liquefaction, and seismically induced landslides. The state is charged with identifying and

mapping areas at risk of strong ground shaking, liquefaction, landslides, and other hazards, and cities and counties are required to regulate development within mapped Seismic Hazard Zones.

Uniform Building Code: The California Code of Regulations (CCR) Title 24 is assigned to the California Building Standards Commission, which, by law, is responsible for coordinating all building standards. The California Building Code incorporates by reference the Uniform Building Code with necessary California amendments. The Uniform Building Code is a widely adopted model building code in the United States published by the International Conference of Building Officials. About one-third of the text within the California Building Code has been tailored for California earthquake conditions.

Paleontological Resources: Paleontological resources are the fossilized remains of plants and animals and associated deposits. The Society of Vertebrate Paleontology has identified vertebrate fossils, their taphonomic and associated environmental indicators, and fossiliferous deposits as significant nonrenewable paleontological resources. Botanical and invertebrate fossils and assemblages may also be considered significant resources. CEQA requires that a determination be made as to whether a project would directly or indirectly destroy a unique paleontological resource or site or unique geological feature (CEQA Appendix G(v)(c)). If an impact is significant, CEQA requires feasible measures to minimize the impact (CCR Title 14(3) Section 15126.4 (a)(1)). California Public Resources Code Section 5097.5 (see above) also applies to paleontological resources.

3.7.4 Impact Assessment/Environmental Consequences:

a. Directly or indirectly expose people or structures to 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?

According to the Yuba City General Plan, no active earthquake faults are known to exist in Sutter County, although active faults in the region could produce ground motion in Yuba City (Dyett & Bhatia, 2004). The closest known fault zone is the Bear Mountain Fault Zone, located approximately 20 miles northeast of Yuba City (California Geological Survey [CGS], 2015). Potentially active faults do exist in the Sutter Buttes, but those faults are considered small and have not exhibited activity in recent history. Because the distance from the City to the closest known active fault zone is large, the potential for exposure of people or structures to substantial adverse effects from fault rupture is low. Considering that the Building Code incorporates construction standards for minimizing earthquake damage to buildings, and the low potential for a significant earthquake activity in the vicinity, the potential for adverse impacts from an earthquake is considered to be less than significant.

ii. Strong seismic ground shaking?

In the event of a major regional earthquake, fault rupture or seismic ground shaking could potentially injure people and cause collapse or structural damage to existing and proposed structures. Ground shaking could potentially expose people and property to seismic-related hazards, including localized liquefaction and ground failure. However, all new structures are required to adhere to current California Building Code standards. These standards require adequate design, construction, and maintenance of structures to prevent exposure of people and structures to major geologic hazards. General Plan

Implementing Policies 9.2-I-1 through 9.2-I-8, which pertain to minimizing risks of property damage and personal injury posed by geologic and seismic hazards, and the building codes reduce the potential impacts to a less than significant level.

iii. Seismic-related ground failure, including liquefaction?

The proposed Project is not located within a liquefaction zone according to the California Department of Conservation's California Geologic Survey regulatory maps. Regardless, all new structures are required to adhere to current California Building Code standards. These standards require adequate design, construction, and maintenance of structures to prevent exposure of people and structures to major geologic hazards. Therefore, the potential impact from ground failure is considered to be a less than significant impact.

iv. Landslides?

According to the City General Plan EIR, due to the flat topography, landslides, and mudflows are not a risk in the City limits or within the City's Sphere of Influence. As a result, no impacts are anticipated.

b) Result in substantial soil erosion or the loss of topsoil?

Most of the 8.19 acres will be disturbed during site grading. Even though the area is relatively flat, during site grading a large storm could result in the loss of topsoil into the City drainage system. However, as part of the grading and construction of the subdivision, the applicant will be required to follow Best Management Practices (BMP's) and provide erosion control measures to minimize soil runoff during the construction process. Therefore, impacts from soil erosion are less than significant.

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

The General Plan EIR, which includes planning of the City sphere of influence, does not identify this site or vicinity within the City sphere of influence as being located in an area having unstable soil, landslide area, lateral spreading, subsidence, liquefaction, or collapse. As a result, no impacts are anticipated.

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

The extreme southwest corner of the Yuba City Sphere of Influence is the only known area with expansive soils. The Project area is not located within that area and therefore will not be impacted by the presence of expansive soils. As a result, no impacts are anticipate.

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?

All new residences to be constructed will be connected to the City's wastewater collection and treatment system. No new septic systems will be utilized. As such, there will be no new impacts from septic systems.

f) Directly or indirectly destroy a unique paleontological resources or site or unique geologic feature?

Due to prior ground disturbances from agricultural and residential uses it is unlikely that any paleontological resources exist on the site. However, the following mitigation measure shall apply if any paleontological resources are discovered:

3.7.5 Paleontological Mitigation Measures

Paleontological Mitigation Measure 1: Mitigation Measure 1 shall be placed as a note on the Demolition and Grading Plans. If paleontological resources are found, the construction manager shall halt all activity and immediately contact the Development Services Department at 530-822-4700.

Mitigation shall be conducted as follows:

1. Identify and evaluate paleontological resources by intense field survey where impacts are considered high;
2. Assess effects on identified sites;
3. Consult with the institutional/academic paleontologists conducting research investigations within the geological formations that are slated to be impacted;
4. Obtain comments from the researchers;
5. Comply with researchers' recommendations to address any significant adverse effects were determined by the City to be feasible.

In considering any suggested mitigation proposed by the consulting paleontologist, the City's Community Development Department Staff shall determine whether avoidance is necessary and feasible in light of factors such as the nature of the find, project design, costs, Specific or General Plan policies and land use assumptions, and other considerations. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery) shall be instituted. Work may proceed on other parts of the project site while mitigation for paleontological resources is carried out.

3.8 Greenhouse Gas Emissions

Table 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?		X		
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?		X		

3.8.1 Federal Regulatory Setting

The United States Environmental Protection Agency (USEPA) Mandatory Reporting Rule (40 CFR Part 98), which became effective December 29, 2009, requires that all facilities that emit more than 25,000 metric tons CO2-equivalent per year beginning in 2010, report their emissions on an annual basis. On May 13, 2010, the USEPA issued a final rule that established an approach to addressing GHG emissions from stationary sources under the Clean Air Act (CAA) permitting programs. The final rule set thresholds for GHG emissions that define when permits under the New Source Review Prevention of Significant Deterioration and title V Operating Permit programs are required for new and existing industrial facilities.

In addition, the Supreme Court decision in Massachusetts v. EPA (Supreme Court Case 05-1120) found that the USEPA has the authority to list GHGs as pollutants and to regulate emissions of greenhouse gases (GHG) under the CAA. On April 17, 2009, the USEPA found that CO2, CH4, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride may contribute to air pollution and may endanger public health and welfare. This finding may result in the USEPA regulating GHG emissions; however, to date the USEPA has not propose regulations based on this finding.

3.8.2 State & Local Regulatory Setting

The City's Resource Efficiency Plan as designed under the premise that the City, and the community it represents, is uniquely capable of addressing emissions associated with sources under the City's jurisdiction and that the City's emission reduction efforts should coordinate with the state strategies of reducing emissions in order to accomplish these reductions in an efficient and cost-effective manner. The City developed this document with the following purposes in mind:

- Local Control: The Yuba City Efficiency Plan allows the City to identify strategies to reduce resource consumption, costs, and GHG emissions in all economic sectors in a way that maintains local control over the issues and fits the character of the community. It also may position the City for funding to implement programs tied to climate goals.
- Energy and Resource Efficiency: The Efficiency Plan identifies opportunities for the City to increase energy efficiency and lower GHG emissions in a manner that is most feasible within the community. Reducing energy consumption through increasing the efficiency of energy technologies, reducing energy use, and using renewable sources of energy are effective ways to reduce GHG emissions. Energy efficiency also provides opportunities for cost-savings.
- Improved Public Health: Many of the GHG reduction strategies identified in the Efficiency Plan also have local public health benefits. Benefits include local air quality improvements; creating a more active community through implementing resource-efficient living practices; and reducing health risks, such as heat stroke, that would be otherwise elevated by climate change impacts such as increased extreme heat days.

Demonstrating Consistency with State GHG Reduction Goals—A GHG reduction plan may be used as GHG mitigation in a General Plan to demonstrate that the City is aligned with State goals for reducing GHG emissions to a level considered less than cumulatively considerable.

3.8.3 Impact Assessment/Environmental Consequences:

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

Please see b) below for an answer to this item.

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

Gases that trap heat in the atmosphere are referred to as greenhouse gases (GHGs) because they capture heat radiated from the sun as it is reflected back into the atmosphere, similar to a greenhouse. The accumulation of GHGs has been implicated as a driving force for Global Climate Change. Definitions of climate change vary between and across regulatory authorities and the scientific community, but in general can be described as the changing of the climate caused by natural fluctuations and the impact of human activities that alter the composition of the global atmosphere. Both natural processes and human activities emit GHGs. Global Climate Change is a change in the average weather on earth that can be measured by wind patterns, storms, precipitation, and temperature. Although there is disagreement as to the speed of global warming and the extent of the impacts attributable to human activities, the vast majority of the scientific community now agrees that there is a direct link between increased emission of GHGs and long-term global temperature. Potential global warming impacts in California may include, but are not limited to, loss in snowpack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years. Secondary effects are likely to include a global rise in sea level, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity. GHG impacts are considered to be exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective (CAPCOA).

The proposed construction of this subdivision will create GHG emissions due to the use of motorized construction equipment. The emissions will be from construction equipment during the construction of the apartments. Once completed, vehicle traffic generated by auto use from the new residences will contribute GHG gases. Due to the small size of the Project, it is not expected to create significant greenhouse gas emissions. However, on a cumulative scale, possible reasonable reductions could be applied to the project in order to further minimize those impacts. Specifically addressing this proposal, the City's Resource Efficiency Plan addresses greenhouse gas concerns and provides a description of greenhouse gas reduction measures. A mitigation measure is included that requires the Project incorporate the relevant greenhouse gas reduction measures. With this mitigation the impacts from greenhouse gases will be less than significant.

3.8.4 Greenhouse Mitigation Measure

Greenhouse Gas Mitigation Measure 1: The site grading process shall comply with the GHG Reduction Measures provided in the adopted Yuba City Resource Efficiency Plan.

3.9 Hazards and Hazardous Materials

Table 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?			X	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	
d) Be located on a site, which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment?				X
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				X
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.			X	

3.9.1 Federal Regulatory Setting

U.S. Environmental Protection Agency (USEPA): The USEPA was established in 1970 to consolidate in one agency a variety of federal research, monitoring, standard setting, and enforcement activities to ensure environmental protection. USEPA's mission is to protect human health and to safeguard the natural environment — air, water, and land — upon which life depends. USEPA works to develop and enforce regulations that implement environmental laws enacted by Congress, is responsible for researching and setting national standards for a variety of environmental programs, and delegates to states and tribes the responsibility for issuing permits and for monitoring and enforcing compliance. Where national standards are not met, USEPA can issue sanctions and take other steps to assist the states and tribes in reaching the desired levels of environmental quality.

Federal Toxic Substances Control Act/Resource Conservation and Recovery Act/Hazardous and Solid Waste Act: The Federal Toxic Substances Control Act (1976) and the Resource Conservation and Recovery Act of 1976 (RCRA) established a program administered by the USEPA for the regulation of the generation,

transportation, treatment, storage, and disposal of hazardous waste. RCRA was amended in 1984 by the Hazardous and Solid Waste Act (HSWA), which affirmed and extended the "cradle to grave" system of regulating hazardous wastes.

Comprehensive Environmental Response, Compensation, and Liability Act/Superfund Amendments and Reauthorization Act: The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, was enacted by Congress on December 11, 1980. This law (U.S. Code Title 42, Chapter 103) provides broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. CERCLA establishes requirements concerning closed and abandoned hazardous waste sites; provides for liability of persons responsible for releases of hazardous waste at these sites; and establishes a trust fund to provide for cleanup when no responsible party can be identified. CERCLA also enables the revision of the National Contingency Plan (NCP). The NCP (Title 40, Code of Federal Regulation [CFR], Part 300) provides the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, and/or contaminants. The NCP also established the National Priorities List (NPL). CERCLA was amended by the Superfund Amendments and Reauthorization Act (SARA) on October 17, 1986.

Clean Water Act/SPCC Rule: The Clean Water Act (CWA) (33 U.S.C. Section 1251 et seq., formerly the Federal Water Pollution Control Act of 1972), was enacted with the intent of restoring and maintaining the chemical, physical, and biological integrity of the waters of the United States. As part of the Clean Water Act, the U.S. EPA oversees and enforces the Oil Pollution Prevention regulation contained in Title 40 of the CFR, Part 112 (Title 40 CFR, Part 112) which is often referred to as the "SPCC rule" because the regulations describe the requirements for facilities to prepare, amend and implement Spill Prevention, Control, and

Countermeasure (SPCC) Plans: A facility is subject to SPCC regulations if a single oil storage tank has a capacity greater than 660 gallons, or the total above ground oil storage capacity exceeds 1,320 gallons, or the underground oil storage capacity exceeds 42,000 gallons, and if, due to its location, the facility could reasonably be expected to discharge oil into or upon the "Navigable Waters" of the United States.

Other federal regulations overseen by the U.S. EPA relevant to hazardous materials and environmental contamination include Title 40, CFR, Chapter 1, Subchapter D – Water Programs and Subchapter I – Solid Wastes. Title 40, CFR, Chapter 1, Subchapter D, Parts 116 and 117 designate hazardous substances under the Federal Water Pollution Control Act: Title 40, CFR, Part 116 sets forth a determination of the reportable quantity for each substance that is designated as hazardous. Title 40, CFR, Part 117 applies to quantities of designated substances equal to or greater than the reportable quantities that may be discharged into waters of the United States.

The NFPA 70®: National Electrical Code® is adopted in all 50 states. Any electrical work associated with the proposed Project is required to comply with the standards set forth in this code. Several federal regulations govern hazards as they are related to transportation issues. They include:

Title 49, CFR, Sections 171-177 (49 CFR 171-177), governs the transportation of hazardous materials, the types of materials defined as hazardous, and the marking of the transportation vehicles.

49 CFR 350-399, and Appendices A-G, Federal Motor Carrier Safety Regulations, address safety considerations for the transport of goods, materials, and substances over public highways.

49 CFR 397.9, the Hazardous Materials Transportation Act of 1974, directs the U.S. Department of Transportation to establish criteria and regulations for the safe transportation of hazardous materials.

3.9.2 State Regulatory Setting

California Environmental Protection Agency (CalEPA): The California Environmental Protection Agency (CalEPA) was created in 1991 by Governor's Executive Order. The six boards, departments, and office were placed under the CalEPA umbrella to create a cabinet-level voice for the protection of human health and the environment and to assure the coordinated deployment of State resources. The mission of CalEPA is to restore, protect, and enhance the environment to ensure public health, environmental quality, and economic vitality under Title 22 of the California Code of Regulations (CCR).

Department of Toxic Substances Control (DTSC): DTSC is a department of Cal/EPA and is the primary agency in California that regulates hazardous waste, cleans-up existing contamination, and looks for ways to reduce the hazardous waste produced in California. DTSC regulates hazardous waste in California primarily under the authority of RCRA and the California Health and Safety Code. Other laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning. Government Code Section 65962.5 (commonly referred to as the Cortese List) includes DTSC listed hazardous waste facilities and sites, DHS lists of contaminated drinking water wells, sites listed by the SWRCB as having UST leaks and which have had a discharge of hazardous wastes or materials into the water or groundwater and lists from local regulatory agencies of sites that have had a known migration of hazardous waste/material.

Unified Program: The Unified Program (codified CCR Title 27, Division 1, Subdivision 4, Chapter 1, Sections 15100- 15620) consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities of the following six environmental and emergency response programs:

- Hazardous Waste Generator (HWG) program and Hazardous Waste On-site Treatment activities;
- Aboveground Storage Tank (AST) program Spill Prevention Control and Countermeasure Plan requirements;
- Underground Storage Tank (UST) program;
- Hazardous Materials Release Response Plans and Inventory (HMRRP) program;
- California Accidental Release Prevention (CalARP) program;
- Hazardous Materials Management Plans and Hazardous Materials Inventory Statement (HMMP/HMIS) requirements.

The Secretary of CalEPA is directly responsible for coordinating the administration of the Unified Program. The Unified Program requires all counties to apply to the CalEPA Secretary for the certification of a local unified program agency. Qualified cities are also permitted to apply for certification. The local Certified Unified Program Agency (CUPA) is required to consolidate, coordinate, and make consistent the administrative requirements, permits, fee structures, and inspection and enforcement activities for these six program elements in the county. Most CUPAs have been established as a function of a local environmental health or fire department.

Hazardous Waste Management Program: The Hazardous Waste Management Program (HWMP) regulates hazardous waste through its permitting, enforcement, and Unified Program activities in accordance with California Health and Safety Code Section 25135 et seq. The main focus of HWMP is to ensure the safe storage, treatment, transportation, and disposal of hazardous wastes.

State Water Resources Control Board (SWRCB): The State Water Resources Control Board (SWRCB) was created by the California legislature in 1967. The mission of SWRCB is to ensure the highest reasonable

quality for waters of the State, while allocating those waters to achieve the optimum balance of beneficial uses. The joint authority of water allocation and water quality protection enables SWRCB to provide comprehensive protection for California's waters.

California Department of Industrial Relations – Division of Occupational Safety and Health (Cal OSHA): In California, every employer has a legal obligation to provide and maintain a safe and healthful workplace for employees, according to the California Occupational Safety and Health Act of 1973 (per Title 8 of the CCR). The Division of Occupational Safety and Health (Cal/OSHA) program is responsible for enforcing California laws and regulations pertaining to workplace safety and health and for providing assistance to employers and workers about workplace safety and health issues. Cal/OSHA regulations are administered through Title 8 of the CCR. The regulations require all manufacturers or importers to assess the hazards of substances that they produce or import and all employers to provide information to their employees about the hazardous substances to which they may be exposed.

California Fire Code: The California Fire Code is Part 9 of the California Code of Regulations, Title 24, also referred to as the California Building Standards Code. The California Fire Code incorporates the Uniform Fire Code with necessary California amendments. This Code prescribes regulations consistent with nationally recognized good practice for the safeguarding to a reasonable degree of life and property from the hazards of fire explosion, and dangerous conditions arising from the storage, handling and use of hazardous materials and devices, and from conditions hazardous to life or property in the use or occupancy of buildings or premises and provisions to assist emergency response personnel.

3.9.3 Local Regulatory Setting

Sutter County Airport Comprehensive Land Use Plan: The SCACLUP was adopted in April 1994 by the Sacramento Area Council of Governments (SACOG). SACOG is the designated Airport Land Use Commission (ALUC) for Sacramento, Sutter, Yolo, and Yuba Counties under the provisions of the California Public Utilities Code, Chapter 4, Article 3.5, Section 21670.1 Airport Land Use Commission Law. The purpose of the ALUC law is to (1) protect public health, safety, and welfare through the adoption of land use standards that minimize the public's exposure to safety hazards and excessive levels of noise, and (2) Prevent the encroachment of incompatible land uses around public-use airports, thereby preserving the utilities of these airports into the future.

3.9.4 Impact Assessment/Environmental Consequences:

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

Please see b) below for an answer to this item.

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?

The hazardous materials associated with the construction of this subdivision will be those materials associated with grading and construction equipment, which typically includes solvents, oil, and fuel. Provided that these materials are legally and properly used and stored, the proposed project will not create a significant hazard to the public or the environment. On an ongoing basis the anticipated hazardous waste generated by the Project would be household hazardous waste. Assuming proper and legal disposal of those wastes there should not be a significant impact from hazardous materials.

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

Butte Vista School is within one-quarter mile of the Project. Construction that would result from development of this subdivision would likely generate construction equipment emissions. However, the time for operating equipment on the Project site is short. Assuming proper use of the fuels, solvents, and oil for the grading and paving equipment, there should not be any significant impacts to school students. Similarly for household hazardous waste generated by new residences, assuming proper and legal use and disposal there will be no significant impacts to the school.

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

The property is not on any listings of sites that are contaminated by hazardous wastes. Therefore, there is not a potential for significant impacts from a known hazardous materials site.

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 for people residing or working in the project area?

The project is not located within the adopted Sutter County Airport or the Yuba County Airport Comprehensive Land Use Plans nor is it within two miles public use airport. As a result, no impacts are anticipated.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The Yuba City Fire and Police Departments serve this area. Neither agency has expressed concern over impacts the Project may have on any emergency response plans. Accordingly, there will be no significant impacts anticipated to result from this Project.

g) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

The Project site is located within the urban area and the urban area is surrounded by irrigated agricultural lands. There are no wildlands on the site or in the immediate vicinity. As a result, a less than significant impact is anticipated from potential wildland fires.

3.10 Hydrology and Water Quality

Table 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 groundwater quality?			X	
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impeded sustainable groundwater management of the basin?			X	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) result in substantial erosion or siltation on- or off-site?			X	
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?			X	
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?			X	
iv) impede or redirect flood flows?				X
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?			X	
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			X	

3.10.1 Federal Regulatory Setting

Clean Water Act: The Clean Water Act (CWA) is intended to restore and maintain the chemical, physical, and biological integrity of the nation's waters (33 CFR 1251). The regulations implementing the CWA protect waters of the U.S. including streams and wetlands (33 CFR 328.3). The CWA requires states to set standards to protect, maintain, and restore water quality by regulating point source and some non-point source discharges. Under Section 402 of the CWA, the National Pollutant Discharge Elimination System (NPDES) permit process was established to regulate these discharges.

Federal Emergency Management Agency (FEMA) Flood Zones: The National Flood Insurance Act (1968) makes available federally subsidized flood insurance to owners of flood-prone properties. To facilitate identifying areas with flood potential, Federal Emergency Management Agency (FEMA) has developed

Flood Insurance Rate Maps (FIRM) that can be used for planning purposes. Flood hazard areas identified on the Flood Insurance Rate Map are identified as a Special Flood Hazard Area (SFHA). SFHA are defined as the area that will be inundated by the flood event having a 1-percent chance of being equaled or exceeded in any given year. The 1-percent annual chance flood is also referred to as the base flood or 100-year flood. SFHAs are labeled as Zone A, Zone AO, Zone AH, Zones A1-A30, Zone AE, Zone A99, Zone AR, Zone AR/AE, Zone AR/AO, Zone AR/A1-A30, Zone AR/A, Zone V, Zone VE, and Zones V1-V30. Moderate flood hazard areas, labeled Zone B or Zone X (shaded) are also shown on the FIRM, and are the areas between the limits of the base flood and the 0.2-percent-annual-chance (or 500-year) flood. The areas of minimal flood hazard, which are the areas outside the SFHA and higher than the elevation of the 0.2-percent-annual-chance flood, are labeled Zone C or Zone X (unshaded).

3.10.2 State Regulatory Setting

State Water Resources Control Board: The State Water Resources Control Board (SWRCB) is the agency with jurisdiction over water quality issues in the State of California. The WRCB is governed by the Porter-Cologne Water Quality Act (Division 7 of the California Water Code), which establishes the legal framework for water quality control activities by the SWRCB. The intent of the Porter- Cologne Act is to regulate factors which may affect the quality of waters of the State to attain the highest quality which is reasonable, considering a full range of demands and values. Much of the implementation of the SWRCB's responsibilities is delegated to its nine Regional Boards. The Project site is located within the Central Valley Regional Water Quality Control board.

Central Valley Regional Water Quality Control Board (CVRWQCB): administers the NPDES storm water-permitting program in the Central Valley region. Construction activities on one acre or more are subject to the permitting requirements of the NPDES General Permit for Discharges of Storm Water Runoff Associated with Construction Activity (General Construction Permit). Additionally, CVRWQCB is responsible for issuing Waste Discharge Requirements Orders under California Water Code Section 13260, Article 4, Waste Discharge Requirements.

State Department of Water Resources: California Water Code (Sections 10004 et seq.) requires that the State Department of Water Resources update the State Water Plan every five years. The 2013 update is the most current review and included (but is not limited to) the following conclusions:

- The total number of wells completed in California between 1977 and 2010 is approximately 432,469 and ranges from a high of 108,346 wells for the Sacramento River Hydrologic Region to a low of 4,069 wells for the North Lahontan Hydrologic Region.
- Based on the June 2014 California Statewide Groundwater Elevation Monitoring (CASGEM) basin prioritization for California's 515 groundwater basins, 43 basins are identified as high priority, 84 basins as medium priority, 27 basins as low priority, and the remaining 361 basins as very low priority.
- The 127 basins designated as high or medium priority account for 96 percent of the average annual statewide groundwater use and 88 percent of the 2010 population overlying the groundwater basin area.
- Depth-to-groundwater contours were developed for the unconfined aquifer system in the Central Valley. In the Sacramento Valley, the spring 2010 groundwater depths range from less than 10 feet below ground surface (bgs) to approximately 50 feet bgs, with local areas showing maximum depths of as much as 160 feet bgs.

- The most prevalent groundwater contaminants affecting California's community drinking water wells are arsenic, nitrate, gross alpha activity, and perchlorate.

California Government Code 65302 (d): The General Plan must contain a Conservation Element for the conservation, development, and utilization of natural resources including water and its hydraulic force, forests, soils, river and other waters, harbors, fisheries, wildlife, minerals, and other natural resources. That portion of the conservation element including waters shall be developed in coordination with any County-wide water agency and with all district and city agencies which have developed, served, controlled, or conserved water for any purpose for the County or city for which the plan is prepared. Coordination shall include the discussion and evaluation of any water supply and demand information described in Section 65352.5 if that information has been submitted by the water agency to the city or County. The conservation element may also cover:

- The reclamation of land and waters.
- Prevention and control of the pollution of streams and other waters.
- Regulation of the use of land in stream channels and other areas required for the accomplishment of the conservation plan.
- Prevention, control, and correction of the erosion of soils, beaches, and shores.
- Protection of watersheds.
- The location, quantity, and quality of the rock, sand, and gravel resources.
- Flood control.

Sustainable Groundwater Management Act: On September 16, 2014, Governor Edmund G. Brown Jr. signed historic legislation to strengthen local management and monitoring of groundwater basins most critical to the state's water needs. The three bills, SB 1168 (Pavley) SB 1319 (Pavley) and AB 1739 (Dickinson) together makeup the Sustainable Groundwater Management Act. The Sustainable Groundwater Management Act comprehensively reforms groundwater management in California. The intent of the Act is to place management at the local level, although the state may intervene to manage basins when local agencies fail to take appropriate responsibility. The Act provides authority for local agency management of groundwater and requires creation of groundwater sustainability agencies and implementation of plans to achieve groundwater sustainability within basins of high and medium priority.

3.10.3. Local Regulatory Setting

The City requires demonstration of a viable water supply, storm water treatment planning and drainage controls as part of all new development.

3.10.4 Impact Assessment/Environmental Consequences:

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Most of the City's public water supply comes from the Feather River. The water is pumped from the river to the Water Treatment Plant located in northern Yuba City. The plant also sometimes utilizes a groundwater well in addition to surface water supplies due to recent drought conditions. Since the new residences will only receive water through the City system, it is unlikely that the Project could impact the water quality in the City system.

All of the wastewater generated by the 34 new residences will flow into the City wastewater treatment facility which is in compliance with all state water discharge standards. The wastewater from the new residences is not expected to generate any unique type of waste that would cause the system to become out of compliance with state standards.

All storm water runoff associated with the Project will ultimately drain into the Sutter By-Pass and ultimately the Feather River. The water quality of the stormwater runoff is addressed through General Plan Implementing Policies 8.5-I-1 through 8.5-I-10 which require a wide range of developer and City actions involving coordination with the State Regional Water Quality Control Board, protecting waterways, and following Yuba City's adopted Best Management Practices for new construction. These measures are implemented through standard project conditions.

With the level of oversight on the City's water supply, and enforcement of Best Management Practices at construction sites, there will not be significant impacts on the City's water and waste-water systems or storm water drainage system. As a result, a less than significant impact is anticipated.

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

All of the new residences that will result from construction of this subdivision will be connected to the City's water system. While consumption of City water will increase with the Project, very little, if any, groundwater will be utilized as the City primarily utilizes surface water supplies in its system. As a result a less than significant impact is anticipated.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that 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 offsite?

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

There will be an increased amount of stormwater drainage caused by new impermeable surfaces created by this development, which will ultimately drain into the Feather River. The Project will be required to construct the local collection facilities and pay the appropriate drainage fees. Also, as noted above, all new construction must involve use of Best Management Practices. Assuming all required standards are met there is not expected to be any significant impacts from additional storm water drainage from the site.

iv) impede or redirect flood flows?

According to the Federal Emergency Management Agency this portion of the City is outside of the 100-year flood plain. This is due to the existing levee system that contains seasonally high-water flows from the nearby Feather River from flooding areas outside of the levee system. Additional construction within the City that is outside of the levee system does not impact the levee system and therefore does not increase, impede, or otherwise have any effect on the highwater flows within the levee system. Therefore, there is no impact on the high-water flows within the Feather River levee system.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

This portion of the City is outside of the 100-year flood plain and is provided 200 year flood protection by the levee improvements completed by the Sutter Buttes Flood Control Agency (SBFCA). The City is not close to the ocean or any large lakes so a seiche is unlikely to happen in or near the City. The City is located inland from the Pacific Ocean, so people or structures in the City would not be exposed to inundation by tsunami. Mudflows and landslides are unlikely to happen due to the relatively flat topography within the project area. Thus, it is unlikely that the Project site would be subject to inundation by a seiche, tsunami, mudflow, or landslide. Therefore, there is no potential for significant impacts from any of these types of events and a less than significant impact is anticipated.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

As noted above, all new construction is required to utilize Best Management Practices and these are implemented through the City's standard conditions of approval. Assuming all required standards are met, water quality of runoff water from the Project will not create any significant impacts. The City primarily utilizes surface water for its water source so there will be no significant impacts on groundwater.

3.11 Land Use and Planning

Table 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?			X	
b)	Cause a significant environmental impact due to a conflict with any land use plan, policy or regulation adopted for the purpose of avoiding or mitigating an environmental effect?			X	

3.11.1 Environmental Setting/Affected Environment

The Project will be on an 8.19-acre property that primarily utilized as an orchard. Around the property is primarily single-family residential uses and some remnant farming. As both the County and City General Plans have designated this area for residential development many years ago, it is expected that much of the property in the vicinity will also at some point be built out with residences or a related urban development.

3.11.2 Federal Regulatory Setting

There are no federal or state regulations pertaining to land use and planning relevant to the proposed Project.

3.11.3 Local Regulatory Setting

Yuba City General Plan, Land Use Element: The Land Use Element of the General Plan establishes guidance for the ultimate pattern of growth in the City's Sphere of Influence. It provides direction regarding how lands are to be used, where growth will occur, the density/intensity and physical form of that growth, and key design considerations.

3.11.4 Impact Assessment/Environmental Consequences:

a) Physically divide an established community?

Please see b) below for a response to this item.

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?

This subdivision will not physically divide an established community. The buildout of this property as proposed will be consistent with the General Plan. It will be similar to other residential subdivisions in the vicinity with similar street construction, landscaping, street lighting, and other subdivision improvements required by the City. As such, rather than dividing an established community, this subdivision will continue the planned street pattern, fitting in with the neighboring residential development. Some of the new residences will also be restricted to a single-story construction in order to assure neighborhood compatibility. Therefore, there will not be significant effect caused by this Project not being consistent with a land use plan or by dividing a community.

Regarding the proposed pre-annexation zoning, there are proposed changes to the criteria by which the property could be developed. Of the 12 criteria, nine of them are funding or related issues that have been superseded by other City standards or programs, so there would be no environmental impact. The elimination of the one-acre minimum lot size would be to correct a general plan consistency issue. The affordable housing issue has been superseded by the new citywide housing element policies thus no potential environmental impact. The elimination of the requirement for a Development Agreement (for affordable housing) is not an environmental issue and a less than significant impact is anticipated.

3.12 Mineral Resources

Table 3-12: Mineral Resources				
Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?				X

3.12.1 Federal Regulatory Setting

There are no federal regulations pertaining to mineral resources relevant to the proposed Project.

3.12.2 State Regulatory Setting

California Surface Mining and Reclamation Act of 1975: Enacted by the State Legislature in 1975, the Surface Mining and Reclamation Act (SMARA), Public Resources Code Section 2710 et seq., insures a continuing supply of mineral resources for the State. The act also creates surface mining and reclamation policy to assure that:

- Production and conservation of minerals is encouraged;
- Environmental effects are prevented or minimized;
- Consideration is given to recreational activities, watersheds, wildlife, range and forage, and aesthetic enjoyment;
- Mined lands are reclaimed to a useable condition once mining is completed; and
- Hazards to public safety both now and in the future are eliminated.

Areas in the State (city or county) that do not have their own regulations for mining and reclamation activities rely on the Department of Conservation, Division of Mines and Geology, Office of Mine Reclamation to enforce this law. SMARA contains provisions for the inventory of mineral lands in the State of California.

The State Geologist, in accordance with the State Board's Guidelines for Classification and Designation of Mineral Lands, must classify Mineral Resource Zones (MRZ) as designated below:

- MRZ-1. Areas where available geologic information indicates that there is minimal likelihood of significant resources.
- MRZ-2. Areas underlain by mineral deposits where geologic data indicate that significant mineral deposits are located or likely to be located.
- MRZ-3. Areas where mineral deposits are found but the significance of the deposits cannot be evaluated without further exploration.
- MRZ-4. Areas where there is not enough information to assess the zone. These are areas that have unknown mineral resource significance.

SMARA only covers mining activities that impact or disturb the surface of the land. Deep mining (tunnel) or petroleum and gas production is not covered by SMARA.

3.12.3 Impact Assessment/Environmental Consequences:

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?

Please see b) for a response to this item.

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?

The Yuba City General Plan does not recognize any mineral resource zone within the City limits, and no mineral extraction facilities currently exist within the City. The property contains no known mineral resources and there is little opportunity for mineral resource extraction. Additionally, the site has nearby residential uses, which generally are considered incompatible with mineral extraction facilities. As such the Project will not have an impact on mineral resources. As a result, no impacts are anticipated.

3.13 Noise

Table 3.13: Noise				
Would the project result in:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			X	
b) Generation of excessive ground borne vibration or ground borne noise levels?			X	
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X

3.13.1 Environmental Setting/Affected Environment for Noise

Noise can be generally defined as unwanted sound. Sound, traveling in the form of waves from a source, exerts a sound pressure level (referred to as sound level) which is measured in decibels (dB), with 0 dB corresponding roughly to the threshold of human hearing and 120 to 140 dB corresponding to the threshold of pain.

Sound pressure fluctuations can be measured in units of hertz (Hz), which correspond to the frequency of a particular sound. Typically, sound does not consist of a single frequency, but rather a broad band of frequencies varying in levels of magnitude (sound power). The sound pressure level, therefore, constitutes the additive force exerted by a sound corresponding to the frequency/sound power level spectrum.

The typical human ear is not equally sensitive to all frequencies of the audible sound spectrum. As a consequence, when assessing potential noise impacts, sound is measured using an electronic filter that de-emphasizes the frequencies below 1,000 Hz and above 5,000 Hz in a manner corresponding to the

human ear's decreased sensitivity to low and extremely high frequencies instead of the frequency mid-range. This method of frequency weighting is referred to as A-weighting and is expressed in units of A-weighted decibels (dBA). Frequency A-weighting follows an international standard methodology of frequency de-emphasis and is typically applied to community noise measurements.

Noise exposure is a measure of noise over a period of time. Noise level is a measure of noise at a given instant in time. Community noise varies continuously over a period of time with respect to the contributing sound sources of the community noise environment. Community noise is primarily the product of many distant noise sources, which constitute a relatively stable background noise exposure, with the individual contributors unidentifiable. The background noise level changes throughout a typical day, but does so gradually, corresponding with the addition and subtraction of distant noise sources such as traffic and atmospheric conditions. What makes community noise constantly variable throughout a day, besides the slowly changing background noise, is the addition of short duration single event noise sources (e.g., aircraft flyovers, motor vehicles, sirens), which are readily identifiable to the individual receptor. These successive additions of sound to the community noise environment vary the community noise level from instant to instant, requiring the measurement of noise exposure over a period of time to legitimately characterize a community noise environment and evaluate cumulative noise impacts.

3.13.2 Environmental Setting/Affected Environment for Groundbourne Vibration

Vibration is the periodic oscillation of a medium or object. Vibration sources may be continuous, such as factory machinery, or transient, such as explosions. As is the case with airborne sound, ground borne vibrations may be described by amplitude and frequency. Vibration amplitudes are usually expressed in peak particle velocity (PPV), or root mean squared (RMS), as in RMS vibration velocity. The PPV and RMS (VbA) vibration velocity are normally described in inches per second (in/sec). PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal and is often used in monitoring of blasting vibration because it is related to the stresses that are experienced by buildings.

Although PPV is appropriate for evaluating the potential for building damage, it is not always suitable for evaluating human response. As it takes some time for the human body to respond to vibration signals, it is more prudent to use vibration velocity when measuring human response. The typical background vibration velocity level in residential areas is approximately 50 VdB. Groundborne vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels.

Typical outdoor sources of perceptible ground borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. Construction vibrations can be transient, random, or continuous. The approximate threshold of vibration perception is 65 VdB, while 85 VdB is the vibration acceptable only if there are an infrequent number of events per day.

3.13.3 Federal Regulatory Setting

Federal Vibration Policies: The Federal Railway Administration (FRA) and the Federal Transit Administration (FTA) have published guidance relative to vibration impacts. According to the FRA, fragile buildings can be exposed to ground-borne vibration levels of 90 VdB without experiencing structural damage. The FTA has identified the human annoyance response to vibration levels as 75 VdB.

3.13.4 State Regulatory Setting

California Noise Control Act: The California Noise Control Act was enacted in 1973 (Health and Safety Code §46010 et seq.), and states that the Office of Noise Control (ONC) should provide assistance to local communities in developing local noise control programs. It also indicates that ONC staff would work with the Department of Resources Office of Planning and Research (OPR) to provide guidance for the preparation of the required noise elements in city and county General Plans, pursuant to Government Code § 65302(f). California Government Code § 65302(f) requires city and county general plans to include a noise element. The purpose of a noise element is to guide future development to enhance future land use compatibility.

Title 24 – Sound Transmission Control: Title 24 of the California Code of Regulations (CCR) codifies Sound Transmission Control requirements, which establishes uniform minimum noise insulation performance standards for new hotels, motels, dormitories, apartment houses, and dwellings other than detached single-family dwellings. Specifically, Title 24 states that interior noise levels attributable to exterior sources shall not exceed 45 dBA CNEL in any habitable room of new dwellings Title 24, Part 2 requires an acoustical report that demonstrates the achievements of the required 45 dBA CNEL. Dwellings are designed so that interior noise levels will meet this standard for at least ten years from the time of building permit application.

3.13.5 Local Regulatory Setting

The **City of Yuba City General Plan** presents the vision for the future of Yuba City and outlines several guiding policies and policies relevant to noise.

The following goals and policies from the City of Yuba City General Plan[1] are relevant to noise.

Guiding Policies

- 9.1-G-1 Strive to achieve an acceptable noise environment for the present and future residences of Yuba City.
- 9.1-G-2 Incorporate noise considerations into land use planning decisions and guide the location and design of transportation facilities to minimize the effects of noise on adjacent land uses.
- Implementing Policies
- 9.1-I-1 Require a noise study and mitigation for all projects that have noise exposure greater than “normally acceptable” levels. Noise mitigation measures include, but are not limited to, the following actions:
- Screen and control noise sources, such as parking and loading facilities, outdoor activities, and mechanical equipment,
- Increase setbacks for noise sources from adjacent dwellings,
- Retain fences, walls, and landscaping that serve as noise buffers,
- Use soundproofing materials and double-glazed windows, and
- Control hours of operation, including deliveries and trash pickup, to minimize noise impacts.
- 9.1-I-3 In making a determination of impact under the California Environmental Quality Act (CEQA), consider an increase of four or more dBA to be "significant" if the resulting noise level would exceed that described as normally acceptable for the affected land use in Figure 5.

1 City of Yuba, 2004. *City of Yuba General Plan.* April 8, 2004.

- 9.1-I-4 Protect especially sensitive uses, including schools, hospitals, and senior care facilities, from excessive noise, by enforcing “normally acceptable” noise level standards for these uses.
- 9.1-I-5 Discourage the use of sound walls. As a last resort, construct sound walls along highways and arterials when compatible with aesthetic concerns and neighborhood character. This would be a developer responsibility.
- 9.1-I-6 Require new noise sources to use best available control technology (BACT) to minimize noise from all sources.
- 9.1-I-7 Minimize vehicular and stationary noise sources and noise emanating from temporary activities, such as construction.

Table 2: Noise Exposure

LAND USE CATEGORY	COMMUNITY NOISE EXPOSURE - Ldn or CNEL (dBA)													
	50		55		60		65		70		75		80	
Residential – Low Density Single Family, Duplex, Mobile Home														
Residential – Multi-Family														
Transient Lodging – Motel/Hotel														
Schools, Libraries, Churches, Hospitals, Nursing Homes														
Auditorium, Concert Hall, Amphitheaters														
Sports Arena, Outdoor Spectator Sports														
Playgrounds, Neighborhood Parks														
Golf Courses, Riding Stables, Water Recreation, Cemeteries														
Office Buildings, Business, Commercial and Professional														
Industrial, Manufacturing, Utilities, Agriculture														

	Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.
	Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features are included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.
	Normally Unacceptable: New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirement must be made and needed noise insulation features included in the design.
	Clearly Unacceptable: New construction or development generally should not be undertaken.
Source: State of California, Governor's Office of Planning and Research, 2003. General Plan Guidelines.	

City of Yuba City Municipal Code: Title 4, Chapter 17, Section 4-17.10(e) of the Yuba City Municipal Code prohibits the operation of noise-generating construction equipment before 6:00 a.m. or after 9:00 p.m. daily, except Sunday and State or federal holidays when the prohibited time is before 8:00 a.m. and after 9:00 p.m.

3.13.6 Impact Assessment/Environmental Consequences:

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 established in the local general plan or noise ordinance, or applicable standards of other agencies?

A temporary increase in noise will occur during construction of the subdivision followed by noise from the construction of the single-family residences. All of this will primarily occur during daylight hours, Monday through Saturday. Noise from construction activities would contribute to the noise environment in the immediate project vicinity. This could have an impact on existing nearby residences. Activities involved in construction could generate maximum noise levels, as indicated in Table 3, ranging from 79 to 91 dBA at a distance of 50 feet, without feasible noise control (e.g., mufflers) and ranging from 75 to 80 dBA at a distance of 50 feet, with feasible noise control. However, due to the limited duration of the construction activities, that the construction will occur during the less sensitive daylight hours, the noise effects from this activity are expected to be less than significant.

Table 3: Noise Levels of Typical Construction

Type of Equipment [1]	dBA at 50 ft.	
	Without Feasible Noise Control [2]	With Feasible Noise Control
Dozer or Tractor	80	75
Excavator	88	80
Scraper	88	80
Front End Loader	79	75
Backhoe	85	75
Grader	85	75
Truck	91	75

[1] US Environmental Protection Agency. "Noise from Construction Equipment and Operations, Building Equipment and Home Appliances." Figure IV.H-4. 1971.
[2] Feasible noise control includes the use of intake mufflers, exhaust mufflers and engine shrouds operating in accordance with manufacturers specifications

Once constructed the residences are generally not considered to be significant noise generators. Also, the use of masonry perimeter walls will further reduce any noise impacts. Therefore, the residences are not expected in any significant way to raise the ambient noise levels in the surrounding residential neighborhood. For these reasons, adding new residences to a residential area is not expected to create any significant noise impacts.

Short-term noise impacts (and possibly some ground borne vibrations if site compaction is required prior to construction) can be expected resulting from site grading and construction activities. Construction-related noise impacts will be less than significant because adherence to City construction standards is required. These standards limit the hours of operation for construction and use of heavy machinery to daytime hours. Further the construction noise is of limited duration, further limiting any adverse impacts.

b) Generation of excessive ground borne vibration or ground borne noise levels?

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods employed. Operation of construction equipment causes ground vibrations that spread through the ground and diminish in strength with distance. Table 4 describes the typical construction equipment vibration levels.

Table 4: Typical Construction Levels

Equipment [(1)]	VdB at 25 ft2
Small Bulldozer	58
Vibratory Roller	94
Jackhammer	79
Loaded Trucks	86

(1) US Environmental Protection Agency. "Noise from Construction Equipment and Operations, Building Equipment and Home Appliances." Figure IV.H-4. 1971.

Vibration levels of construction equipment in Table 4 are at a distance of 25 feet from the equipment. As noted above, construction activities are limited to daylight hours. Infrequent construction-related vibrations would be short-term and temporary, and operation of heavy-duty construction equipment would be intermittent throughout the day during construction. Therefore, with the short duration of grading activities associated with the Project, the approximate reduction of 6 VdB for every doubling of distance from the source, and consideration of the distance to the nearest existing residences, the temporary impact to any uses in the vicinity of the Project would be less than significant.

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

The Project is not located within two miles of the Sutter County Airport or the Yuba County Airport. Since the Project is not impacted by airport noise, there should be no potential for any significant impacts from the Sutter County or Yuba County Airports onto this site.

3.14 Population and Housing

Table 4-14: Population and Housing				
Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?			X	
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				X

3.14.1 Environmental Setting/Affected Environment

The property is abutted on two sides by single-family residential subdivisions and on two sides by estate lots and small agricultural uses. The area has been converting from agricultural uses to urban residential uses in recent years as this area was designated by the General Plan years ago for single-family residential development and because full City services are available to the site.

3.14.2 Federal Regulatory Setting

There are no federal regulations, plans, programs, or guidelines associated with population or housing that are applicable to the proposed Project.

3.14.3 State Regulatory Setting

California law (Government Code Section 65580, et seq.) requires cities and counties to include a housing element as a part of their general plan to address housing conditions and needs in the community. Housing elements are prepared approximately every eight years, following timetables set forth in the law. The housing element must identify and analyze existing and projected housing needs and "make adequate provision for the existing and projected needs of all economic segments of the community," among other requirements. The City recently adopted its current Housing Element.

3.14.4 Regional Regulatory Setting

State law mandates that all cities and counties offer a portion of housing to accommodate the increasing needs of regional population growth. The statewide housing demand is determined by the California Department of Housing and Community Development (HCD), while local governments and councils of governments decide and manage their specific regional and jurisdictional housing needs and develop a regional housing needs assessment (RHNA).

In the greater Sacramento region, which includes the City of Yuba City, SACOG has the responsibility of developing and approving an RHNA and a Regional Housing Needs Plan (RHNP) every eight years

(Government Code, Section 65580 et seq.). This document has a central role of distributing the allocation of housing for every county and city in the SACOG region. Housing needs are assessed for very low income, low income, moderate income, and above moderate households.[2]

As described above, SACOG is the association of local governments that includes Yuba City, along with other jurisdictions comprising the six counties in the greater Sacramento region. In addition to preparing the Metropolitan Transportation Plan and Sustainable Communities Strategy for the region, SACOG approves the distribution of affordable housing in the region through its RHNP. SACOG also assists in planning for transit, bicycle networks, clean air and serves as the Airport Land Use Commission for the region.[3]

3.14.5 Impact Assessment/Environmental Consequences:

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)?

The proposed Project will create 34 single-family residences in an area transitioning from agricultural uses to residential uses. Residential development was planned for this area for at least 30 years by both Sutter County and Yuba City. As this is mostly an infill project this Project will not induce unplanned growth to the area. As a result it does not have the potential to create any significant impacts from unplanned growth.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

The proposed Project will result in the demolition of one existing residence.. This loss is not considered to be a significant impact as the loss would be off-set by the development of 34 single-family residences.

2 Sacramento Area Council of Governments. 2012. Regional Needs Housing Plan 2013-2021. Adopted September 20, 2012. Page 4. Table 1.

3 Sacramento Area Council of Governments. 2017. About SACOG. SACOG website. Available: http://www.sacog.org/about/. Accessed July 25, 2017.

3.15 Public Services

Table 3.15: Public Services				
Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i) Fire protection?			X	
ii) Police protection?			X	
iii) Schools?			X	
iv) Parks?			X	
v) Other public facilities?			X	

3.15.1 Environmental Setting/Affected Environment

Law enforcement for the proposed new housing will be provided by the Yuba City Police Department. Fire protection is provided by the Yuba City Fire Department. Nearby parks and other urban services that will be utilized by new residents, including streets, water, and sewer. Stormwater drainage will also be provided by Yuba City.

3.15.2 Federal Regulatory Setting

National Fire Protection Association: The National Fire Protection Association (NFPA) is an international nonprofit organization that provides consensus codes and standards, research, training, and education on fire prevention and public safety. The NFPA develops, publishes, and disseminates more than 300 such codes and standards intended to minimize the possibility and effects of fire and other risks. The NFPA publishes the NFPA 1, Uniform Fire Code, which provides requirements to establish a reasonable level of fire safety and property protection in new and existing buildings.

3.15.3 State Regulatory Setting

California Fire Code and Building Code: The 2013 California Fire Code (Title 24, Part 9 of the California Code of Regulations) establishes regulations to safeguard against hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures, and premises. The Fire Code also establishes requirements intended to provide safety and assistance to fire fighters and emergency responders during emergency operations. The provision of the Fire Code includes regulations regarding fire-resistance rated construction, fire protection systems such as alarm and sprinkler systems, fire service features such as fire

apparatus access roads, fire safety during construction and demolition, and wildland urban interface areas.

California Health and Safety Code (HSC): State fire regulations are set forth in Sections 13000 et seq. of the California HSC, which includes regulations for building standards (as set forth in the CBC), fire protection and notification systems, fire protection devices such as extinguishers, smoke alarms, childcare facility standards, and fire suppression training.

California Master Mutual Aid Agreement: The California Master Mutual Aid Agreement is a framework agreement between the State of California and local governments for aid and assistance by the interchange of services, facilities, and equipment, including but not limited to fire, police, medical and health, communication, and transportation services and facilities to cope with the problems of emergency rescue, relief, evacuation, rehabilitation, and reconstruction.

3.15.4 Impact Assessment/Environmental Consequences:

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

Fire Protection: The Fire Department reviewed the proposal and did not express concerns. Since all new housing development pays development impact fees intended to offset the cost of additional fire facilities and equipment costs resulting from this growth, the impacts on fire services will be less than significant.

Police Protection: The Police Department reviewed the proposal and did not express concerns. Since all new housing development pays impact fees that intended to offset the cost of additional police facilities and equipment resulting from this growth the impacts on police services will be less than significant.

Schools: New residences will pay the Yuba City Unified School District adopted school impact fees that are intended to provide the new resident's fair share for expanded or new educational facilities needed to accommodate this new growth. Therefore, the impact on schools will be less than significant.

Parks: The City charges a park impact fee for each new residence that is utilized to purchase parkland and construct new parks. Therefore, the impact on parks from this Project will be less than significant.

Other Public Facilities: The Project will be connected to City water and wastewater systems. Each new residential connection to those systems must pay connection fees that are utilized for expansion of the respective treatment plants. The City also collects impact fees for County services that are provided to the new residences, such as the library system and justice system.

Accordingly, the Project will have a less than significant impact regarding the provision of public services.

Regarding the proposed pre-annexation rezoning, there are several criteria that involve funding of public services, both from a capital improvement perspective and an infrastructure maintenance standpoint. The elimination of these criteria does not have potential to create any impacts on the provision and maintenance of services as these criteria have since been superseded by citywide standards and project conditions. Therefore there will be no impact on the provision of City services.

3.16 Recreation

Table 3-16: Recreation				
Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			X	
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?			X	

3.16.1 Environmental Setting/Affected Environment

Yuba City has 22 City-owned parks and recreational areas, managed by the City's Parks and Recreation Department. This consists of four community parks, 15 neighborhood parks, and three passive or mini parks.

3.16.2 Federal Regulatory Setting

There are no federal regulations regarding parks and open space that are applicable to the proposed Project.

3.16.3 State Regulatory Setting

State Public Park Preservation Act: The primary instrument for protecting and preserving parkland is the Public Park Preservation Act of 1971. Under the PRC section 5400-5409, cities and counties may not acquire any real property that is in use as a public park for any non-park use unless compensation or land, or both, are provided to replace the parkland acquired. This provides no net loss of parkland and facilities.

Quimby Act: California Government Code Section 66477, referred to as the Quimby Act, permits local jurisdictions to require the dedication of land and/or the payment of in-lieu fees solely for park and recreation purposes. The required dedication and/or fee are based upon the residential density and housing type, land cost, and other factors. Land dedicated and fees collected pursuant to the Quimby Act may be used for developing new or rehabilitating existing park or recreational facilities.

3.16.4 Local Regulatory Setting

The Yuba City General Plan and the City's Parks Master Plan provide a goal of providing 5 acres of public parkland per 1,000 residents, while it also requires 1 acre of Neighborhood Park for every 1,000 residents. The City's development impact fee program collects fees for new development which is allocated for the acquisition and development of open space in the City.

3.16.5 Impact Assessment/Environmental Consequences:

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

The 34 new residences that will be constructed as a result of this subdivision will incrementally increase the use of City parks. However, for each new residence development impact fees for new or expanded parks and recreation facilities will be paid. These fees will mitigate any incremental impacts on recreational facilities.

The rezoning that will eliminate the criteria for funding recreational facilities, but will have no impact as this criteria has been superseded by citywide development impact fees.

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

The Project does not propose any new or expanded recreational uses.

3.17 Transportation/Traffic

Table 4-17: Transportation Recreation				
Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
T Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?			X	
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3 subdivision (b)?			X	
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	
d) Result in inadequate emergency access?			X	

3.17.1 Federal Regulatory Setting

Federal Highway Administration: FHWA is the agency of the U.S. Department of Transportation (DOT) responsible for the Federally funded roadway system, including the interstate highway network and portions of the primary State highway network. FHWA funding is provided through the Safe, Accountable, Flexible, Efficiency Transportation Equity Act: A Legacy for Users (SAFETEA-LU). SAFETEA- LU can be used to fund local transportation improvement projects, such as projects to improve the efficiency of existing roadways, traffic signal coordination, bikeways, and transit system upgrades.

Several federal regulations govern transportation issues. They include:

- Title 49, CFR, Sections 171-177 (49 CFR 171-177), governs the transportation of hazardous materials, the types of materials defined as hazardous, and the marking of the transportation vehicles.
- Title 49 CFR 350-399, and Appendices A-G, Federal Motor Carrier Safety Regulations, address safety considerations for the transport of goods, materials, and substances over public highways.

3.17.2. State Regulatory Setting

The measurement of the impacts of a project's traffic is set by the CEQA Guidelines. Section 15064.3 of the Guidelines states that vehicle miles traveled (VMT) is the most appropriate measure of transportation impacts. VMT is a metric which refers to the amount of distance of automobile traffic that is generated by a project. Per the Guidelines "Vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact." "Projects that decrease vehicle miles traveled compared to existing conditions should be presumed to have a less than significant environmental impact."

The CEQA Guidelines also states that the lead agency (Yuba City) may "choose the most appropriate methodology to evaluate a project's vehicle miles traveled …". As this is a new form of calculating significant traffic events, the City has not yet determined its own methodology to calculate levels of significance for VMT. Until that methodology is determined, for purposes of this initial study the information provided by the Sacramento Council of Governments (SACOG) and the CA Office of Planning and Research is utilized. A review of these studies indicates several factors that may be utilized for determining levels of significance. One is that if the project will generate less than 110 vehicle trips per day, it is assumed that with the small size of the project, the impact is less than significant. A second criteria is that for a project, on a per capita or per employee basis, the VMT will be at least 15 percent below that of existing development is a reasonable threshold for determining significance.

As this is a new methodology, future projects may utilize different criterion as they become available.

3.17.3. Local Regulatory Setting

The Yuba City General Plan Transportation Element has policies regulating all mode of transportation and related activities. Specifically, there are Implementing Policies regarding Traffic Levels of Service that are relevant to project review process:

5.2-I-12 Develop and manage the roadway system to obtain LOS D or better for all major roadways and intersections in the City. This policy does not extend to residential streets (i.e., streets with direct driveway access to homes) or bridges across the Feather River nor does the policy apply to state highways and their intersections, where Caltrans policies apply. Exceptions to LOS policy may be allowed by the City Council in areas, such as downtown, where allowing a lower LOS would result in clear public benefits. Specific exceptions granted by the Council shall be added to the list of exceptions below:

- SR 20 (SR 99 to Feather River Bridge) – LOS F is acceptable;
- SR 20 (Feather River Bridge) – LOS F is acceptable;
- Bridge Street (Twin Bridges across the Feather River) – LOS F is acceptable;
- Lincoln Road (New bridge across the Feather River) - LOS F is acceptable.

No new development will be approved unless it can be shown that required level of service can be maintained on the affected roadways.

5.2-I-13 Develop and manage residential streets (i.e., streets with direct driveway access to homes) to limit average daily traffic volumes to 2,500 or less and 85th percentile speeds to 25 miles per hour or less.

5.2-I-14 Require traffic impact studies for all proposed new developments that will generate significant amounts of traffic.

Specific thresholds will be based on location and project type, and exceptions may be granted where traffic studies have been completed for adjacent development.

5.2-I-15 Improve intersections as needed to maintain LOS standards and safety on major arterials.

3.17.4. Impact Assessment/Environmental Consequences:

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

The General Plan polices cited above require that General Plan level streets and intersections maintain adequate levels of service (LOS D or better is considered adequate level). In this case the Project will create a new intersection onto Tuly Parkway, which is designated in the General Plan as a four-lane parkway, and onto Bradley Estates Drive, which is designated as a collector street. Also impacted by the Project will be Blevin Road, which is also designated as a collector street, and a new connection with Elmer Avenue, a local street, will also be created. A traffic study was prepared for the Project (Wood Rodgers, Thiara Estates Traffic Operations Memorandum, dated November 30, 2022) to analyze the Projects impacts on these streets (a copy of the full study is attached to the environmental assessment which is part of this packet). Of primary concern was the impacts the Project would have on the Elmer Avenue/Butte House Road and Blevins Road/Butte House Road intersections. The study concluded that upon completion of the Project, the LOS at those intersections will remain at LOS D or better. This remains the case even under the cumulative scenario which projects traffic levels to 2035. As such, the Project's impacts on the street segments and intersections discussed above are consistent with General Plan policies and thus the impacts will be less than significant.

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

This CEQA section describes specific considerations for evaluating a project's transportation impacts in terms of Vehicle Miles Traveled (VMT). SACOG, in "Technical Advisory: On Evaluating Transportation Impacts in CEQA" provides two criteria for which if the project meets either of them, the traffic impacts are considered less than significant. One criterion is that the project generates less than 110 vehicle trips per day is considered to be less than a significant impact. The Project will exceed this criterion, so it is not further considered in this review. The second criterion is that if a project, on a per capita or per employee basis, the VMT will be at least 15 percent below that of existing development is a reasonable threshold for determining significance. SACOG also has released a draft document (SB 743 regional screening maps) that provides mapping data indicating the average miles traveled for different areas within and around Yuba City. The range of the categories are:

Less than 50% of regional average.

50-85% of regional average.

85-100% of the regional average.

115-150% of the regional average.

More than 150% of the regional average.

Per the SACOG maps for this area, the estimated average vehicle distance traveled per residence is in the 50-85% range of the norm. In other words, per the SACOG regional screening maps, this subdivision is located in an area that meets the 15 percent vehicle trip reduction criteria. Thus, the transportation impacts from this subdivision is consistent with CEQA Guidelines Section 15063.4(b) and it follows that the traffic impacts generated by this Project are considered to be less than significant.

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

Based on the traffic study discussed in part a) above, Project access, site internal circulation, and emergency access are adequate. Therefore any increase in traffic hazards associated with this Project are considered to be less than significant.

d) Result in inadequate emergency access?

The Fire Department and Police Departments have reviewed the Project plans, which includes two access points into the subdivision. As such, the Fire Department and Police Department did not comment on the Project has determined that it meets all City standards. The traffic study prepared for the Project also confirmed that emergency access is considered adequate, and therefore less than a significant impact.

3.18 Tribal Cultural Resources

Table 3-18: Tribal Cultural Resources				
Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project cause of 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			X	
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.			X	

3.18.1 Environmental Setting/Affected Environment

This section describes the affected environment and regulatory setting for Tribal Cultural Resources (TCRs). The following analysis of the potential environmental impacts related to TCRs is derived primarily from the Environmental Impact Report for the City of Yuba City General Plan (2004) and consultation record with California Native American tribes under Assembly Bill 52 and Senate Bill 18.

3.18.2 Federal Regulatory Setting

National Historic Preservation Act of 1966 (as amended), Section 106: The significance of cultural resources is evaluated under the criteria for inclusion in the National Register of Historic Places (NRHP), authorized under the National Historic Preservation Act of 1966, as amended. The criteria defined in 36 CFR 60.4 are as follows:

The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of state and local importance that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

- That are associated with events that have made a significant contribution to the broad patterns of our history; or
- That are associated with the lives of persons significant in our past; or

- That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- That have yielded, or may be likely to yield, information important to prehistory or history.

Sites listed or eligible for listing on the NRHP are considered to be historic properties. Sites younger than 50 years, unless of exceptional importance, are not eligible for listing in the NRHP.

3.18.3 State Regulatory Setting

Assembly Bill 52: Effective July 1, 2015, Assembly Bill 52 (AB 52) amended CEQA to require that: 1) a lead agency provide notice to any California Native American tribes that have requested notice of projects proposed by the lead agency; and 2) for any tribe that responded to the notice within 30 days of receipt with a request for consultation, the lead agency must consult with the tribe. Topics that may be addressed during consultation include TCRs, the potential significance of project impacts, type of environmental document that should be prepared, and possible mitigation measures and project alternatives.

Pursuant to AB 52, Section 21073 of the Public Resources Code defines California Native American tribes as "a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of the Statutes of 2004." This includes both federally and non-federally recognized tribes.

Section 21074(a) of the Public Resource Code defines TCRs for the purpose of CEQA as:

1) Sites, features, places, cultural landscapes (geographically defined in terms of the size and scope), sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
    a. included or determined to be eligible for inclusion in the California Register of Historical Resources; and/or
    b. included in a local register of historical resources as defined in subdivision (k) of Section 5020.1; and/or
    c. 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 Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

Because criteria a and b also meet the definition of a Historical Resource under CEQA, a TCR may also require additional consideration as a Historical Resource. TCRs may or may not exhibit archaeological, cultural, or physical indicators.

Recognizing that California tribes are experts in their TCRs and heritage, AB 52 requires that CEQA lead agencies initiate consultation with tribes at the commencement of the CEQA process to identify TCRs. Furthermore, because a significant effect on a TCR is considered a significant impact on the environment under CEQA, consultation is required to develop appropriate avoidance, impact minimization, and mitigation measures.

3.18.4 Cultural Setting

The Nisenan (also referred to as Southern Maidu) inhabited the General Plan area prior to large-scale European and Euroamerican settlement of the surrounding area. Nisenan territory comprised the drainages of the Yuba, Bear, and American Rivers, and the lower drainages of the Feather River. The Nisenan, together with the Maidu and Konkow, their northern neighbors, form the Maiduan language family of the Penutian linguistic stock (Shipley 1978:89). Kroeber (1976:392) noted three dialects: Northern Hill Nisenan, Southern Hill Nisenan, and Valley Nisenan. Although cultural descriptions of this group in the English language are known from as early as 1849, most of our current cultural knowledge comes from various anthropologists in the early part of the 20th century (Levy 1978:413; Wilson and Towne 1978:397).

The basic subsistence strategy of the Nisenan was seasonally mobile hunting and gathering. Acorns, the primary staple of the Nisenan diet, were gathered in the valley along with seeds, buckeye, salmon, insects, and a wide variety of other plants and animals. During the warmer months, people moved to mountainous areas to hunt and collect food resources, such as pine nuts. Bedrock and portable mortars and pestles were used to process acorns. Nisenan settlement patterns were oriented to major river drainages and tributaries. In the foothills and lower Sierra Nevada, Nisenan located their villages in large flats or ridges near major streams. These villages tended to be smaller than the villages in the valley. (Wilson and Towne 1978:389–390.)

Trade provided other valuable resources that were not normally available in the Nisenan environment. The Valley Nisenan received black acorns, pine nuts, manzanita berries, skins, bows, and bow wood from the Hill Nisenan to their east, in exchange for fish, roots, grasses, shells, beads, salt, and feathers (Wilson and Towne 1978). To obtain, process, and utilize these material resources, the Nisenan had an array of tools to assist them. Wooden digging sticks, poles for shaking acorns loose, and baskets of primarily willow and redbud were used to gather vegetal resources. Stone mortars and pestles were used to process many of the vegetal foods; baskets, heated stones, and wooden stirring sticks were used for cooking. Basalt and obsidian were primary stone materials used for making knives, arrow and spear points, clubs, arrow straighteners, and scrapers. (Wilson and Towne 1978.)

Nisenan settlement locations depended primarily on elevation, exposure, and proximity to water and other resources. Permanent villages were usually located on low rises along major watercourses. Village size ranged from three houses to 40 or 50 houses. Larger villages often had semi-subterranean dance houses that were covered in earth and tule or brush and had a central smoke hole at the top and an entrance that faced east (Wilson and Towne 1978:388). Early Nisenan contact with Europeans appears to have been limited to the southern reaches of their territory. Spanish expeditions intruded into Nisenan territory in the early 1800s. In the two or three years following the gold discovery, Nisenan territory was overrun by immigrants from all over the world. Gold seekers and the settlements that sprang up to support them were nearly fatal to the native inhabitants. Survivors worked as wage laborers and domestic help and lived on the edges of foothill towns. Despite severe depredations, descendants of the Nisenan still live in their original land area and maintain and pass on their cultural identity.

3.18.5 Summary of Native American Consultation

In response to AB 52, the City supplied the following Native American tribes with a Project description and map of the proposed Project area and a request for comments:

- United Auburn Indian Community of the Auburn Rancheria
- Yocha Dehe Wintun Nation

- Estom Yomeka Maidu Tribe of the Enterprise Rancheria
- Mechoopda Indian Tribe
- Pakan'yani Maidu of Strawberry Valley
- Mooretown Rancheria of Maidu Indians
- Ione Band of Miwok Indians

3.18.6 Thresholds of Significance

AB 52 established that a substantial adverse change to a TCR has a significant effect on the environment. The thresholds of significance for impacts to TCRs are as follows:

Would the Project cause a substantial adverse change to a TCR, defined in Section 21074 as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a Native American tribe that are:

- Included or determined to be eligible for inclusion in the California Register of Historical Resources;
- Included in a local register of historical resources as defined in subdivision k of Section 5010.1; and/or
- Determined by the City to be significant, as supported by substantial evidence, including:
    - A cultural landscape with a geographically defined boundary;
    - A historical resource as described in Section 21084.1 (either eligible for or listed on the California Register of Historical Resources or listed on a local registry);
    - A unique archaeological resource as defined in Section 21083.2; and/or
    - A non-unique archaeological resource as defined in Section 21083.2.

In assessing substantial adverse change, the City must determine whether or not the project will adversely affect the qualities of the resource that convey its significance. The qualities are expressed through integrity. Integrity of a resource is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association [CCR Title 14, Section 4852(c)]. Impacts are significant if the resource is demolished or destroyed or if the characteristics that made the resource eligible are materially impaired [CCR Title 14, Section 15064.5(a)]. Accordingly, impacts to a TCR would likely be significant if the project negatively affects the qualities of integrity that made it significant in the first place. In making this determination, the City need only address the aspects of integrity that are important to the TCR's significance.

3.18.7 Impact Assessment/Environmental Consequences:

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).

There is an existing residence on the property, that will be removed as part of the development of the property. However, the residence does not appear to be old enough to be of historical significance, nor does the EIR prepared for the General Plan update identify it as historically significant. Therefore, the potential impact on any historical resource will be less than significant.

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.

The 8.19-acre property that will be developed has been utilized for many years as an orchard and a single-family residence. The City solicited consultation with culturally affiliated California Native American tribes (regarding the proposed project in accordance with SB 18 and AB 52. The Unite Auburn Indian Community responding to the City's request stated that the property is not sensitive for tribal cultural resources. But it remains possible that Tribal Cultural Resources could remain on the property. As such, the Unanticipated Discoveries" mitigation is applied to this project. With this mitigation measure, the impact on cultural resources will be less than significant.

3.18.8 Tribal Cultural Mitigation Measures

Tribal Cultural Resources Mitigation 1: Unanticipated Discoveries: If any suspected TCRs are discovered during ground disturbing construction activities, all work shall cease within 100 feet of the find, or an agreed upon distance based on the project area and nature of the find. A Tribal Representative from a California Native American Tribe that is traditionally and culturally affiliated with a geographic area shall be immediately notified and shall determine if the find is a TCR (PRC 21074). The Tribal Representative will make recommendations for further evaluation and treatment as necessary.

Preservation in place is the preferred alternative under CEQA and UAIC protocols, and every effort must be made to preserve the resources in place, including through project redesign. Culturally appropriate treatment may be, but is not limited to, processing materials for reburial, minimizing handling of cultural objects, leaving objects in place within the landscape, returning objects to a location within the project area where they will not be subject to future impacts. The Tribe does not consider curation of TCR's to be appropriate or respectful and request that materials not be permanently curated, unless approved by the Tribe.

The contractor shall implement any measures deemed by the CEQA lead agency to be necessary and feasible to preserve in place, avoid, or minimize impacts to the resource, including but limited to, facilitating the appropriate tribal treatment of the find, as necessary. Treatment that preserves or restores the cultural character and integrity of a Tribal Cultural Resource may include Tribal monitoring, culturally appropriate recovery of cultural objects, and reburial of cultural objects or cultural soil.

Work at the discovery location cannot resume until all necessary investigation and evaluation of the discovery under the requirements of CEQA, including AB 523 has been satisfied.

3.19 Utilities and Service Systems

Table 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 or wastewater treatment or storm drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?			X	
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?			X	
c) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			X	
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?			X	
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			X	

3.19.1 Environmental Setting/Affected Environment

Wastewater:

Yuba City owns, operates, and maintains the wastewater collection, treatment, and disposal system that provides sewer service to over 60,000 residents and numerous businesses. The remainder of the residents and businesses in the Yuba City Sphere of Influence (SOI) are currently serviced by private septic systems. In the early 1970s, the City's original sewage treatment plant was abandoned, and the current Wastewater Treatment Facility (WWTF) was constructed.

Water:

The water supply source for the City is surface water from the Feather River with use of a backup groundwater well. The City of Yuba City is a public water agency with approximately 18,045 connections. City policy only allows areas within the City limits to be served by the surface water system.

Reuse and Recycling:

Solid waste generated in Yuba City is collected by Recology Yuba-Sutter. Recology offers residential, commercial, industrial, electronic, and hazardous waste collection, processing, recycling, and disposal, as well as construction and demolition waste processing, diversion, and transfer to a disposal facility. The

City's municipal solid waste is delivered to the Ostrom Road Landfill; a State-permitted solid waste facility that provides a full range of transfer and diversion services. As of June 2021, the Recology Ostrom Road Landfill Remaining Site Net Airspace is 33,764,000 cy; and has a remaining capacity of 21,297,000 tons; and remaining landfill service life is 53 years.

3.19.2 Federal Regulatory Setting

National Pollutant Discharge Elimination System: Discharge of treated wastewater to surface water(s) of the U.S., including wetlands, requires an NPDES permit. In California, the RWQCB administers the issuance of these federal permits. Obtaining a NPDES permit requires preparation of detailed information, including characterization of wastewater sources, treatment processes, and effluent quality. Any future development that exceeds one acre in size would be required to comply with NPDES criteria, including preparation of a Stormwater Pollution Prevention Plan (SWPPP) and the inclusion of BMPs to control erosion and offsite transport of soils.

3.19.3 State Regulatory Setting

State Water Resources Control Board (SWRCB): Waste Discharge Requirements Program. State regulations pertaining to the treatment, storage, processing, or disposal of solid waste are found in Title 27, CCR, Section 20005 et seq. (hereafter Title 27). In general, the Waste Discharge Requirements (WDRs) Program (sometimes also referred to as the "Non-Chapter 15 (Non 15) Program") regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. Exemptions from Title 27 may be granted for nine categories of discharges (e.g., sewage, wastewater, etc.) that meet, and continue to meet, the preconditions listed for each specific exemption. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to Section 20230 of Title 27. Several programs are administered under the WDR Program, including the Sanitary Sewer Order and recycled water programs.

Department of Resources Recycling and Recovery (CalRecycle): The Department of Resources Recycling and Recovery (CalRecycle) is the State agency designated to oversee, manage, and track the 76 million tons of waste generated each year in California. CalRecycle develops laws and regulations to control and manage waste, for which enforcement authority is typically delegated to the local government. The board works jointly with local government to implement regulations and fund programs.

The Integrated Waste Management Act of 1989 (PRC 40050 et seq. or Assembly Bill (AB 939, codified in PRC 40000), administered by CalRecycle, requires all local and county governments to adopt a Source Reduction and Recycling Element to identify means of reducing the amount of solid waste sent to landfills. This law set reduction targets at 25 percent by the year 1995 and 50 percent by the year 2000. To assist local jurisdictions in achieving these targets, the California Solid Waste Reuse and Recycling Access Act of 1991 requires all new developments to include adequate, accessible, and convenient areas for collecting and loading recyclable and green waste materials.

Regional Water Quality Control Boards: The primary responsibility for the protection of water quality in California rests with the State Water Resources Control Board (State Board) and nine Regional Water Quality Control Boards. The State Board sets statewide policy for the implementation of state and federal laws and regulations. The Regional Boards adopt and implement Water Quality Control Plans (Basin Plans), which recognize regional differences in natural water quality, actual and potential beneficial uses, and water quality problems associated with human activities.

National Pollutant Discharge Elimination System (NPDES) Permit: As authorized by the Clean Water Act (CWA), the National Pollutant Discharge Elimination System (NPDES) Permit Program controls water pollution by regulating point sources that discharge pollutants into water of the United States. In California, it is the responsibility of Regional Water Quality Control Boards (RWQCB) to preserve and enhance the quality of the state's waters through the development of water quality control plans and the issuance of waste discharge requirements (WDRs). WDRs for discharges to surface waters also serve as NPDES permits.

California Department of Water Resources: The California Department of Water Resources (DWR) is a department within the California Resources Agency. The DWR is responsible for the State of California's management and regulation of water usage.

3.19.4 Impact Assessment/Environmental Consequences:

a) Require or result in the relocation or construction of new or expanded water or wastewater treatment or storm 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?

The Project will connect to both the City's water and wastewater treatment systems. The Yuba City Wastewater Treatment Facility (WWTF) has available capacity to accommodate new growth. The WWTF current permitted capacity is 10.5 mgd (annual average dry weather flow). The existing average influent flow to the WWTF is approximately 6 mgd. The remaining treatment capacity at the WWTF can be used to accommodate additional flow from the future developments.

The City's Water Treatment plant (WTP), for which its primary source of water is from the Feather River, also has adequate capacity to accommodate this Project. The WTP uses two types of treatment systems, conventional and membrane treatment. The permitted capacity of the conventional WTP is 24 million gallons per day (mgd). The membrane treatment system has a permitted capacity of 12 mgd. Water produced from the conventional and the membrane treatment plants are blended for chlorine disinfection. Operating the conventional and membrane treatment facilities provides a total WTP capacity of 36 mgd. The City is permitted to draw 30 mgd from the Feather River. The current maximum day use is 26 mgd. The City also has an on-site water well at the water plant that supplements the surface water when needed.

Both facilities have adopted master plans to expand those plants to the extent that they will accommodate the overall growth of the City.

The ongoing expansions of those plants to accommodate growth beyond this project are funded by the connection fees paid by each new connection. Therefore, the impact on the water and wastewater treatment facilities will be less than significant.

Stormwater drainage in this area is provided by Yuba City drainage lines. Subject to the subdivision's conditions of approval, the local stormwater drainage system has been determined to be able to accommodate the additional drainage generated by this Project. Further, the Project will be responsible to pay the fees to the drainage district that mitigates the Project's impacts on the system. Thus, the impacts on the stormwater drainage system will be less than significant.

The rezoning that will eliminate the criteria for funding public facilities and services, such as water, sewer,

and drainage will have no impact as these criteria have been superseded by citywide development impact fees and connection fees.

The extension of electric power facilities, natural gas facilities and telecommunication facilities to this property are provided by private companies, none of which have voiced concerns over the extensions of their services to this Project site. With these considerations the impact on these types of facilities are expected to be less than significant.

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

See Parts a) and b), above.

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 statutes and regulations related to solid waste?

Recology Yuba-Sutter provides solid waste disposal for the area as well as for all of Sutter and Yuba Counties. There is adequate collection and landfill capacity to accommodate the proposed development.

3.20 Wildfire

Table 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?			X	
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?			X	
c) Require the installation 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?			X	
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?			X	

3.20.1 Environmental Setting/Affected Environment

Wildland fires are an annual hazard in Sutter County, particularly in the vicinity of the Sutter Buttes, and, to a lesser degree due to urbanized development, Yuba City. Wildland fires burn natural vegetation on undeveloped lands and include rangeland, brush, and grass fires. Long, hot, and dry summers with temperatures often exceeding 100°F add to the County's fire hazard. Human activities are the major causes of wildland fires, while lightning causes the remaining wildland fires. Irrigated agricultural areas, which tend to surround Yuba City, are considered a low hazard for wildland fires.

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.

3.20.2 Impact Assessment/ Environmental Consequences

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

As discussed in Section 3.17 of this Initial Study, Project construction is not expected to substantially obstruct emergency vehicles or any evacuations that may occur in the area. Project operations likewise would not obstruct any roadways. Therefore, the impacts of the Project related to emergency response or evacuations will be less than significant.

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?

The Project site is in a level area within the City urban area with little, if any, native vegetation remaining, and the urban area is surrounded by irrigated farmland. This type of environment is generally not subject to wildfires. In light of this, the exposure of new residents to wildfire is less than significant.

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?

As discussed above, the site is not near any wildland areas and the Project itself will not create any improvements that potentially could generate wildfire conditions. As such the Project will not be constructing or maintaining wildfire related infrastructure such as fire breaks, emergency water sources, etc. Thus, the Project will not create any potential significant impacts that could result from these types of improvements.

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?

The Project site is in a topographically flat area. There are no streams or other channels that cross the site. As such, it is not expected that people or structures would be exposed to significant risks from

changes resulting from fires in steeper areas, including downslope or downstream flooding or landslides. Impacts of the Project related to these issues will be less than significant.

3.21 Mandatory Findings of Significance

Table 3.21: Mandatory Findings of Significance				
Would the Project:	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 example of the major periods of California history or prehistory?			X	
b) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)			X	
c) Have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?			X	

3.21.1 Impact Assessment/Environmental Consequences:

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 example of the major periods of California history or prehistory?

The land was stripped many years ago of native vegetation for agricultural uses and there are no on-site or nearby waterways or wetland areas. Therefore the construction of these 34 single-family residences will not significantly degrade the quality of the natural 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, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate an important example of the major periods of California history or prehistory.

The analysis conducted in this Initial Study/Mitigated Negative Declaration results in a determination that the proposed Project, with its mitigation measures, will have a less than significant effect on the local environment.

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)

CEQA Guidelines Section 15064(i) states that a Lead Agency shall consider whether the cumulative impact of a project is significant and whether the effects of the project are cumulatively considerable. The assessment of the significance of the cumulative effects of a project must, therefore, be conducted in connection with the effects of past projects, other current projects, and probable future projects.

This Project is consistent with the residential densities and policies of the General Plan. As such the traffic that will be generated is within the range of what was anticipated in the General Plan which considered anticipated future growth of the area. The City has adequate water and wastewater capacity and the Project will be extending those services to the site. Stormwater drainage will also meet all City standards. The City has good development and design standards that will be applied to the subdivision. The loss of agricultural land is cumulative but based on City and County agricultural protection program, the loss is limited to within the urban areas of the City, which is a minor portion of the entire County. The school district has not indicated that they lack capacity to provide proper educational facilities to the new students. The FRAQMD also did not comment that the Project would create any significant cumulative impacts on air quality. Therefore, there are no significant impacts that will be individually limited but cumulatively considerable.

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

The proposed Project in and of itself will not create a significant hazard to the public or the environment. Construction-related air quality, noise, and hazardous materials exposure impacts would occur for a very short period and only be a minor impact during that time period. Therefore, the proposed Project would not have any direct or indirect significant adverse impacts on humans.

4. Section References and/or Incorporated by Reference

According to Section 15150 of the CEQA Guidelines, an ND may incorporate by reference all or portions of another document that is a matter of public record. The incorporated language will be considered to be set forth in full as part of the text of the ND. All documents incorporated by reference are available for review at, or can be obtained through, the City of Yuba City Development Services Department located at the address provided above. The following documents are incorporated by reference:

Wood Rodgers, Thiara Estates Traffic Operations Memorandum, dated November 30, 2022.

Fehr & Peers, Inc. September 2020. SB 743 Implementation Guidelines for City of Yuba City.

Governor's Office of Planning and Research, November 2017. Technical Advisory on Evaluating Transportation Impacts in CEQA.

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Fehr & Peers Associates, Inc. 1995. Yuba-Sutter Bikeway Master Plan. December 1995.

"Determination of 1-in-200 Year Floodplain for Yuba City Urban Level of Flood Protection Determination," prepared for Yuba City by MBK Engineers, November 2015.

Sutter County General Plan.

Feather River Air Quality Management District (FRAQMD) CEQA Significance Thresholds.

Yuba Sutter Transit Route Map.

California Department of Conservation, California Geological Survey. "Fault Zone Activity Map." Alquist-Priolo Earthquake Fault Zones.

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City of Yuba City Wastewater Master Plan.

Sutter County Airport Comprehensive Land Use Plan, April, 1994.

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Appendix A

Thiara Estates Traffic Operations Memorandum

Memorandum

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME

To: Sarbjit Thiara Jr.
2599 Reed Road
Yuba City, CA 95993

From: Mario Tambellini, PE, TE
Nicole Scappaticci, PE

Date: November 30, 2022

Subject: **Thiara Estates Traffic Operations Memorandum**

INTRODUCTION

This Traffic Operations Memorandum (TOM) has been prepared to present the results for a traffic assessment for the proposed Thiara Estates Project (Project) located in Yuba City (City). The Project would develop 34 single-family residential dwelling units on a lot located south of Nick Court between Elmer Avenue and Tuly Parkway. The Project location is shown in **Attachment A**. The lot is currently occupied by an orchard which the Project would remove.

This TOM includes the following:

- Project trip generation
- Intersection analysis
- Site access evaluation
- Discussion of Project effect on transit and other public facilities
- Vehicle Miles Traveled (VMT) analysis

This TOM has been prepared consistent with policies in the *Yuba City General Plan* (adopted April 8, 2004) and the *Sutter County General Plan Draft Environmental Impact Report (DEIR)* (dated September 2010).

PROJECT DESCRIPTION

The Project proposes to develop 34 single-family residential dwelling units on a site which currently contains an orchard which would be removed. The Project would construct new internal site roadways and gain access to the surrounding network via new intersection connections with Elmer Avenue and Tuly Parkway/Bradley Estates Drive. The existing and proposed zoning is One-Family Residence Districts (R-1). The existing and proposed General Plan designation is Low Density Residential. The Project site plan is included in **Attachment B**.

ANALYSIS SCENARIOS AND STUDY FACILITIES

Intersection and roadway operations were studied under the following scenarios:

- Existing Conditions
- Existing Plus Project Conditions

As shown in **Attachment A**, the following intersections and roadway facilities were included in this analysis:

Study Intersections:

1. Elmer Avenue & Butte House Road
2. Blevin Road & Butte House Road

ANALYSIS METHODOLOGY

Synchro 11 software and Highway Capacity Manual, 6th Edition (HCM 6th Edition) methodology was used to determine intersection delay and level of service (LOS) operations under weekday AM and PM peak hour conditions.

For side-street stop-controlled intersections, the worst approach/movement delay and LOS is reported. The delay based HCM 6th Edition LOS criteria for different types of intersection controls are outlined in **Table 1**.

Table 1. HCM 6th Edition Intersection LOS Thresholds

Level of Service	Description	Intersection Control Delay (seconds/vehicle)	
		Unsignalized	Signalized
A	Free-flow conditions with negligible to minimal delays.	delay ≤ 10.0	delay ≤ 10.0
B	Good progression with slight delays.	10.0 < delay ≤ 15.0	10.0 < delay ≤ 20.0
C	Relatively higher delays.	15.0 < delay ≤ 25.0	20.0 < delay ≤ 35.0
D	Somewhat congested conditions with longer but tolerable delays.	25.0 < delay ≤ 35.0	35.0 < delay ≤ 55.0
E	Congested conditions with significant delays.	35.0 < delay ≤ 50.0	55.0 < delay ≤ 80.0
F	Jammed or grid-lock type operating conditions.	delay > 50.0	delay > 80.0
Source: HCM 6th Edition Exhibit 19-8 and 20-2.			

Rodway segment LOS was determined based on roadway capacity thresholds contained in Table 6.14-6 Roadway Level of Service Thresholds from the *Sutter County General Plan Draft Environmental Impact Report* (dated September 2010) and are shown in **Table 2**. For comparison purposes, **Table 2** includes roadway capacity thresholds for "Residential" and "Rural, 2-Lane Road, <24' of Pavement, <6' Shoulders" facility types based on *Table F-2 Level of Service Criteria for Roadway Segments* found in the *Sacramento County Transportation Analysis Guidelines* (September 10, 2020).

Table 2. Roadway Segment LOS Thresholds

Jurisdiction	Facility Type	Maximum Volume for Given Service Level				
		A	B	C	D	E
Sutter County[1]	Rural – Two lane	-	-	10,600	16,400	25,200
Sacramento County[2]	Residential	600	1,200	2,000	3,000	4,500
	Rural, 2-Lane Road, <24' of Pavement, <6' Shoulders	1,000	2,100	3,400	6,000	12,800

Notes:
[1] Based on Table 6.14-6 Roadway Level of Service Thresholds from the *Sutter County General Plan Draft Environmental Impact Report.*
[2] Based on Table F-2 Level of Service Criteria for Roadway Segments from the *Sacramento County Transportation Analysis Guidelines* (September 10, 2020).

LEVEL OF SERVICE CRITERIA

The City's General Plan Transportation Policy 5.2-I-12 states that Yuba City aims to have all intersections and roadway segments achieve at least LOS "D". Sutter County's *DEIR* states that a project is considered to have an adverse effect if the existing or cumulative no project LOS for study locations deteriorate from LOS D (or better) to LOS E (or worse). Based on City General Plan requirements, the minimum acceptable LOS for the study intersections and roadway segments is considered to be LOS "D".

INTERSECTION OPERATIONS ANALYSIS

EXISTING TRAFFIC VOLUMES

Weekday AM and PM peak hour turning movement counts were collected on Thursday, June 9, 2022 between 7:00 AM to 9:00 AM and between 4:00 PM to 6:00 PM. Traffic data count sheets are included in **Attachment C**. In order to account for reduced traffic during summer break when local schools are not in session, AM and PM peak hour traffic volume data on State Route 99 in Yuba City during typical weekdays in May 2022 (when school was in session) and June 2022 (when school was not in session) was obtained from the Caltrans Performance Measurement System (PeMS) database. The data showed that May 2022 volumes were 22.58% and 3.70% higher than June 2022 volumes during the AM and PM peak hours, respectively. Therefore, existing traffic volumes at the study intersections were increased based on these percentages for movements that would experience higher volumes when school is in session. A summary of PeMs data is included in **Attachment C**. A summary of the intersection turning movement volumes and lane geometry for Existing conditions is presented in **Figure 1**.

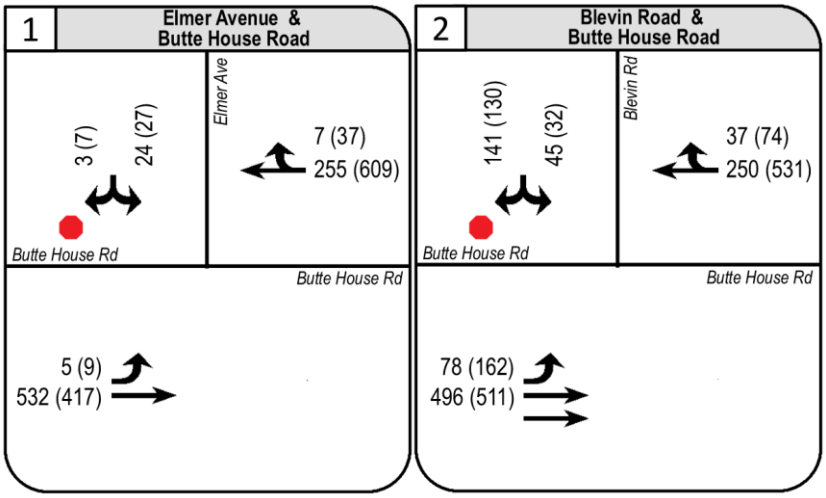


Figure 1. Existing AM (PM) Peak Hour Intersection Volumes and Lane Geometry

PROJECT TRIP GENERATION AND DISTRIBUTION

The trip generation data contained in the *Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition* was used to approximate the number of trips generated by the Project. The ITE land use category of Single-Family Detached Housing (ITE Code 210) was used to represent the Project. **Table 3** summarizes the trip generation for the proposed Project.

Table 3. Project Trip Generation

ITE Code	Land Use Category	Quantity	Units	Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
Single-Family Detached Housing[1]		34	DU[2]	374	7	21	28	23	13	36
Total Project Trips				***374***	***7***	***21***	***28***	***23***	***13***	***36***

Notes:
[1] Trip rates are calculated based on ITE Trip Generation (11th Edition) fitted curve equations.
[2] DU = Dwelling Unit

As illustrated in **Table 3,** the proposed Project is anticipated to generate a total of 374 daily trips, 28 AM peak hour trips (7 inbound, 21 outbound), and 36 PM peak hour trips (23 inbound, 13 outbound) under typical weekday traffic demand conditions.

The Project trip distribution was determined based on existing traffic counts and travel patterns, knowledge of the area, and engineering judgement. The Project trip distribution is shown in **Figure 2**.

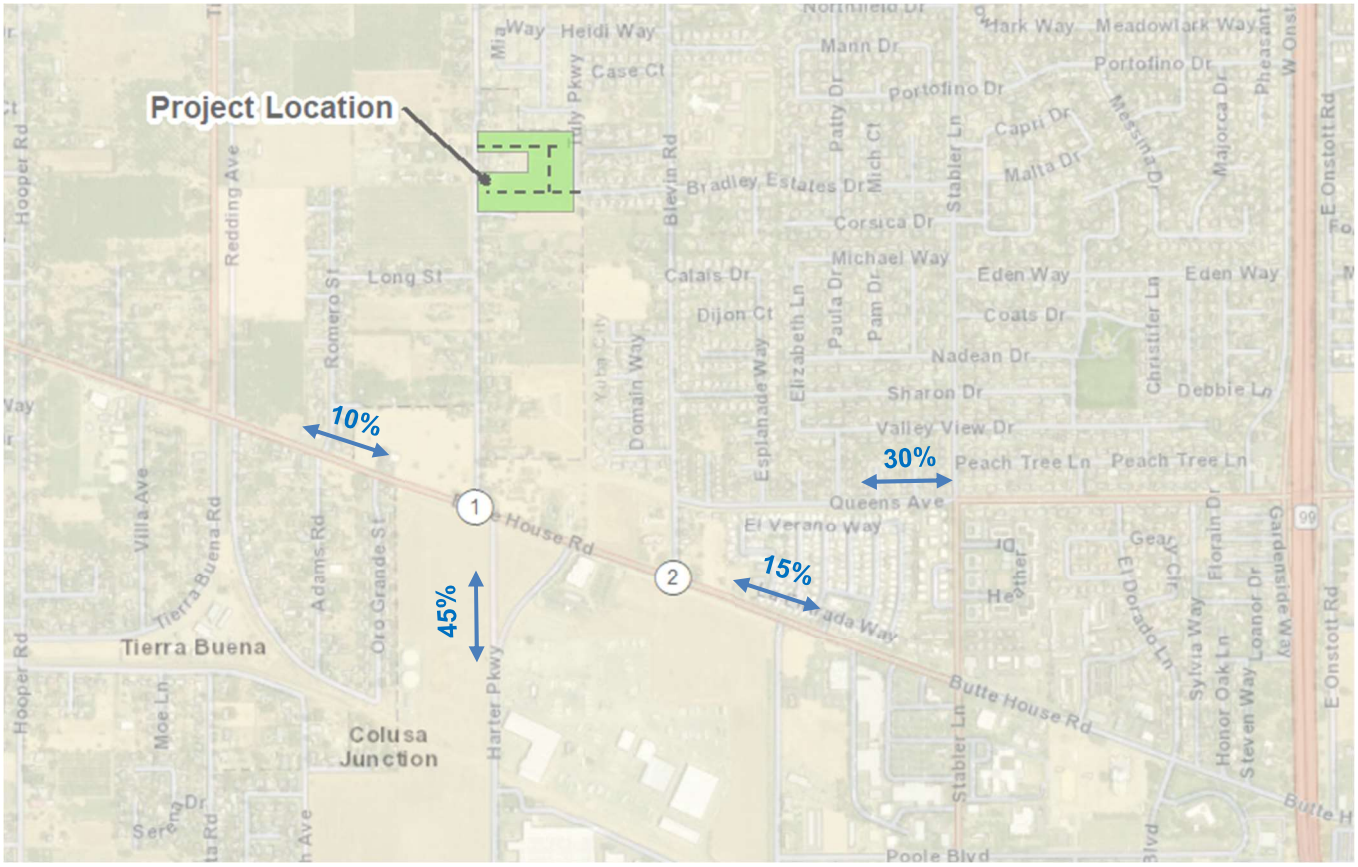


Figure 2. Project Trip Distribution

The Project trip assignment is presented in **Figure 3.** The project trips were added to Existing volumes to obtain Existing Plus Project peak hour volumes, which are shown in **Figure 4**.

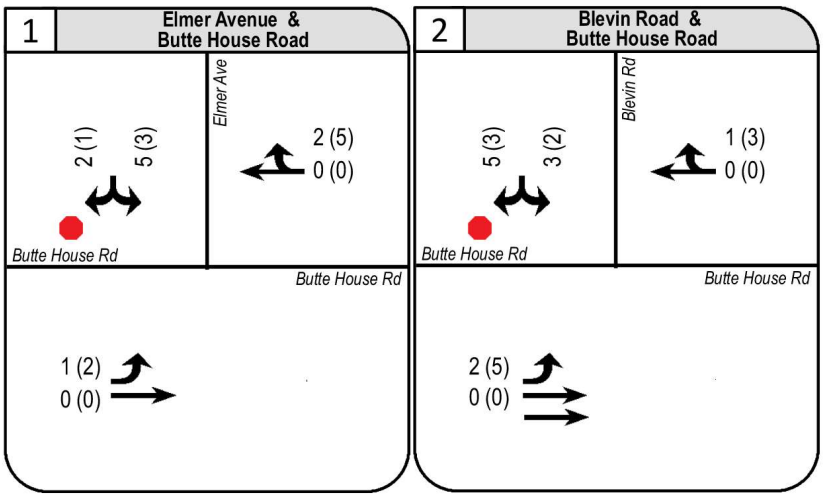


Figure 3. Project AM (PM) Peak Hour Trip Assignment and Lane Geometry

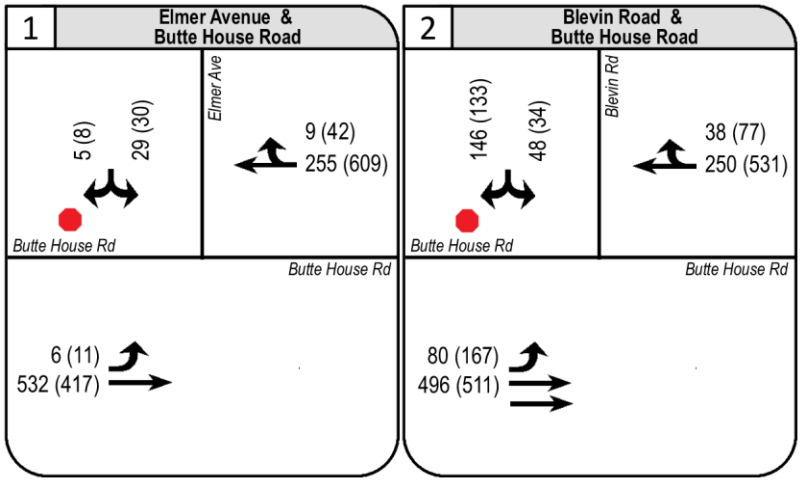


Figure 4. "Existing Plus Project" Weekday AM (PM) Peak Hour Intersection Volumes and Lane Geometry

INTERSECTION LOS RESULTS

Table 4 presents a summary of the intersection LOS operations under weekday AM and PM peak hour Existing and Existing Plus Project conditions.

Table 4. Intersection Operations

#	Intersection	Control Type	LOS Criteria	Peak Hour	Existing		Existing Plus Project	
					Delay (sec)	LOS	Delay (sec)	LOS
1	Elmer Avenue & Butte House Road	OWSC[1]	D	AM	17.1	C	17.2	C
				PM	22.1	C	22.6	C
2	Blevin Road & Butte House Road	OWSC[1]	D	AM	14.3	B	14.7	B
				PM	27.1	D	28.9	D

Notes:
[1] OWSC = One-Way Stop-Controlled

As shown in **Table 4**, all intersections operate at acceptable LOS (LOS "D" or better) under Existing and Existing Plus Project conditions. Synchro software HCM 6th Edition intersection LOS output reports are included in **Attachment D**.

ROADWAY CAPACITY ON ELMER AVENUE

The operations of Elmer Avenue north of Butte House Road were analyzed to determine if the relatively narrow cross-section of Elmer Avenue would affect capacity of the roadway once Project trips were added. The highest peak hour two-directional volume on Elmer Avenue was assumed to be 10% of the roadway's average daily traffic (ADT). Based on the Project distribution, the Project would add 120 daily trips to the roadway. **Table 5** shows the Existing and Existing Plus Project operations of the roadway segment compared to the acceptable capacity of the three facility types shown in **Table 2**.

Table 5. Existing and Existing Plus Project Roadway Operations

Segment	LOS Criteria	Facility Type[1]	Max ADT for Acceptable LOS[1]	Existing ADT	Project ADT	Existing Plus Project ADT	LOS Acceptable?
Elmer Ave north of Butte House Rd	D	Rural - Two Lane	16,400	800	120	920	Yes
		Residential	3,000				
		Rural, 2-Lane Road, <24' of Pavement, <6' Shoulders	6,000				
Notes: [1] *See Table 2.*							

A shown in **Table 7**, under Existing Plus Project conditions, Elmer Avenue is projected to operate at an acceptable LOS and is not expected to exceed capacity.

SIGNAL WARRANTS

A signal warrant analysis was performed for the two unsignalized study intersections based on California Manual on Uniform Traffic Control Devices (CA MUTCD) Peak Hour Signal Warrant #3. The intersection of Elmer Avenue with Butte House Road does not meet the peak hour signal warrant in the AM or PM peak hours. The intersection of Blevin Road with Butte House Road does not meet the peak hour signal warrant in the AM peak hour but does meet the signal warrant in the PM peak hour. However, it is not recommended to install a traffic signal at the intersection of Blevin Road with Butte House Road because it does not meet the signal warrant during both weekday peak hours, the intersection operates at acceptable LOS, and the intersection does not experience excessive queuing. The signal warrant worksheets are provided in **Attachment E**.

QUEUING ANALYSIS

95th percentile vehicle queuing was analyzed using Synchro software for all movements with turn pockets at which the Project would add trips. **Table 6** shows the available storage lengths and 95th percentile queues under all analysis scenarios. As shown in **Table 6,** all 95th percentile queues are expected to be accommodated by the existing available storage.

Table 6. Queuing Analysis Results

Intersection	Movement	Storage (ft)[1]	Control Type	Peak Hour	95th Percentile Queue (ft)	
					Existing Conditions	Existing Plus Project Conditions
#1, Butte House Road & Elmer Avenue	EBL	80	OWSC[1]	AM	0	0
				PM	0	0
#2, Butte House Road & Blevin Road	EBL	210	OWSC[1]	AM	25	25
				PM	25	25
Notes: [1] *OWSC = One-Way Stop-Controlled*						

CUMULATIVE CONDITIONS ANALYSES

The Elmer Avenue & Butte House Road intersection and the segment of Elmer Avenue north of Butte House Road have been analyzed under future year (2035) Cumulative and Cumulative Plus Project conditions. This Cumulative analysis is intended to quantify future operations on Elmer Road with construction of the planned Tuly Parkway extension to Butte House Road, as well as the proposed Project.

CUMULATIVE TRAFFIC VOLUMES

Cumulative volumes at the Elmer Avenue & Butte House Road intersection were developed using data from the Yuba City Travel Demand Model (TDM) 2020 Base Year and 2035 Market Scenario. The 2035 Market Scenario assumed the planned Tuly Parkway extension was in place, as well as an extension of Elmer Avenue north to Pease Road. The model showed a slight decrease in volumes on Elmer Avenue in the 2035 Market Scenario due to re-routed traffic using the new roadway extensions. However, 2035 Market Scenario model volumes showed an increase in Butte House Road volumes over 2020 Base Year. Base Year and Market Scenario model volumes were used to process Existing conditions volumes via the Furness Method in order to obtain Cumulative Conditions volumes. Project trips were added to Cumulative condition volumes to get Cumulative Plus Project volumes. The model also showed a widening of Butte House Road to four lanes. Cumulative and Cumulative Plus Project peak hour volumes and lane geometry at Elmer Avenue & Butte House Road are shown in **Figures 5** and **6**, respectively.

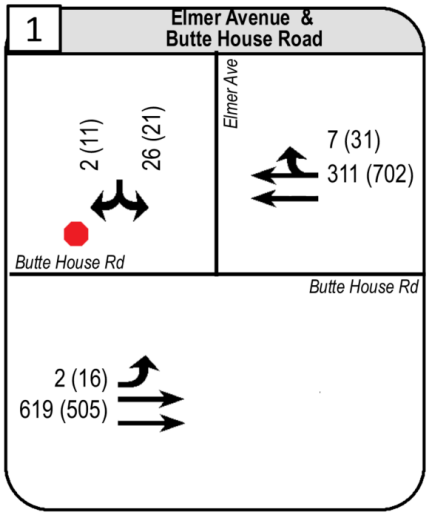


Figure 5. "Cumulative" Weekday AM (PM) Peak Hour Intersection Volumes and Lane Geometry

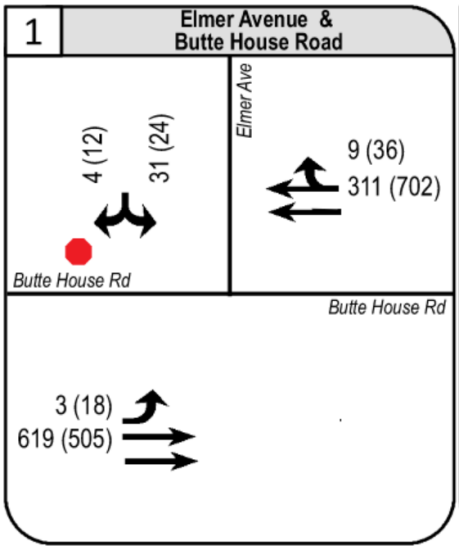


Figure 6. "Cumulative Plus Project" Weekday AM (PM) Peak Hour Intersection Volumes and Lane Geometry

Cumulative (2035) conditions roadway volumes on Elmer Avenue were determined by applying a yearly growth rate to Existing conditions ADT volumes on Elmer Avenue. The highest peak hour volumes on Elmer

Avenue were assumed to be 10% of the roadway's Existing ADT. A yearly growth rate of -0.11% was calculated based on the TDM 2020 Base Year daily volumes and 2035 Market Scenario daily volumes on Elmer Avenue.

INTERSECTION, ROADWAY SEGMENT, AND QUEUEING OPERATIONS

Table 7 presents a summary of the intersection LOS operations under weekday AM and PM peak hour Cumulative and Cumulative Plus Project conditions.

Table 7. Cumulative and Cumulative Plus Project Intersection Operations

#	Intersection	Control Type	LOS Criteria	Peak Hour	Cumulative		Cumulative Plus Project	
					Delay (sec)	LOS	Delay (sec)	LOS
1	Elmer Avenue & Butte House Road	OWSC[1]	D	AM	18.3	C	18.4	C
				PM	16.6	C	16.9	C
Notes: *[1] OWSC = One-Way Stop-Controlled*								

As shown in **Table 7**, all intersections operate at acceptable LOS (LOS "D" or better) under Cumulative and Cumulative Plus Project conditions. Synchro software HCM 6th Edition intersection LOS output reports are included in **Attachment D**.

Operations for the segment of Elmer Avenue north of Butte House Road under Cumulative and Cumulative Plus Project conditions are shown in **Table 8**.

Table 8. Cumulative and Cumulative Plus Project Roadway Operations

Segment	Facility Type	LOS Criteria	Max ADT for Acceptable LOS[1]	Cumulative ADT	Project ADT	Cumulative Plus Project ADT	LOS Acceptable?
Elmer Avenue north of Butte House Road	Rural - Two Lane	D	16,400	784	120	904	Yes
Notes: *[1] See Table 2.*							

As shown in **Table 8**, Elmer Avenue is projected to operate at acceptable LOS under Cumulative and Cumulative Plus Project conditions.

As shown in **Table 9**, all 95th percentile queues are expected to be accommodated by the existing available storage under Cumulative and Cumulative Plus Project conditions.

Table 9. Cumulative and Cumulative Plus Project Queuing Analysis Results

Intersection	Movement	Storage (ft)[1]	Control Type	Peak Hour	95th Percentile Queue (ft)	
					Cumulative	Cumulative Plus Project
#1, Butte House Road & Elmer Avenue	EBL	80	OWSC[1]	AM	0	0
				PM	0	0
Notes: *[1] OWSC = One-Way Stop-Controlled*						

In order to observe the effects on Elmer Avenue if the Tuly Parkway extension was not built, a version of the 2035 Market Scenario TDM was run in which the Tuly Parkway extension was not in place. Model outputs showed that volumes on Elmer Avenue were not significantly affected by the removal of the Tuly Parkway extension. The 2035 Market Scenario assumes little to no land use growth in the vicinity of Elmer Avenue, which means without the planned roadway extensions, volumes on Elmer Avenue would remain similar to

existing counts. Therefore, traffic operations on Elmer Avenue were projected to remain acceptable without the Tuly Parkway extension in place.

PROJECT TRAFFIC ON TULY PARKWAY/BRADLEY ESTATES DRIVE

A separate future project proposes to extend Tuly Parkway south to Butte House Road. When this project is completed, traffic from the Thiara Estates Project would likely utilize the Tuly Parkway Extension. However, until the extension is in place, a portion of Project traffic traveling to SR-99 or Butte House Road would utilize Tuly Parkway and Bradley Estates Drive to reach Blevin Road. Therefore, traffic count data was collected at the intersection of Bradley Estates Drive with Blevin Road to evaluate the effect of Project traffic on Tuly Parkway and Bradley Estates Drive west of Blevin Road.

Based on the Project trip distribution, it is estimated that 68-percent of Project trips will utilize the Bradley Estates Drive and Blevin Road intersection for trips to/from the Project site. During the AM peak-hour, 19 trips are anticipated to be added to the west leg of the Bradley Estates Drive and Blevin Road intersection. During the PM peak-hour, 25 trips are anticipated to be added to the west leg of the intersection. The existing Plus Project traffic volumes on Bradley Estates Drive west of Blevin Road, increased to account for school being out of session, are as follows:

- AM Peak Hour: 28 vehicles + 19 Project trips = 47 total vehicles
- PM Peak Hour: 35 vehicles + 25 Project trips = 60 total vehicles

As the existing volumes on Tuly Parkway and Bradley Estates Drive were found to be relatively low, the addition of the Project trips is not expected to adversely affect Tuly Parkway and Bradley Estates Drive under current traffic conditions.

INTERNAL SITE CIRCULATION AND SITE ACCESS

INTERNAL CIRCULATION

Internal circulation within the Project site would occur on bi-directional local streets, as depicted in **Attachment B**. It is assumed that sidewalks would be constructed on internal site roadways and should connect to external existing sidewalks. Similarly, is also assumed that curb ramps would be constructed at appropriate locations throughout the project site.

SITE ACCESS

The Project would gain access to the surrounding roadway network via two (2) Project roadway connections. One (1) Project roadway connection would be provided to Elmer Avenue and one (1) Project roadway connection would be provided to Tuly Parkway.

The new roadway connections on Elmer Avenue and Tuly Parkway are assumed to be full-access and side-street stop-controlled, similar to the intersections in the adjacent neighborhoods. Due to the low volumes generate by the Project site, the proposed site access is considered adequate.

Based on the site plan shown in **Attachment B**, it appears that emergency vehicles would have sufficient access throughout the project site, as well as multiple access points for the site. Thus, emergency access to the project is considered adequate.

SIGHT DISTANCE

A sight distance analysis was performed qualitatively at the two (2) Project roadway connections on Elmer Avenue and Tuly Parkway. Elmer Avenue and Tuly Parkway are low-speed facilities (35 miles per hour or less) and do not have significant horizontal or vertical curvature. The adjacent driveways and intersections to the Project roadway connections are anticipated to have low traffic volumes and are not anticipated to conflict with the Project roadway connections. It is recommended to maintain any vegetation in the vicinity of the Project roadway connections to preserve adequate sight distance.

TRANSIT, BICYCLES, AND PEDESTRIANS

The nearest bus stops to the Project site are located at the Butte House Road and Harter Parkway intersection and the Butte House Road & Tharp Road intersection. The bus stop at the Butte House Road and Harter Parkway intersection is located approximately one-mile from the site and serves Yuba-Sutter Transit Route 1 and Route 5. The bus stops at the Butte House Road & Tharp Road intersection are located approximately one-mile from the site and serves Yuba-Sutter Transit Route 1 and Route 5. The Project is not anticipated to affect existing transit facilities.

Existing striped bicycle lanes are present along Butte House Road and Tuly Parkway. No bicycle facilities are provided along Elmer Avenue or Blevin Road. Sidewalks are present along the southern edge of Butte House Road between Harter Parkway and Blevin Road. Existing curb ramps and striped crosswalks are present on the southern leg of the Blevin Road and Butte House Road intersection.

The Project proposes to construct a sidewalk along Tuly Parkway adjacent to the eastern Project frontage. Additionally, Project proposes to construct curb ramps on the proposed western leg of the intersection of Tuly Parkway with Bradley Estates Drive. The Project would provide adequate connectivity to existing bicycle and pedestrian facilities.

VEHICLES MILES TRAVELD ANALYSIS

Senate Bill 743 (SB 743), signed in 2013, required changes to California Environmental Quality Act (CEQA) guidelines on the measurement and identification of transportation impacts due to new projects in California. Revised CEQA Guidelines were adopted in 2018 which identified Vehicles Miles Traveled (VMT) as the most appropriate metric to evaluate transportation impacts. Statewide implementation of assessment of VMT as a metric of transportation impact occurred for all jurisdictions on July 1, 2020. The Governor's Office of Planning and Research (OPR) Technical Advisory on Evaluating Transportation Impacts in CEQA (OPR Technical Advisory) (December 2018), contains technical recommendations regarding assessment of VMT, thresholds of significance, and mitigation measures.

As Yuba City has not currently adopted VMT significance criteria or guidelines, Project VMT impact has been analyzed using criteria outlined in the County of Sacramento Transportation Analysis Guidelines (September 10, 2020). The Transportation Analysis Guidelines were selected as they represent guidelines developed for a similar, neighboring jurisdiction, and therefore were considered reasonably applicable in Yuba City.

Per the Transportation Analysis Guidelines, an approved screening map was used to assess significant impacts to VMT. The approved screening map was developed by Sacramento Area Council of Governments (SACOG) and uses HEX geography. Residential VMT per capita per HEX is calculated by tallying all household VMTs, including VMT traveling outside the region, generated by the residents living at the HEX and divided by the total population in the HEX. Consistent with SACOG guidelines, the Project specific VMT threshold is defined as total household VMT per capita achieving 15-percent reduction compared to regional average.

The SACOG screening map indicated that one (1) HEX area covers the Project site. The HEX number for the Project site is CN-64. **Figure 7** shows a screenshot of the SACOG screening map with the approximate Project site location indicated. **Table 10** provides the regional Average Residential VMT per Capita and the Average Residential VMT per capita for the HEX, along with the percent change between the regional and HEX VMT per capita. As shown in **Table 10**, the HEX location associated with the Project achieves at least a 15-percent reduction in VMT per capita compared to regional average. Thus, the Project impacts on VMT are considered less than significant and no mitigation measures are recommended.

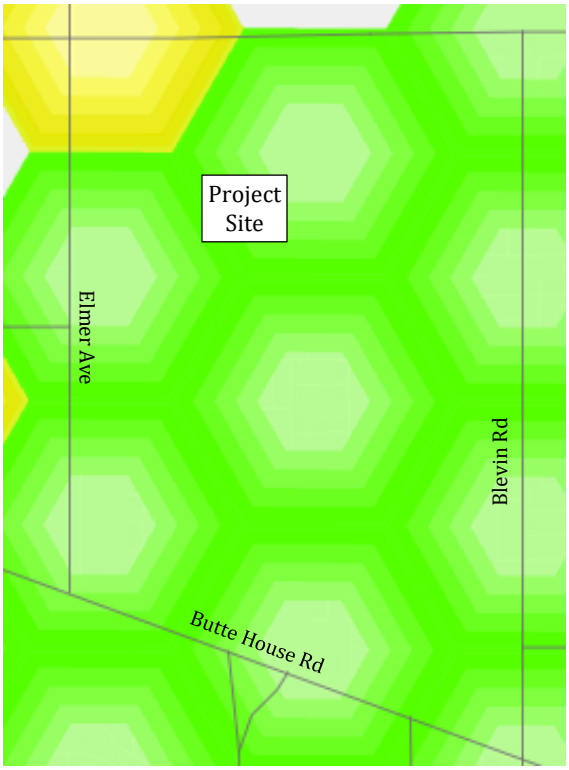


Figure 7. Excerpt of SACOG Residential Screening Map

Table 10. Project Area Average Residential VMT per Capita Comparison

Regional Average	HEX	
	CN-64	
VMT/Capita[1]	VMT/Capita[1]	Percent Change[2]
20.82	15.95	-23.4%

Note:
[1] VMT/Capita represents Average Residential VMT per capita.
[2] Percent change represents percent change from regional average.

CONCLUSION

The proposed Project is anticipated to generate a total of 374 daily primary trips, 28 AM peak hour primary trips (7 inbound, 21 outbound), and 36 PM peak hour primary trips (23 inbound, 13 outbound) under typical weekday traffic demand conditions.

Intersection LOS at all study intersections was projected to be acceptable (LOS "D" or better) under all study scenarios. Under Existing Plus Project conditions, the roadway segment of Elmer Avenue north of Butte House Road is projected to operate at an acceptable LOS and is not expected to exceed capacity. All 95th percentile queues are expected to be accommodated by the existing available storage. The intersection of Elmer Avenue with Butte House Road does not meet the peak hour signal warrant in the AM or PM peak hours. The intersection of Blevin Road with Butte House Road does not meet the peak hour signal warrant in the AM peak hour but does meet the signal warrant in the PM peak hour. However, it is not recommended to install a traffic signal at the intersection of Blevin Road with Butte House Road because it does not meet the signal warrant during both weekday peak hours, the intersection operates at acceptable LOS, and the intersection does not experience excessive queuing.

The Elmer Avenue & Butte House Road intersection and the segment of Elmer Avenue north of Butte House Road were analyzed under future year (2035) Cumulative and Cumulative Plus Project conditions in order to quantify future operations on Elmer Road with construction of the planned Tuly Parkway extension and the proposed Project.

The intersection of Elmer Avenue & Butte House Road and the segment of Elmer Avenue north Butte House Road of were projected to operate at acceptable LOS.

The addition of Project traffic is not anticipated to adversely affect the segment of Tuly Parkway/Bradley Estate Drive west of Blevin Road.

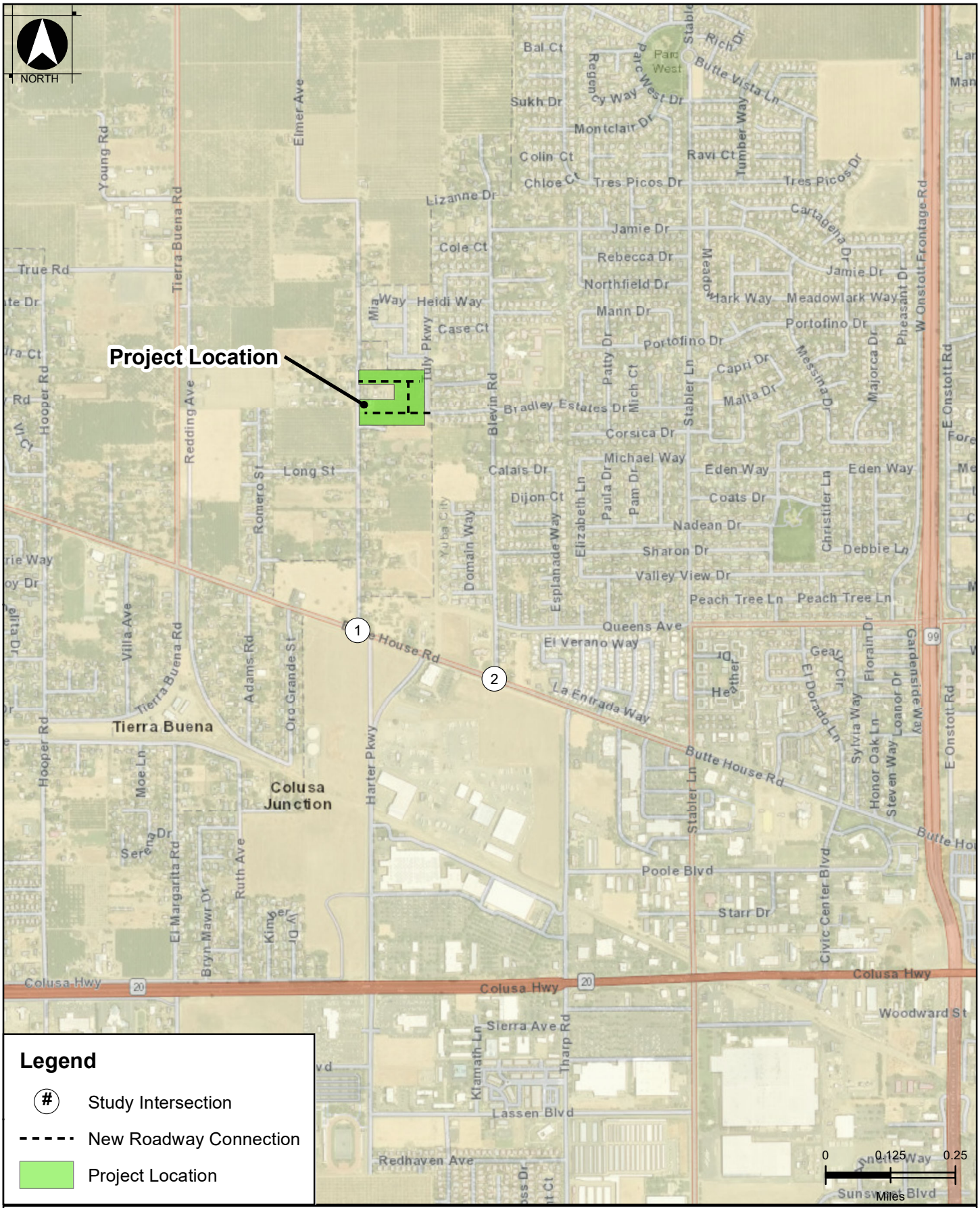
Based upon a review of the Project site, Project access, site internal circulation, and emergency access are considered adequate. It is recommended to maintain any vegetation in the vicinity of the Project roadway connections on Elmer Avenue and Tuly Parkway to preserve adequate sight distance.

The Yuba-Sutter Transit Route has bus stops located approximately one-mile from the Project site. The Project is not anticipated to affect existing transit facilities. The Project would provide adequate connectivity to existing bicycle and pedestrian facilities.

The SACOG screening map indicated that the HEX location associated with the Project achieves at least a 15-percent reduction in VMT per capita comparing to regional average. Thus, the Project impacts on VMT are considered less than significant and no mitigation measures are recommended.

ATTACHMENT A

PROJECT LOCATION AND STUDY FACILITIES



Project Location and Study Facilities

Thiara Estates Traffic Operations Memorandum
Yuba City, CA
October 2022

Figure 1

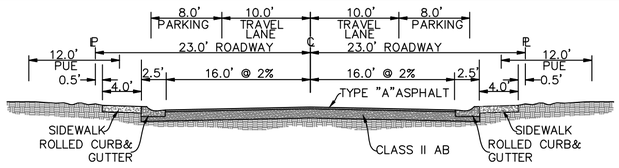
WOOD RODGERS

\\woodrodgers.loc\ProductionData\Jobs\Jobs\8873001_Thiara_Estates\GIS\Tasks\Fig_1_Location_and_Facilities_Map.mxd 7/15/2022 10:35:29 AM opotash

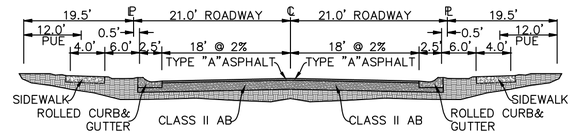
ATTACHMENT B

PROJECT SITE PLAN

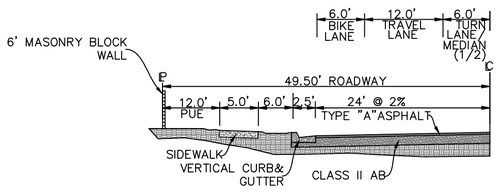
1"=60'



"A" AND "B" STREETS AND "B" COURT
(ATTACHED SIDEWALK)
NOT TO SCALE

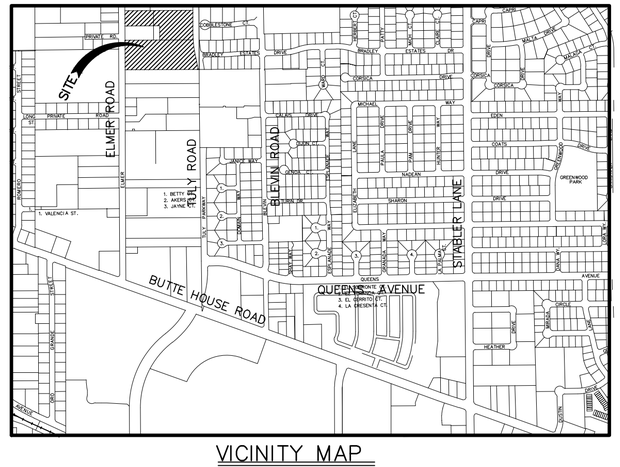


BRADLEY ESTATES DRIVE
(DETACHED SIDEWALK)
NOT TO SCALE



TULLY PARKWAY
NOT TO SCALE

DRAFT
SUBJECT TO CHANGE THROUGH CITY APPROVAL PROCESS



VICINITY MAP
N.T.S.

PROJECT NOTES:

EXISTING GENERAL PLAN DESIGNATION:
LOW DENSITY RESIDENTIAL

PROPOSED GENERAL PLAN DESIGNATION:
LOW DENSITY RESIDENTIAL

WATER, SEWER
CITY OF YUBA CITY

STORM DRAINAGE
CITY OF YUBA CITY & SUTTER COUNTY

UNDERGROUND ALERT SERVICES:
1-800-642-2444

ELECTRIC & NATURAL GAS:
PACIFIC GAS AND ELECTRIC

COMMUNICATIONS
AT & T AND COMCAST

CABLE
COMCAST

ASSESSOR'S PARCEL NUMBER:
APN: 17-066-021, 003 AND 005

AREA OF ALL PARCEL
8.19 GROSS ACRES +/-

EXISTING USE:
ORCHARD

PROPOSED USE
SINGLE FAMILY HOMES

EXISTING ZONING:
R-1

PROPOSED ZONING:
R-1

OWNER:
SARBJIT THIARA JR.
2599 REED ROAD
YUBA CITY, CA 95993
(530) 682-5861

DEVELOPER:
SARBJIT THIARA JR.
2599 REED ROAD
YUBA CITY, CA 95993
(530) 682-5861

ENGINEER/SURVEYOR:
NORTH VALLEY ENGINEERING AND SURVEYING
1547 STARR DRIVE SUITE "J"
YUBA CITY, CALIFORNIA 95993
(530) 713-0417

PREPARED BY:
NVES
NORTH VALLEY ENGINEERING AND SURVEYING
1547 STARR DRIVE SUITE "J"
YUBA CITY, CA 95993
(530) 713-0417

TENTATIVE SUBDIVISION MAP
THIARA ESTATES

BEING A PORTION OF SECTION 8 T15N, R3E, M.D.B.&M.
YUBA CITY, CALIFORNIA
JANUARY 2022

ATTACHMENT C

TRAFFIC COUNTS

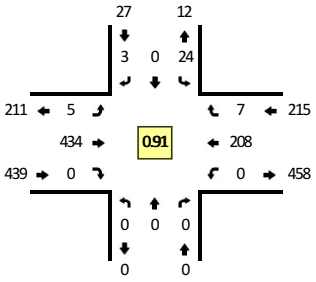
Type of peak hour being reported: Intersection Peak

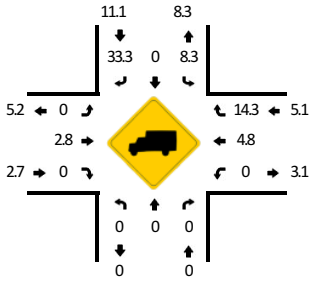
Method for determining peak hour: Total Entering Volume

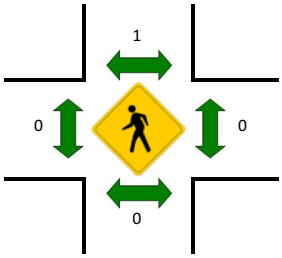
LOCATION: Elmer Ave -- Butte House Rd
CITY/STATE: Yuba City, CA

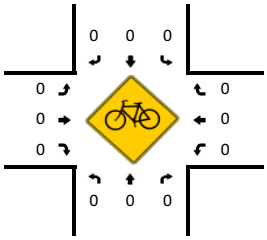
QC JOB #: 15852801
DATE: Thu, Jun 9 2022

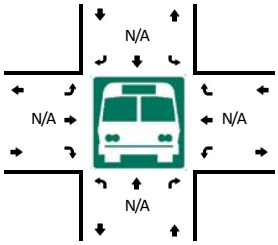
Peak-Hour: 7:30 AM -- 8:30 AM
Peak 15-Min: 7:30 AM -- 7:45 AM

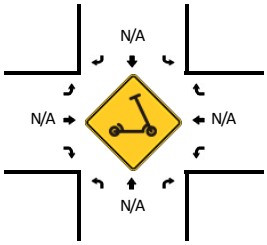












15-Min Count Period Beginning At	Elmer Ave (Northbound)				Elmer Ave (Southbound)				Butte House Rd (Eastbound)				Butte House Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	3	0	0	0	0	83	0	0	0	29	2	0	117	
7:15 AM	0	0	0	0	8	0	2	0	0	95	0	0	0	38	0	0	143	
7:30 AM	0	0	0	0	3	0	1	0	0	119	0	0	0	63	2	0	188	
7:45 AM	0	0	0	0	8	0	0	0	1	122	0	0	0	45	0	0	176	624
8:00 AM	0	0	0	0	6	0	0	0	2	94	0	0	0	46	0	0	148	655
8:15 AM	0	0	0	0	7	0	2	0	2	99	0	0	0	54	5	0	169	681
8:30 AM	0	0	0	0	4	0	2	0	0	95	0	0	0	52	3	0	156	649
8:45 AM	0	0	0	0	4	0	0	0	0	92	0	0	0	47	2	0	145	618

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	12	0	4	0	0	476	0	0	0	252	8	0	752
Heavy Trucks	0	0	0		4	0	0		0	12	0		0	12	4		32
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 6/16/2022 1:33 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

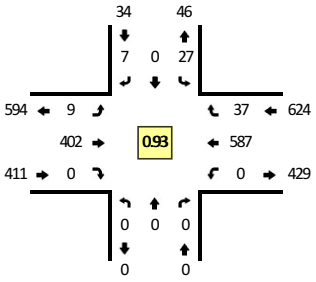
Type of peak hour being reported: Intersection Peak

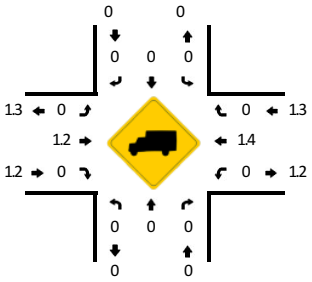
Method for determining peak hour: Total Entering Volume

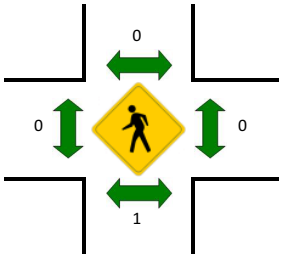
LOCATION: Elmer Ave -- Butte House Rd
CITY/STATE: Yuba City, CA

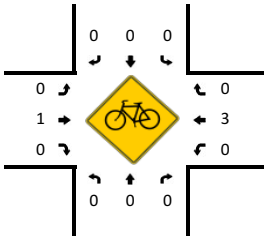
QC JOB #: 15852802
DATE: Thu, Jun 9 2022

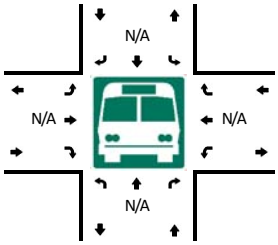
Peak-Hour: 5:00 PM -- 6:00 PM
Peak 15-Min: 5:00 PM -- 5:15 PM

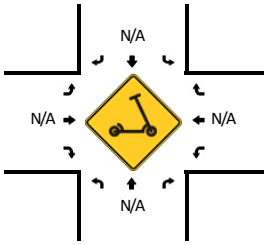












15-Min Count Period Beginning At	Elmer Ave (Northbound)				Elmer Ave (Southbound)				Butte House Rd (Eastbound)				Butte House Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	6	0	0	0	2	101	0	0	0	122	4	0	235	
4:15 PM	0	0	0	0	9	0	3	0	5	82	0	0	0	151	7	0	257	
4:30 PM	0	0	0	0	5	0	0	0	2	106	0	0	0	140	7	0	260	
4:45 PM	0	0	0	0	7	0	1	0	2	88	0	0	0	124	9	0	231	983
5:00 PM	0	0	0	0	7	0	1	0	1	99	0	0	0	168	10	0	286	1034
5:15 PM	0	0	0	0	5	0	4	0	5	123	0	0	0	137	11	0	285	1062
5:30 PM	0	0	0	0	4	0	2	0	3	94	0	0	0	149	9	0	261	1063
5:45 PM	0	0	0	0	11	0	0	0	0	86	0	0	0	133	7	0	237	1069

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	28	0	4	0	4	396	0	0	0	672	40	0	1144
Heavy Trucks	0	0	0		0	0	0		0	12	0		0	8	0		20
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	4	0		0	0	0		4
Scooters																	

Comments:

Report generated on 6/16/2022 1:33 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

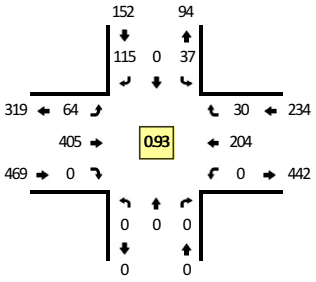
Type of peak hour being reported: Intersection Peak

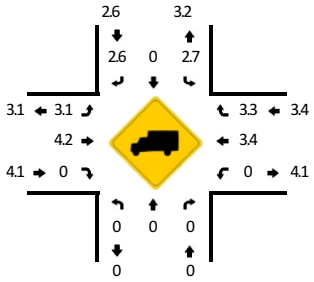
Method for determining peak hour: Total Entering Volume

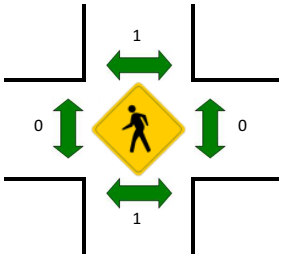
LOCATION: Belvin Rd -- Butte House Rd
CITY/STATE: Yuba City, CA

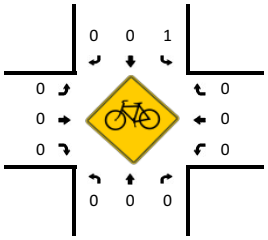
QC JOB #: 15852803
DATE: Thu, Jun 9 2022

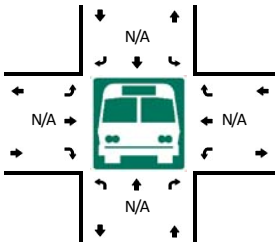
Peak-Hour: 7:30 AM -- 8:30 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

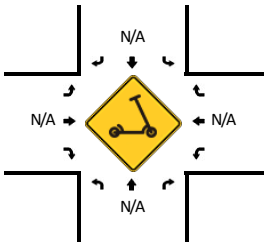












15-Min Count Period Beginning At	Belvin Rd (Northbound)				Belvin Rd (Southbound)				Butte House Rd (Eastbound)				Butte House Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	4	0	18	0	14	60	0	0	0	23	4	0	123	
7:15 AM	0	0	0	0	3	0	16	0	10	81	0	0	0	40	12	0	162	
7:30 AM	0	0	0	0	9	0	31	0	15	105	0	0	0	48	8	0	216	
7:45 AM	0	0	0	0	11	0	22	0	19	121	0	0	0	51	6	0	230	731
8:00 AM	0	0	0	0	9	0	22	0	16	78	0	0	0	47	11	0	183	791
8:15 AM	0	0	0	0	8	0	40	0	14	101	0	0	0	58	5	0	226	855
8:30 AM	0	0	0	0	11	0	18	0	21	94	0	0	0	51	10	0	205	844
8:45 AM	0	0	0	0	11	0	32	0	21	89	0	0	0	55	7	0	215	829

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	44	0	88	0	76	484	0	0	0	204	24	0	920
Heavy Trucks	0	0	0		0	0	0		0	8	0		0	4	0		12
Buses																	
Pedestrians		4				0				0				0			4
Bicycles	0	0	0		4	0	0		0	0	0		0	0	0		4
Scooters																	

Comments:

Report generated on 6/16/2022 1:33 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

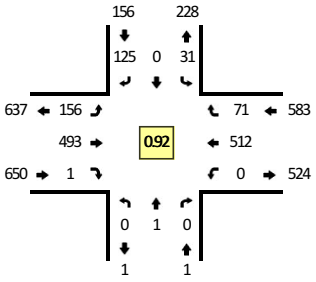
Type of peak hour being reported: Intersection Peak

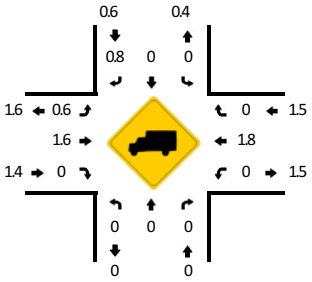
Method for determining peak hour: Total Entering Volume

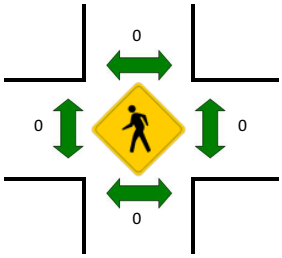
LOCATION: Belvin Rd -- Butte House Rd
CITY/STATE: Yuba City, CA

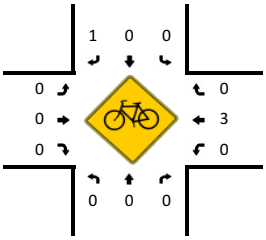
QC JOB #: 15852804
DATE: Thu, Jun 9 2022

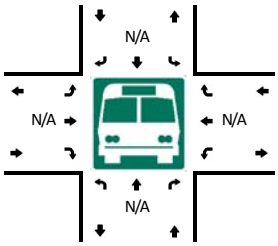
Peak-Hour: 5:00 PM -- 6:00 PM
Peak 15-Min: 5:00 PM -- 5:15 PM

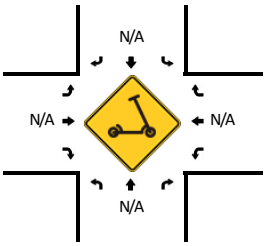












15-Min Count Period Beginning At	Belvin Rd (Northbound)				Belvin Rd (Southbound)				Butte House Rd (Eastbound)				Butte House Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	7	0	34	0	52	107	0	0	0	96	20	0	316	
4:15 PM	0	0	0	0	8	0	39	0	47	89	0	0	0	111	15	0	309	
4:30 PM	0	0	0	0	8	0	38	0	37	120	0	0	0	120	10	0	333	
4:45 PM	0	0	0	0	8	0	36	0	34	109	0	0	0	103	11	1	302	1260
5:00 PM	0	0	0	0	11	0	30	0	36	137	0	0	0	142	21	0	377	1321
5:15 PM	0	1	0	0	8	0	29	0	46	126	1	0	0	142	23	0	376	1388
5:30 PM	0	0	0	0	8	0	31	0	36	125	0	0	0	113	16	0	329	1384
5:45 PM	0	0	0	0	4	0	35	0	38	105	0	0	0	115	11	0	308	1390

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	44	0	120	0	144	548	0	0	0	568	84	0	1508
Heavy Trucks	0	0	0		0	0	0		0	8	0		0	16	0		24
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 6/16/2022 1:33 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Mainline VDS 3415061 - 99SB JSO Butte House/Mainline VDS 3415064 - 99NB JSO Butte House
May 2022 - AM Peak

Hour	Lane 1 Flow (Veh/Hour)	Lane 2 Flow (Veh/Hour)	Flow (Veh/Hour)	# Lane Points	% Observed
6:00:00 AM	243	235	478	24	100
7:00:00 AM	249	367	616	24	100
8:00:00 AM	263	369	632	24	100
6:00:00 AM	221	227	448	24	100
7:00:00 AM	304	399	703	24	100
8:00:00 AM	265	381	646	24	100
6:00:00 AM	228	239	467	24	100
7:00:00 AM	295	342	637	24	100
8:00:00 AM	282	395	677	24	100
6:00:00 AM	240	235	475	24	100
7:00:00 AM	313	354	667	24	100
8:00:00 AM	306	371	677	24	100
6:00:00 AM	213	224	437	24	100
7:00:00 AM	252	345	597	24	100
8:00:00 AM	250	342	592	24	100
6:00:00 AM	345	326	671	24	100
7:00:00 AM	430	409	839	24	100
8:00:00 AM	401	364	765	24	100
6:00:00 AM	370	318	688	24	100
7:00:00 AM	489	382	871	24	100
8:00:00 AM	380	384	764	24	100
6:00:00 AM	384	329	713	24	100
7:00:00 AM	441	397	838	24	100
8:00:00 AM	412	382	794	24	100
6:00:00 AM	397	350	747	24	100
7:00:00 AM	416	422	838	24	100
8:00:00 AM	437	401	838	24	100
6:00:00 AM	351	320	671	24	100
7:00:00 AM	464	426	890	24	100
8:00:00 AM	430	405	835	24	100

Mainline VDS 3415061 - 99SB JSO Butte House/Mainline VDS 3415064 - 99NB JSO Butte House
June 2022 - AM Peak

Hour	Lane 1 Flow (Veh/Hour)	Lane 2 Flow (Veh/Hour)	Flow (Veh/Hour)	# Lane Points	% Observed
6:00:00 AM	218	219	437	24	0
7:00:00 AM	267	342	609	24	0
8:00:00 AM	242	329	571	24	0
6:00:00 AM	186	227	413	24	100
7:00:00 AM	249	288	537	24	100
8:00:00 AM	254	303	557	24	100
6:00:00 AM	209	235	444	24	100
7:00:00 AM	234	268	502	24	100
8:00:00 AM	213	285	498	24	100
6:00:00 AM	226	243	469	24	100
7:00:00 AM	244	277	521	24	100
8:00:00 AM	219	279	498	24	100
6:00:00 AM	195	218	413	24	100
7:00:00 AM	221	242	463	24	100
8:00:00 AM	191	265	456	24	100
6:00:00 AM	293	283	576	24	0
7:00:00 AM	409	421	830	24	0
8:00:00 AM	342	367	709	24	0
6:00:00 AM	273	309	582	24	100
7:00:00 AM	298	354	652	24	100
8:00:00 AM	335	368	703	24	100
6:00:00 AM	286	289	575	24	100
7:00:00 AM	338	380	718	24	100
8:00:00 AM	324	371	695	24	100
6:00:00 AM	277	293	570	24	100
7:00:00 AM	295	338	633	24	100
8:00:00 AM	330	341	671	24	100
6:00:00 AM	261	282	543	24	100
7:00:00 AM	304	346	650	24	100
8:00:00 AM	293	346	639	24	100

Mainline VDS 3415061 - 99SB JSO Butte House/Mainline VDS 3415064 - 99NB JSO Butte House
May 2022 - PM Peak

Hour	Lane 1 Flow (Veh/Hour)	Lane 2 Flow (Veh/Hour)	Flow (Veh/Hour)	# Lane Points	% Observed
3:00:00 PM	375	492	867	24	100
4:00:00 PM	375	538	913	24	100
5:00:00 PM	433	555	988	24	100
3:00:00 PM	373	489	862	24	100
4:00:00 PM	443	533	976	24	100
5:00:00 PM	408	536	944	24	100
3:00:00 PM	365	490	855	24	100
4:00:00 PM	441	532	973	24	100
5:00:00 PM	417	555	972	24	100
3:00:00 PM	386	521	907	24	100
4:00:00 PM	467	561	1028	24	100
5:00:00 PM	391	562	953	24	100
3:00:00 PM	439	556	995	24	100
4:00:00 PM	435	587	1022	24	100
5:00:00 PM	459	594	1053	24	100
3:00:00 PM	375	492	867	24	100
4:00:00 PM	375	538	913	24	100
5:00:00 PM	433	555	988	24	100
3:00:00 PM	373	489	862	24	100
4:00:00 PM	443	533	976	24	100
5:00:00 PM	408	536	944	24	100
3:00:00 PM	365	490	855	24	100
4:00:00 PM	441	532	973	24	100
5:00:00 PM	417	555	972	24	100
3:00:00 PM	386	521	907	24	100
4:00:00 PM	467	561	1028	24	100
5:00:00 PM	391	562	953	24	100
3:00:00 PM	439	556	995	24	100
4:00:00 PM	435	587	1022	24	100
5:00:00 PM	459	594	1053	24	100

Mainline VDS 3415061 - 99SB JSO Butte House/Mainline VDS 3415064 - 99NB JSO Butte House
June 2022 - PM Peak

Hour	Lane 1 Flow (Veh/Hour)	Lane 2 Flow (Veh/Hour)	Flow (Veh/Hour)	# Lane Points	% Observed
3:00:00 PM	358	516	874	24	100
4:00:00 PM	405	498	903	24	100
5:00:00 PM	390	527	917	24	100
3:00:00 PM	370	497	867	24	100
4:00:00 PM	420	545	965	24	100
5:00:00 PM	398	535	933	24	100
3:00:00 PM	361	497	858	24	100
4:00:00 PM	403	556	959	24	100
5:00:00 PM	404	533	937	24	100
3:00:00 PM	367	505	872	24	100
4:00:00 PM	377	520	897	24	100
5:00:00 PM	387	542	929	24	100
3:00:00 PM	436	510	946	24	100
4:00:00 PM	434	554	988	24	100
5:00:00 PM	400	551	951	24	100
3:00:00 PM	358	516	874	24	100
4:00:00 PM	405	498	903	24	100
5:00:00 PM	390	527	917	24	100
3:00:00 PM	370	497	867	24	100
4:00:00 PM	420	545	965	24	100
5:00:00 PM	398	535	933	24	100
3:00:00 PM	361	497	858	24	100
4:00:00 PM	403	556	959	24	100
5:00:00 PM	404	533	937	24	100
3:00:00 PM	367	505	872	24	100
4:00:00 PM	377	520	897	24	100
5:00:00 PM	387	542	929	24	100
3:00:00 PM	436	510	946	24	100
4:00:00 PM	434	554	988	24	100
5:00:00 PM	400	551	951	24	100

ATTACHMENT D

SYNCHRO OUTPUT REPORTS

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	532	255	7	24	3
Future Vol, veh/h	5	532	255	7	24	3
Conflicting Peds, #/hr	0	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	80	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	3	5	14	8	33
Mvmt Flow	5	585	280	8	26	3

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	289	0	-	0	880	285
Stage 1	-	-	-	-	285	-
Stage 2	-	-	-	-	595	-
Critical Hdwy	4.1	-	-	-	6.48	6.53
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	2.2	-	-	-	3.572	3.597
Pot Cap-1 Maneuver	1284	-	-	-	310	686
Stage 1	-	-	-	-	750	-
Stage 2	-	-	-	-	539	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1283	-	-	-	308	685
Mov Cap-2 Maneuver	-	-	-	-	308	-
Stage 1	-	-	-	-	746	-
Stage 2	-	-	-	-	538	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	17.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1283	-	-	-	328
HCM Lane V/C Ratio	0.004	-	-	-	0.09
HCM Control Delay (s)	7.8	-	-	-	17.1
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	78	496	250	37	45	141
Future Vol, veh/h	78	496	250	37	45	141
Conflicting Peds, #/hr	0	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	210	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	3	4	3	3	3	3
Mvmt Flow	84	533	269	40	48	152

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	310	0	-	0	725	290
Stage 1	-	-	-	-	290	-
Stage 2	-	-	-	-	435	-
Critical Hdwy	4.145	-	-	-	6.645	6.245
Critical Hdwy Stg 1	-	-	-	-	5.445	-
Critical Hdwy Stg 2	-	-	-	-	5.845	-
Follow-up Hdwy	2.2285	-	-	-	3.5285	3.3285
Pot Cap-1 Maneuver	1242	-	-	-	374	746
Stage 1	-	-	-	-	756	-
Stage 2	-	-	-	-	618	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1241	-	-	-	348	745
Mov Cap-2 Maneuver	-	-	-	-	348	-
Stage 1	-	-	-	-	704	-
Stage 2	-	-	-	-	617	-

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	14.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1241	-	-	-	584
HCM Lane V/C Ratio	0.068	-	-	-	0.342
HCM Control Delay (s)	8.1	-	-	-	14.3
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	1.5

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	9	417	609	37	27	7
Future Vol, veh/h	9	417	609	37	27	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	80	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	1	1	0	0	0
Mvmt Flow	10	448	655	40	29	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	695	0	-	0	1143	675
Stage 1	-	-	-	-	675	-
Stage 2	-	-	-	-	468	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	910	-	-	-	223	457
Stage 1	-	-	-	-	510	-
Stage 2	-	-	-	-	634	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	910	-	-	-	221	457
Mov Cap-2 Maneuver	-	-	-	-	221	-
Stage 1	-	-	-	-	504	-
Stage 2	-	-	-	-	634	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	22.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	910	-	-	-	247
HCM Lane V/C Ratio	0.011	-	-	-	0.148
HCM Control Delay (s)	9	-	-	-	22.1
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.5

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	162	511	531	74	32	130
Future Vol, veh/h	162	511	531	74	32	130
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	210	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	2	2	0	0	1
Mvmt Flow	176	555	577	80	35	141

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	657	0	-	0	1247	617
Stage 1	-	-	-	-	617	-
Stage 2	-	-	-	-	630	-
Critical Hdwy	4.115	-	-	-	6.6	6.215
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.2095	-	-	-	3.5	3.3095
Pot Cap-1 Maneuver	934	-	-	-	180	491
Stage 1	-	-	-	-	542	-
Stage 2	-	-	-	-	498	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	934	-	-	-	146	491
Mov Cap-2 Maneuver	-	-	-	-	146	-
Stage 1	-	-	-	-	440	-
Stage 2	-	-	-	-	498	-

Approach	EB	WB	SB
HCM Control Delay, s	2.3	0	27.1
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	934	-	-	-	335
HCM Lane V/C Ratio	0.189	-	-	-	0.526
HCM Control Delay (s)	9.7	-	-	-	27.1
HCM Lane LOS	A	-	-	-	D
HCM 95th %tile Q(veh)	0.7	-	-	-	2.9

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	532	255	9	29	5
Future Vol, veh/h	6	532	255	9	29	5
Conflicting Peds, #/hr	0	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	80	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	3	5	14	8	33
Mvmt Flow	7	585	280	10	32	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	291	0	-	0	885	286
Stage 1	-	-	-	-	286	-
Stage 2	-	-	-	-	599	-
Critical Hdwy	4.1	-	-	-	6.48	6.53
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	2.2	-	-	-	3.572	3.597
Pot Cap-1 Maneuver	1282	-	-	-	308	685
Stage 1	-	-	-	-	749	-
Stage 2	-	-	-	-	537	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1281	-	-	-	306	684
Mov Cap-2 Maneuver	-	-	-	-	306	-
Stage 1	-	-	-	-	745	-
Stage 2	-	-	-	-	536	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	17.2
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1281	-	-	-	333
HCM Lane V/C Ratio	0.005	-	-	-	0.112
HCM Control Delay (s)	7.8	-	-	-	17.2
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.4

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	80	496	250	38	48	146
Future Vol, veh/h	80	496	250	38	48	146
Conflicting Peds, #/hr	0	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	210	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	3	4	3	3	3	3
Mvmt Flow	86	533	269	41	52	157

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	311	0	-	0	730	291
Stage 1	-	-	-	-	291	-
Stage 2	-	-	-	-	439	-
Critical Hdwy	4.145	-	-	-	6.645	6.245
Critical Hdwy Stg 1	-	-	-	-	5.445	-
Critical Hdwy Stg 2	-	-	-	-	5.845	-
Follow-up Hdwy	2.2285	-	-	-	3.5285	3.3285
Pot Cap-1 Maneuver	1241	-	-	-	371	745
Stage 1	-	-	-	-	755	-
Stage 2	-	-	-	-	616	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1240	-	-	-	345	744
Mov Cap-2 Maneuver	-	-	-	-	345	-
Stage 1	-	-	-	-	702	-
Stage 2	-	-	-	-	615	-

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	14.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1240	-	-	-	578
HCM Lane V/C Ratio	0.069	-	-	-	0.361
HCM Control Delay (s)	8.1	-	-	-	14.7
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	1.6

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	11	417	609	42	30	8
Future Vol, veh/h	11	417	609	42	30	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	80	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	1	1	0	0	0
Mvmt Flow	12	448	655	45	32	9

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	700	0	-	0	1150	678
Stage 1	-	-	-	-	678	-
Stage 2	-	-	-	-	472	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	906	-	-	-	221	456
Stage 1	-	-	-	-	508	-
Stage 2	-	-	-	-	632	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	906	-	-	-	218	456
Mov Cap-2 Maneuver	-	-	-	-	218	-
Stage 1	-	-	-	-	501	-
Stage 2	-	-	-	-	632	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	22.6
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	906	-	-	-	245
HCM Lane V/C Ratio	0.013	-	-	-	0.167
HCM Control Delay (s)	9	-	-	-	22.6
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.6

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	167	511	531	77	34	133
Future Vol, veh/h	167	511	531	77	34	133
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	210	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	2	2	0	0	1
Mvmt Flow	182	555	577	84	37	145

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	661	0	-	0	1261	619
Stage 1	-	-	-	-	619	-
Stage 2	-	-	-	-	642	-
Critical Hdwy	4.115	-	-	-	6.6	6.215
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.2095	-	-	-	3.5	3.3095
Pot Cap-1 Maneuver	931	-	-	-	177	490
Stage 1	-	-	-	-	541	-
Stage 2	-	-	-	-	492	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	931	-	-	-	142	490
Mov Cap-2 Maneuver	-	-	-	-	142	-
Stage 1	-	-	-	-	436	-
Stage 2	-	-	-	-	492	-

Approach	EB	WB	SB
HCM Control Delay, s	2.4	0	28.9
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	931	-	-	-	327
HCM Lane V/C Ratio	0.195	-	-	-	0.555
HCM Control Delay (s)	9.8	-	-	-	28.9
HCM Lane LOS	A	-	-	-	D
HCM 95th %tile Q(veh)	0.7	-	-	-	3.2

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	311	619	0	26	2
Future Vol, veh/h	0	311	619	0	26	2
Conflicting Peds, #/hr	0	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	80	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	3	5	14	8	33
Mvmt Flow	0	338	673	0	28	2

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	674	0	-	0	843	338
Stage 1	-	-	-	-	674	-
Stage 2	-	-	-	-	169	-
Critical Hdwy	4.1	-	-	-	6.96	7.56
Critical Hdwy Stg 1	-	-	-	-	5.96	-
Critical Hdwy Stg 2	-	-	-	-	5.96	-
Follow-up Hdwy	2.2	-	-	-	3.58	3.63
Pot Cap-1 Maneuver	927	-	-	-	291	575
Stage 1	-	-	-	-	452	-
Stage 2	-	-	-	-	826	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	926	-	-	-	290	574
Mov Cap-2 Maneuver	-	-	-	-	290	-
Stage 1	-	-	-	-	452	-
Stage 2	-	-	-	-	825	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	18.3
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	926	-	-	-	301
HCM Lane V/C Ratio	-	-	-	-	0.101
HCM Control Delay (s)	0	-	-	-	18.3
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	702	505	0	21	11
Future Vol, veh/h	0	702	505	0	21	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	80	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	1	1	0	0	0
Mvmt Flow	0	763	549	0	23	12

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	549	0	-	0	931	275
Stage 1	-	-	-	-	549	-
Stage 2	-	-	-	-	382	-
Critical Hdwy	4.1	-	-	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1031	-	-	-	269	729
Stage 1	-	-	-	-	548	-
Stage 2	-	-	-	-	665	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1031	-	-	-	269	729
Mov Cap-2 Maneuver	-	-	-	-	269	-
Stage 1	-	-	-	-	548	-
Stage 2	-	-	-	-	665	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	16.6
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1031	-	-	-	344
HCM Lane V/C Ratio	-	-	-	-	0.101
HCM Control Delay (s)	0	-	-	-	16.6
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	311	619	0	31	4
Future Vol, veh/h	0	311	619	0	31	4
Conflicting Peds, #/hr	0	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	80	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	3	5	14	8	33
Mvmt Flow	0	338	673	0	34	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	674	0	-	0	843	338
Stage 1	-	-	-	-	674	-
Stage 2	-	-	-	-	169	-
Critical Hdwy	4.1	-	-	-	6.96	7.56
Critical Hdwy Stg 1	-	-	-	-	5.96	-
Critical Hdwy Stg 2	-	-	-	-	5.96	-
Follow-up Hdwy	2.2	-	-	-	3.58	3.63
Pot Cap-1 Maneuver	927	-	-	-	291	575
Stage 1	-	-	-	-	452	-
Stage 2	-	-	-	-	826	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	926	-	-	-	290	574
Mov Cap-2 Maneuver	-	-	-	-	290	-
Stage 1	-	-	-	-	452	-
Stage 2	-	-	-	-	825	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	18.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	926	-	-	-	307
HCM Lane V/C Ratio	-	-	-	-	0.124
HCM Control Delay (s)	0	-	-	-	18.4
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.4

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	702	505	0	24	12
Future Vol, veh/h	0	702	505	0	24	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	80	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	1	1	0	0	0
Mvmt Flow	0	763	549	0	26	13

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	549	0	-	0	931	275
Stage 1	-	-	-	-	549	-
Stage 2	-	-	-	-	382	-
Critical Hdwy	4.1	-	-	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1031	-	-	-	269	729
Stage 1	-	-	-	-	548	-
Stage 2	-	-	-	-	665	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1031	-	-	-	269	729
Mov Cap-2 Maneuver	-	-	-	-	269	-
Stage 1	-	-	-	-	548	-
Stage 2	-	-	-	-	665	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	16.9
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1031	-	-	-	341
HCM Lane V/C Ratio	-	-	-	-	0.115
HCM Control Delay (s)	0	-	-	-	16.9
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.4

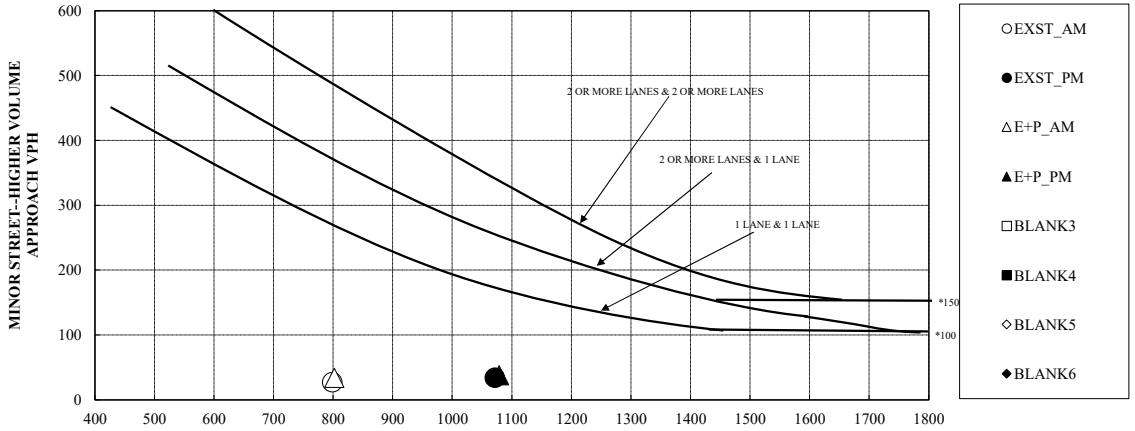
ATTACHMENT E

SIGNAL WARRANT WORKSHEETS

CA SIGNAL WARRANT 3 ANALYSIS

SCENARIOS: "AM/PM PEAK HOUR" CONDITIONS

FIGURE 4C-3 WARRANT 3 PEAK HOUR VOLUME
(CALIFORNIA MUTCD, LAST UPDATED MARCH 27, 2020)



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

SCENARIO	APPROACH(ES)		WARRANT MET?
	MAJOR	MINOR	
EXST_AM	799	27	
EXST_PM	1072	34	
E+P_AM	802	34	
E+P_PM	1079	38	
BLANK3	0	0	
BLANK4	0	0	
BLANK5	0	0	
BLANK6	0	0	

Note: Major approach is the total of both approaches. Minor approach is the highest of both approaches.

Date: **July 21, 2022** Intersection No.: **1**

Intersection: **Butte House Road & Elmer Avenue**

Number of lanes on MAJOR street: **1**

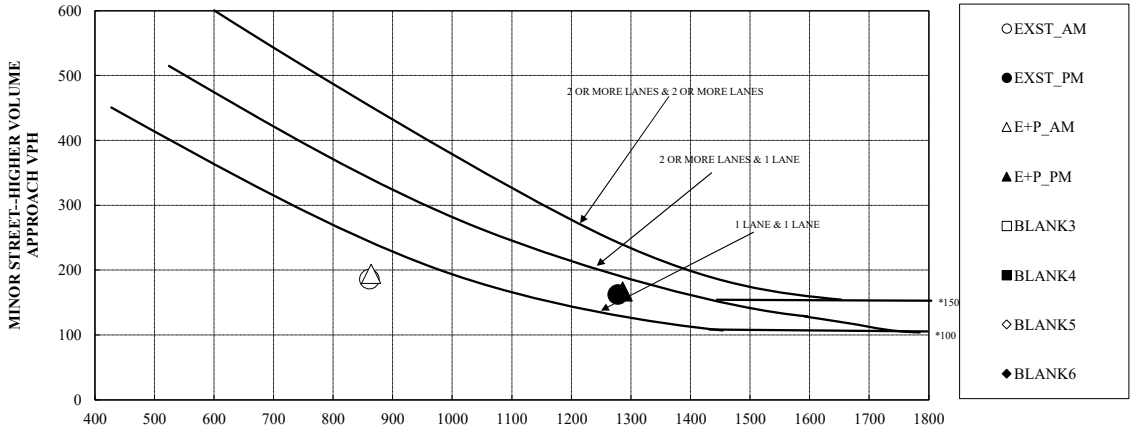
Number of lanes on MINOR street: **1**

WOOD RODGERS
DEVELOPING INNOVATIVE DESIGN SOLUTIONS

CA SIGNAL WARRANT 3 ANALYSIS

SCENARIOS: "AM/PM PEAK HOUR" CONDITIONS

FIGURE 4C-3 WARRANT 3 PEAK HOUR VOLUME
(CALIFORNIA MUTCD, LAST UPDATED MARCH 27, 2020)



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

SCENARIO	APPROACH(ES)		WARRANT MET?
	MAJOR	MINOR	
EXST_AM	861	186	
EXST_PM	1278	162	
E+P_AM	864	194	
E+P_PM	1286	167	
BLANK3	0	0	
BLANK4	0	0	
BLANK5	0	0	
BLANK6	0	0	

Note: Major approach is the total of both approaches. Minor approach is the highest of both approaches.

Date: **July 21, 2022** Intersection No.: **2**

Intersection: **Butte House Road & Blevin Road**

Number of lanes on MAJOR street: **1**

Number of lanes on MINOR street: **1**

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